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A RESOURCE GUIDE FOR

INTERDISCIPLINARY TEAMS IN MIDDLE SCHOOLS

by

Claudia Albrecht Tomanek
Bachelor of Science, University of North Dakota, 1971
Master of Science, Northern State College, 1983

A Dissertation

Submitted to the Graduate Faculty

of the

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for the degree of

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This dissertation, submitted by Claudia Albrecht Tomanek in partial fulfillment of the requirements for the Degree of Doctor of Education from the University of North Dakota, has been read by the Faculty Advisory committee under whom the work has been done and is hereby approved.

Mary McDonell Harris
(Chairperson)

Jean Reid

This dissertation meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

Dean of the Graduate School

PERMISSION

Title	A Resource Guide for Interdisciplinary Teams in Middle Schools
Department	Center for Teaching and Learning
Degree	Doctor of Education

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Signature Claudia Tomanek

Date 7/13/95

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To Gary, Jason, and Jennifer Tomanek

Arnold and Shirley Albrecht

Roy and Ella Tomanek

Wachter Middle School Staff 1990-1995

ABSTRACT

This dissertation documents the development of a resource guide to offer members of interdisciplinary middle school teams assistance in performing teaching and group process functions. The guide addressed critical issues in implementing interdisciplinary teaming, team practices, and benefits of teaching teams for students and colleagues. Group process techniques included communication, decision making, and conflict resolution skills. Day-to-day function sections included job descriptions/teaming roles, parent involvement, student motivation, cooperative learning, curriculum integration, professional staff development, and evaluation.

Materials for this guide were drawn from current sources in the middle school field and assembled in a format that might be used for professional development by individuals or teams of inservice or preservice teachers. Personnel in middle schools might use the guide in its entirety or sections that apply to their particular interest.

Through a series of questions, the evaluators addressed the strengths and weaknesses for its revision. The development of the guide through successive evaluation is documented in the dissertation. Evaluation of the guide was made by five teachers who were recommended by administrators and university professors as leaders, five middle school consultants, and a nationally recognized

middle school consultant. The teacher leaders were from North Dakota and Minnesota middle schools and the middle school consultants were from university and middle school settings in North and South Dakota, Maine, and Minnesota. Finally, the potential of the guide to assist interdisciplinary teams in performing teaching and group process functions was rated numerically by teacher leaders and middle school consultants.

CHAPTER I

INTRODUCTION

Young adolescents today make fateful choices along a path toward or away from productive and fulfilling lives. Turning Points (1989), issued by the Carnegie Council on Adolescent Development Task Force, indicates that far too many young people do not make the passage through early adolescence successfully. Basic human needs, such as caring relationships with adults, guidance in facing sometimes overwhelming biological and psychological changes, the security of belonging to constructive peer groups, and the perception of future opportunity, often go unmet at this critical stage of life.

According to Turning Points (1989), middle grade schools are potentially society's most powerful force to address the intellectual, emotional, and interpersonal needs of young adolescents. Transformation of existing schools to more powerful middle schools can occur by meeting the eight Turning Points goals.

* Creating a community for learning
* Teaching a core of common knowledge
* Ensuring success for all students
* Empowering teachers and administrators
* Preparing teachers for the middle grades

* Improving academic performance through better health and fitness

* Reengaging families in the education of young adolescents

* Connecting schools with communities

These eight "turning points" function together in the successfully organized middle school so closely that they can hardly be separated from one another. Focus on any one leads inevitably to consideration of the others in middle school practice. This dissertation takes its initial focus, however, from the first turning point, "creating a community for learning," using as its vehicle the interdisciplinary team structure which attempts to ensure success for all students in core subjects. The dissertation also focuses on the professional development which is needed if the middle school is to empower teachers and administrators as well as students. The brief sections which follow set more context for understanding middle school components and especially interdisciplinary team structures. They are followed by a personal statement of interest which led to formulation of the problem which is the subject of this dissertation.

Middle School Components

In the United States the term "middle school" has been used to describe a new concept of a school in the middle which provides an educational bridge between elementary and secondary education. A 1969 definition of "middle school" cited in the edition of the Emergent Middle School still applies:

> A school providing a program for a range of older children, preadolescents, and early adolescents that builds upon the

elementary program for earlier childhood and in turn is built upon by the high school's program for adolescence. (p. 5)

Middle schools are defined by the age group served but may include any combination of grades four through nine. In middle schools, the needs of this age group are met through systemic restructuring that attends to the organizational and curricular components unique to the middle grades. These components include advisor-advisee programs, school within a school structures, interdisciplinary team organization, exploratory curriculum, interest-based activities, block scheduling, and balanced instruction. Primary sources that present these concepts include Alexander and George (1993), Beane (1993), Dickinson (1992), Drake (1993), Fogarty (1991), George (1988), Hawkins and Graham (1994), Jacobs (1989), James (1986), Lipsitz (1984), Lounsbury (1992), Putbrease (1989), Vars (1987), and Wiles, Bondi, and Association (1993).

The advisor-advisee program can be a source of guidance for middle school students. Small groups of students connect with an advisor who also teaches these students at some time during the day. The teacher acquires knowledge about these students while developing relationships that are supportive, safe, and familiar. The advisor-advisee program provides a "home base" for immature adolescents to help them function in an institution of from 500 to 1,000 or more people, where anonymity might otherwise prevail.

The school within a school concept provides a way that core teachers make the connection with students. Students in large schools can be housed in teams of

100 to 150 students with three to five core teachers. Teachers in these interdisciplinary teams teach one or more of the core classes of mathematics, English, social studies, or science. The interdisciplinary team organization, as defined by Shaplin and Olds (1964), is a type of instructional organization that assigns two or more teachers, working together responsibly, for all or a significant part of the instruction of the same group of students. Alexander and George (1993) define interdisciplinary team organization as a way of organizing the faculty so that a group of teachers shares the responsibility for planning, teaching, and evaluating curriculum and instruction in more than one academic area for the same group of students with the same schedule in the same part of the building. These four factors are the necessary and sufficient elements of interdisciplinary teacher organization.

Besides the English, science, mathematics, and social studies classes often taught by core interdisciplinary teams, middle school students are also exposed to exploratory curriculum. Exploratory courses in a middle school provide a relatively brief introduction for beginners, with longer, more intensive courses available another year for those interested. The characteristic exploratory courses of the middle school are art, music, home economics, and industrial arts; these courses are often call unified arts. Keyboarding and a broad business course, drama and speech, and even health and physical education may be termed related arts. Foreign languages, choir, and band are also exploratory. Incoming fifth, sixth, or seventh grade middle school students may experience these courses for

six or nine week blocks, a shorter duration than is offered for students who are in eighth or ninth grades. To the extent that such courses are introductory and followed by additional related courses in high school, they are the exploratory offerings.

Interest-based activities are learning opportunities distinguished by student initiation in organizing, selecting, planning, and conducting the classes. These activities meet less frequently than the traditional exploratory course. Often teacher responsibility for an activity is assigned, but there is much flexibility in proposing and planning the activities they guide. Participation by students is voluntary, and no grades are given by the teachers. Students may choose activities that are not organized by grades or ability levels or other factors which promote homogeneity.

Block schedules of core classes can provide time which may be broken down into unequal units to accommodate the programs of the middle school. Block schedules of time allow for field trips, speakers, and thematic unit instructional time. The criterion for evaluating the relative effectiveness of the block schedule is how well it serves the specific purposes of the middle school.

In an effort to provide balanced instruction, the instructional strategies of the middle school are a combination of more teacher-directed practices of the elementary school to more self-directed strategies in which students are responsible for their own learning. According to Alexander and George (1993), the belief is that the amount of student responsibility should increase as each year

in school passes. Lipsitz (1984) cites that instructional strategies, devised by teachers, should offer a combination of structure, balance, and flexibility. Structure ensures mastery and extension of basic skills and balance ensures students have the skills necessary for learning on their own and the attitudes that support such learning. Flexibility allows teachers to decide when an instructional strategy is appropriate and when it is not, and the freedom to make the changes desirable for student learning. Balanced instruction emanates from the purposes of the school and the needs of the student.

Interdisciplinary Team Teaching

Middle schools meet the needs of the adolescent through interdisciplinary team organization. Interdisciplinary team teachers are prepared to teach different subject areas and work in groups, usually from two to five, sharing the same students, the same schedule, and the same part of the building. This community of learning nurtures bonds between teachers and students that are the building blocks for the education of young adolescents.

Middle school interdisciplinary teams benefit students in a variety of ways. Forte and Schurr (1993) indicate improvement in student-teacher relationships because a sense of belonging is established through special identity, customs, and rituals. Common rules, guidelines, and procedures set up by interdisciplinary teams are associated with an increase in self-esteem, student attendance, and positive behavior. Teams that engage in varied instructional techniques provide motivation and enthusiasm for learning. Forte and Schurr (1993) further state

that teacher teams also benefit students because the unique instructional styles of teachers may provide a chance to match teaching with learning styles. Teaming also helps excellent teachers and not so excellent teachers who could show improvement to work together in a supportive manner which, in turn, affects the attitudes of the students on the team. The full benefits of teaming evolve because collegiality and interpersonal relationships are fostered in interdisciplinary team organization.

Teaming is not easy, but the benefits derived for students and teachers appear to be worth it. Glisson and James (1994) indicate that teaming helps pupils make the transition from a self-contained elementary classroom to the departmentalization of the high school. Teaming also creates a supportive family-like atmosphere. Another benefit of teaming is that teachers can better understand and cope with individual differences among students when more than one person is making observations and evaluations, and attempting to interpret them and to respond appropriately and consistently. Discipline problems are more easily handled because guidance for the students is discussed among the team. Monitoring of student academic progress is also enhanced. Interdisciplinary teams allow for closer work with guidance counselors, administrators, and other specialists who can attend meetings as needed to identify at-risk students. Teaming provides teachers an awareness of what their students are learning in other classes, and of what other assignments, tests, and projects are making demands on student time. Common planning time for

teachers can lead to more creativity in teaching approaches; time for parents, students, teacher and team conferences; consistency in classroom expectations; and coordination of the curriculum. Professional growth is enhanced when teachers operate in teams.

Interdisciplinary teams are often made up of a combination of secondary and elementary trained teachers. George (1988) states that elementary teachers, by virtue of their teaching responsibilities for all subject areas, focus on the whole child and his/her learning. Secondary trained teachers, according to Erb and Doda (1989), are discipline focused by training and certification. According to Alexander and George (1993), elementary schools are more teacher directed, while high schools focus on developing self-directed students. It is the job of the middle school to connect both educational philosophies without losing the momentum of instruction. Middle level interdisciplinary team organization benefits from having both elementary and secondary trained teachers on the team.

Teaming does take a lot of effort, but teams that work are beneficial for both the teachers and the students. Middle school children experience a sense of belonging; their team becomes their "community" for the year. Teachers are concerned about the child totally, in all areas, not just in one subject area. Teaming is the heart of the middle school program, and it becomes the vehicle through which team members teach and work. Interdisciplinary team organization provides many benefits for students and teachers alike; but ultimately when teachers are working together well, the students benefit.

Learning to work in groups is critical to the evolution of interdisciplinary teams that are effective for teachers and students. The effort to teach group process skills to teams is frequently not overt. Instead, participants are put in situations in which they have to develop processes for working together. Barth (1991) points out that convening a group of people and seating them around a table "does not a team make." He explains:

> The formation of a school team requires developing group process skills in running effective meetings. In consensus building within the team and within the school in securing and utilizing resources, and in developing action plans and evaluating outcomes, you must know how to work together, that is, you have to have the skill. (p. 126)

Because teachers lack an awareness and understanding of how to work in teams, staff development is necessary for teachers to work effectively and to understand group culture. Skills that teachers generally have, according to Golner and Powell (1992), will not necessarily prepare them for working in teams. Training team members for new skills is important. Glisson and James (1994) recommend staff development in such aspects as team skills (communication, group decision making, and organization of effective meetings) and team practices (goal setting, record keeping, evaluation). Miles (1970) recommends preparation in group process techniques dealing with small group focus and how effective groups work through various functions emphasizing task orientation, process, and problem solving.

A Personal Experience of Transition

Information about the components of the middle school structure is readily available to educators. Teachers in schools that are moving from a junior high structure to a middle school structure have the luxury of reading, watching videos, and attending national and regional workshops, seminar, and conventions to gather information on advisor-advisee programs, block scheduling, interdisciplinary team organization, exploration, interest-based courses, and intramural programs. Colleges and universities across the United States also provide opportunities for teachers to learn about the basic components of middle schools.

When the staff at Wachter Junior High School in Bismarck, North Dakota, began the study of the middle school structure in 1990, they were inundated with research about what makes up a middle school. After a year of study, they implemented all of the components of middle school in fall, 1991.

As an administrator at Wachter Middle School, I saw a need for training of interdisciplinary teams. We understood how to organize teams of teachers from the various core areas. Personality inventories helped us link styles appropriately, and the study of young adolescent development through interdisciplinary themes assisted in the identification of ways to link subject areas. We were set up to function. However, team leaders and team members wondered how they would organize their time for team planning. What should be accomplished during that

time? How should they work together? How would they modify instruction as a team? How could they motivate students? How would they involve parents?

Because the school had some very innovative teacher leaders, there was some success in interdisciplinary team organization. There also was a struggle about group process. Dominant personalities and the lack of establishment of cooperative roles on the interdisciplinary team made it hard for some teams to accomplish day-to-day functions. These teams were less likely to adapt instructional strategies and involve parents in ways which benefited the academic and behavioral needs of students. After that first year of middle school, there were still the same number of academic failures as there had been the previous year.

With these memories, I began the process of preparing material for professional development that took into consideration all the middle school components and had the potential to move teams toward interdisciplinary team organization. I believed that because Wachter Middle School interdisciplinary teams experienced some difficulties in the transition, other middle school teams, too, would benefit from consideration of answers to these questions: "How do teams work together?" and "What should our day to day functions be?"

Statement of the Problem

The purposes of this study were to develop a resource guide for use by members of interdisciplinary middle school teams in performing teaching and

group process functions and to evaluate the potential of the guide for enhancing the ability of team members to facilitate the growth of young adolescents.

The potential of the resource guide was assessed by middle school teachers, consultants, and a nationally recognized anonymous reviewer. Middle school teachers who evaluated the guide had served on interdisciplinary teams for at least one year, and middle school consultants who evaluated the guide were recommended by members of the dissertation committee. Based on their evaluations, the resource guide was revised and then submitted to an anonymous reviewer by members of the dissertation committee.

The resource guide was developed in two parts: group process functions of interdisciplinary teams and day-to-day functions of interdisciplinary teams. The group process sections drew on techniques identified by Bonstingl (1992), Erb and Doda (1989), George and Gordon (1982), Glisson and James (1994), Gordon (1980), Gorton and Snowden (1993), Scholtes (1988), and The UND Conflict Resolution Center (1994) and included consideration of communication, decision making, problem solving, and conflict resolution.

According to Merenbloom (1991), team members should be able to determine who they are and why they exist through group process activities, but interdisciplinary teams of teachers should also be given some structure to develop their capabilities to complete day-to-day functions. Chapters on day-to-day team functions were based on elements of the Bismarck Public Schools Professional Excellence Program (1986), and dealt with job descriptions and teaming roles,

student motivation, cooperative learning, curriculum integration, peer coaching, parent involvement, and evaluation strategies.

The outline of the resource guide as it was originally articulated appears as follows.

Functions of Interdisciplinary Teams in a Middle School

Group Process Functions

1. Communication Skills
2. Decision-Making
3. Problem Solving
4. Conflict Resolution

Day-to-Day Team Functions

1. Job Descriptions/Teaming Roles
2. Student Motivation
3. Peer Mediation
4. Peer Coaching
5. Instructional Techniques
6. Parent Involvement
7. Assessing Student Learning
8. Evaluation

Value of the Study

Merenbloom (1991) recommends that teachers on interdisciplinary teams learn a number of planning techniques to enhance the learning process for

students by responding to the developmental needs of adolescents. Maeroff (1993) alludes to the importance of group process training in the school as teams begin to function. Since the role and function of teams are referred to only indirectly in middle school literature, middle school teams would benefit from an organized resource guide that defines a variety of interdisciplinary team group process and day-to-day functions.

To build a professional culture in middle schools, there is a need for collaboration among teachers and for expanding their leadership roles in the schools. Professional development can assist in the formation and maintenance of interdisciplinary teams as they work through the six components of effective teams: communication, cooperation, competency, commitment, compromise, and confrontation (Glisson and James, 1994).

The resource guide developed in this study was a substantial collection of relevant information concerning group process and day-to-day functions of interdisciplinary teams. The guide features self-contained sections designed to be independent of the other sections. It is possible that the guide, or parts of the guide, may be useful for educators responsible for setting up or conducting workshops or staff development programs as well as for use by teams and team members.

Possible Limitations of the Study

Several limitations could have affected the outcome of this study. First, the conceptual model for the guide might have been misinformed with its focus on

group process and day-to-day functions of teams. There might have been better topics for specific chapters. Limitations of this sort should have become apparent through the study.

Other possible limitations concerned the number, geographic area, and the selection of the evaluators. Teachers from only five middle schools participated in the study, and they were from two midwestern states. Five consultants participated as well, and, although they were more geographically disbursed, all had roots in the midwest. The schools of the teacher evaluators had reputations as strong middle schools, but this was not measured by any standard criteria. The criteria one administrator or a university professor may have used to define a lead teacher in the school might not have been the same used by another administrator or university professor. This might have affected the kind of critical feedback obtained in this study. Another consideration might have been the varying lengths of time the teachers participating in this study had been on interdisciplinary teams and how successful the interdisciplinary team organization might have been.

Middle school consultants were believed to have extensive backgrounds in middle school, but this was not measured by specific criteria. Their years of experience in a middle school setting and their involvement in research relative to middle schools might have affected the kind of feedback obtained in this study.

Definition of Terms

The following terms are used in the explanation of the study which follows and are, therefore, defined for the convenience of the reader.

1. Core subjects. Mathematics, English, social studies, and science classes which are represented on interdisciplinary teams.

2. Group process techniques. Methods of assuring the cohesiveness, dynamic interaction, creativity, positive action, and effective communication of groups.

3. Interdisciplinary team organization. A group of two to five teachers that share the same students, the same part of the building, the same schedule, and the responsibility for covering the basic academic subjects.

4. Middle school. A school that is defined by the age group of students in the school making up any grade combination of grades 4-9, and a transitional structure between elementary and high school. The essential components are advisor-advisee, interdisciplinary team organization, exploratory curriculum, block schedule, balanced instruction, multi-age grouping, team areas, and interest-based activities.

5. Resource guide. A guide developed to promote the transformation of interdisciplinary teams through group process and day-to-day functions.

6. Staff development. A program which assists professionals to inquire into and reflect upon teaching practices.

7. Teaching functions. A set of teaching activities undertaken for a broad purpose.

Overview of the Dissertation

The remaining chapters of the dissertation include the literature review, methodology, summary of the findings in the study, and the summary of the study.

The literature review establishes the importance of interdisciplinary team organization, the change process, and what makes an effective interdisciplinary team. Methods to form and maintain teams through internal and external support and evaluation are also addressed.

Chapter III explains the methodology used in developing the resource guide, questions posed of evaluators, selection criteria for the evaluators, and evaluation results of the resource guide. At the conclusion of Chapter III, a time line summarizes the key events in the study.

A summary of the findings in Chapter IV describes the evaluators and their responses to interview questions. The backgrounds of teacher leaders and middle school consultants are described, and responses to survey questions and interview questions are summarized. Chapter IV also describes the anonymous reviewer's evaluatory remarks.

Chapter V summarizes the study and offers recommendations for use of the resource guide and alternatives for its evaluation. The "future" section of Chapter V explains additional work that might be completed to ready the resource guide for publication.

CHAPTER II

LITERATURE REVIEW

The overall purpose of the literature review is to examine the importance of interdisciplinary team organization in middle schools and the support needed to develop and maintain the teams. Understanding of change processes is important to formation of high-quality teams that will be sustained in middle schools.

Thus, the first part of the literature review addresses the various stages of the change process that the facilitator of change should consider in the implementation of interdisciplinary teams and other middle school components. Later sections of the literature review establish a rationale for interdisciplinary teams, cite characteristics of effective and ineffective interdisciplinary teams, tell what is known about how to form and maintain teams, discuss internal and external support to teams, and explain the roles of team members. Finally, formative and summative evaluation of teams is addressed.

Interdisciplinary team organization is central to middle school curriculum. Interdisciplinary team organization, as defined by Erb and Doda (1989), is a way of organizing teachers and students into small communities for teaching of a common set of students. Effective interdisciplinary teams accomplish an instructional program to meet the learning needs of the adolescent. Merenbloom (1991) and Glisson and James (1994) recommend training to provide the structure

for the operation of interdisciplinary teams on a day-to-day basis. Teaming has transformed the lives of teachers and students when teachers take full advantage of the elements of interdisciplinary team organization.

Erb and Doda (1989) define teams as composed of from two to five teachers who represent diverse subject areas and share a common planning period to prepare for the teaching of a common set of students. Interdisciplinary team organization is central to middle school curriculum. Effective interdisciplinary teams accomplish an instructional program to meet the learning needs of the adolescent.

The Change Process

Moving forward with educational restructuring requires that leaders help people make transitions, supporting them as they let go of traditional approaches and work toward new beginnings. Bridges (1991) states unless transition occurs, change will not work. He contrasts "change," which is situational, with "transition," an internal process that people go through in dealing with a new situation.

According to Bridges (1991), transition involves letting go of something, moving through a neutral zone, where the old way is gone, but there is discomfort with the new, and finally, reaching a new beginning. Letting go of the old, though difficult, is the first step to manage transition. Bridges (1991) recommends that leaders who want to make endings correctly, describe the change in detail, identify the end, and treat the past with respect.

Sparks (1995) addresses feelings school team members often encounter during the process of change. Some staff members may simply refuse to acknowledge that schools face new challenges because of irrevocable changes in the world and that solutions will require changes in their practices. He suggests that school team members are also likely to experience sadness and anger that accompany endings. That anger may explode in faculty meetings or may be expressed in the form of passive aggressive behavior. Bridges (1991) recommends addressing these emotions by trying to understand and accept each person's loss instead of arguing, acknowledging losses with sympathy, and accepting the signs of grieving which can include anger, bargaining, anxiety, sadness, disorientation, and depression.

For most individuals the losses associated with school improvement will be quickly resolved. For others, the process may require a longer time span. It is important to remember that change is experienced by human beings whose feelings must be taken into account if schools in which everyone is successful are to be created.

Keeping in mind the ideas of Bridges (1991) and Sparks (1995), educators contemplating the move to an interdisciplinary team organization should focus confidently on the outcomes. The effort required to make interdisciplinary team organization work will be considerable. Initially, prospective team members should be tutored in the advantages of interdisciplinary team organization for students and teachers. Lounsbury (1992) and Merenbloom (1991) claim that

many advantages of interdisciplinary team organization exist in the area of instruction. Teachers and administrators refer to the affective and behavioral potential of interdisciplinary team organization. Groups of teachers ready to become teams should study the structure of interdisciplinary teams and the roles and responsibilities of teams and their members. Researchers Glisson and James (1994), Hawkins and Graham (1994), and Gorton and Snowden (1993) posit a distinct order in the change process when groups of teachers become teams.

Although theorists on change differ somewhat in their use of terminology, most concur that the process of change includes several developmental stages. Although these stages appear to be linear, staff members' feelings affect the ability of the group to express them. Glisson and James (1994) list five stages in the change process, while Hawkins and Graham (1994) list ten stages. Gorton and Snowden (1993) encompass the stages of Glisson and James and Hawkins and Graham in seven steps which are identified as follows.

1. Conduct a needs assessment.
2. Orient the target group to the proposed change.
3. Decide whether to introduce the proposed change.
4. Plan a program of implementation.
5. Implement the proposed innovation.
6. Conduct in-process evaluations.
7. Refine and institutionalize the innovation. (pp. 127-128)

The needs assessment from Gorton and Snowden (1993) establishes a rationale for change based on the premises which follow.

> (1) Even if the status quo is not necessarily bad, there is usually room for improvement; (2) while all change does not necessarily lead to improvement, improvement is not likely to occur without change; (3) unless we attempt change, we are not likely to know whether a proposed innovation is better than the status quo; and (4) participation in the change process can result in greater understanding and appreciation of the desirable features of the status quo, and can lead to a better understanding and appreciation of, and skill in, the change process itself. (p. 123)

As junior high schools consider the transition to middle school and the inclusion of interdisciplinary team organization in the middle school structure, it is important to establish a systematic method for change. It will be important to establish the need for change, determine what the interdisciplinary team organization structure will be, and decide whether or not to implement the proposed structure.

Dorman (1984) recommends use of the Middle Grades Assessment Plan, a systematic method for change, that includes input from acknowledged leaders representing the school's teachers, administrators, support staff, and parents. District administrators, school board members, representatives from the state department of education, and interested citizens may participate in the process.

Dorman's assessment plan includes observations and interviews with administrators, teachers, students and parents. The program codes needs of the young adolescent for safety, academic effectiveness, diversity, self-definition, participation, social interaction, physical activity, competition and achievement, and structure and limits. The needs assessment presents findings that can be assimilated to improve the middle school's responsiveness to young adolescents. The benefit of interdisciplinary team organization might be determined in the process. Although it seems clear that the facilitator of change in this process is the key figure, it is important at all levels in the change process that members of important reference groups participate in the innovation of interdisciplinary team organization. Most important, however, is involvement of the target group in the development of the proposed change. It is critical that the facilitator identify the stage of acceptance of the teachers for the proposed innovation. Hall and Loucks (1978), and Havelock, Huber, and Zimmerman (1970) identify the stages of acceptance in the change process in much the same way. These researchers identify the process of adaptation to an innovation in six stages including awareness, interest, mental evaluation, trial, adoption, and integration. These stages represent a gradual progression by individuals engaged in a change from concerns about self to concerns about the impact change will have on the students and the teaching role. Teachers need help in resolving these concerns, not criticism for having them.

Variation in ability to change exists in schools, just as teaching staffs vary in their years of experience, levels of education, and willingness to experiment. Because of variations in ability to accept change, responsive inservice education plays an important part in orienting the target group to a proposed change. Current literature and current experts in middle school education can provide a means to analyze and prepare for the aspects of the proposed interdisciplinary team organization plan.

Leaders from important reference groups should participate in stage three of the Gorton and Snowden sequence, deciding whether to introduce the proposed change. Representatives of the faculty, students, parents, school board, the administrator's superiors, and the state department of education who participated in the needs assessment will enhance the change process with their support if the decision to proceed with the innovation is made.

At stage four, planning for implementation, Gorton and Snowden (1993) advise a program of inservice education for those involved in the proposed change, the provision of resources and facilities necessary for successfully introducing the change, and an attempt to resolve operational problems before the implementation. This leads into stage five, implementation of the innovation. Alongside this stage in the change process is stage six, at which an in-process evaluation should be conducted. In this phase, the target group could design and institute a system that will provide feedback on the extent to which the proposed change is accomplishing its objective. George (1988), Merenbloom (1991), Pinot

and Emory (1975), and Rehbek (1992) have developed instruments that may assist in the development of an evaluation instrument for interdisciplinary team organization.

Gorton and Snowden (1993) state that stage seven is to refine and institutionalize the innovation. In this stage, the concept of teaming should be looked at, modifications should take place, and the concept of teaming should become a part of the total educational program in the middle school.

It is clear that the change process defined by Glisson and James (1994), Gorton and Snowden (1993), and Hawkins and Graham (1994), can be followed when implementing interdisciplinary teams. Once teachers in junior high settings believe in the need for change to a middle school structure including interdisciplinary team organization, and understand the concept thoroughly, they should have made the decision to implement a variety of middle school components that meet the needs of the adolescents in their school.

When establishing a basis for change from a junior high to a middle school including interdisciplinary team organization, part of the middle school study should include a review of literature that relates to other specific middle school components. According to Kostel (1994), other components of the middle school function more smoothly in the presence of a stable interdisciplinary team organization. Research about young adolescents, advisor-advisee, curriculum and instruction, block scheduling, service learning, and intramurals is important and is briefly addressed in the paragraphs that follow.

Although the Carnegie Corporation of New York (1989) recognizes interdisciplinary team organization as the most distinguishing feature of the middle school, teachers involved in the process of change should understand the needs of the young adolescent and what constitutes the other middle school components. It is important to understand the young adolescent in the middle school when beginning the needs assessment. People who have contributed to that body of literature include Alexander and George (1993), Dorman (1984), and Lipsitz (1984).

A middle school component to study when considering a change to middle school is the advisor-advisee program. According to George and Alexander (1993), the fundamental purpose of the advisor-advisee program is to promote the involvement between teachers and students in an advisory group. Researchers who have written about advisor-advisee relationships include Connors (1987), James (1986), Myrick (1990), and Scales (1991).

Another area to study when considering a middle school structure is curriculum and instruction in a middle school. This component should meet the needs of the young adolescent for establishing relationships in the lives of the students, integrating knowledge, and focusing on the learning process. According to the National Middle School Association (1991), curriculum and instruction should be delivered in an environment in which exploration is both widespread and activity-based. Writers and scholars who have contributed to research about curriculum and instruction include Alexander (1969), Atwell (1987), Beane (1993),

Becker (1990), Curtis and Bidwell (1977), Fielding (1990), Kostel (1994), and Lake (1989).

Another middle school component is block scheduling. Effective middle school schedules permit teachers to vary the time given to different subjects on separate days. Block schedules managed by teams of teachers permit time modifications and use of variable instructional strategies, as well. Researchers Lake (1988), McGinley (1988), and Wiles, Bondi, and Association (1993) have contributed to literature on block scheduling in a middle school.

When considering change from a junior high to a middle school structure, other components to study are service learning and intramurals. According to Shineman (1994), service learning is a teaching/learning method that connects meaningful community service with academic learning, personal growth, and civic responsibility. Service learning engages young people in active participation in thoughtfully organized service experiences. Andrus and Joiner (1989) and Shineman (1994) have contributed to the work in service learning. Intramural programs in middle schools build community by the premise that all must play. These programs may be organized by grades, teams, periods, or advisory groups. Interscholastic athletics is controversial because it is thought that middle school age students are not yet ready for competitive sports. Riemcke (1988) has written about intramural programs.

To understand the place of interdisciplinary team organization in a middle school, it is important to review all of the components in the middle school

structure. In addition to the authors mentioned in the preceding sections, agencies such as the National Middle School Association, the Carnegie Council on Adolescent Development, the Center for Early Adolescence, CEYA (Center of Education for the Young Adolescent), CMLIEC/Middle School (Colorado Middle Level Interdisciplinary Education Center), and the New England League of Middle Schools offer middle school resources.

When contemplating change, perceptive teachers should challenge themselves to learn all they can about the concept of teaming in a middle school. Maeroff (1993) summarized feelings about change; the journey of change may be an endless trip in which like a mirage the destination recedes each time it appears near.

The remainder of the literature review establishes the rationale for interdisciplinary team organization, how it is central to middle school curriculum, and characteristics of interdisciplinary teams.

Rationale for Interdisciplinary Teams

According to Alexander and George (1993) and Schurr (1992), interdisciplinary teaming is the heart of the middle school for empowerment of teachers to meet the learners' needs. Interdisciplinary team organization enables teachers to restructure the curriculum so students can see connections among ideas in different disciplines. The Carnegie Corporation of New York, (1989) advocates restructuring middle school curriculum into broad categories that can be arranged around integrated themes or an interdisciplinary focus. Curriculum

needs to be based on what is relevant and meaningful for the middle school student.

According to Maute (1989), interdisciplinary team organization allows three major factors in cross-curricular implementation. The first and most important is awareness of what is being taught in other classes. The second factor is planning time to look for connections, and the third is flexibility. At the awareness level, a team member may see a natural connection to another teacher's content and exploit it in the classroom. At the next level of connection, interdisciplinary teams utilize one or more content areas in the classroom, planning assignments and interdisciplinary units together. Cross-curricular connections can be successful if teachers are willing to extend and enrich disciplinary content. The flexibility of the middle school schedule allows time for interdisciplinary teams to work individually and collectively to develop curriculum. Connections become visible when teams begin to talk about curriculum scope and sequence. Beane (1993) recommends curriculum mapping that further develops discovery of connections in curriculum which can lead to the realization of interdisciplinary units that integrate curriculum.

Instruction in a middle school is shaped by the integration of curriculum. According to Schumacher (1992), integration of curriculum was a concern of educators before the beginning of this century. Today's middle schools are embracing a variety of approaches to integrate the curriculum. Looking at a broad spectrum of educational practice, Fogarty (1991) identified ten models of

curriculum integration as fragmented, connected, nested, sequenced, shared, webbed, threaded, integrated, immersed, and networked. Schumacher (1992) identified five levels of curriculum integration as departmentalized, parallel, complementary, webbed, and integrated. As middle school interdisciplinary teams develop their curriculum, they will experiment with these models.

Golner and Powell (1992) indicate that individual academic needs are better met through team organization than in a traditional classroom structure. Teachers get to know the students better since student problems and dilemmas are shared by a group of teaching colleagues. Combining the expertise of several teachers increases the knowledge and skills held by each as an individual. Cooperative efforts of teachers can result in greater ability to meet academic needs of individual students. Instruction can be made more meaningful, and a student-centered approach can be maintained without grouping or tracking. Over time, interdisciplinary teams of teachers redefine their teaching assignments to incorporate integrated curriculum concepts that enable student success and instructional effectiveness. In this way, interdisciplinary team organization provides the structure for the enhancement of middle school curriculum.

Characteristics of Effective and Ineffective Teams

Certain characteristics of teams are associated with increased effectiveness. According to Merenbloom (1991), successful middle school teams have a thorough understanding of the characteristics of an effective middle school and the middle school concept itself. Other authors corroborate Merenbloom's

perception of the importance of knowledge of characteristics of a successful middle school. Merenbloom states that an effective middle school has 12 characteristics.

1. Features a program that responds to the physical, intellectual, social-emotional, and moral needs of early adolescents.
2. Has a set of documents to guide all aspects of the program.
3. Possesses a definite curriculum plan that includes organized knowledge, skills, and personal development activities.
4. Has a clearly established program of studies based upon the concept of exploration and provides opportunities for student growth.
5. Builds on the successes of elementary education and prepares students for success in high school.
6. Employs teachers who focus on learning needs of pupils, use varied teaching techniques, and actively involve students.
7. Organizes teaching teams using block and modular scheduling.
8. Emphasizes the guidance and counseling function of staff members by providing for a home base program, stressing the importance of self-concept, and providing a positive climate.
9. Promotes flexibility in implementing the schedule to meet varying needs of students.

10. Actively involves parents in various aspects of the school experience.

11. Evaluates the program on a regular basis and makes changes that enhance learning.

12. Features a staff development program that enables the faculty to successfully implement the elements of an effective middle school. (Merenbloom, 1991, pp. 1-5)

Eight of these 12 characteristics of an effective middle school are discussed in more detail below because of their dependence on interdisciplinary team organization.

According to Alexander and George (1993), George (1988), and Merenbloom (1991), an effective middle school features a program that responds to the physical, intellectual, social-emotional, and moral needs of early adolescents. Interdisciplinary teams get to know their students on a personal level and are able to meet their identified needs. Relationships between students and teachers are built because teachers often have students in their classes two to three times a day. Work of the team must be based at times on the identified needs of the student population.

A second characteristic of an effective middle school is that there is a definite curriculum plan that includes organized knowledge, skills, and personal development activities. Alexander (1969) recommends a curriculum model that consists of factual information, skill development, and activities designed to help

students cope with changes they are experiencing. This curriculum model becomes the basis of the team approach to instruction.

Thirdly, effective middle schools build on student success in elementary school and prepare students for success in high school. Interdisciplinary teams of teachers from both core (typically English, mathematics, social studies, and science classes) and elective classes provide meaningful connections between elementary and high school education. Articulation activities, as students move from elementary to middle school and from middle school to high school, will ensure the greatest possible continuity between elementary and middle school as well as between middle school and high school.

Fourth, effective middle schools employ teachers who focus on learning needs of pupils, use varied teaching techniques, and actively involve students. Interdisciplinary team organization can be the mechanism for teachers to become familiar with the diverse needs of the adolescent and the various instructional strategies that move students from concrete to abstract thinking. Teams focus on active learning through various teaching strategies.

Described by Raebeck (1992), another characteristic of an effective middle school is the use of block scheduling. According to Forte and Schurr (1993), the instructional program is enhanced by utilizing the block schedule to facilitate use of speakers, field trips, and interdisciplinary units. Interdisciplinary teams can promote further flexibility by using the schedule to meet varying needs of

students. The master schedule should provide broad, general parameters that can be altered by the teaching teams on a daily, weekly, or monthly basis.

A sixth characteristic of effective middle schools is emphasis on the guidance and counseling function of staff members by providing a home base program that stresses the importance of self-concept and provides for a positive climate. James (1986) and Putbrease (1989) would agree that every teacher in the building should attend to affective needs of student development, as well. Interdisciplinary team members work hand in hand with the counseling staff to meet young adolescents' emotional needs. Because interdisciplinary teams encounter young adolescents collectively, they are able to report the needs for counseling assistance more expediently than they would have in a junior high departmentalized setting.

A seventh characteristic of effective middle schools is parent involvement in their children's learning experience. Epstein and Dauber (1989) and Myers (1985) recommend that parents learn about middle school curriculum and about the uniqueness of early adolescents. It is the responsibility of the interdisciplinary team to allow parents to become partners in the learning experience.

An eighth characteristic of effective middle schools is evaluation. According to Schurr (1992), continuous evaluation determines the extent to which the middle school program is succeeding and suggests changes that might be made. Similarly, effective teams evaluate their work with focus on the intellectual, physical, social-emotional, and moral needs of the young adolescent.

They involve the school and parent communities in the program, possess a definite curriculum plan with an exploratory program, provide a bridge between elementary and secondary school experience, and evaluate the program on a regular basis.

Middle school characteristics can be enacted by the interdisciplinary team to establish a climate conducive to student learning in the middle grades. According to Glisson and James (1994) maintaining characteristics of an effective middle school requires dedicated interdisciplinary teams to possess the qualities of communication, cooperation, competency, commitment, compromise, and confrontation. Members of the team must feel that they are able to express themselves freely and can be assured that others are listening. Members of an effective team must be willing to cooperate and provide support for each other. Competence in their curriculum areas sufficient to share their expertise with others is another quality of an effective team. Effective interdisciplinary teams have members committed to the team process and willing to try new avenues. Compromise is another quality of effective interdisciplinary teams; members are open-minded and flexible. The ability to confront other interdisciplinary team members on decision expectations and policies of the teams is another quality of an effective team. Possessing these qualities helps teams work to benefit teachers and students.

Ineffective teams may be made up of team members who possess characteristics identified by Glisson and James (1994) as roadblocks to effective

teaming. Interdisciplinary teams may not function as well as they could because team members are not committed to teaming or do not know the characteristics of the adolescent and the middle school philosophy. Lack of commitment or of a knowledge base may cause team members to undermine team decisions. Ineffective teams may have members who are not compatible or lack decision-making or problem-solving skills. Teachers resistant to change or to making the time commitment to team membership are also roadblocks to effective teamwork. Administrative limitation of team participation in shared decision making may also hamper the functioning of an effective team.

Ineffective interdisciplinary teams in a middle school, according to Arhar, Johnston, and Markle (1989), tend to have high levels of emotional exhaustion and fail to find the time to communicate with other staff members. Also, staff with high levels of depersonalization (callousness, cynicism, and insensitivity towards students) feel they have no time to talk to other teachers. Collegial conflicts of teams render interdisciplinary teams ineffective and markedly decrease any significant accomplishments.

It appears that effective middle school interdisciplinary teams are committed to the concept of middle school and understand it thoroughly. When this occurs, teams work well with one another to fulfill the philosophy of their middle school in meeting the diverse needs of the young adolescent.

The following sections of the literature review provide a description of how members of interdisciplinary teams and those educators who are not a part of the

interdisciplinary team can be a part of a support system for interdisciplinary teams, explains those roles, and follows up with a description of the evaluation of interdisciplinary teams.

Support for Interdisciplinary Teams

Simply stated, interdisciplinary team teaching involves a group of teachers who provide instruction to a group of students. Kostel (1994) states that this arrangement assists teachers to develop supportive teaching and instructional methods. Teachers on interdisciplinary teams want to provide the best instructional program possible for their students.

A group of teachers in the process of becoming a teaching team must identify their roles and functions on a continuing basis. The first thing that must be done, according to Merenbloom (1991), is that teachers on an interdisciplinary team must explore their commitment to the middle school concept, how they will share responsibilities, and how they will work to support each other.

In identifying roles and functions of teams, Merenbloom (1991) identifies these important concepts as follows.

> Team goals, definition of team process, middle school concept, professional relationship to each other, relationship to our school, time devoted to the team process, commitment to the concept of flexibility, attempt to develop team identity, the expectation to do team teaching and team planning, development of a team planning log, opportunities to correlate content and skills, provision of

personal development activities for pupils, the utilization of resources, and how to evaluate the role and function as a team. (p. 35)

To be a well functioning interdisciplinary team, the roles of educators in middle schools can augment the support of the team. The sections which follow describe the roles of a team leader, administrators, and special educators and how they provide support for the interdisciplinary team and its members as they provide the best instructional program for students.

The Team Leader

The role and function of interdisciplinary teams are often guided by a team leader. Middle schools treat the team leader position in a variety of ways. The position may be appointed to assume specific responsibilities and a salary supplement. In other cases, the team leader is appointed by the principal but does not receive any remuneration. At times, the team leader may be selected by team members, and the position may be rotated during the year. Alexander and George (1993) estimate that formal identification of team leaders occurs in about 9 out of 10 teams. Whatever the process used in selection, Erb and Doda (1989) state that a job description should be provided for the role of the team leader in all situations. Many specific functions are assigned to the team leader, whether the team leader is assigned by the principal or selected by peers. When all team members have the opportunity of sharing the experience of being a team leader, they have a greater appreciation of the leadership function in the team process.

Merenbloom (1991), Erb and Doda (1989), and Forte and Schurr (1993) identify considerations that define the role of the team leader. Alexander and George (1993) and Merenbloom (1991) provide a definition of a team leader's duties. Alexander and George (1993) provide a more comprehensive list.

1. Function as the liaison between the administration and the team; individually, teachers are encouraged, however, to keep open communication lines with the principal, avoiding any unnecessary hierarchical elevation of the team leader to something in between teacher and administrator.

2. Coordinate programs within the team. (This is, of course, a task of consuming proportions, including a role in every activity of the team as described above. Together, items one and two here comprise a majority of the responsibilities of the typical team leader.)

3. Coordinate interactions of his or her team and other teams and teachers.

4. Serve and appoint team members to various committees.

5. Schedule and direct the utilization of team-wide criterion-referenced testing.

6. Prepare the team budget and requisitions, supplies, textbooks, workbooks, films, and equipment.

7. Familiarize new teachers and substitute teachers with school programs and other pertinent information.

8. Assume responsibility for the development of new approaches from within the team by coordinating new schoolwide programs, soliciting creative ideas from other members, and actively contributing suggestions for new team programs.

9. Schedule and conduct team meetings.

10. Assist in the selection of new team personnel.

11. Direct aides assigned to the team.

12. Identify and encourage team use, for the team, of other school and district personnel.

13. Assist in organizing volunteer and community resource activities.

14. Coordinate reporting procedures and parent-teacher conferences.

15. Promote good home-school relationships.

16. Assist (in some schools) in a positive program of supervision of team personnel.

17. Attempt to develop and maintain a high level of morale among team members.

18. Facilitate communication between team members.

19. Assume responsibility for equipment, for instructional materials, and for their care and distribution.

20. Assume responsibility for the supervision of the work of student teachers.

21. Recognize and encourage professional growth and initiative on the part of team members.

22. Serve as a first recourse for team members who encounter classroom problems.

23. Keep abreast of trends and innovations in curriculum and instruction, and make recommendations to team members, principal, and other staff. (pp. 278-280)

Effective leadership is vital at the team level. Without direction, the team cannot achieve its full potential as an independent entity. Leadership, according to Merenbloom (1991), is needed to ensure that the autonomous functions, such as initial grouping of students into teaching sections, regrouping pupils, correlating factors integrated in the various subjects, selecting particular skills for emphasis, identifying topics for the home base program, scheduling parent conferences, and using modular scheduling techniques, are accomplished. As these decisions are made, the unique personality of the team emerges.

There must be effective leadership at the team level for the team to function at its potential. Harvey and Drolet (1994) suggest that empowerment is the most effective leadership strategy. In teaming, it is important to expand the

number of people who possess power to strengthen interdisciplinary team organization. Harvey and Drolet indicate that people who have power have the following descriptors.

1. Needed,
2. In control of resources,
3. Flexible in responding to new needs,
4. Irreplaceable,
5. Close to decision makers,
6. Privy to information,
7. Able to create consensus and stability,
8. Interpersonally skilled,
9. Keepers of institutional memory,
10. Winners,
11. Supported by staff, and
12. Professionally credible. (p. 126)

Team leaders must recognize that empowerment increases the competence and capability of others by endowing them with a sense of self-worth and potency. Leadership in the context of team building means being able to model engagement of colleagues. Gardner (1990) reminds us that not all leaders are found among the top brass and that leadership also emanates from down the line. It is the mark of a well functioning interdisciplinary team that many people have power and that different individuals have different sources of power. As

interdisciplinary team members become more powerful, the interdisciplinary team organization becomes more stable.

External Support to the Team

Middle school educators that function outside interdisciplinary team organization play an important part in the success of the middle school. Administrators, specialists, and exploratory instructors all contribute in their own way to strengthening the operation of interdisciplinary teams.

The role of the administrator in a middle school is to sustain a collaborative school. Smith (1987) describes five basic beliefs that characterize such a school as follows.

1. The quality of education is determined largely by what happens at the school site.
2. Instruction is most effective in a school environment characterized by collegiality and continuous improvement.
3. Teachers are responsible for the instructional process and accountable for its results.
4. A wide range of practices and structures enables administrators and teachers to work together on school improvement.
5. Involving teachers in decisions about school goals and providing the means to implement them is important. (p. 5)

Administrators in a middle school must know and understand the process of team building and follow through to support it. Ivarie (1994) addresses team building as a process in this way: "Building a collaborative culture involves a long developmental journey; there are no shortcuts" (p. 1). Administrators who value individual differences in team members increase participation to generate creative solutions to problems the collaborative team identifies.

Individual differences can be a source of conflict. Conflict is natural among any group that attempts to solve complex problems. Administrators must be familiar with the stages that teams typically go through in formation. Experts tend to describe team development in various stages. Alexander and George (1993) describe four phases of interdisciplinary team life as organization, community building, teamed instruction, and governance. Pickler (1987) assessed five stages in the developmental progression of interdisciplinary teams; Smith (1991) described four stages as forming, storming, norming, and transforming or reforming. As team members work through these phases, the administrator sets the tone by valuing the differences of team members in their approaches to teaming. Each team will work through these phases uniquely. The administrator must allow such development to occur, not intervening unless the interdisciplinary team has lost sight of the middle school philosophy and what is appropriate for the young adolescent in the middle school.

If collaborative team building has been successful, synergy will occur. When this happens, the administrative role is to help the team evaluate the extent to which it has accomplished its mission and what remains to be done.

Administrators must maintain teams by providing ongoing training in dynamics relative to their missions and the communication processes. The effectiveness of team building and maintenance efforts can be evaluated by the eight standards identified by Larson and LaFasto (1989): clear goals, results-driven structure, competent members, unified commitment to tasks, collaborative climate, standards of excellence, external support and recognition, and principled leadership.

The administrative role in establishing and maintaining interdisciplinary team organization is critical because of the ground work which must be laid for a supportive climate. A climate of collaboration that allows getting acquainted activities, building identity, providing mutual support, valuing differences, and developing synergy is a considerable challenge for administrators but is essential to developing trust among staff members.

Another external actor who plays a part in the success of interdisciplinary team organization is the specialist in special education and guidance and counseling programs.

Special educators may place and support students on interdisciplinary teams. Erb and Doda (1989) state that teams should be balanced according to student ability so that they do not come to be perceived as the learning disabilities

or emotionally disturbed team. A big advantage of team organization is that special educators can meet regularly with team teachers during their common planning time. The key to promoting successful mainstreaming in a school is to balance the student membership on the team against the need to promote open communication among special and regular educators. When this balance has been struck, special educators can become valued members of interdisciplinary teams. Special education teachers often come to act as resource teachers to the team, offering counsel concerning the learning needs of many different types of students.

Special education teachers deal with the following issues identified by Merenbloom (1991) to assist teams in their work with handicapped students.

1. Inclusion versus exclusion,
2. Special needs of all students,
3. Self-concept,
4. Determining the best approach for children with educational handicaps and/or disabilities,
5. Making the schedule work to the advantage of special education,
6. Making the schedule adequately flexible,
7. Making the team process facilitate learning for special needs students,
8. Curriculum, and
9. Cooperation between special education and regular education teachers. (pp. 58-60)

According to George and Alexander (1993), there appears to be very little difference in the methods of the effective special education teacher and the effective regular education teacher. The methods advocated by special educators for use by regular classroom teachers with exceptional students who are mainstreamed into their classrooms are the methods actually used by efficient, well-trained regular education teachers.

Guidance counselors and social workers can have a profound effect on the functioning of interdisciplinary teams. Erb and Doda (1989) state that one of the biggest changes that will occur with the implementation of team organization is the creation of the opportunity for counselors and social workers to meet regularly with four or five teachers who all know a specific student. In a team situation, the counselor/social worker may have first learned of the student's problems from his or her teachers in a face-to-face meeting. This leads to very efficient use of time for teachers and counselors/social workers.

Alexander and George (1993) state that exemplary middle schools are continuously expanding the exploratory programs regarded by many educators as the most significant contribution to middle school. The characteristic exploratory courses, grouped as unified arts, include art, music, home economics, and industrial arts. Related arts exploratory courses may include typing, a business course, drama and speech, health and physical education, and computer science. These experiences offer relatively brief, introductory courses for beginners, with a plan for longer more intensive courses available when students reach high school.

Interdisciplinary teams and exploratory teachers need to support and draw from one another's expertise. At times, an interdisciplinary unit can be driven by an exploratory teacher. Interdisciplinary teams can support the academic and behavioral performance of the students on their teams in exploratory courses by including exploratory team teachers in team, student, and parent meetings.

Often, because of the structure necessary to allow for interdisciplinary team organization, an unfortunate dichotomy between the team and the exploratory teachers who instruct the team's students exists. Unified arts or non-academic teachers can come to feel like second-class citizens, especially since scheduling may not permit them to be on interdisciplinary teams. Lounsbury (1992) recommends that these negative effects can be alleviated by academic teams which identify a liaison person, share team minutes, and occasionally relieve an exploratory teacher to enable participation in the academic team's common planning time.

In some middle schools, schedules are organized so that exploratory teachers meet as a team during their own planning periods. Teachers who are on teams have a better image of themselves than those who are not on teams. Therefore, efforts should be made to extend the benefits of teaming to all faculty.

Internal Roles and Functions of Interdisciplinary Teams

The key to building a positive organizational climate for interdisciplinary teams is strong, powerful people. The fascinating paradox of power, summarized by Harvey and Drolet (1994), is that the more you give power away, the more you

have. Empowering interdisciplinary teams occurs when members increase their competence and capability with a sense of self-worth by experiencing the following principles of empowerment.

1. Give them important work to do.
2. Grant them discretion in doing their work.
3. Give them the resources to do their work.
4. Give them praise and recognition.
5. Make them feel that their survival is in their own hands.
6. Enhance and build task skills.
7. Encourage them to work in teams.
8. Welcome surprise. (Harvey & Drolet, 1994, p. 127)

Empowerment begins with a philosophical commitment to build the power of individual team members. Maeroff (1993) states that a team is weakened when its role and purpose in the school are unclear. Actions and roles of interdisciplinary team teachers which assist the team leader in the overall efficient functioning of the team may be defined. Creating a model structure similar to the Johnson and Johnson (1987) cooperative learning model, Erb and Doda (1989) suggest that team members assume the roles of team facilitator, communicator, recorder, and esteem builder. Conscious thought needs to be given to defining team roles. These roles also need to be evaluated periodically. If the functions originally envisioned are found to be flawed, the responsibilities need to be changed to fit the needs of the team.

Forming and Maintaining Teams

Building and maintaining interdisciplinary teams in a middle school is a recurrent and ongoing process. To become efficient, interdisciplinary teams need opportunities to learn group process skills from several perspectives, utilizing a variety of models.

Barth (1991) supports the premise for group process training and explains in this way.

> The formation of a school team requires developing group process skills in running effective meetings, in consensus building within the team and within the school, in securing and utilizing resources, and in developing action plans and evaluating outcomes you must know how to work together; that is, you have to have the skill. (p. 126)

To achieve effectively run team meetings, teams might follow some suggested practices in meeting preparation, management, and a variety of group process activities.

Erb and Doda (1989) and Glisson and James (1994) recommend that interdisciplinary teams should have a clear idea of why they are meeting. To facilitate this, an agenda should be prepared in advance of the meeting. Agendas are essential for all teams and may be developed at the close of each meeting for the next one. Agenda items may be solicited from non-teamed staff, the school's steering committee, and from a variety of other human resources in the school.

Agenda items should be realistic and focused so that the results will be productive.

Goals and targets are recommended for each meeting, with one or two minutes addressing joys and concerns. Agendas should be saved in a team file for historical purposes and for the next year's planning. Erb and Doda (1989) have developed an agenda format in which the action or outcome from the meeting can be recorded, while Glisson and James (1994) have a more specific daily agenda format that addresses success stories, student concerns, behavior problems, homework, test dates, instructional concerns, and additional agenda items.

Erb and Doda (1989) further suggest a plan to manage the meeting that includes the following five elements that should be adopted.

1. Start and stop at agreed times.
2. Agree on the agenda.
3. Hear from everyone who wants to contribute.
4. Keep on the topic.
5. Keep records during and after the meeting. (p. 59)

Maeroff (1993), Scholtes (1988), Smith (1991), and Vars (1987) recommend group process training. Merenbloom (1991) suggests that as interdisciplinary team members become involved in group process activities, they develop personally in their ability to communicate, observe, solve problems, build morale, express themselves emotionally, face emotional situations, and develop social relationships. Learning group process skills can bring qualitative change to

group work in a school. Since there is particular inducement to work in groups in a middle school, teachers in the school community should cultivate shared decision making.

Like most collaborative small group processes, concepts of teaming develop over time. Smith (1991) indicates that the development of teaming requires setting the stage so teachers may process in a sequential fashion. Pickler's (1987) identification of stages development of teams points to the importance of group process techniques. The end goal of effective teams is to improve student learning and student achievement. Arhar, Johnston, and Markle (1989) encourage cooperative activities of teams to promote student learning and school adjustment. Johnson and Johnson (1987) recommend cooperative learning techniques for teachers as well as students. An analysis of adult samples (Johnson & Johnson, 1987) shows that cooperation promoted higher achievement, more positive interpersonal relationships, created social support and higher self-esteem than did either competitive or individualistic school structures. These results can be expected when team members possess the group skills in communication, decision making, problem solving, and conflict resolution necessary to work effectively.

Communication skills encourage cooperation and add to successful interaction among all team members. Bonstingl (1992), Glisson and James (1994), and Scholtes (1988) offer communication techniques that increase interaction among team members.

In addition to communication skills, group decision- making techniques allow teams to be as creative as possible in finding original solutions to problems. Glisson and James (1994), Gordon (1977), Gorton and Snowden (1993), and Scholtes (1988) provide models for decision-making techniques.

Group process problem-solving techniques are an extension of decision-making techniques which facilitate the interaction of all team members and guide everyone toward a collaborative decision. Problem-solving methods are influenced by information and values. Erb and Doda (1989), Glisson and James (1994), and Gorton and Snowden (1993) identify problem solving as a process whereby a perceived problem is explicitly defined, solutions are posed, and choices are implemented and evaluated. While the group is acting on its agenda and following the problem-solving sequence, some members must keep group processes moving by giving attention to the interpersonal dynamics of the group. Interdisciplinary team members should be encouraged to participate and to make their opinions known to the group. An effort to bridge differences and conflicts between members will help keep group processes moving as well. Once ideas are shared by the interdisciplinary team, clarification, elaboration, and summarization will ensure that everyone shares in the decisions being made.

Even when teams know the techniques for communication, decision making, or problem solving, conflict may occur. Interpersonal and intergroup conflict occurs in all organizations, work related or social. The challenge is not to eliminate conflict but to minimize its destructive impact and make it a positive

force in the organization. Schrumpf, Crawford, and Usadel (1991) indicate that the value of conflict occurs when participants have skills to manage conflict constructively.

Smith (1991), Scholtes (1988), and Hackman (1990) recommend group process strategies in communication, decision making, problem solving, and conflict management to enable groups to perform effectively. Hackman's (1990) research documented the importance of early group process experiences because they tend to determine the general direction of the group. Groups that start off well tend to perform even better, while those that experience difficulties tend to see those difficulties compounded. Group process techniques aid in the evolvement of teams and especially during the forming stage.

Training in these skills allows interdisciplinary team members to develop personally. Harvey and Drolet (1994) report that this kind of personal development builds teams and people while expanding the fifth resource in the people infrastructure: energy. Capable, creative, positive, thoughtful people are the fundamental building blocks of strong, surviving organizations. Developed human skills enable structures and organizations to survive tough and turbulent times.

Evaluation

Evaluation ensures accountability to a middle school's publics. When changing to a middle school, teachers, students, parents, school boards, and the

community deserve to know whether the time and energy invested were worthwhile.

Interdisciplinary teams must be part of the evaluation process. The teaching team can provide students with a program of support and individual attention while assisting students in assimilating academic skills, developing social skills, understanding their emotional and physical growth, and exploring their interests. In addition, team members are viewed as part of a professional support group that calls upon its members to work cooperatively toward self actualization so that they can serve their students effectively.

Teaching teams utilize the combined skills, talents, interests, and training of teachers from one or more disciplines. In order for teams to function effectively, these components must mesh smoothly. There is a need for instruments which help team members assess the effectiveness of their functioning.

Merenbloom (1991) suggests that self-evaluation may be most appropriate because it enables introspection by the members of the team using a form that parallels the philosophy and unique practices of that particular team. A self-evaluation may lead to an open sharing of feelings and can channel a discussion into goal-setting activities.

Erb and Doda (1989), Alexander and George (1993), and Merenbloom (1991) agree with Smith (1992) who states that a school which is making the effort to develop teaming is responsible for finding out if teams are meeting the

expectations set forth. Perhaps because summative evaluation could be used to eliminate programs, educators seem to shy away from engaging in evaluation activities.

Perhaps for this reason, Rehbeck (1992) recommends that teachers control the evaluation process by developing the instrument, reviewing the results, formulating plans to deal with identified problem areas, and being granted the autonomy to implement the needed changes. Rehbeck identifies early steps in developing an instrument as (a) deciding who will evaluate, (b) deciding which factors are to be evaluated, and (c) determining how the data will be recorded and collected. Although teachers are involved in all aspects that could be considered for monitoring, Rehbeck recommends that input in formulating the evaluative instrument should also be sought from the administrative staff, parents, and students.

In developing the evaluation tool, Rehbeck identifies the following four areas critical in team functioning: (a) the actions of the team leader, (b) the actions of individual team members, (c) the actions of the team as a unit, and (d) accomplishment of goals set by the teaching team. Each of these areas can be broken down into an inventory of items to be evaluated. After the instrument has been developed, groups which have something at stake in the results (administrators, teachers, students, and parents) should have an opportunity to review and react to the evaluation tool.

When data have been collected from teachers, parents, and students, an examination of results is necessary for positive changes to occur. Problem areas need to be identified, possible reasons for their existence discussed, and solutions proposed.

An evaluation designed during the process of implementing team organization is considered a formative process. "Formative evaluation" refers to appraisals of quality focused on instructional programs that are still capable of being modified. Formative evaluation is used to determine whether plans and intentions have been effectively implemented.

After conducting a careful formative evaluation and ascertaining what aspects of implementation have been successful, it may be desirable to engage in a summative evaluation. "Summative evaluation" refers to appraisals of quality focused on completed instructional programs. Summative evaluations take on bigger dimensions than formative because the evaluation may lead to a decision about the value and outcomes of a program which has been implemented. Evaluation models, such as Mager's Behavior Objectives Model (1962), Stufflebeam's Decision Making Model (1971), Scriven's Goal-free Evaluation Model (1972), the Accreditation Model by Fetterman (1982), or Stake's Response Model (1991), are useful systems of classification for evaluators who may be interested in a summative evaluation. Summative evaluations may be useful at the end of a year or right before a team breaks up. Summative data are

used to determine how well new programs have met expectations and may provide answers to the question "Is the middle school better?"

Whether the evaluation of the interdisciplinary team is formative or summative, the results can aid an administrator in staffing, identification of areas that need attention, assistance in planning for the next semester or year, and improvement of the school program in general.

Evaluation requires that people and programs be exposed for examination. The conclusion drawn from the data collected should be looked at as something to grow on.

Summary

The literature review addressed the change process and the importance of knowing about the middle school components while interdisciplinary teams begin the implementation process.

Focusing on the team, the literature review established a rationale for interdisciplinary teams and the characteristics of effective and ineffective teams and how to form and maintain them through internal and external support.

What follows in Chapter III is a description of how a resource guide suitable for interdisciplinary teams in middle schools was assembled. A step-by-step process outlines how the five drafts of the guide were developed, the initial evaluation, development of survey questions, selection of the middle school teachers and consultants who evaluated the resource guide, and a description of

how the anonymous reviewer was selected to evaluate the guide. A time line outlines the events of the study.

CHAPTER III

METHODOLOGY

A resource guide was developed to offer members of interdisciplinary middle school teams assistance in performing teaching and group process functions. Material for the guide was drawn from current sources and assembled into a format that might be used for professional development by individuals or teams. In this chapter, the processes used in development and streamlining of the resource guide and evaluation of the guide are described.

Development of the Resource Guide

Developing and revising the resource guide was a lengthy process. My experiences with interdisciplinary team organization suggested that teams might benefit from a guide emphasizing development of group process and day-to-day team functions. With that in mind, the resource guide was developed in three sections including an overview, a section on group process, and a section on day-to-day team functions.

The overview of the resource guide included an introduction to the guide, the Turning Points (1989) goals, and the developmental needs of the young adolescent. Not sure of the audience focus for the guide, I included material on the change process and stages of teaming for the administrator in the middle school.

The chapter topics chosen reflected my educational experience and training. Material for the "Group Process" section of the guide dealt with communication skills, decision-making, problem-solving, and conflict resolution. Through my educational administration courses, I was familiar with communication skills, decision making skills, problem-solving skills models, but I did not have an extensive background in conflict resolution. The University of North Dakota Conflict Resolution Center provided a 40 hour training session in conflict resolution. Material from that training was assembled in one of the chapters within the group process section of the guide.

Content for chapters within the "Day-to-Day Team Functions" section was developed based on teacher responsibility criteria from McGreal (1983) and good teacher characteristics identified by the Bismarck Public Schools for the purpose of evaluation. McGreal identified teacher responsibility criteria in the areas of planning and organizing, motivating learners, relationships with students, utilizing resources, instructional techniques, professional growth and responsibility, and relationships with parents. Bismarck Public Schools added to McGreal's list a section on assessing student learning. An essential part of the successful functioning of interdisciplinary team organization is evaluation, which was added as a topic to the day-to-day functions section of the resource guide.

The first table of contents developed for the guide reflects the general chapter titles and the organization of its first draft.

Table of Contents

Overview

Turning Points Goals

Developmental Needs of Adolescents

The Change Process

Concerns-Based Adoption Model

Stages of Teaming

Group Process Functions

Communication Skills

Decision Making

Problem Solving

Conflict Resolution

Day-to-Day Team Functions

Planning and Organizing

Motivating Learners

Relationships with Students

Utilizing Resources

Instructional Techniques

Professional Growth and Responsibility

Parent Involvement

Assessing Student Learning

Evaluation

Once the general topics were identified, resources were accumulated through searches of ERIC and resources of the National Middle School Association and Educational Research Services, and contact with special education and law enforcement personnel including the Police Youth Bureau and Juvenile Court in Bismarck, North Dakota.

The First Draft

Resource materials for the chapters entitled "Planning and Organizing," "Relationships with Students," "Instructional Techniques," "Professional Growth and Responsibility," and "Evaluation" were easily put together.

The "Planning and Organizing" chapter included job descriptions and teaming roles, setting team priorities, developing agendas, and setting goals. Forms that could be used for team minutes and team conferences were included. Resource materials for team concerns, team guidelines, and do's and don'ts for teams were also included. Nineteen pages were developed in this section.

The chapter on "Relationships with Students" was developed in two parts: one drawing on material that Wachter Middle School used for a first-day orientation during an advisor-advisee class, the other on peer mediation material from Schrumpf, Crawford, and Usadel (1991). Sample information forms and schedules for students and teachers were included. This material identified the seven middle school teams at Wachter and provided a map of the school, student conduct and attendance rules, a list of extracurricular activities, an advance dismissal form, fire drill and tornado procedures, and special calendar dates. The

conflict resolution portion of the section included almost the entire mediation program. Fifty-two pages were in this chapter.

The "Instructional Techniques" chapter included resources on interdisciplinary and integrated curriculum, multiple intelligences, and cooperative learning. Bloom's Taxonomy began this chapter. Integrated curriculum from Forte and Schurr (1993) and the 10 Fogarty (1991) curriculum models were included. Resources on cooperative learning included Breeden and Mosley (1991), Johnson, Johnson, and Holubec (1988), and Kostel (1994). Forty-eight pages were included in this chapter.

The "Professional Growth and Responsibility" chapter included sections on coaching and supervision. Material within this chapter came from the Welch (1989) peer coaching model, the Hunter (1982) Elements of Instruction model, and Kerman, Kimball, and Martin's (1980) Teacher Expectations and Student Achievement. Included in this chapter was a section on supervision and coaching including Cognitive Coaching by Costa and Garmston (1985), Collaborative Supervision by Glickman (1990), Small Group Instructional Diagnosis by Hess (1992), the Artistic Approach to Supervision by Eisner (1985), and the Five Step Observation Cycle by Goldhammer (1969). Thirty-six pages were developed for this chapter drawn largely from university courses and seminars that I had attended.

Thinking in broad terms about the middle school components, a chapter on evaluation was developed. Evaluation of interdisciplinary team organization,

advisor-advisee programs, individual teachers, team meetings, and team instruction were included in this section. Authors that contributed to the 26 pages were Erb and Doda (1989), George (1988), Merenbloom (1991), and Schurr (1992).

Having accumulated massive amounts of material within the two broad sections on "Group Process" and "Day-to-Day Team Functions," resource material was needed for day-to-day functions chapters on "Motivating Learners," "Utilizing Resources," "Parent Involvement," and "Assessing Student Learning." For a fee, Educational Research Services in Arlington, Virginia, provided research articles on "Motivation of Students" and "Parent Involvement." I drew from my own ideas to develop the day-to-day function chapters on "Utilizing Resources" and "Assessing Student Learning."

The chapter on "Motivating Learners" came to provide a summary of student motivation theories and a section on student learning styles that identified leadership qualities in students, right and left brain characteristics, and rewards to motivate students. Authors whose work contributed to the 21 pages were Breeden and Mosley (1991), Connors (1990), Grace and Buser (1987), and Kinncher (1990).

Developed from Educational Research Services, the "Parent Involvement" chapter included examples of parent involvement programs. Authors who contributed to this section were Alving (1993), Jackson and Cooper (1992),

Loucks (1992), VanDevender (1988), and Wherry (1991). Eleven pages were included in this section.

Focusing on the student in the middle school, I developed the two final chapters on "Utilizing Resources" and "Assessing Student Learning."

The 31 pages of the "Utilizing Resources" chapter was divided into sections on local district, county, and national services. Material for local district services was developed from the Bismarck Public School's Special Services Procedural Manual (1992) and dealt with special learning disabilities, mentally handicapped, multi-handicapped, vision impaired, speech language impaired, severely emotionally disturbed, hearing impaired, deaf-blind, and orthopedically impaired programs. Departments of psychology, physical therapy, transportation, assistive technology, and occupational therapy were also defined within this section. Defining county services for adjudicated youth was part of the "Utilizing Resources" chapter, also. Role definitions were provided in this section on the Police Youth Bureau, Juvenile Court, and the Department of Human Services, and their work with young adolescents. National resources for middle school educators were compiled in the form of addresses and phone numbers from middle school publishing companies.

Thinking about student learning and modified curriculum for the "Assessing Student Learning" chapter, I compiled 38 pages on the referral process including pages on the individual education process and examples of modified and adapted

tests. Scarborough (1994), a special education instructor, provided material for this section of the guide.

By July 1994, the first draft of the guide was complete. Three hundred fifteen pages were included in the resource guide that was typed in various fonts. Initial evaluation of the guide occurred during the summer and fall of 1994.

Preliminary Evaluation of the Guide

Preliminary viewpoints about the resource guide were sought from teachers, counselors, a graduate student, and nationally recognized middle school leaders. Middle school teachers from East Grand Forks, Brainerd, and Thief River Falls Minnesota, and Mayville, North Dakota, looked at the beginning drafts of the guide. A counselor from Thief River schools and a UND middle school graduate student also looked at beginning drafts of the guide. Advice on how to streamline the guide came from nationally recognized middle school consultants, Bobby Glisson, Bob James, Dr. John Lounsbury, and from Dean Mary Harris. Bobby Glisson and Bob James from JHG Consultants presented a teaming workshop in Grand Forks, North Dakota. At that time they were contracted by Dr. Lowell Thompson, director of the Middle Grade School State Policy Initiative, North Dakota Bridges Project, to evaluate the beginning stages of the resource guide.

Bobby Glisson and Bob James looked at the chapters on group process and sections within "Day-to-Day Team Functions" including "Planning and Organizing," "Relationships with Students," "Instructional Techniques," "Professional Growth

and Responsibility," and "Evaluation." They recommended additional resources from Educational Research Services and encouraged the addition of material on the change process.

Dr. John Lounsbury, the editor of the National Middle School Association, reviewed the first complete draft of the resource guide. He was in North Dakota for a state Association of Middle Level Educators of North Dakota meeting. He recommended changes as shown by comments in Appendix A.

Dean Mary Harris recommended a variety of changes too. She recommended that a restriction be made on the amount of material used from any one source. A suggestion was made to introduce the reader to the topic with reference made to additional resources. Dean Harris also felt that Bismarck Public School resource material within the guide might not be useful to people from other districts. Critiquing the table of contents, Dean Harris felt there was a lack of correspondence between the sections of the book and the table of contents. She felt this could be corrected through clarity of purpose. Dean Harris recommended tightening the contents of the guide, organizing the guide logically, and finding more primary resource materials. She also indicated that criteria be established about what an interdisciplinary team should do and be.

The Second Draft

The second draft of the resource guide tightened its organization and defined interdisciplinary teams as the audience. An introductory summary that defined the purpose of each chapter was developed for each section of the guide.

Some material was abbreviated or eliminated. Chapter titles and chapter order were also changed. The table of contents identified the changes in this way.

Table of Contents

Overview

Group Process Skills

Communication Skills

Decision Making Skills

Problem-Solving Skills

Conflict Resolution

Day to Day Team Functions

Job Descriptions/Teaming Roles

Student Motivation

Peer Mediation

Instructional Techniques

Peer Coaching

Parent Involvement

Evaluation

Resources

What follows is a summary of the second draft of the resource guide. Changes were made in the "Overview," "Group Process," and "Day-to-Day Team Functions" sections. Changes are described in the order they appear in the resource guide.

The overview contained the Turning Points (1989) goals, the developmental needs of the young adolescent by Dorman (1984), and a summary of the change process by Glisson and James (1994), Gorton and Snowden (1992), and Hall and Loucks (1978). Eliminated from that section was material on concerns-based adoption and stages of teaming.

The "Group Process" section was scaled down to include communication, decision making, and a combination of conflict-resolution/problem-solving strategies. Parts of the conflict resolution material were eliminated in this draft.

At this time, consideration was given to including the chapter on "Job Descriptions and Teaming Roles" in the "Group Process" section. Material in this section included job descriptions for interdisciplinary team members, strategies to run the team meeting, team leader skills, and group process and problem-solving facilitators and roadblocks. Because the role of the team was believed to include a relationship to special education and juvenile services, those sections from "Utilizing Resources" were simplified and included in the chapter on "Job Descriptions and Teaming Roles." The chapter on "Job Descriptions and Teaming Roles" remained in the "Day-to-Day Functions" section of the resource guide because the information seemed to tie into how interdisciplinary teams function on a daily basis.

The "Student Motivation" chapter followed the chapter on "Job descriptions and Teaming Roles." No changes were made in the written or quoted material.

A chapter on "Peer Mediation" was narrowed to a description of the six stages in a peer mediation program. The goals of the peer mediation program were defined. Strategies on how to open the session, gather information, create options, choose a solution, and develop a written agreement were included.

The chapter on "Instructional Techniques" included the same material on cooperative learning and integrated curriculum. Added to those was resource material from Brewer and Campbell (1991) on rhythms of learning.

"Peer Coaching" was the next chapter. Administrative material on supervision was taken out of this section which still included material referenced from Welch (1989), Kerman et al. (1980), and Hunter (1982).

Sequentially following "Peer Coaching," the chapters on "Parent Involvement" and "Evaluation" remained the same. Following these chapters was a section taken from "Utilizing Resources" referencing national middle school resources and publishing companies.

To summarize the changes made in the second draft, the "Overview" was made more concise, "Group Process" was delineated to include a combination of problem-solving and conflict resolution techniques, and the "Day-to-Day Team Functions" section changed significantly. Nine chapters became seven, eliminating "Planning and Organizing", and "Assessing Student Learning." Chapter order and titles were changed to organize the focus of the resource guide. The entire guide was retyped in the same font with a more consistent format.

The Third Draft

A critical change took place in the third draft. Dean Harris requested that activities be added to the middle school strategies to strengthen the sense of audience as the middle school team of teachers. The table of contents in the third draft was more defined.

Table of Contents

Group Process Skills

Introduction

Communication Skills

Decision Making Skills

Nominal Group Technique

Crawford Slip Method

Fishbone Diagram

Dominating Participants

Team Decision Making

Conflict Resolution/Problem Solving

The Mediation Process

A Brief Overview of the Mediation Process

Conflict Resolution Activity

Why Build a Team Through Group Process Activities

Day-to-Day Team Functions

Job Descriptions/Teaming Roles

Activity

Job Descriptions/Teaming Roles

Setting Team Priorities

Team Goals

Team Guidelines

Team Minutes

Team Conference Communication

Team Parent Conference Form

Special Education and the Role of the Team

Juvenile Services and the Role of the Team

Student Motivation

Successful Examples of Student Motivation

Strategies for Motivating Students to Learn

Peer Mediation

Activities

Overview of the Peer Mediation Process

Qualities and Role of the Peer Mediator

Peer Mediation Goals

Step One: Open the session.

Step Two: Gather information.

Step Three: Focus on common interests.

Step Four: Create options.

Step Five: Evaluate options and choose a solution.

Step Six: Write the agreement and close.

Instructional Techniques

- Rhythms of Learning

Cooperative Learning

Basic Elements of Cooperative Learning

Cooperative Learning Starters

A Few More Tips About Cooperative Start-Ups

Checklist for Teacher's Role in Cooperative Learning

Closing Activities for Cooperative Learning

Reasons to Integrate the Curriculum

Steps for Beginning to Integrate the Disciplines

Curriculum Models--Shared

Peer Coaching

Peer Analysis/Coaching Process

Peer Coaching Conference Sequence

Peer Coaching Observation Planning

Elements of Instruction

Teacher Expectations and Student Achievement

Parent Involvement

Parent Involvement Programs

Increasing Parent Involvement: Ten Ideas That Work

Involving Parents in Urban Schools

Involving Parents: How and Why

The Missing Element in Improving Schools is Parent Involvement

Evaluation

How to Know if Teamwork is Working: Twenty Questions

Team Effectiveness Instrument: Part One

Team Meeting Observation Form: Part Two

Team Member Interview Form: Part Three

Instrument for Evaluation of Advisory Program Effectiveness: Part One

The Advisory Class Observation Form: Part Two

Teacher Interview Form: Part Three

Instrument for Evaluation of Classroom Instruction: Part One

Teacher Observation Form: Part Two

Teacher Interview Form: Part Three

Develop an Instrument

Bibliography

Resources

Dean Harris made these suggestions regarding the third draft. She felt that the guide still lacked a consistent format and that some materials should be eliminated. She suggested that material be organized in a way which permits a team to focus in one area a week throughout the school year if they chose to. She requested dropping the conflict resolution/problem solving and peer

mediation material. Redevelopment of the instructional techniques chapter was also requested. Dean Harris felt cooperative learning and curriculum integration could be separate chapters. These sections could be developed from the instructional techniques chapter. She recommended that the evaluation chapter include only team evaluations.

As with all drafts, Dean Harris read the third draft of the resource guide and offered suggestions in grammar, and mechanics. She found the activities acceptable and told me she did not need to see the fourth draft of the guide that would go out to evaluators.

The Fourth Draft

Changes in the fourth draft are reflected in the table of contents.

Table of Contents

Introduction

Table of Contents

Group Process Skills

Group Process Skills

Communication Skills

Decision Making

Dominating Participants

Team Decision Making

Conflict Resolution/Problem Solving

Why Build a Team Through Group Process Activities

Group Process/Problem Solving Facilitators and Roadblocks

Day to Day Functions of Interdisciplinary Teams

Job Descriptions/Teaming Roles

Setting Team Priorities

Agenda Guided Meetings

Team Goals

Team Minutes

Team Conference Communication

Team Parent Conference Form

Special Education and the Role of the Team

Juvenile Services and their Role with Interdisciplinary Teams

Student Motivation

Examples of Successful Student Motivation

Strategies for Motivating Students to Learn

Cooperative Learning

Organizing Cooperative Groups

Basic Elements of Cooperative Learning

Cooperative Learning Starters

Some Quick Cooperative Learning Starters

A Few More tips About Cooperative Start-Up

Checklist for Teacher's Role in Cooperative Learning

Closing Activity for Cooperative Learning

The Basics of Making a Cooperative Lesson Work

Curriculum Integration

Reasons to Integrate the Disciplines

Steps for Beginning to Integrate the Disciplines

Curriculum Models

Transdisciplinary Approach

Integrated Studies Planning Framework

Integrated Unit Culminating Events

Worksheet for Use in Planning a Unit

Peer Coaching

Elements of Instruction

Teacher Expectations and Student Achievement

Parent Involvement

Ten Steps for an Effective Parent Conference

Parent Involvement Programs

Increasing Parent Involvement: Ten Ideas that Work

Involving Parents in Improving Urban Schools

Involving Parents: Why and How

The Missing Element in Improving Schools is Parent Involvement

Evaluation

How to Know if Teamwork is Working: Twenty Questions

Team Effectiveness Instrument

Instrument for Evaluation of Classroom Instruction

Developing an Instrument

Bibliography

Resources

In the fourth draft the "Overview" was removed, and the resource guide began with an introduction and the sections on "Group Process" and "Day-to-Day Team Functions" of interdisciplinary teams.

In the "Group Process" section, an abbreviated version of conflict resolution was maintained, and strategies called group process/problem solving facilitators and roadblocks were added. In the section on "Day-to-Day Team Functions," changes were made also. Within the section "Job Descriptions/ Teaming Roles," selections were ordered differently so that the ideas flowed sequentially.

"Student Motivation" was abbreviated, and chapters were developed on "Cooperative Learning" and "Curriculum Integration." "Curriculum Integration" was expanded from National Middle School Association sources recommended by Dr. John Lounsbury. "Peer Coaching," and "Parent Involvement" chapters remained the same as in the third draft. The "Evaluation" chapter focused only on the evaluation of the interdisciplinary team's involvement in team meetings and instruction. A bibliography was developed, and the list of resources completed the guide.

Ten copies of the fourth draft of the guide were made and sent to the five middle school teacher leaders and five middle school consultants for evaluation along with survey questions, which were developed in a systematic way.

Survey Questions and Their Development

To develop evaluator survey questions, I contacted university professors who had completed curriculum evaluations, publishing companies, and Dr. John Lounsbury from the National Middle School Association. Dr. Mavis Kelly and Dr. Deanna Strackbein, University of North Dakota professors, offered suggestions for survey questions based on experiences they had in textbook evaluation. Their suggestions were to make questions open-ended, and to focus on readability, clarity, sequence, and presentation. Contact was made with Scott Foresman, Technomic Press, and Interaction Publishing Company for assistance with the survey questions. Standard questions were not available because most of their reviews are internal.

I was advised by one of my graduate student colleagues to contact Dr. John Lounsbury. He gave me a list of questions to consider for the evaluation of the guide. Dean Harris also provided a list of questions from Allyn and Bacon that were used for a curriculum evaluation. Combining questions from Dr. Lounsbury and Dean Harris produced a list of survey questions suitable for the reviewers.

Dean Harris requested that a list of preliminary questions be developed to mail with the resource guide. These questions are displayed in Appendix B. Different lists of questions were developed for middle school teacher leaders and

middle school consultants. They appear in Appendices C and D. The questions in the two surveys were similar except for the biographical probes. The survey questions provided the basis for the interviews with the teacher leaders and middle school consultants. A fourth set of survey questions was developed for the nationally recognized anonymous reviewer. These questions appear in Appendix E and are similar to those in Appendices C and D.

Summary of Curriculum Evaluation

Evaluatory questions which addressed the initial appearance of the resource guide and suggestions for its possible publication were enclosed with the guide when it was mailed to evaluators. These questions invited the evaluators to begin to think about the resource guide and appear in Appendix B. Initial questions addressed the format of the guide, whether it was useful to middle schools with interdisciplinary team organization, whether it was grounded in middle school literature, how helpful the activities were, how the guide might be improved for publication, and recommendations for use of the guide.

In follow-up interviews, the questions which appear in Appendix B were asked first and followed up with questions outlined in Appendices C or D. There are slight differences between these two sets of questions. Those in Appendix C related to teacher leader biographical information, and those in Appendix D related to middle school consultants and their roles in middle school education.

The questions in Appendices C and D were designed to solicit further evaluation of the resource guide. Readability, how well the guide addressed the

middle school audience, practicality, order of presentation, sequence, how the guide reflected current literature, and the guide's compatibility with the contemporary middle school concept were addressed in parts of the first question. Evaluators were asked to ascertain how beneficial they found the "Group Process" and "Day-to-Day Functions" activities. They were asked to rank the chapters from strongest to weakest to provoke thought about which chapters might be expanded or omitted. A question about specific resources that might be added was also asked. Other solicited responses included the benefit the resource guide might have for beginning interdisciplinary teams and recommendations for use of the guide. The final question sought a numerical value on a scale of one to ten addressing the potential of the resource guide to assist interdisciplinary team members in performing teaching and group process functions to enhance the growth of young adolescents. Data are reported as responses to the initial survey questions or to the questions asked in the follow-up interview.

Selecting Evaluators for the Resource Guide

Simultaneous with the ongoing development of the guide and evaluatory questions was the identification of suitable evaluators of the resource guide. University of North Dakota professors, administrators, and my advisor assisted in the process of finding evaluators. Dr. Milt Hoff, a University of North Dakota middle school professor, assisted in locating suitable evaluators for the preliminary draft. He connected me with the teachers and counselor from Thief River Falls and Brainerd, Minnesota and the team leader from a middle school in East

Grand Forks, Minnesota, who provided early feedback. Administrative colleagues from North Dakota assisted me with names of possible evaluators from the six systemic change schools of the North Dakota Bridges Project in Mayville, Bismarck, Minot, Belcourt, Grand Forks, and New Town. Dean Harris and I developed a possible list of teacher leaders and middle school consultants from former student colleagues and contacts from professional organizations. The criteria for selection were that teacher leaders must have worked with interdisciplinary teams for at least one year and must have taught in schools that had a reputation for systemic development of middle school practices. Middle school consultants had to be connected professionally to middle schools in their immediate settings. Five teacher leaders and five middle school consultants whom we felt would be knowledgeable in the evaluation process were approached.

Prospective evaluators were contacted by phone to solicit their willingness to evaluate the resource guide. All agreed to serve. No remuneration other than a chance to share professional expertise was exchanged in this process. On January 15, 1995, a letter (Appendix F) outlining the evaluator's role was mailed to the ten evaluators, along with a list of evaluation questions and the resource guide. A week later, contact was made with the evaluators to select a time for a follow-up telephone interview.

Interviews were organized during January and February 1995. Teacher leader interviews occurred on January 26, February 1, February 3, and February 7. Middle school consultant interviews were conducted on January 26 1995, January

30, February 3, February 4, and February 7, 1995. The interviews varied in length from 40 minutes to 2 hours.

The questions in appendices B and C or D guided the telephone interviews. The open-ended questions produced ideas for revision of the resource guide. Based on critiques from the teacher leaders and middle school consultants, the resource guide was revised for the fifth time. The data which informed this revision have been synthesized in Chapter IV of the dissertation.

The fifth draft of the resource guide was mailed to an anonymous reviewer who was selected by members of the dissertation committee. He was paid a stipend of $200 to evaluate the guide based on the questions in Appendix E. The results of his evaluation are included in Chapter IV of the dissertation.

During the first week of March 1995, permission to use quoted copyrighted material was sought from publishing companies and authors. Telephone calls were made to publishing companies to determine the appropriate contact from the permissions department. Permission letters were sent to Interaction Book Company; NEA Publishing Company; Incentive Publishing; ASCD; IRI/Skylight Publishing, Incorporated; William C. Brown Communications, Incorporated; NASSP; Phi Delta Kappa; Teacher's College Press; NMSA; Scott Foresman; Putnam Publishing; Neila Connors; Bob James; Paul George; and Sue Wells Welch.

Table 1 is a time line which reflects the process in developing the resource guide.

Table 1

Time Line

Time Period	Activity
Jan. to June 1994	Author develops first draft of the resource guide.
May 1994	Bobby Glisson and Bob James review the first draft of the guide.
July 1994	Five colleagues review first draft of the guide.
August 1994	Dean Harris reviews first draft of the guide.
September 1994	Dr. John Lounsbury evaluates the guide.
Oct.-Nov. 1994	Author prepares second draft of the resource guide.
December 1994	Dean Harris reviews the second draft.
Dec. 1994-Jan. 1995	Author develops the third draft of the guide.
January 1995	Dean Harris reviews the third draft.
January 1995	Author develops the fourth draft of the guide, finalizes the survey questions, and mails the guide to the ten evaluators.
Jan.-Feb. 1995	Teacher leaders and middle school consultants evaluate the resource guide.
February 1995	Author develops the fifth draft of the guide.
March 1995	Author submits the resource guide and a stipend to the committee to be given to the anonymous reviewer.
March 1995	Author mails request permission letters to publishing companies and authors.
March 1995	Anonymous reviewer evaluates the guide.

Chapter III describes the inclusive method in the development of the guide from its initial drafts to evolvement of the fifth and final draft. The evaluation process, development of survey questions, and selection of middle school teacher leaders, consultants, and an anonymous reviewer are described. The survey questions solicited critical responses about the contents of the resource guide. Those responses are outlined in Chapter IV.

CHAPTER IV

SUMMARY OF THE FINDINGS

Chapter IV explains findings of the formal evaluation of the resource guide. This chapter is divided into sections describing the teacher leaders and middle school consultants, their evaluation of the guide, changes made in response to the evaluation, and the evaluation of the anonymous reviewer.

Description of the Teacher Leaders

Five teacher leaders and five middle school consultants evaluated the guide draft and provided valuable ideas for revision. This section provides descriptions of the teacher leaders and consultants, using pseudonyms. Eight of the evaluators were professional colleagues and acquaintances; two were recommended by colleagues from the University of North Dakota. Through interaction with the evaluators during the course of study and the background information they gave about themselves, the evaluators commitment and grounding to middle school education emerged.

The teacher leaders who volunteered for this study were from school districts in North Dakota and Minnesota. Two teacher leaders were from cities located in central North Dakota, and three were from schools in the central, southeastern, and western parts of Minnesota.

Connie and Joan were the teacher leaders from North Dakota. Connie worked at a middle school that had implemented all of the common middle school components including interdisciplinary team organization in 1990. She had become a staff member in 1991, and has been a team leader in a seventh and eighth grade combination group since 1992. Connie belonged to the National Middle School Association and was a co-presenter at its annual meeting in Cincinnati. She has been an advocate for parent advisory councils in her middle school. Connie said, "My commitment to middle school is really a commitment to kids at that age; the philosophy of that school meets some of those needs." She demonstrated commitment to "kids" by advising the student council and cheerleaders at the school. Her middle school expertise was demonstrated by her selection as lead teacher when her school became a systemic change school with the Bridges Project. Prior to her selection, Connie had been named middle level educator of the year by the state middle level association.

In Connie's school, the core subjects represented in seventh through ninth grade teams were mathematics, science, social studies, English and a fifth area including physical education. For example, communications and physical education were offered in seventh grade; health and physical education were offered in eighth grade; and driver's education, career education, and physical education were offered in the ninth grade.

Joan, the other North Dakota teacher leader, worked in a school that had begun to study middle school foundations in 1991. Its seventh and eighth grade

interdisciplinary team organization had developed in increments. The middle school started with two seventh grade teams and added two eighth grade teams the following year. The subjects that were represented on the interdisciplinary teams were mathematics, geography, science, and English; in 1994-1995, physical education was added to the core subjects. During the three years that her school has worked on developing the middle school concept, Joan's commitment to middle level education has grown. She said, "My commitment to middle school is that I am a team leader of our eighth grade team, a leader of our building support team, an active member of our state association, and find all of those things valuable in helping our school." Joan has also been recognized as a middle level educator of the year.

George, Imogene, and Tom were teacher leaders from Minnesota. Their experience in middle level was more extensive than that of the North Dakotans because of Minnesota's earlier involvement in the middle school movement.

George had played a key role in the transition of his school from a junior high to a middle school. George traced his commitment to this transitioned work.

> My commitment to middle school is that I was originally on the committee studying the change over from a junior high to a middle school. We did a lot of research, and we had to do a lot of selling to the community and to the staff and to the school board before turning over to the middle school concept. A number of things were

stressed. If we were going to a middle school, it would not be in name only, because a junior high has a junior high function.

His commitment also involved him in service on the middle school/junior high advisory board at a neighboring university. He advised the middle school faculty on curriculum changes, taught parts of methods classes for preservice teachers, and worked with student teachers.

At the time of this study, George had worked in a middle school for five years. The school had a sixth through eighth grade configuration, with three interdisciplinary teams for the seventh and eighth grades. There was a full seventh grade team and a full eighth grade team and a split seventh and eighth grade team. The sixth grade had two full teams. The core subjects were represented on the interdisciplinary teams included science, social science, language arts, and mathematics. George indicated that in the beginning some teams struggled because they didn't understand the entire concept. The administration selected one strong interdisciplinary team that functioned well and encouraged all teams to model that team; subsequently, all are perceived as strong teams.

Imogene had been a part of a middle school for two years. Her school had a sixth through eighth grade student body with ten and one-half interdisciplinary teams. Core subjects represented on the interdisciplinary teams were language arts, mathematics, science, social studies, and a fifth discipline including reading. Imogene was certified K-12. In the same year, she taught both on an

interdisciplinary team and in an allied arts area. As a member of the split team, some of whom traveled to teach at another middle school, Imogene taught core classes in the morning and allied arts keyboarding classes in the afternoon. She experienced the positive and negative effects of both positions.

Imogene, an eighth-grade team chair the second year into middle school, was strongly recommended as an evaluator for this study by her administrator. Of her commitment to middle school, Imogene said, "One of the things that has drawn me to this district is that our school has moved to middle school in the last three years." Imogene has been working on middle school endorsement as well as development of the middle school concept at her school.

Tom had been an interdisciplinary team member in two Minnesota school districts for six years. He said, "My personal commitment to middle school is very strong. I've worked in two. In both schools that I've worked in, we've had interdisciplinary team organization for three years."

The school Tom worked in had operated on a middle school philosophy for four years, the reason he elected to take a position in that school district. Although the school was called a junior high school, interdisciplinary team organization existed. The nine sixth through eighth grade interdisciplinary teams in Tom's school taught physical education, mathematics, geography, English, and science as core subjects.

Teacher leaders in the study varied in their years of experience in middle school education, but their commitment to middle level made their evaluative input valuable for revising the guide. All teachers had been involved in middle level education from four to six years. All expressed their commitment to middle school through their leadership on teams in the implementation process at the local level.

Description of Middle School Consultants

The five middle school consultants had more diverse backgrounds than the teacher leaders. Two of them worked as university middle school teacher educators. Two were administrators in middle schools. The fifth was a middle school teacher who has had state and national influence in middle school education. Geographic locations of the consultants were North Dakota, South Dakota, Minnesota, and Maine.

Kay and Amy were university professors of middle school education. They had focused their doctoral studies on aspects of middle school education. Currently a faculty member at a regional university, Kay taught two middle school classes each semester which enabled undergraduates and graduate students to become certified in middle level education. Kay's commitment to middle level education was also reflected in her doctoral study of leadership in middle schools. She had toured middle schools in North Dakota, South Dakota, and Minnesota to collect data.

While working on her doctorate, Kay had taught middle school methods classes as a graduate assistant and worked with North and South Dakota schools transitioning from junior highs to middle schools. She had developed a general methods course which incorporated components of middle school, characteristics of the young adolescent, cooperative learning, learning styles, and the use of technology in the schools. Kay had developed presentations for area schools on cooperative learning and learning styles.

Amy, another university professor, had worked with the North Dakota Middle Grade School State Policy Initiative while completing her doctorate with an emphasis on integrated curriculum. In her graduate work, Amy had developed material on advisor-advisee programs, interdisciplinary team organization, block scheduling, integrated curriculum, and parent involvement.

At the time of her work with this resource guide, she was working with 30 middle school educators a semester enrolled in outreach courses across her state of residence. Amy often worked with entire interdisciplinary teams or team members from larger groups in her teaching.

Amanda and Larry were administrators in middle schools. Amanda was an associate principal and Larry was a principal in a middle school.

Amanda's past middle school background was diverse. She had been a teacher and team leader in a middle school in the southeastern part of the United States. She was close to completion of a doctorate with an emphasis in middle school education. Her dissertation study was of schools' transitions from the

junior high to the middle school structure. Amanda had worked with the Middle Grade School State Policy Initiative in North Dakota, taught inservice classes, and developed materials for the various components of a middle school during her years of doctoral residency. She attended and presented at national and regional conferences including the National Middle School Association conventions in Seattle and Cincinnati.

Service learning was an avocation for Amanda. While a graduate student at the university, Amanda had written and served as a project director for a service learning grant. In her present district, she has provided inservice for teachers on how to integrate service into the curriculum, and facilitated a school-wide service learning day. As an associate principal, Amanda facilitated the work of the sixth through eighth grade interdisciplinary teams in her middle school.

Larry, a middle school building principal, had been an advocate of middle school education for six years, and indicated this in his remarks.

> I'd say I've been actively involved for the last five years. After my first trip to a national convention in Louisville, Kentucky, I became converted to middle level education, and during that time, I've taken on leadership at the local level, state level, and national level. So, I would say I'm a born again middle level person.

Interdisciplinary team organization was evolving in Larry's school which had one sixth, one seventh, and one eighth grade team. Teams of two and four faculty had common planning time, but not common students. At the sixth grade

level, interdisciplinary teams of two teachers were slated for development in the 1995-1996 school year.

Working with the local school board, Larry hoped to assist in the transition of the three community junior highs to middle schools. His middle school was involved as a systemic change school in the Middle Grade School State Policy Initiative.

Belle, the fifth consultant for this study, had a commitment to middle school education reflected in her biographical sketch. A middle school teacher since 1988, she had been a part of the transition study team that had developed a middle school structure including an advisor-advisee program, interdisciplinary team organization, exploratory courses, block scheduling, and an approach to integrated curriculum for her school.

Belle had been a team leader, a member of the state middle school advisory board, a member of the state middle school association, and a state senator. In this role, Belle had served on the Senate Education Committee, sponsored middle school legislation, taught and served as a team leader for a seventh and eighth grade combination team. Her school was a systemic change school of the Middle Grade School State Policy Initiative, and she was a lead teacher for that project. Belle has received state and national awards for her work in middle school education.

Some links existed between the teacher leaders and the middle school consultants in this study. The connection for eight of the ten participants was the

Middle Grade School State Policy Initiative. Connie and Belle were lead teachers for the systemic change projects in their schools. Joan had benefited from the original Middle Grade School State Policy Initiative and its work with study groups to facilitate middle school transition across the state. George had worked with a university that facilitated a Middle Grade School State Policy Initiative, and Tom was completing his Master of Science degree in middle school education. Imogene was recommended as an evaluator by an administrator who was a graduate teaching assistant in the Middle Grade School State Policy Initiative. Amy, Amanda, and Kay had worked with the Middle Grade School State Policy Initiative teaching middle school courses and fostering state-wide middle school growth. Larry was a principal of a systemic school participating in the Middle Grade School State Policy Initiative.

The teacher leaders and middle school consultants' diverse educational roles and commitment to the middle school philosophy contributed to their work in the evaluation of the resource guide. Data they provided assisted in revisions of the guide.

Responses to the Short List of Questions

Teacher leader responses from the initial survey questions are presented before the middle school consultant responses.

The first questions, "Does the overall format of the resource guide engage the reader?" and "What were your overall first impressions of the guide?" elicited these responses from teacher leaders.

Imogene felt that the table of contents was adequate but expanded with some ideas for improvement of the overall format of the guide.

> The chapter sections don't seem to be clear. When you look at the chapter sections, "Student Motivation," "Cooperative Learning," and "Curriculum Integration" seem to fit. Then you go into "Peer Coaching," "Parent Involvement" and "Evaluation." Those chapters don't seem to fit. However, you have them organized so that the first ones deal with the students and the other ones deal with professional development.

When questioned further, Imogene felt that "Parent Involvement" could be moved to the section behind the material on students. She felt that "Evaluation" was a stand-alone chapter.

Imogene offered some ideas for improvement if the resource guide were published. She said, "There is nothing eye-catching about this because it is just a straightforward draft. You could put in pictures or frames with desk top publishing. You could do some jazzing up and help with the format."

Imogene critiqued the activity format and said, "I thought it would be nice if the activity page were separate from the other pages. That way someone could take the activity page out and distribute it amongst their team."

Joan felt that the guide had all of the key components for teaming, "I thought it had all of the key components for teaming and found it very useful for the reader because it catches attention for what we should be doing."

Connie thought the guide was long, but Tom and George had looked at earlier drafts of the 315 page resource guide and they liked the abbreviated version. Tom indicated his feelings in this way, "It is more engaging that the other version. For whatever reason, it seems more streamlined, more focused."

Middle school consultants had similar views of the overall format of the resource guide. Larry felt the overall format of the guide was "engaging and very comprehensive."

Belle and Kay both appreciated the table of contents. Kay, who had looked at the earlier drafts in which the table of contents was more broadly categorized, remarked, "I think the table of contents sets everything off and is very helpful when the categories are easily defined."

Amy and Amanda had some suggestions about the format. Amy liked the overall format but said, "The only part I found distracting was how the resources were listed at the end of the section and didn't stand out enough." Amanda felt the layout of the guide should be different, and remarked, "One thing I noticed is that you should break things up a little bit more by utilizing subheadings and centering them."

Question two from the initial survey was "How is this guide a useful resource for assisting educators who are in middle schools and function in an environment with interdisciplinary team organization?" Joan, Connie, Tom, and George looked at this question from the viewpoint of interdisciplinary teams, while Imogene looked at this question from an administrative standpoint.

George and Joan agreed that the guide focused on the needed components. Tom said, "I think it would be a healthy exercise for existing teams just starting the process and would be good for existing teams to reexamine some things."

Imogene could see the benefit of the resource guide for the building administrator. She indicated this in her remarks, "If you were an administrator building a team, there are some things in the resource guide such as job descriptions/teaming roles, and specific goals and issues that you could introduce to new teams."

Some middle school consultants answered this question briefly. Amanda liked the information provided with the activities. Kay felt the guide was "timely, and middle school teams should use it to be successful." Belle saw the guide as a way to avoid trouble and suggested, "It could be a teacher inservice no matter how long you have been a team."

Larry, a middle school consultant, answered question two with focus on improvement for the table of contents. He felt the table of contents should be clearer, and commented, "I'm assuming these sections are going to be chapters." Larry recommended looking at some of the chapter headings, "You have 'Group Process Skills' and 'Day-to-Day Functions' and then on the other chapters you don't have a heading." Commenting on the size of the guide and the importance of a clear table of contents, Larry said, "I think the organization of the table of contents is very important when it's an inch thick."

Amy concentrated on the focus of the resource guide when responding to question two. She said, "Some parts of the guide shifted the focus from the adult learners of this team trying to learn a teaming process over to the student. Sometimes you use the word, 'team,' and it seems to involve all of the kids plus the teaching team." Amy felt that the focus of the chapters on "Student Motivation" and "Cooperative Learning" was on the student rather than the adult learner. Amy had suggestions for the format that would keep the focus on the adult learner, while still utilizing the content of the chapters on "Cooperative Learning" and "Curriculum Integration." She felt that the teaching team could explore some ideas as a cooperative learning group, and said, "My thought was why not use the ideas from the guide in cooperative learning and have the team explore the ideas in the way they function as a team. Then, make the connection to the students by exploring possibilities of how cooperative learning applies to students."

Next, responses were elicited to the question, "Is the guide adequately grounded in the literature and research about middle school?" Teacher leader responses indicated satisfaction and were similar to Tom's answer. Tom felt the resource guide was a reflection of his graduate school studies, "It just seemed to be current with a lot of the ideas I was running across in my graduate studies. You know, things I have been reading for the last five summers."

Middle school consultants remarks were similar. All felt the literature was adequately grounded. Larry stated, "You've covered the National Middle School

Association literature that I am familiar with and have in the library at our school."

Question four was "How helpful did you find the activities?" Joan, Tom, Connie, and George answered briefly but indicated their adequacy. For example, Tom responded, "That is one of the better parts. The different activities caught my attention big time." Connie said, "I found them to be functioning." George felt the activities were beneficial, "You've covered all of the activities in middle school. You've got 'Cooperative Learning,' 'Curriculum Integration,' peer coaching. It was very beneficial."

Imogene had some suggestions about the activities. She felt that there should be some adaptations made and said, "In some of the materials that I've seen, you give us one good solid example and an activity to practice, but you leave it up to the person using the guide to adapt those activities." Imogene recommended adaptations if the guide were to be used by interdisciplinary teams. She recommended putting the activities on separate pages in this way, "The advantage of putting the activity on a separate page is that you could put on the information, for example on dominating participants, then a little blurb saying 'Discuss how the team leader on your team could do this' and then leave some blank space to write things down to discuss."

Imogene felt the activities were good but thought they were really general. She commented, "Every time I thought I should do this activity, I thought I would have to make up a guide sheet and do it."

Middle school consultants commented on the helpfulness of the activities, also. Amanda and Belle thought the activities themselves were good. Kay addressed the question about the activities with thoughts about format, "The activities are helpful and useful, but I think you need heads up that they are coming. I think maybe they should be on a separate page totally, on a colored page that would be consistent throughout."

Thinking about the activity question, Larry recommended the addition of activities dealing with the Myers Briggs Personality Inventory. He said, "The Myers Briggs is a specific activity that can help set up teams."

Amy concentrated on the focus of the guide when she answered the question about the appropriateness of the activities. Amy said, "Sometimes in the activities, it seemed like the focus wasn't really on the team, even though the team was asked to do the activity. There were a couple of really extensive projects. I would want that activity to be something that wouldn't be very long." Amy addressed the issue of time and the focus of the guide for interdisciplinary teams.

Question five was, "In general, how might this publication be improved?" Probes to this question addressed issues of background information, clarity of presentation, the adequacy of topics for interdisciplinary teams, depth of topics presented, and activities and their focus.

George, a teacher leader, felt that the resource guide should address accountability in teams. He had this to say, "I was looking for a section where

administrators could make a team more accountable." George felt that the clarity of the guide was "good," but that there could be more topics on curriculum integration with "real examples of integrated curriculum."

Tom didn't recommend overall improvements of the resource guide. He said, "I couldn't come up with one idea on how to improve it." On the special education and law enforcement material in the guide he commented, "I would have changed the section on the different learning disabilities and the section about the laws. Some of those terminologies differ from school to school and state to state."

Connie said background information was "adequate," and did recommend more material in curriculum integration. She felt the activities were adequate as they were.

Joan answered, "I thought that since the topics had been narrowed down, there should be more depth on the topic instead of so much additional reading other than what is in the book." She thought that all of the topics for interdisciplinary teams were covered.

> I thought you covered everything as to "Day-to-Day Functions." You know, if things aren't working well, what to do about it, and how to change some things and all of the practices that should be incorporated into teaming, so I thought basically it covered the necessities.

As far as the depth of the topics she commented, "I thought if a person didn't know about all of the middle school components, they might not understand everything just by looking at this book." Joan felt that the activities were "brief," but "okay."

Imogene recommended more information in the special education area: "The one area I thought had very little information was in the special education area. That lacked a variety of information." Imogene did recommend adding information for interdisciplinary planning and curriculum integration. She said, "One area that I have seen a lot more materials on is interdisciplinary planning, curriculum integration, and I know there is just a ton of materials out there."

Imogene addressed greater clarity of presentation, additional topics, and the focus of the activities, by recommending, "Putting the activities on a separate page would be nice so the format would be clear." She recommended additional material on integrated curriculum and evaluation, "I have seen a lot of other evaluation tools. The ones you have are pretty comprehensive. We have used Merenbloom, Schurr, and some from the middle school group in Florida." Imogene also recommended that student evaluation be included in the "Evaluation" chapter. Imogene had previously addressed the focus of the activities.

Middle school consultants Kay, Larry, Amanda, and Belle responded succinctly. Kay felt that the background information was "very substantial." She did elaborate on the question about the activities and their focus, "I think it would

be helpful to have an alternate style for the ones that you only have one activity; allow choices. Your activities are really general. Listing the sources under the activities would be helpful."

When Larry answered about publication improvements, he went back to comments he had made earlier about the table of contents, "I would take a hard look at the table of contents. I think of the organization of the table of contents as the key to entice someone to open the pages." He recommended adding additional topics in the area of "formulation of teams," and said, "That is something that could be put in "Group Process Skills"; the Myers Briggs is of interest to me." Larry felt the activities and their focus were adequate.

Amanda didn't favor addition of background information: "I think what you have is sufficient to know what a middle school is." She felt that there could be greater clarity of presentation: "Maybe making more subheadings would break things up a bit, either by spacing or subheads." Amanda didn't feel that there should be more topics for interdisciplinary teams, but advised additions to the section on integrated curriculum, "You could start out the interdisciplinary section with parallel teaching and advise teams to work into a full-blown interdisciplinary unit." As far as depth of topics, Amanda said, "I don't think you want to go into too much depth. Interdisciplinary team members could use the resources you have provided to get more information." As far as the question about the activities, Amanda felt that section was "fine."

Belle felt that the background information, presentation clarity, depth of topics, and the activities were adequate. When addressed about the focus of the activities, Belle said, "You don't want a different focus. We know all different aspects of middle aren't here, but you are just working with teaming."

Amy had quite a few recommendations for resource guide improvement. About background information, Amy said, "I think in the introduction to the whole guide, I would spell out even more explicitly how the guide should be used." For clarity of information, Amy said, "Focusing on the purpose of the guide will be helpful." Amy didn't think that there should be any more topics for interdisciplinary teams. However, Amy did again reflect on the focus of the guide, "In my case, it was a matter of trying to decide what your focus was intended to be. You were talking about the student's learning, and I was thinking, 'No, no, this is a group of adult learners that were trying to be a team."

Amy commented on the focus of the activities, "Make it clear who the audience is, the adult learner on the team or the student learner. Amy suggested a way that the section on student learning could be linked with interdisciplinary team learning. She said, "My thought was using ideas from the guide. When you get to the section on "Cooperative Learning," think of your team as a cooperative group, and have them explore one of the topics as a cooperative group." Amy recommended moving beyond the cooperative group activity to "Explore possibilities of looking at it and how it applies to students." Amy agreed that Erb

and Doda's explanation of job descriptions regarding esteem builders and facilitators might be a good team-building activity for cooperative learning.

Regarding the chapter "Peer Coaching," and its focus, Amy remarked, "I thought that chapter was wonderful." Amy further emphasized the importance of peer coaching, "Peer coaching is geared for a mutual learning experience on the part of the observed and the observer, with a middle school teacher pairing up with another middle school teacher on an interdisciplinary team."

Amy also had comments about the focus of the "Parent Involvement" chapter. Amy remarked, "You have a phrase in this chapter that says 'creating a climate of teamwork,' and I thought 'How are we helping parents to be a part of this broader team of people who work with their children?"

The question about chapter and activity focus drew responses from Amy that suggested an alternative order for the resource guide chapters. Amy said, "Well, I liked the 'Group Process' first. Even in the next section with the 'Day-to-Day Functions,' you are focusing on the team. I would put 'Parent Involvement' between 'Peer Coaching,' and that whole section." Amy agreed that "Student Motivation," "Cooperative Learning," and "Curriculum Integration" could be a part of a section called "Interdisciplinary Teams and the Student." She also addressed the organization of the section including the chapters on "Peer Coaching" and "Evaluation" saying, "The professional development part actually could involve the 'Peer Coaching' part, include the piece on TESA, and also tie into 'Evaluation.'"

Finally, the survey asked, "How would you recommend this guide be used?" Teacher leaders suggested that the resource guide be used in a variety of ways. Joan proposed, "Each school should have a copy, and each team leader could read it and share it with the team members. It could be studied through the 'jigsaw' method." Connie also recommended that the resource guide be used with teams in staff development as a team. Tom reiterated his earlier comments about using the guide for interdisciplinary teams, "An administrator could give it to a team and identify areas in the resource guide that they might benefit from." Imogene supported use of the guide for team leader staff development. George recommended, "The resource guide could be used as a beginning of the year workshop, or for a new team, or a non-functioning team."

Middle school consultants responded to "How would you recommend this guide be used?" Their responses were not very different from the teacher leader responses. Larry felt that the guide would be helpful to existing teams, "I don't think this guide speaks to how to form teams, but once you have the team, I think this is an excellent resource to fall back on, especially in the early stages of what they are doing."

Amanda and Belle had a variety of ideas on how the resource guide could be used, "You could use this book to inservice a team. You could use it for preservice teachers who have not been in classrooms, and existing teams could use it as a resource." Belle recommended "staff development" as a way to use the guide.

Kay also recommended that the resource guide be used with preservice or inservice teachers and told how the guide could be used with administrators, "I think this should be mandatory for administrators. If they don't have a firm grasp of this knowledge, they should not be supplying help." While answering this question, Kay recommended that the resource guide include a biographical sketch of the author. She said, "As a reader, one would want to know how credible the writer is, also the fact that you are a middle level administrator."

Amy considered possible publication of the resource guide in her response, "Let's say that NMSA might publish this for you, and people would pick it up and want to use it. I think that I would want them to read the first part and be enticed." Amy thought interdisciplinary team members would want to look at the resource guide and work through some of the activities on their own. Amy also thought the guide could be used formally for a workshop. She thought that teams would be likely to jump around among chapters but that each chapter should be independent of other chapters, "I wouldn't make something so dependent upon something else that if teams chose to start in a certain place, it would make too much difference and teams could use this as a reference."

Responses to Interview Questions

Interview questions for persons in the two role groups studied were identical with the exception of the first question about the biographical information about the evaluators. The biographical responses provided the

summaries of teacher leaders and middle school consultants qualifications cited in earlier sections of this chapter.

The first oral question about the resource guide caused further reflection on its overall impact. The question was, "Evaluate the overall guide," and was followed with probes, "How well does the guide address the audience of middle school teachers? How would you rate it for practicality? Was the order of presentation clear but flexible enough to adapt to the reader's purpose? Was it clearly presented and did it follow a logical sequence? Does it reflect current literature? How is the resource guide compatible with a contemporary middle school concept?"

Tom, a teacher leader, thought the readability level of the guide was excellent. He thought the guide addressed the middle school audience in an appropriate manner and rated it high for practicality. Tom approved of the order of presentation and the logical sequence and said that it reflected current literature and fit in with a contemporary middle school concept. Tom indicated, "I think that before you tackle 'Day-to-Day Team Functions,' you have to know about 'Group Process.'"

George was similarly positive in response to this question. George indicated that the resource guide addressed the audience very well, "It covers everything in a middle school: teaming, cooperative learning, motivating a child, evaluating, and things like that."

Joan, another teacher leader, evaluated the guide favorably with some reservations, and said "I felt this was meant for schools that had teaming in place. If you were to gear it to schools that were just starting teaming, then I would think that additional information would have to be put in there to make things a little clearer." Joan rated the practicality of the guide numerically, "I thought on a scale of one to ten, it was high average, about an eight, somewhere in there."

Joan felt that there could be a change in the order of presentation: "I found that I would have liked to read the 'Day-to-Day Team Functions' chapter first, and then go on to 'Group Process Skills.'"

Connie felt that the readability was "simple" with a pattern to it, "You're not into using a lot of educational jargon that someone else might not be familiar with; that helps."

Imogene, a teacher leader, disagreed with Connie and commented, "Sometimes the quotes become very teacher-ese, very lingo. You have to read it like a text." Imogene rated practicality lower than some of the other reactions, "I gave it a seven because I think there are a lot of things a reader would have to adapt." As far as the order of presentation and sequence, Imogene felt, "There was one area that could be regrouped. I thought the special education stuff was out of order, but otherwise it flowed very well."

Middle school consultants also evaluated the guide for readability, how well it addressed the middle school audience, practicality, order of presentation,

clarity, the use of current literature, and compatibility with a contemporary middle school concept.

Belle found the readability to be "excellent," and felt that the resource guide addressed a middle school audience, and said, "The resource guide came to life when the staff at a junior high asked how they could use team planning. If they had your resource guide, they would be aware."

Belle addressed the question "How well does the guide address the audience of middle school teachers?" in this way:

> Really well, even in terms of the section on special education. When I was being interviewed by a federal monitor on special education and how our school's plan was, I was glad that you had pages dedicated to special education. I got an overview as it should be interpreted with federal guidelines. There are teachers in the middle who don't know how to be helped by these programs.

Remarking about practicality, Belle said the following:

> The beauty of the book Promises, Practices, and Possibilities is its practicality. In the resource guide, you give just enough rationale for growth, and then activity. One thing, though, is that parents are at the end and if the school community in the northwestern part of the state did one thing wrong, it was not to include parents right from the beginning like they needed to. I think the 'Parent Involvement' section needs to be stressed; don't ever skip that last

> section. It can destroy a middle school if the parents are not a part of the implementation.

When asked if the section on "Parent Involvement" should be moved, Belle responded:

> I thought about it. What you have in that chapter is what is needed, but maybe you could put something in the preface that no matter where you are in your planning or implementation, you must always understand the necessity of the parent role.

Belle felt the order of presentation was clear and that the resource guide followed a logical sequence. Belle said that she had quoted from the resource guide in one of the classes she taught, "We started with a quote from page 57, and the nice thing is that Tom Barlow, from Midwest Continental Regional Center for Education Laboratory, used the same quote at the end of the class. You need to know the resource guide is really working for others."

Belle thought the resource guide reflected current literature and was compatible with the middle school concept.

Another middle school consultant, Amy, found the readability level to be fine, but remarked, "Once again, it does assume some familiarity that they may not have, but I feel if you could entice them into that research, they could get a taste of it."

Amy agreed that the resource guide addressed the audience of middle school teachers but elaborated in her remarks about practicality, "Thinking about

practicality and the time frame for activities, if you provide really good instructions and the activity is something that can be done in one or two sittings, then they would probably stick with it."

Thinking about the order of presentation, Amy remarked, "Keep the chapter contents independent of one another." Amy felt that we had already sufficiently discussed logical sequence and some possible changes.

When asked about how the guide reflected current literature, Amy suggested two other resources, "I kept thinking about Merenbloom and found his work later. The only other question was something in terms of Beane and his work with curriculum." Amy recommended looking at the "Curriculum Integration" chapter and suggested a book called Handbook on Research Curriculum. Amy said, "The editor is Philip Jackson and the year is 1992, and there is a chapter in there by Goodlad and Su on organizing curriculum, and they have just a tiny section on curriculum integration."
She felt that book defined curriculum integration well.

Amy liked the material in the resource guide on curriculum integration but recommended other sources besides Fogarty, "I noticed you used Fogarty. The only problem I have with Fogarty is that she had too many models for people to use. The distinctions between her models aren't clear."

Kay reflected on the overall guide too. She remarked about readability, "It was very appropriate, very easy to read at a professional level." As far as practicality, she said, "I want this in the finished product; I think this is wonderful

and I will use it in my school." She felt that the guide was clearly presented and followed a logical sequence, reflected current literature, and was "equal to" the literature addressing the middle school concept.

Larry felt the readability and practicality were okay, but elaborated about the order of presentation, "You know you were talking about rearranging some things. I would agree that it is very important to come up with an appropriate order so that users find it orderly and useable." Larry found the literature "very current," and elaborated about the resources and their compatibility with a contemporary middle level philosophy, "I think it is very current with what is happening in the schools."

Amanda, another middle school consultant, thought the guide was readable and addressed the audience of middle school teachers. Amanda rated it high for practicality and had some suggestions for changing the order of presentation in the group process section. Amanda thought the chapter organization followed a logical sequence and the guide referenced use of current literature.

The third question addressed in interviews was, "How have the group process activities that you've tried been beneficial?" The responses from the teacher leaders are presented first, and the middle school consultant responses follow.

Tom had tried some group process activities but not ones from the resource guide while Imogene recognized some of the group process activities such as brainstorming, and said, "Last year my team members were all either first

or second year teachers and would do anything I said. This year I work with some 25-year veterans who don't always like to follow the rules that way. It depends on the personality of your group whether the activities will be successful."

Connie planned to try one of the group process skills with her team. She said, "I will use the activity that says, 'try one of the issues faced by interdisciplinary teams at the beginning of the year, how will we interact with parents, what should be the goals of the team?'" Joan's team also sets goals and she said, "We do use the Crawford Slip Method to do some problem solving, trying to come up with goals."

George felt that his team had not used any of the group process skills deliberately in the five years his school has had interdisciplinary team organization and remarked, "We've done a little bit with group process, but we probably didn't know what we were doing; it is just automatic."

Middle school consultants had remarks about their use of group process skills too. Amanda said, "I've used brainstorming and a variation of the nominal group technique but haven't used the slip or the fishbone."

Larry felt group process skills were important. He said, "I've been involved in some of those processes, and I really believe in that." Larry thought that simulations were important, "I don't care if you're dealing with preservice training or if you are dealing with adults in the field or middle level students, getting up and doing simulations is what it is all about."

Kay, Belle, and Amy had remarks about the use of group process skills. Belle said some of the group process skills have been tried by her team. Kay and Amy planned to use some of the group process skills. Amy said, "I will tell you that as I looked through, I found the information on the resources and wrote it down, because I hadn't thought along those lines."

The next interview question was, "How have the day-to- day team functions activities that you've tried been beneficial?" Four of the teacher leaders and two of the middle school consultants, who had been classroom teachers, reported the use of these functions in the classroom.

Imogene had quite a bit to say about the use of the agenda, "The number one thing is agendas for team meetings whether you are working with a group of young teachers who have never done this before, or whether you are working with a group of middle school trained people, or whether you are working with veterans who have come from a junior high." Imogene also felt that keeping minutes and defining roles early on was real helpful because everyone knows what the possibilities are.

Joan found parts of the section on day-to-day team functions valuable. She commented, "I found quite a few things like keeping a notebook and focusing on the successes of the students very valuable."

Connie and Tom remarked about day-to-day team functions. Connie said, "The day-to day team functions chapter is a little bit of a carbon copy of what we

are trying at our school." Tom said that his school used some of the day-to-day team functions activities like "Taking minutes, setting agendas, that sort of thing."

Middle school consultants responded favorably to ideas presented about day-to-day functions that they had tried when they were a part of teams. Belle responded, "Some of the ideas you have taken from our school, and I know they work." Amanda, once a part of an interdisciplinary team, remarked, "When I was a part of the team, we tried to have an agenda and minutes. They weren't always formal, but we tried to have them. We didn't really set goals, but set up for conferences, and kept minutes."

The question, "Rank the chapters from strongest to weakest" was designed to elicit suggestions about arrangement. The probes were, "What chapters should be omitted?" "What additional topics should be included in the resource guide?" "What additional materials within the topics should be included?"

The ranking of the chapters varied considerably according to the evaluators definition of strengths and weaknesses. Most of the evaluators couldn't rank the chapters. Their focus in thinking about this question was a reflection of their answers. For example teacher leader evaluators Tom and Joan focused on what to omit from the resource guide. Tom said, "I didn't see a need for a whole lot of changes, except for special education. I felt that the special education categories may not be the same for each state." Joan couldn't think of chapters to omit from the guide, but did say, "I was wondering about 'Peer Coaching,' I don't know what that one is, and if you had to omit a chapter, that could be the one." Joan also

recommended deleting the section on mediation and remarked, "Our team works so well together, I don't see a need for it."

Other teacher leaders George and Imogene responded to this question focused on which chapters were the strongest.

George felt the strongest chapters were the beginning ones. He said, "I just put them right in order with the last one being 'Evaluation.' George didn't feel any should be omitted, "Everything is important: parent involvement is important; that is a big thing." Imogene ranked the chapters in this way.

> I would say that the first section on "Day-to-Day Team Functions" was probably your strongest area. "Evaluation" was the second strongest; then it goes to "Group Process Skills." You had a nice section on "Cooperative Learning", then "Curriculum Integration," which I thought was one of the weaker areas because there is a lot of stuff out there. "Student Motivation," you had a lot of good ideas, but it seemed like a lot of the examples you had were high school examples. The "Peer Coaching" section was pretty nice, too, but it wasn't one of your strongest. The "Parent Involvement" one was also an extremely strong chapter.

Delving further, Imogene addressed the purposes of the resource guide, "I was a little unclear what your purposes were. It seems as though the purpose of the book is for team leaders and the building of teams through the resource guide." She addressed this concern further, "It seems as though 'Student

Motivation,' 'Cooperative Learning,' 'Peer Coaching,' and 'Parent Involvement' aren't necessarily unique to just middle school."

When asked "What additional materials could be added to the resource guide?" Imogene remarked, "You did a nice job when you talked about different models for integrating the curriculum, but you seemed to just address one model, curriculum sharing." Imogene recommended more emphasis on other models.

Middle school consultants Larry, Kay, and Belle had trouble ranking the chapters. Larry said, "If you're talking about which chapter you did a better job on or which one is more important, either way I'm having trouble ranking them." Larry didn't feel the resource guide required additional topics or material within those topics. However, he was asked about "Peer Coaching," and responded in this way, "You need 'Peer Coaching;' when you get into teaming it is very important. I think it goes hand in hand with professional development and shouldn't be omitted."

Kay and Belle approached this question with recommendations for additional material. Kay said, "I would add one page on learning styles. I just happened to get two new books on learning styles of adolescents and multiple intelligences at the middle level." When asked about adding topics, Belle said, "What about student assistance, I know that is lacking at the school we visited. But, if you add that, you may have to add advisor-advisee, and pretty soon you are doing another dissertation."

Amy and Amanda ranked the chapters of the resource guide in their responses. Amy had this to say.

> Definitely I liked the "Group Process" one; that was a really good starting point. The "Day to Day Functions" of the team, again I focused on the teams. The "Student Motivation" chapter threw me because I thought we are now talking about the student as learner, not how to motivate the team members. The "Cooperative Learning," I liked all of the ideas that you had. Again, though, it seemed to shift the focus over to the student. In my mind, first you need to have the teachers thinking of themselves as a cooperative group before they can see themselves talking about working with students. The "Curriculum Integration" chapter has to be in there, but I want to go to that chapter. It seems that there is only one model given; it might just be the titles in there. The "Peer Coaching" and "Evaluation" chapters worked well together. And then there is the "Parent Involvement" chapter. I would go to these resources and ask, "How would I approach this as a team member, or is this anything I would do differently if I wasn't on a team?" When I read this chapter, I felt this wasn't just "Parent Involvement," but the whole notion of the community, and saying to the parents, "You are a part of this team too." Keep going back in your material to the whole notion of teams.

Amanda responded with ideas about the significance of day-to-day functions and group process functions. She said,

> I would say "Day-to-Day Functions," and then "Group Process" are real important, then integration, "Parent Involvement," and "Evaluation"; those three not necessarily in that order though.

When asked what chapters should be omitted, Amanda said, "If I had to pick one chapter that was the weakest, I could pick 'Student Motivation' because it has less to do with actual teaming." Amanda questioned the generalizability of the part on juvenile services, "I don't know the audience you are intending here, but some of these things seem to be kind of specific to your city and state."

The sixth interview question was, "Are there other resource materials from which this guide could draw?"

Tom felt that there were many improvements in the guide from the original one he had looked at and commented, "Nothing really struck me, just the differences in the guide from last summer till now." Imogene felt she had already addressed this question in earlier responses. Joan wished that the resources cited in the guide could be made available, "I wondered how many schools would have those resources available, and if those resources could be made available with the booklet." George felt that "Curriculum Integration" could use some additional material, "An example of curriculum integration that would tell how to integrate mathematics, science, social studies, show them a specific example." Connie

recommended additional material on teaming, and told of local resources, "You could put more in your bibliography about teaming."

Middle school consultants responded to question six also. Belle said, "The thing that I still find confusing is assessing. I think there is tremendous division and confusion on how we determine grades." Kay and Larry believed we had covered this question from information they provided earlier. Amanda recommended a few additional authors, "Did you include Beane? How about something on parents? Epstein is someone you could include. How about Wiles and Bondi on block scheduling?" Amy recommended a book that parallels the development of the resource guide, "It is a book that happens to be a textbook that was sent to me by the publisher. The author's name is Gayle McCutcheon and it is called Developing the Curriculum: Solo and Group Deliberation. I think this would be a marvelous resource."

Question seven read, "Evaluate the guide according to these criteria: strengths, weaknesses, and recommendations." Again, the teacher leader responses are reported first followed by the middle school consultant responses.

Connie and Imogene felt that this question had been addressed. George commented, "All of the middle school concepts have been covered; I really didn't see any weaknesses. I did see a couple of spelling errors." Joan stated, "My only recommendation would be to change the chapter order if you feel something would work with that."

Tom elaborated, "I would say the strengths and weaknesses are the same thing. You tried to accomplish a lot with this guide, and that is a strength." He did say more, "As a weakness, I could see reluctant people already overwhelmed and thinking 'I don't have time to look at this whole thing.'"

Middle school consultants reacted to strengths and weaknesses of the guide. Kay, Belle, and Larry felt this question had been covered. Amy said, "Strengths and weaknesses pretty much had to do with the order and the activities." Amanda elaborated on this answer. She said, "I don't think I could say anything that we haven't already covered. Maybe if you color coded, either like 'Group Process,' the title could be a blue page, and then another blue page, or the activity pages could be a different color."

Question eight was "What are some ways the resource guide could effectively be shared with the team?" "If you think staff development is appropriate, describe the kind of staff development you'd like to see to explain this material?" Some of the consultants saw the guide useful as a team resource and others saw it useful as a staff development tool. Some consultants recommended the resource guide be used for specific aspects of teaming.

George said, "You could put this in a team room, but we just don't have time." Tom recommended using the guide as a resource with conditions, "Give each team one copy with the stipulation that you use this to review practices you are using and develop some new ideas. Each person may be given a copy, too, to be read at their leisure."

Connie would like to see staff development done with individual teams: "We lose ourselves in a big room, and I would like a visit to the individual team from a facilitator asking how teaming is going this year."

Imogene thought the guide could be used for team leaders, and commented, "I think that this guide is more useful for team leaders than for interdisciplinary team members."

Middle school consultants' responses were dependent on how they thought they would use the guide. Amanda suggested using it for administrators to consider aspects of teaming: "We talked about putting together a team leader's handbook because we rotate team leaders. This would serve as a resource for team leaders."

Larry felt that the resource guide lent itself to a school-wide activity and said, "There is no question here that I think this could be used with the entire staff." He also recommended the guide be used with individual teams.

Belle and Kay recommended personalizing the use of the resource guide. Belle said, "I think the aspect of teaming that the team needs help in should be addressed. You could go to them to assist with the aspect they aren't comfortable with. You personalize it." She suggested that this method be used when working with individual schools, "You could go to a school and say, 'Where are you?'" Kay recommended that every team have a resource guide. "Every team should have a book to make notes in, to check lists to see that they have accomplished

that goal. I think the guide could be used for a monthly review. This is such a complete guide, they don't need to go further."

Amy didn't think that all of the teams should be pulled together for a large inservice, "I think this is something that is used by one team at a time because the teams are very individualistic themselves. More and more teachers are on their own meeting as teaching teams." Amy talked about a summer institute, "The teams around here work on the projects as a whole team during summer institutes."

Interview question nine read like this, "Describe how beginning teams may benefit from the resource guide?"

Imogene, Connie, Joan, Tom, and George responded in this way. Imogene and Connie felt that team leaders should have some sort of training on group process or group management skills. Joan reiterated the fact that more material needed to be added to this to make the guide stand alone. Tom responded, "I wrote that it outlines things often forgotten. If you are going to be a part of a team, there are things you may not think of like making agendas for meetings. This guide points to a lot of things people might forget. It provides an outline." George remarked, "An ideal situation for a beginning team might be taking a teacher from a strong team who would take a fledgling team along through the use of the resource guide."

Middle school consultants' responses emphasized more formal inservice. Amy thought beginning teams might benefit from the resource guide, "By

becoming familiar with resources in a new way. Again, some of the information makes an assumption with how sophisticated their thinking is about middle level. There are some things that I think a beginning team wouldn't try to tackle."

Kay and Amanda felt inservice was important. Kay remarked, "I think they should be inserviced during the year or even hire someone so they know the workings before they are on a team. This would give them an overview of the importance of being on a team."

Larry felt that the resource guide would give new teams confidence. He commented, "There are evaluation examples, there are simulations, there are processes, there are activities that you can use, and you can go right back to the guide for extra confidence that you can fall back on."

Belle looked at the guide as a resource, "I think that this should be three-hole punched so that additional resources could be added to it. The resource guide is alive and could be kept current all of the time."

The final interview question addressed the problem statement of the dissertation, "The purposes of this study are to develop a resource guide for use by members of interdisciplinary middle school teams in performing teaching and group process functions and to evaluate the value of the guide for enhancing the ability of team members to facilitate the growth of young adolescents. On a scale of one to ten, what do you see as the potential of this guide to assist interdisciplinary team members in performing teaching and group process functions to enhance the growth of young adolescents?"

Teacher leaders and middle school consultants qualified their responses. Teacher leader responses were seven or eight, (Joan); eight, (Imogene); nine, (George); ten, (Tom); and ten (Connie); while middle school consultants rated the resource guide as an eight, (Amanda); eight, nine, or ten, (Larry); eight and ten, (Amy); ten, (Kay); and ten, (Belle).

Qualifying her number rating, Joan indicated, "The guide is above average, so I would rate it about a seven or eight and even higher if the resources were a part of the guide or another supplement so that teachers could get their hands on them a little easier."

Imogene rated the resource guide eight, and qualified her rating with this response.

> If your purpose is to increase our abilities with group process functions in order to enhance the way that we teach our students, I would rate it at an eight as it stands right now. A lot of changes could be made. I think that even a guide on suggestions on how to use the book would be useful.

George states, "I would rate it pretty high, a nine I would say. It covers everything."

Tom would give the guide a ten and commented, "It is an excellent tool. The rating would also change depending on who was looking at it, but we are going to assume that dedicated educational professionals would be looking at it."

Connie agreed with Tom's evaluation of the guide and stated, "I think for beginning teams, this would be a ten. I see long established teams not picking this up as readily, but the guide could be used to trouble shoot."

Middle school consultants tended to rate the potential use of the resource guide slightly higher than the teacher leaders. Amanda rated the guide eight, and commented, "I would say an eight. When you put teams together, teachers benefit first, and then the students."

Qualifying her responses, Amy rated the guide at an eight and a ten, and explained her response as follows,

> The first part of the statement is 'What do you see as the potential of this guide to assist interdisciplinary team members in performing teaching and group process functions, and stop at that point. Then I looked at it and I thought of the scores here, with the suggestions that I have made, are very high. I see this guide helping the team discover themselves and their potential in terms of student learning. You've drawn together some areas that are considered pretty traditional in middle level, and by applying them to the team member, you are making something new of these resources. I see the potential of the guide's assisting interdisciplinary teams at a ten and the potential of being able to provide for the growth of the young adolescent at an eight. Teachers gain so much interacting

together, and they come to some conclusion, then that benefits the student.

Larry rated the guide at an eight, nine, or ten.

I think it is very well done. I would rate it very high. I think it would be very valuable because looking at all of the different books out there, you have ten, fifteen, twenty different sources. Here you put this all into one, and you have practical applications.

Belle and Kay rated it at ten. Kay wanted to buy a copy of the resource guide and asked, "Can you go higher than a ten?"

Although the ratings ranged from a seven to a ten, the evaluators pointed out areas that could be revised in the resource guide. The survey questions provided a vehicle to gather data about revision of the resource guide, and changes were made based on the responses.

Changes Made in Response to Recommendations

Revisions of the resource guide included changes in the introduction, table of contents, chapter organization, focus of some chapters, content, and activities.

Changes in the introduction attempted to define the audience for the guide, explain the guide's organizational structure, and address how the guide could be used.

The introduction made explicit the assumption that readers would already have an understanding of middle school components. Introductory pages for the two broad sections of the guide on "Group Process Skills" and "Day-to-Day

Functions" were developed to more appropriately reflect the focuses of those sections.

Changes in the table of contents were made because it appeared that the guide was divided into two distinct sections: "Group Process" and "Day-to-Day Functions" of interdisciplinary teams. Those sections were numbered, and subheadings were added to the subsections on parent involvement, student motivation, cooperative learning, curriculum integration, peer coaching, and evaluation to relate these activities within the day-to-day functions of interdisciplinary teams.

The organization of the chapters was changed to more closely reflect the role of the interdisciplinary team during team meetings, the interdisciplinary team's relationship with the students, and ways the interdisciplinary team could develop professionally. For example, the chapter on parent involvement was moved to follow the chapter on job descriptions and the role of the interdisciplinary team because of the unique relationship between interdisciplinary teams and parents as extensions of the team. Chapters that involved the work of the interdisciplinary team with students, student motivation, cooperative learning, and curriculum integration, were placed together in a section labeled as "Interdisciplinary Teams and the Student." The last section of the guide was named "Professional Staff Development" and included chapters on peer coaching and evaluation.

The focus of the guide was addressed by several evaluators. Some of the problems associated with the focus were addressed by restructuring the table of contents and by the reorganization of the chapters. However, concerns about the focus of the content required reworking the chapters on student motivation, cooperative learning, and curriculum integration to reflect the role of the interdisciplinary team with the students. A carefully worded introduction to this new subsection was developed to define the role of the team in its work with the student. An interdisciplinary team activity was developed for the chapters on cooperative learning and curriculum integration to involve the team and then shift the focus to the students in the middle schools.

Another issue was the generalizability of the content in the sections on special education and the role of the team with juvenile services. This concern was addressed in summary statements about the sources and addressed similarities in these programs in different states.

Recommendations for content additions were made by evaluators, especially in the curriculum integration chapter. Other sources were added to that section reflecting curriculum mapping, and the headings of the activities were redesigned. High school examples were taken out of the chapter on student motivation. Also, material dealing with personality inventories was added to assist in the initial organization of teams.

Some recommended changes were not made. For example, one evaluator recommended removing the chapter on peer coaching and sections of the group

process chapter on conflict resolution. Peer coaching was perceived to have a natural relationship to interdisciplinary teams. Garmston (1987) states that by structuring coaching teams across departments or grade levels, administrators make faculty members more aware of their common resources and problems. Material on conflict resolution was also maintained in the guide because not all teams function without conflict. Material on learning styles, multiple intelligences, and assessing student learning were recommended for addition, also. These areas had been a part of earlier drafts of the guide, but were deleted because they did not focus on the interdisciplinary team.

Some activities and their focuses were changed in response to evaluator's comments. Activities were reworked to focus on the role of the interdisciplinary team in a middle school. Time to complete these activities was also a concern, but that issue seemed to dissipate as the focus of the activities became more closely aligned to the interdisciplinary team.

Some changes to the guide were recommended in case of publication. Suggestions such as sectional colors, separate sample letters and activity pages in color, borders developed from desk top publishing, breaking things up a bit in the layout, and an author biography were recommended. Should the anonymous reviewer concur that the content of the guide is publishable, these other changes will be considered.

Comments of the Anonymous Reviewer

The anonymous reviewer, selected by members of the dissertation committee, was a recognized national middle school consultant. His recommendations will be considered in a sixth draft of the resource guide. Responses to eight broad questions are summarized below.

When asked about the overall format of the resource guide and his impressions, the anonymous reviewer commented about how the organization contributed to clarity and sequence.

> I have made some suggestions for reorganizing the sections which might make it easier for the reader to follow. Rather than two large sections, it might be more user friendly if it were divided into smaller sections which were more focused on a particular topic.

He felt that the readability level was "appropriate for the intended audience," and commented on the practicality of the guide with suggestions for strengthening the guide.

> Middle school teachers should find this very useful. Some of the sections might be strengthened by giving some practical examples to which middle school teachers can relate.

The reviewer responded affirmatively when asked if the resource guide reflected current literature. He felt that the literature was current in all areas.

> Not only is the current literature in middle school reflected, but the current literature in other areas such as communications, decision

making, conflict resolution, cooperative learning, peer coaching, etc. is also reflected.

When asked how the resource guide was compatible with a contemporary middle school concept, the anonymous reviewer commented about what middle level research stresses.

> Currently literature in middle level education is stressing collaboration, integration, heterogeneity and a focus on meeting students' needs. This manuscript reflects all these areas.

The next broad question addressed how the guide was a useful resource for assisting educators on interdisciplinary teams. The anonymous reviewer could see the resource guide providing assistance for beginning and established teams.

> Middle school teachers will find this guide helpful in putting teaming into practice and seeing the benefits it has for working with students as well as the benefits for working with their colleagues. It could also be valuable for established teams who wish to reexamine their effectiveness as a team.

Addressing the question about activities, the anonymous reviewer thought they were "well thought out and were applicable to situations most teams would typically encounter," but recommended an organizational tactic.

> Most of the activities came at the end of a given section, but some did not. For consistency it might be best to list all activities at the end of each section.

When asked about improvements to the guide, comments addressed background material and the organization of it.

> Some of the explanations of the background material needs more detail. However, because the purpose of the guide is to actively engage the reader rather than give detailed information, the reader should not be burdened with too much information. The reader should be given enough information to make them want to get actively involved. One possible solution might be to develop an appendix which could be used by the reader for more detailed information.

He recommended field testing the activities to provide a means to improve the guide.

> I would encourage you to keep all your activities relevant and practical for middle level teachers. Some are more practical than others. If you have not already done so, you should field test these activities with middle level teachers.

The reviewer suggested using the terms "sections" and "sub-sections" rather than "chapters." He felt that a chapter had more "substance" than the material in the resource guide.

Evaluating the guide according to its strengths and weaknesses, the reviewer commented about practicality and organization.

> The guide has several strengths, but the most notable are: practical use by middle level teams; topics which are covered are useful in building a more effective team; resources are current and represent the topics presented; activities engage the reader in hands on use of the topic being discussed. The main weakness of the guide is the organization. The other weakness is the lack of practical examples within the context itself.

The anonymous reviewer felt the guide could be used in its "entirety," " by sections," and that teams might "come back to the guide more than once." He also felt the guide could be used to assist in staff development.

> The guide might be used by staff development directors to engage several teams in a activity and then compare the results of how each team solved the activity. It might also be used by the principal as a vehicle to work with a specific team on an area or concern.

He could also see the guide used for preservice teachers, and said, "The guide could be used to help preservice teachers understand the importance of teaming and their role in making a team work."

When asked about the potential of the resource guide, the anonymous reviewer offered some positive responses.

> This guide has a great deal of potential for helping teaming become a reality in middle level schools. Most middle level teachers support the teaming concept but do not have the training or expertise to

engage in professional development activities which would help them become more effective teams.

The anonymous reviewer believed the guide could provide an "incentive" for teachers to begin to address some of the critical issues that have prevented middle level schools from implementing true interdisciplinary teams.

The suggestions and comments made by the national reviewer provided more insight to elicit changes in organization to ready the document for publication.

Outlined in Chapter IV, remarks made by professional colleagues, teacher leaders, and middle school consultants provided the basis for the fifth revision of the resource guide that was sent to the anonymous reviewer. The final evaluation of the guide by the anonymous reviewer is outlined in this chapter and provides suggestions for additional changes. Chapter V summarizes the study, offers recommendations for use of the resource guide and additional research, and tells about future plans the author has for the resource guide.

CHAPTER V

SUMMARY, RECOMMENDATIONS, ALTERNATIVE EVALUATION METHODS, AND THE FUTURE

Summary

The purposes of this study were to develop a resource guide for use by interdisciplinary teams in performing teaching and group process functions and to evaluate the potential of the guide for enhancing the ability of interdisciplinary team members in their work with young adolescents. What follows is a description of how this study was developed and completed as a curriculum evaluation, the conclusions of the study, and implications for practice.

During a six-month period materials to be organized into a resource guide for use by interdisciplinary teams in middle schools were gathered and framed to address group process and day-to-day functions of interdisciplinary teams. Group process materials were compiled in sections to develop skills in communication, decision making, problem solving, and conflict resolution. Day-to-day team functions were originally organized in sections which addressed planning and organizing, motivating learners, relationships with students, utilizing resources, instructional techniques, professional growth and responsibility, parent involvement, assessing student learning, and evaluation.

Sections of the first draft of the resource guide and the completed first draft were appraised by three middle school consultants, five middle school colleagues, and the doctoral advisor. Bobby Glisson and Bob James of JHG Consultants, presenters at National Middle School Association Conventions, offered advice when the guide was being developed. Dr. John Lounsbury, the editor of the National Middle School Association, offered advice on focus, streamlining, and provided additional information for more material within the topics. The five middle school colleagues critiqued the guide for its generalizability to interdisciplinary teams. Dean Harris, my advisor, reacted to the original document with suggestions on how to narrow the focus and define the audience.

The resource guide was redrafted five times over a 12 month period. A significant change occurred in the third draft with the addition of activities to aid beginning interdisciplinary teams in the transition to interdisciplinary team organization. The fourth draft was sent to five teacher leaders and five middle school consultants for evaluation using a standardized interview format. The evaluation of the guide resulted in the fifth draft of the resource guide, which was sent to a nationally recognized anonymous reviewer.

The evaluation of the resource guide by teacher leaders and middle school consultants yielded a streamlined guide that focused directly on the development of interdisciplinary teams through sections on "Group Process Skills" and "Day-to-Day Functions of Interdisciplinary Teams." The study offered the opportunity to

amass material suitable for use of beginning interdisciplinary teams and to hone it down through the evaluation phase. Additional ideas about how to use the resource guide surfaced as a result of the evaluations. Evaluators identified ways the guide could be used to benefit interdisciplinary team members, team leaders, and administrators.

The development of the resource guide for interdisciplinary teams in middle schools had been on my mind for five years. Through this study, the resource guide I developed was scrutinized by teacher leaders, middle school consultants, and an anonymous reviewer, all involved in middle school education. The study gave me the security of knowing that the resource guide a useable document for transitioning interdisciplinary teams in middle schools, representative of current literature and thinking about the middle school, and capable of assisting adults to meet the challenge of working effectively with young adolescent learners.

Recommendations for Use of the Resource Guide

The resource guide may be used in a variety of ways for staff development and professional development of middle school educators. Beginning interdisciplinary teams, especially, would benefit in their use of the resource guide, but experienced teams, also, could grow though its use.

In terms of staff development, this material would benefit a staff who had studied middle school components thoroughly and was ready to implement a structure including interdisciplinary team organization. Inservice, utilizing each

chapter topic in the resource guide, could occur at staff meetings or on designated staff development days. Another way the resource guide might be used is with individual teams who would go through the guide as a core group, possibly directed by the team leader. A summer institute might provide a middle school staff concentrated time to study interdisciplinary team organization through the use of the resource guide. The information in the resource guide could also be presented in a one or two-day workshop at a state, regional, or national conference such as that of the Northern Tier Regional Middle School or the National Middle School Association.

The resource guide might also be used to assist in middle school certification. Middle school certification and credentialing is occurring across the United States. The study of interdisciplinary team organization as one of the middle school components is a part of the certification process. The resource guide could serve as a text to guide an in-depth study of interdisciplinary team organization for middle school administrators and teachers. Through this material, teachers and administrators could be helped to understand the impact teams can have on student learning and the power of interdisciplinary team organization.

Professional development occurs at colleges and universities through preservice and inservice programs. The resource guide could also provide a basis for an undergraduate course in middle school education and would be especially effective when used in conjunction with the student teaching experience on a

middle school interdisciplinary team. Colleges and universities with middle school programs may be another avenue to assist in the evaluation of the resource guide. Cochairs of middle school departments are always looking for new material and might be willing to instruct methods classes with the guide and evaluate the resource guide based on their expertise in middle school research. Through inservice the resource guide might benefit middle school teachers already in the field who are working toward the implementation of new ideas with some of the middle school components.

Alternative Methods of Evaluating the Guide

The resource guide for interdisciplinary teams in middle schools was evaluated by teacher leaders and middle school consultants. From their expertise, suggestions were accumulated for changes to the resource guide for the review of a nationally recognized anonymous reviewer However, the evaluation of the resource guide for this study might have been accomplished in other ways.

For example, middle school administrators might have experienced training using the resource guide and then have been asked to conduct staff development using the resource guide. After each staff development session, teachers and the administrator could have evaluated the material and its effectiveness in informing interdisciplinary team organization.

Similarly, team leaders in middle schools could have been trained utilizing the resource guide. They, in turn, could have trained their teams and evaluate the

guide. Alternatively, the evaluation of the guide could have been completed by teacher educators on the basis of their use of the guide with preservice students.

Another way the resource guide could have been evaluated would have been through the use of the guide as a staff development tool, gathering evaluative remarks from teachers after each session of use.

The completed resource guide might also have been sent to middle school experts from the National Middle School Association, Center for Early Adolescence, Center for Education of the Young Adolescent, or the New England League of Middle Schools. Noted experts in middle school could evaluate the guide based on their vast experiences in middle school education. Revisions could be made on the basis of their comments.

States across the United States are involved in the Carnegie Corporation-sponsored Middle Grade School State Policy Initiative. Leaders from these nationally recognized middle schools could be selected to evaluate the resource guide for revision.

The Resource Guide for Interdisciplinary Teams in Middle Schools in this study was developed in a unique way. There are a variety of other methods that might have yielded the same or similar results.

The Future of the Guide

The future of the resource guide will involve revisions and submission to Dr. John Lounsbury, the editor of the National Middle School Association. The anonymous reviewer provided good suggestions for changes to the guide and also

recommended that the guide be field tested. Field testing will occur through a summer course for middle school administrators sponsored by North Dakota State University. Administrators involved in the course are in the process of implementing a middle school structure including interdisciplinary team organization and are in a position to evaluate the resource guide. Data that is collected about the guide from Dr. John Lounsbury and through field testing will provide insight into the possibility of publication.

The evaluation response to the guide suggests the need for further work in this area. Interdisciplinary team organization is a critical component in the middle school structure, but most middle level teachers do not have the training or expertise to engage in professional development activities to become more effective as a team. The effort to provide tools to develop and sustain interdisciplinary teams should continue.

APPENDICES

APPENDIX A

EVALUATION COMMENTS BY JOHN LOUNSBURY

* Narrow and clarify the audience to middle school principal, teacher, interdisciplinary team or student. The narrower the better.

* Reduce the areas covered.

* Insert and include a narrative that introduces the various parts.

* Replace quotes with your own information. Where is your voice?

* Develop a more consistent format. Don't xerox material.

* Will the reader turn the page. You want something catchy.

* You need continuity. Don't combine things that are not important.

* Some of the material could be in paragraph form.

* Some parts of the guide are almost useless.

* The chapters with the schedules is too much. Choose examples.

* What about the chapter with adaptive tests? Why and so what, clarify the purpose.

* Plan the guide more by activities rather than objectives.

* A theme could be "A Day in the Life of a Team Leader" for a part of the material in the guide.

* Another theme for the guide could be "A Handbook for Interdisciplinary Teams".

* This material could be used for a team inservice or staff development.

* Do not use all caps. Use upper and lower case letters.

* San sarif and italics are difficult to read.

* Develop a page design. Make out a master page. Use an organizer.

* You need more material in integrated curriculum. Where is it? Here are some books that I would recommend.

Watershed

Dancing Through Walls

Connecting Curriculum

Mid Points

Reading in the Curriculum: Continuing Conversation

Dissolving Barriers Toward an Integrative Curriculum

Curriculum Architecture

Create Your Own Curriculum

APPENDIX B

INITIAL SHORT LIST OF SURVEY QUESTIONS

After looking over the resource guide, please reflect on these questions in preparation for a more in depth interview.

1. Does the overall format of the resource guide engage the reader? What were your overall first impressions of the guide?

2. How is this guide a useful resource for assisting educators who are in middle schools and function in an environment with interdisciplinary team organization?

3. Is the guide adequately grounded in the literature and research about middle school? Explain briefly.

4. How helpful did you find the activities? Explain briefly.

5. In general, how might this publication be improved?
   More background information
   Greater clarity of presentation
   More topics for interdisciplinary teams
   Greater depth on topics presented
   More activities
   Different focus on activities

6. How would you recommend this guide be used?

APPENDIX C

MIDDLE SCHOOL TEACHER LEADER SURVEY QUESTIONS

1. Tell me about yourself as a middle school educator.
   Probes:

   How long has your school been a middle school?
   How many teams are in your middle school?
   What subject areas are representative on your teams?
   What is your commitment to middle school?
   How many years have you had interdisciplinary teams?

2. Evaluate the overall guide.

   How did you find the readability level?
   How well does the guide address the audience of middle school teachers?
   How would your rate it for practicality?
   Was the order of presentation clear but flexible enough to adapt to the reader's purpose?
   Was it clearly presented and did it follow a logical sequence?
   Does it reflect current literature?
   How is the resource guide compatible with a contemporary middle school concept?

3. How have the group process activities that you've tried been beneficial?

4. How have the day-to-day function activities that you've tried been beneficial?

5. Rank the chapters from strongest to weakest.

   What chapters should be omitted?
   What additional topics should be included in the resource guide?
   What additional materials within the topics should be included?

6. Are there other resource materials from which this guide could draw?

7. Evaluate the guide according to these criteria: strengths, weaknesses, and recommendations.

8. What are some ways the resource guide could effectively be shared with the team? If you think staff development is appropriate, describe the kind of staff development you'd like to see to explain this material.

9. Describe how beginning teams may benefit from the resource guide.

10. The purposes of this study are to develop a resource guide for use by members of interdisciplinary middle school teams in performing teaching and group process functions and to evaluate the value of the guide for enhancing the ability of team members to facilitate the growth of young adolescents. On a scale of 1 to 10, what do your see as the potential of this guide to assist interdisciplinary team members in performing teaching and group process functions to enhance the growth of young adolescents?

APPENDIX D

MIDDLE SCHOOL CONSULTANT SURVEY QUESTIONS

1. Tell me about your self as a middle school educator.

   Probes:
   What has been your involvement in middle school education?
   How much time do you spend in middle schools?
   How are you involved with middle school educators?
   What experiences do you have with middle school teams?

2. Evaluate the overall guide.
   How did you find the readability level?
   How well does the guide address the audience of middle school teachers?
   How would you rate it for practicality?
   Was the order of the presentation clear but flexible enough to adapt to the reader's purpose?
   Was it clearly presented and did it follow a logical sequence?
   Does it reflect current literature?
   How is the resource guide compatible with a contemporary middle school concept?

3. How have the group process activities that you've tried been beneficial?

4. How have the day-to-day function activities that you've tried been beneficial?

5. Rank the chapters from strongest to weakest.
   What chapters should be omitted?
   What additional topics should be included in the resource guide?
   What additional materials within the topics should be included?

6. Are there other resource materials from which this guide could draw?

7. Evaluate the guide according to these criteria: strengths, weaknesses, and recommendations.

8. What are some ways the resource guide could effectively be shared with the team? If you think staff development is appropriate, describe the kind of staff development you'd like to see to explain this material?

9. Describe how beginning teams may benefit from the resource guide.

10. The purposes of this study are to develop a resource guide for use by members of interdisciplinary middle school teams in performing teaching and group process functions and to evaluate the value of the guide for enhancing the ability of team members to facilitate the growth of young adolescents. On a scale of 1 to 10, what do you see as the potential of this guide to assist interdisciplinary team members in performing teaching and group process functions to enhance the growth of young adolescents.

APPENDIX E

ANONYMOUS REVIEWER SURVEY QUESTION

1. Does the overall format of the resource guide engage the reader? What were your overall first impressions of the guide?

   How did you find the readability level?
   How well does the guide address the audience of middle school teachers?
   How would you rate it for practicality?
   Was the order of the presentation clear but flexible enough to adapt to the reader's purpose?
   Was it clearly presented and did it follow a logical sequence?
   Does it reflect current literature? Is the guide adequately grounded in the literature and research about middle school?
   How is the resource guide compatible with a contemporary middle school concept?

2. How is this guide a useful resource for assisting educators who are in middle schools and function in an environment with interdisciplinary team organization?

3. How helpful did you find the activities? Explain briefly.

4. In general, how might this publication be improved?
   More background information
   Greater clarity of presentation
   More topics for interdisciplinary teams
   Greater depth on topics presented
   More activities
   Different focus on activities

5. Rank the chapters from strongest to weakest.
   What chapters should be omitted?
   What additional topics should be included in the resource guide?
   What additional materials within the topics should be included?
   Are there other resource materials from which this guide could draw?

6. Evaluate the guide according to these criteria: strengths, weaknesses, and recommendations.

7. How would you recommend this guide be used? What are some ways the resource guide could effectively be shared with the team? If you think staff development is appropriate, describe the kind of staff development you'd like to see to explain this material.

8. The purposes of this study are to develop a resource guide for use by members of interdisciplinary middle school teams in performing teaching and group process functions and to evaluate the value of the guide for enhancing the ability of team members to facilitate the growth of young adolescents. On a scale of 1 to 10, what do you see as the potential of this guide to assist interdisciplinary team members in performing teaching and group process functions to enhance the growth of young adolescents?

APPENDIX F

LETTER TO THE EVALUATORS

January 15, 1995

Dear

As per our phone conversation, thank you for agreeing to be a participant in the evaluation of the resource guide. Learning to work in groups is critical to the evolution of effective interdisciplinary teams in the middle school setting. Because teachers often lack an understanding of how to work with colleagues, staff development is necessary for teachers to receive the full potential of team teaching. The resource guide in this study has been developed to offer members of interdisciplinary middle school teams assistance in performing teaching and group process functions.

You are one of ten teacher leaders or middle school consultants who will review the guide in two stages. A short list of questions will be mailed to you with the guide as you begin to develop your initial reaction to the guide. After a week, contact will be made to set up a calendar date for an interview. The interview will occur three weeks later in person or by phone and will involve a more extensive list of questions. I would also like to encourage you to make written comments in the resource guide as you become involved in the evaluation process. Your responses in the guide and through the interview process will be invaluable to the revision and development of the guide. Ultimately, the revised guide will be presented to a nationally recognized middle school consultant for evaluation.

If you begin to evaluate the resource guide, and realize for any reason that you do not wish to participate in the study, you may withdraw from the project at any time. At that point, I would be able to solicit other participant to evaluate the guide.

Your identity will remain confidential as the results of the evaluation of the resource guide are synthesized. I appreciate your willingness to share your expertise in the evaluation and development of the resource guide for interdisciplinary teams in middle schools.

Sincerely,

Claudia Tomanek

APPENDIX G

A RESOURCE GUIDE FOR INTERDISCIPLINARY TEAMS IN MIDDLE SCHOOLS

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A Resource Guide for Interdisciplinary Teams in Middle Schools

The heart of the middle school is interdisciplinary team organization. Interdisciplinary teams organize teachers and students into small communities for teaching and learning. Teams are generally comprised of two to five teachers who represent diverse subject areas, but share a common planning period to prepare for the teaching of a common set of students.

Interdisciplinary teams are faced with the problem of how to use the resources of time and space effectively. Interdisciplinary teaming doesn't just happen--it must be carefully planned. Interdisciplinary teams work on day to day functions of teams more effectively with the knowledge of group process activities. The strength of interdisciplinary teams evolves as the relationships among team members grows stronger.

In these pages, interdisciplinary team members will find practical suggestions and activities on group process and day to day functions of teams. Group process skills are necessary to provide an overall structure to communicate, make decisions, problem solve, and manage conflict. Day to day functions of interdisciplinary teams include interdisciplinary team management tasks related to student instruction and motivation, parent involvement, professional growth, and continuous evaluation of the efforts of the team. The guide includes models, strategies, and resources that will assist interdisciplinary teams as they complete the activities that parallel the work teams do in group process and day to day functions. The hope is that interdisciplinary teams will find this resource guide to be a useful tool as they work to implement the best possible affective and cognitive environment for the young adolescents in our middle schools.

Use of the Resource Guide

The Resource Guide for Interdisciplinary Teams in a Middle School is designed to benefit interdisciplinary teams that have begun the implementation process to a middle school structure. An assumption is made that educators who use the resource guide have completed a needs assessment for their school and have reviewed middle school research. In the review of research, a complete and thorough study of the components of middle school should have occurred with an emphasis on advisor-advisee, interdisciplinary team organization, block schedules, exploration, curriculum integration, and intramural programs.

Newly organized interdisciplinary teams may benefit from the resource guide in a variety of ways. Middle school strategies and activities are designed to guide teams into thinking of what their potential might be. Strategies and activities in the guide may be presented through staff development, university inservice education, or a summer institute. Trained administrators and team leaders may utilize the resource guide to instruct interdisciplinary team members. Administrators may use the guide for staff development, while team leaders may train their individual teams.

Interdisciplinary team organization is essentially a collegial endeavor. The contents of the resource guide is designed to facilitate the successful work of the teams.

SECTION ONE

Group Process Skills

Group Process Skills

A typical middle school will likely have various types of teaching teams--some interdisciplinary, some disciplinary, and some core/combination. Some teams will be relatively experienced; while others may be in their first year together. Some teams may be made up of former junior high teachers, while others may include former high school and elementary teachers.

All teams have the same goal--to provide the best possible instructional program for a common group of students. Therefore, it is essential that all teams learn how to work well with each other on a day-to-day basis. Some teams blend quickly; others will need more time and attention.

Interdisciplinary teams may become a unit more quickly if they have an awareness of personality types, leadership styles, and learning styles . This information will be valuable in providing knowledge about teammates. The Myers-Briggs Type Indicator and the Keirsey Temperament Sorter are based on Jung's theory of psychological type. The Gregorc Style Delineator defines people's ways of transacting with their environment based on two dimensions: concrete-abstract, and sequential-random. The Learning Styles Inventory divides people's learning styles into four types: divergers, assimilators, convergers, and accommodators. The information that is generated by these instruments about teachers can be useful in helping them better understand themselves and their teammates. Such information can promote greater appreciation of the differences among people and will assist in the preparation of group process activities.

This chapter suggests overall formats to guide group process activities for interdisciplinary teams. All of these activities are suggested to help a group of professionals work efficiently as a team. Teams of teachers should be given some structure for the functioning of a team. The following group process methods allow teams to communicate, make decisions, problem solve, and manage conflict within structures that all can understand.

Training in the use of these models is necessary for the effective functioning of interdisciplinary teams. Keeping the steps of the model in plain view will guide the interdisciplinary team in meeting its objectives.

The use of group process skills will help teachers work together to really get results while raising productivity and reducing power struggles.

Communication Skills

Good discussion skills encourage cooperation and add to successful interaction among all team members. Communication skill steps designed by Peter Scholtes (1988), a disciple of J. Edwards Deming, allow clarification, involvement, and consensus of a group. These are communication skills that can lead to the effective functioning of an interdisciplinary team. They include:

* Ask for Clarification: If you are unclear about the topic being discussed or the logic in another person's arguments, ask someone to define the purpose, focus, or limits of the discussion. Ask members to repeat ideas in different ways. Ask for examples, pictures, diagrams, data, etc.

* Act as gatekeeper: Encourage more-or-less equal participation among group members by "throttling" dominators. Make openings for less aggressive members by directly asking their opinions or making a general request for input.

* Listen: Actively explore one another's ideas rather than debating or defending each idea that comes up.

* Summarize: Occasionally compile what's been said and restate it to the group in summary form. Follow a summary with a question to check for agreement.

* Contain digression: Do not permit overlong examples or irrelevant discussion.

* Manage time: If portions of the agenda take longer than expected, remind the team of deadlines and time allotments so work can be either accelerated or postponed, or time rebudgeted appropriately.

* End the discussion: Learn to tell when there is nothing to be gained from further discussion. Help the team close a discussion and decide the issue.

* Test for consensus: Summarize the group's position on an issue, state the decision that seems to have been made, and check whether the team agrees with the summary.

* Constantly evaluate the meeting process: Throughout the meeting assess the quality of the discussion. Ask: Are we getting what we want from this discussion. If not, what can we do differently in the remaining time?

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Activity

Decisions about schooling for middle school students should be based on the developmental needs of young adolescents who are experiencing profound physical, intellectual, emotional, and social change. As a communication activity, each member of the interdisciplinary team should select one of the developmental needs and list the characteristics of young adolescents that are associated with that need. Each interdisciplinary team member should have the opportunity to lead the discussion and report their developmental characteristics list, and add to it through the discussion. Characteristics can be listed on poster paper reminding the interdisciplinary team how diverse young adolescents can be. For further information on the developmental needs of young adolescents you may read the books Middle Grades Assessment Program and Toward Adolescence: The Middle School Years, Seventy-ninth Yearbook of the National Society for the Study of Education.

Dominating Participants

Being a good communicator doesn't necessarily mean that one should dominate the interdisciplinary team meetings. In fact, dominating participants cause teams to function less effectively. Persons who act in this manner can many times be classified as poor listeners. Scholtes (1988) suggests techniques to handle a person who talks too much and inhibits the group in their accomplishments.

* Structure the discussion on key issues to encourage equal participation.

* List "balance of participation" as a general concern to critique during the meeting evaluation.

* Practice gate keeping: "We've heard from you Joe. I'd like to hear what others have to say."

* Get the team to agree on the need for limits and focus in discussions. Strive for balanced participation.

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Activity

Discuss how the team leader on your team should handle dominating participants. What are some communication techniques that might be utilized to invite equal participation? An example might be that each team member is given three cards. When all of the cards are gone, then the speaker is finished until the next round.

Decision Making

Decision making techniques allow interdisciplinary teams to be as creative as possible in finding original solutions to procedures. Brainstorming , the Nominal Group Technique, the Crawford Slip Method, and the Fish Bone Diagram are techniques taken from Gorton and Snowden (1993), Scholtes (1988), and Glisson and James (1994). These techniques assist teams in gathering and organizing information to make decisions.

Brainstorming

* Review the topic, defining the subject of the brainstorm. Often this is done as a why, how or what question.

* Give everyone a minute or two of silence to think about the question.

* Invite everyone to call out their ideas. The meeting facilitator should enforce the ground rules.

* One team member should write down all ideas on the flip chart pausing to check accuracy.

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Nominal Group Technique

The Nominal Group Technique is a more structured approach than brainstorming because the generated list of options is narrowed down. Because of its relatively low level of interaction, the Nominal Group Technique is an effective tool when the group members are new to each other. Its main steps include:
*Presenting to a group, verbally or in writing, a question, problem, or task to be addressed by members of the group.

* Requesting each member in the group to take a period of time, e.g. 10 minutes, to jot down individual ideas, (without talking to anyone else in response to the question, problem, or task).

* Asking each member of the group at the end of the time period to present one of the ideas on a blackboard or flip chart. (At this stage it is important that there be no evaluation of the ideas by anyone).

* Continuing the presentation of ideas in round robin fashion until all the ideas are recorded.

* Discussing briefly each idea, in the sequence in which it is recorded, as to clarity or rationale.

* Voting privately in writing by rank ordering or rating the ideas, and then mathematically pooling the outcome of the individual votes.

From *School Leadership and Administration: Important Concepts, Case Studies, and Simulations*, Copyright 1993, by R. A. Gorton & P. E. Snowden. Reprinted with permission by Brown and Benchmark Inc., Dubuque, IA.

Two other methods for decision making are the Crawford Slip Method and the Fish Bone Diagram. The Crawford Slip Method, identified by Scholtes (1988), is a structured, but flexible way to gather and organize information for decision making. This method could be used as a preorganizational meeting because the information is gathered from participants to stimulate further discussion. The Fish Bone Diagram identified by Bonstingl (1992) and Scholtes (1988) is a cause and effect diagram that is a pictorial display of a list. Each diagram has a large arrow pointing to the name of the problem. The branches represent main categories of causes and solutions. The cause and effect model works best after a good discussion has taken place.

Crawford Slip Method

Another analytical method that is extremely good for organizing information within groups is the "Crawford Slip Method." This method, pioneered by Dr. C.C. Crawford of the University of Southern California, is a structured but flexible way to gather and organize information. Individual thoughts or pieces of information are written on slips of paper, and can be arranges or rearranged in many ways to stimulate further thoughts on a subject or find patterns and similarities.

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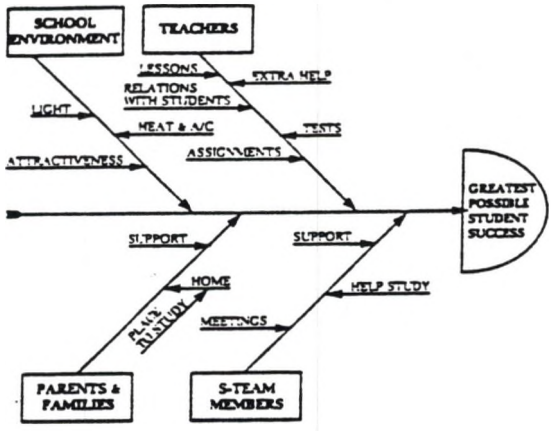

Fish Bone Diagram

From *Schools of Quality: An Introduction to Total Quality Management in Education* by John Jay Bonstingl (Association for Supervision and Curriculum Development, first edition 1992, page 57). Copyright 1992 by John Jay Bonstingl. Used by permission.

Activities

Choose an activity that parallels an event that your interdisciplinary team may find relevant to the work they are doing. Practice the decision making techniques while completing the activity.

Review the decision making techniques: Brainstorming, Nominal Group Technique, Crawford Slip Method, and the Fishbone Diagram. Read the Turning Point's goals that identify the key elements in a middle school:

Creating a community for learning.
Teaching a core of common knowledge.
Ensuring success for all students.
Empowering teachers and administrators.
Preparing teachers for the middle grades.
Improving academic performance through better health and fitness.
Reengaging families in the education of young adolescents.
Connecting schools with communities.

As an interdisciplinary team, you are not limited by money. Incorporate the elements of a good middle school into the design of your school. To become familiar with these forms of decision making, take each goal individually and use one of the decision making techniques to make decisions about what will be in your middle school.

Using the Nominal Group Technique, discuss what your team will be involved in during the first day orientation. The first day of school your home base is two and one-half hours in length. Develop an agenda of events each member of the interdisciplinary team will follow. What is important to stress to the students the first day of school?

Using the Fishbone Diagram technique, evaluate the benefits of the Student Planner in the middle school. List the benefits of the student planner for the student, team, and parents.

Team Decision Making

There are numerous models or paradigms for effective group decision making. Almost all include six basic steps. George and Laurence (1982) suggest that teams affirm and adopt some simple step-by-step procedures to solve problems and make decisions. Almost all models include these six basic steps:

Step 1: Define the problem clearly.
Step 2: Brainstorm action alternatives.
Step 3: Critique each alternative.
Step 4: Select a plan of action.
Step 5: Implement the plan.
Step 6: Evaluate and follow up.

Some additional clarification of this process is provided in the following seven step cycle:

1. Prepare for the meeting.

   A. Have a clear idea of why you are meeting.
   B. Prepare the agenda in advance.
   C. Assemble the materials needed.
   D. Block off the time needed for the meeting.

2. Adopt a plan for managing the meeting. There are five elements without which a meeting does not run smoothly.

   A. Start and stop at agreed times.
   B. Agree on the agenda.
   C. Hear from everyone who wants to contribute.
   D. Keep on the topic.
   E. Keep records during and after the meeting.

3. Analyze the problem.

   A. Study the situation and state the facts.
   B. Examine people's assumptions about the situation.
   C. Consider the boundaries within which the group works.

4. Examine the possibilities for action.

   A. Brainstorm ideas.
   B. Propose tasks or goals.
   C. Consider alternate plans.
   D. Test the consequences of a plan.

5. Decide on an action plan.

   A. Reconsider the problem: clear up any confusion and ambiguity.
   B. Design the plan.
   C. Agree on work assignments.
   D. Agree on a timetable and communication plan.

6. Keep group processes moving. While the group is acting on its agenda and following the problem-solving sequence, some members must be giving attention to the interpersonal processes of the group.

   A. Encourage members' participation and sharing.
   B. Protect members' rights and conflict between members.
   C. Bridge differences and conflict between members.
   D. Help the group to be aware of its procedures and interactions and to consider changes if needed.
   E. Clarify, elaborate, and summarize ideas and suggestions, offer conclusions for the group to accept or reject.
   F. Ask for clarification, elaboration, or summary.
   G. Ask for expression of feelings and concerns.
   H. Try to ensure that everyone shares in the decisions being made.
   I. Be constantly alert to what the group process needs at any moment to move ahead.

7. Carry out the meeting's decisions and plans.
   A. Refrain from altering the plan without the group's consent.
   B. Keep complaints for the next meeting.
   C. Protect the confidences of the meeting.

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Activity

Select one of the issues normally faced by an interdisciplinary team at the start of school. For example, a parent has some concerns about how the team will modify curriculum for his son, and would like a team meeting to discuss his son's disability. Review the student's records. Follow the team decision making model to prepare and organize the meeting day.

Conflict Resolution/Problem solving

Even if teams know the techniques for communication, decision making, or problem solving, conflict will still occur on interdisciplinary teams. Interpersonal and intergroup conflict occur in all organizations. The challenge is not to eliminate conflict but to minimize its destructive impact and make it a positive force in the organization.

Like it or not, interdisciplinary team teachers are negotiators in their work with students, teachers, and parents. Negotiation is a back and forth communication designed to reach an agreement when some interests are shared and some are opposed. Principled negotiation is an all purpose strategy that will leave its participants satisfied and amicable in reaching resolution.

The mediation process has been defined by Conflict Resolution Centers across the United States. A typical model is shared by the UND Conflict Resolution Center in Grand Forks, North Dakota. If you would like to read more on the conflict resolution process, Teaching Students to be Peacemakers, Getting to Yes, and sections of Leader Effectiveness Training are recommended.

Conflict Resolution

History has shown us that people, cultures, and governments clash on an ongoing basis. Everyone experiences conflict. It is a natural and normal part of living. To resolve conflict, the process of mediation is recommended. The UND Conflict Resolution Center (1994) recommends a seven step mediation process.

The Mediation Process

Steps	*Stages*
1. Pre-mediation planning	
2. Process clarification	Information
3. Information sharing & agenda setting	Exchange
4. Uncovering interests	
5. Generating options for mutual gain	Processing
6. Evaluating and selecting options	Issues
7. Formal agreement	

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A Brief Overview of the Mediation Process

Mediation involves the use of a problem solving process which is designed to help disputing parties identify conflict, uncover individual interests which pertain to these conflicts, and develop options for meeting their respective interests.

The process used in mediation can also be used in negotiation. The difference is the presence of a neutral third party who serves as a facilitator of the process. Various terms, such as "win/win", "mutual gains approach" or "interest based" problem solving, are often used to describe the process. These reflect its non-competitive, collaborative philosophy.

Stages of Mediation:

1. Pre-Mediation Planning: This preliminary stage of the process offers the mediator (or intake worker) a chance to meet privately with each party to accomplish the following: orienting the parties to the process, and determining the appropriateness of their conflict for mediation.

2. Process Clarification: Accomplished at the outset of the parties first meeting with the mediator, this stage of the process allows the mediator to clarify his or her role for the parties to fully explain the steps of the process, and to obtain a commitment from all parties to work together to find a solution.

3. Information Sharing and Agenda Setting: This stage provides all parties a chance for an uninterrupted expression of their view of the situation. The mediator utilizes techniques of active listening to elicit information and achieve clarity about the specifics of the problem, and the parties' feelings about the problem. An additional goal of this stage is to identify the issues or problems which are at the root of the conflict. The mediator helps parties to see the problem as a group of separate issues, and works with the parties to order them in a workable fashion.

4. Uncovering Interests: During this stage, the mediator helps parties to identify their own interests or needs related to each of the issues identified in Step 3. Sometimes an effective question the mediator can ask is "What's important about this issue to you?" Often, parties in conflict will come to mediation with a solution in mind. The mediator helps the parties to identify what interests their pre-identified solutions would meet. It is important for the mediator to understand that there are many types of interests parties may hold. Psychological interests such as the need for affirmation or recognition, are often difficult for parties to verbalize.

5. Generating Options: After the parties have identified their interests, they can work on brainstorming some solutions to their problem. It is important for the mediator to encourage all parties to offer some solutions, and to foster creativity among participants. Often, the more difficult the problem, the more unorthodox the solution must be to resolve it.

6. Assessing and Selecting Options: When a thorough list of options has been generated, the parties should work together to evaluate the options as to their acceptability. Solutions can be measured against the list of interests generated earlier (in step 5) by the parties. Generally, the more interests an option meets, the better it is. Parties must also evaluate options in terms of feasibility and long term effectiveness of the agreement and to negotiate any changes.

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Activities

Divide into groups of three. Each of you in the group should select two different stages of the mediation process from the overview. Read and assimilate this material. Using the cooperative learning jigsaw model described in the resource guide in the cooperative learning chapter, discuss the sections of the mediation process that you have read about with the group.

Once your group has been introduced to the mediation process, select a fairy tale such as The Gingerbread Man or Little Red Riding Hood to read and process using the conflict resolution techniques that you've read and studied. Pay particular attention to the part of the process dealing with generating outcomes to produce different outcomes than the Gingerbread Man and Little Red Riding Hood being eaten by the wolf.

Peer Mediation is a program for the young adolescent that is reflective of the conflict resolution process. Schrumpf, Crawford, and Usadel (1991) have developed materials for the mediation process in our schools. One of the interdisciplinary team members could read their material called Peer mediation: Conflict resolution in the schools to report on this work and the steps of the peer mediation process:

Step 1: Open the session.
Step 2: Gather information.
Step 3: Focus on common interests.
Step 4: Create options.
Step 5: Evaluate options and choose a solution.
Step 6: Write the agreement and close.

As interdisciplinary team members, discuss the benefits of the peer mediation process to resolve student to student conflict. How would you go about selecting students to be peer mediators? What are the qualities that peer mediators should possess? For training in the peer mediation process, you may contact a Conflict Resolution Center or a local, county, or state social service agency.

Why Build a Team Through Group Process Activities?

The necessity of building a team is central to its effectiveness. Gordon (1980) has identified many arguments to support this position. It's important that team leaders understand these arguments and develop their teams into decision makers and problem solvers.

1. Individual members of an organization will be more identified with the goals of the organization and concerned about its success if they participate in making decisions about those goals and how to reach them.

2. Being a member of a management team gives group members a feeling of greater control over their lives; it frees them from the fear of the leader's arbitrary use of power.

3. When group members participate in solving the group's problems, they learn a great deal about the technical complexities of whatever the group's task is; they learn from each other, as well as from the leader. Developing a management team is the best kind of ongoing staff development (in-service training).

4. Participation on a management team provides opportunities for the members to satisfy many of their high-level needs for self-esteem, acceptance, and-self-actualization.

5. A management team helps break down status differentials between the members and the leader, which fosters more open and honest communication between members and leader.

6. A management team becomes the principal vehicle enabling the leader to exemplify the kind of leadership behavior he or she wants the group members to learn and use in relationships with their subordinates. In this way effective leadership moves down through the levels of organizations.

7. Higher-quality decisions often result from bringing into play the combined resources of the work group.

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Activity

Read the material from Gordon and reflect on the benefits of a governing body called a Program Improvement Council that assists in the management of the middle school. Who should be on that council? How will the representation be decided? What topics may be discussed at the Program Improvement Council? Additional reading from O'Rourke (1987), Prasch (1984), and Taylor (1991) can provide additional incite into shared decision making in a middle school.

Group Process/ Problem Solving Facilitators and Roadblocks

Team leaders are responsible for setting the tone of the team meeting. One of the ways to send a message to interdisciplinary team members, parents, and students is for the team leader to incorporate responses that will invite communication. Gordon (1980) has identified several responses that facilitate problem solving techniques:

1. Door openers such as "Would you like to talk about it?" assures the helpee of their willingness in working through the problem.

2. Being a passive listener shows evidence of interest and concern. Silence or passive listening is a tool for getting people to talk about what is bothering them. Talking to someone who is willing to listen may be just the encouragement a person needs to keep going.

3. Occasional acknowledgement responses such as eye contact, nodding, mm hmm offer evidence of good listening.

4. Active listening offers verbal confirmation of the accuracy of the impression.

Gordon (1980) has written more extensively about how leaders can develop skills for teams to become problem solvers. Team leaders should also know that there are roadblocks that may inhibit problem solving, too. Gordon (1980) has identified twelve roadblocks:

1. Ordering, directing, commanding.
2. Warning, admonishing, threatening.
3. Moralizing, preaching, imploring.
4. Advising, giving suggestions or solutions.
5. Persuading with logic, lecturing, arguing.
6. Judging, criticizing, disagreeing, blaming.
7. Praising, agreeing, evaluating positively, buttering up.
8. Name-calling, ridiculing, shaming.
9. Interpreting, analyzing, diagnosing.
10. Reassuring, sympathizing, consoling, supporting.
11. Probing, questioning, interrogating.
12. Distracting, diverting, kidding.

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Knowing how to facilitate problem solving is a skill team leaders should possess to promote a climate of acceptance in working with people in conflict. Team leaders should have team training in how to effectively manage interdisciplinary teams in how to problem solve.

Activity

A student advisor that works with students in the homebase program on your team serves as an advocate for those students. The student is not in any special education programs, but has told the homebase instructor that she is overwhelmed with the homework load. How should this issue be handled by the interdisciplinary team?

SECTION TWO

Day-to-Day Functions of Interdisciplinary Teams

Day to day functions of interdisciplinary teams require cooperative efforts among team members who have specific roles to maintain the global picture of interdisciplinary team organization. The section on day to day functions in the resource guide is designed to assist the team in their roles and responsibilities in their work with students and parents. Following the strategies are some activities that enhance the strategy to develop effective interdisciplinary team organization.

A chapter on job descriptions and teaming roles helps solidify the responsibilities of the interdisciplinary team in their work with students, parents, middle school specialists, and community agencies. Teams have an opportunity to assess team priorities, examine agendas, and team conference forms.

Involving parents in the education of the young adolescent is essential to student success. It is critical that parents be involved in the implementation process of middle school to become middle school advocates. A chapter of the resource guide offers various strategies to encourage a trusting relationship between school and home.

On a day to day basis, interdisciplinary teams work with different teaching strategies like cooperative learning and curriculum integration that encourage student motivation. Chapters in the guide are devoted to these areas of instruction.

Professional development is critical to all teachers including interdisciplinary teams in a middle school. Peer coaching, through classroom observations by teachers, has the potential for teachers to develop new teaching strategies. A chapter devoted to peer coaching outlines a coaching process.

Evaluation should be ongoing, but it is critical to evaluate the work of the interdisciplinary team especially the first busy year. Team priorities and goals should be revisited periodically to readjust for growth in the team process.

JOB DESCRIPTIONS/TEAMING ROLES

Job Descriptions/Teaming Roles

Interdisciplinary teams in a middle school treat leadership of teams in different ways. Some teams have permanent team leaders or rotated team leader positions, while other middle school teams have leaderless teams.

Facilitated by team leaders, interdisciplinary team members work efficiently to support the efforts of the team if they each have a specific role. It is only through team contributions of everyone that interdisciplinary teams work together well.

This section of the resource guide has job descriptions for team leaders and interdisciplinary team members. Other strategies illustrate how teams who have mastered group process skills can work through setting priorities and long range goals. To maintain the management of the team, agenda, minutes, and team conference communication formats are also provided as examples for interdisciplinary teams.

Team Leader

A team leader functions as a facilitator of the team's work. For small groups to be successful, I believe that an interdisciplinary team needs a team leader. Some middle schools have rotated team leader positions, while other middle schools have leaderless teams. Since team leaders are responsible for the internal and external workings of the team, it is important for that position to remain fixed so the team leader can maintain a global perspective. Erb and Doda (1989) have identified a job description for team leaders, rotated team leaders, and team members on the following pages to read and react to in the activity.

Job Description

* Be responsible for external and internal team communication.

* Oversee all individual team meetings and work with the Team Facilitator to create meeting agendas.

* Be the Instructional Leader and help provide/identify professional growth opportunities for team members.

* Oversee production of the team newsletter.

* Lead the team to make continuous, thorough analysis and evaluation of each student's progress.

* Cochair cross-team meetings with the Grade Level Coordinator.

* Assist the administration and the Grade Level Coordinator in the selection of team teaching personnel.

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Job Descriptions/Teaming Roles

Rotated Team Leaders

Team leader positions that are rotated allow team leaders to be refreshed and renewed in the daily demands in the role of a team leader. Team members may rotate in their responsibilities, too.

Rotated Team Leaders

* Set agenda meetings.
* Implement projects.
* Schedule classes and events (e.g., movies, speakers . . .)
* Complete team planning log (keep notebook)
* Coordinate tests, lessons...
* Organize phone calls and parents and student conferences.
* Lead the team to make continuous, thorough analysis and evaluation of each student's progress.
* Keep department chair informed of problems or concerns the team has.
* Attend weekly meetings of rotated team leaders.

Team Members

* Attend meetings.
* Participate in discussion (share ideas).
* Follow through on decisions made.
* Maintain a spirit of trust, collaboration, and confidentiality with each other.
* Aid in achieving team goals.

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Job Descriptions/Teaming Roles

Erb and Doda (1989) have developed a job description for team leaders and interdisciplinary team members. In some middle schools the position of team leader is a rotated position, while in other middle schools team leaders maintain the position for the entire year. Having read the job description that is suitable for the expectations of your middle school organization, discuss the following questions. If the position is a paid position, will the job description reflect the difference? Why or why not? What might be the advantages or disadvantages of a rotated team leader position?

Job Descriptions/Teaming Roles

Everyone on the interdisciplinary team has to work together to assist in the functioning of the team. These team positions are also assigned on a quarterly basis. Erb and Doda have listed possible functions for each of these positions.

Team Facilitator

* Work with the team leader to create agendas for team meetings and chair these meetings.
* Be directly responsible for production of the team newsletter.
* Coordinate and chair all team/parent conferences.

Communicator

* Be responsible for all team communication with parents.
* Maintain a log of parent contacts in the team notebook.
* Communicate all schedule changes to parents.

Recorder

* Maintain the team notebook.
* Maintain and consistently update the team calendar.
* Arrange for and distribute all necessary forms and copied material which the team will need.
* Provide administration, counselors, and team members with weekly summary notes of the team meetings.

Esteem Builder

* Be responsible for activities which build the self-esteem of individual students (and groups of students) within the specific team. This will include both in-school positive reinforcement and communication with parents, staff, and news media.

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Activity

After your interdisciplinary team has been functioning for a few weeks, reread the job descriptions for these roles of interdisciplinary team members. How can each interdisciplinary team member contribute to the functioning of the team? What are some additional responsibilities that each interdisciplinary team member can contribute? Ask your team leader to list some of the frustrations experienced in that role. How could team members assist the team leader?

Setting Team Priorities

Beginning teams are overwhelmed by the many tasks they have to accomplish. Setting priorities based on their team of students is important to do early on in the interdisciplinary team implementation process. Erb and Doda (1989) have developed a checklist that could serve as a guide for setting team priorities.

So Many Possibilities...Only So Much Time:
Setting Team Priorities

Group these possible activities into one of four categories:

A. Reasonable to do very early in the development of teaming.
B. Reasonable to do later during the first year.
C. Reasonable in the second or third year.
D. Reasonable only in the latest or most advanced stages of team development.

_____1. Schedule students within the team's block of time.
_____2. Meet regularly.
_____3. Set consistent expectations for team members (teachers).
_____4. Rotate team leader position so that each member has an opportunity.
_____5. Share major curriculum thrusts with team members.
_____6. Develop a team process for recognizing students who are doing well.
_____7. Build a team schedule for homework and testing.
_____8. Determine important skills for the team (e.g. note taking, notebook organization, listening skills), and consistently include them in all classes.
_____9. Determine activities that could be delivered in a large group setting. (e.g. showing films, testing, listening to outside speakers) and implement them.
_____10. Teach a unit using community resources in which we share the teaching of activities across subjects.
_____11. Set consistent behavioral expectations for students.
_____12. Discuss a problematic student with the counselor.
_____13. Discuss educational philosophy with team members.
_____14. Discuss needs of individual students.
_____15. Meet together to plan for a conference with parents.
_____16. Conference with students.
_____17. Develop a system of positive consequences and recognition for students.
_____18. Alter the basic schedule to provide for films, videotapes, speakers, labs, etc.
_____19. Conduct team meetings with students.
_____20. Share curriculum plans with the library/media specialist.
_____21. Play an active role in school policy making.
_____22. Coordinate lessons to reinforce each other's subjects.
_____23. Bounce ideas off of team members.

_____24. Implement a representative team council to provide for student input.
_____25. Share information about students and develop a team solution to problems.
_____26. Develop agendas for team meetings.
_____27. Plan and implement brief interdisciplinary lessons and units (e.g. graphing, applying the metric system, using reference materials, reading critically) among some team members.
_____28. Rotate the team recorder position so each member has an opportunity to keep minutes and records for the team.
_____29. Work to build team identity.
_____30. Plan and implement one major interdisciplinary unit per year throughout the entire team (teenage problems, courage, energy, exploration, and interdependence are examples of thematic units, information gathering, small group techniques, public speaking, and critical thinking are examples of skill units)
_____31. Hold parent conferences as a team.
_____32. Share successful teaching experiences with team members.
_____33. Plan to reinforce an academic skill across several subject areas.
_____34. Phone the parents of a student with academic problems.
_____35. Develop a rapport with team members.
_____36. Plan an interdisciplinary unit with elective/exploratory teachers.
_____37. Share ideas with teammates after attending an out-of-district professional meeting.
_____38. Participate as a team in an IEP conference.
_____39. Learn about specific students' health problems from the school nurse.
_____40. Plan and implement one major interdisciplinary unit per term on the team.

Make a grid and group your response by category.

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Activity

After each interdisciplinary team member has completed the priorities checklist, discuss the areas that the team feels fit in the various categories: reasonable to do early in the development of teaming, during the first year, during the second or third year, or reasonable to do in the advanced stages of team development. Highlight the priorities that will be the most important to accomplish the first year.

Identify the priorities that will require extra assistance to accomplish. Discuss the items that require extra assistance with the staff developer or administrator in your building. The priorities checklist may be one vehicle to assess what interdisciplinary teams in your school may require for added staff development.

Agenda Guided Meetings

Given that achieving effective team meetings is a top priority, teams should proceed with appropriate agendas that promote the use of team time in the most efficient manner. Erb and Doda (1989) and Glisson and James (1994), with permission from various school districts, have recommended several ideas to assist in organizing and maintaining agendas and running team meetings.

* Acquire team agenda items for the next meeting at the close of each meeting.
* Solicit agenda items between meetings, particularly when daily team planning is not possible.
* Solicit agenda items from nonteamed staff (e.g. counselors, media specialists) as needed.
* Include agenda items from the school's steering committee meetings.
* Prepare realistic agendas that are also balanced in focus (e.g. repetitive discussions of at-risk students can become counterproductive)
* Have specific goals or target items for each meeting.
* Open one meeting each week with one or two minutes of round robin sharing to address "joys and concerns".
* Save agendas in a team file.
* Post agendas in the team's planning space.
* Design a form to guide agenda planning and recording.

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Activity

After looking at the example of the proposed agenda from Erb and Doda, develop an agenda format that will work for your team. How will you establish an agenda? From whom will you gather agenda items? Decide how to prioritize items on your agenda. How important is it to celebrate successes? On what days of the week should your team set special agendas that might include developing integrated curriculum units, completing IEP's, or meeting with parents?

Team Goals

Teams need to have a sense of direction. An early task for the interdisciplinary team should be to establish some team goals that relate to the team's mission in their work with students. Team goals may be short term or long term relating to what the team envisions itself accomplishing over time. The development of goals should be ongoing particularly for new teams because the goals will provide a benchmark to assess the team's progress. Erb and Doda (1989) have developed an example of team goals from Parkway East Junior High School in Creve Coeur, Missouri.

1. Call every parent during the first two weeks of school.
2. End every team meeting ten minutes early.
3. Allow time for grades and progress reports during team time.
4. Limit parent conferences to twenty minutes.
5. Remember to ask for parental input or concerns during the first few minutes of the conference.
6. Always place kids' well-being first on the priority list. Use award certificates.
7. Increase communication to all groups (kids, parents, counselors, administration, etc.) as a team.
8. Establish and maintain unity and cohesiveness as a team.
9. Get to know each student as an individual.
10. Enjoy the profession we have chosen, and treat each other with mutual trust and respect professionally and personally.
11. Have each child show academic improvement.
12. Have each student show interest about each subject.
13. Help students become self-motivating regarding academic work and citizenship.
14. Know students well enough to make them truly feel this is a small school in a large one.
15. Give each student positive reinforcement at least once a quarter.
16. Coordinate at least two interdisciplinary units.
17. Communicate and cooperate daily regarding lesson plans and student needs.
18. Emphasize skill development in each subject area.
19. Communicate with Special School District, counselors, and administrators for the best interest of the team's students.

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Activity

Review the mission statement and the building improvement plan of your school to keep the vision in place as you begin to develop team goals for the next school year. Look at the statements in the team goals list that relate particularly to the student on your team. Discuss the needs of the students on your team. What are the strengths and weaknesses of the students on your team? How do they learn best? Use Erb and Doda's list as a guide to develop your interdisciplinary team's goals that are in line with your middle school mission statement and building improvement plan.

Team Minutes

Bob James, a former principal from Hines Middle School in Newport News, Virginia, developed the team minutes form and utilized the information obtained from that form in his school. Bob James read the team minutes form and supported team actions reported in that form as he moved about his school throughout the week. He might congratulate students on their successes or remind them of behavior and academic plans as he encountered them actively engaged during the week. This method of reporting provided another vehicle to keep abreast of team activities.

Team Minutes Form

Team _____ Members Absent _____

Day _____ Grade _____

I. Success Stories (open recognition of students, positive class experiences, etc.)

II. Student Concerns

Addressed by Support Personnel (guidance, nurse, school psychologist, special education teachers, librarians, administrators, attendance problems, unexcused absences)

III. Individual or Group Behavior Problems

Student Name	Problem	Decision
Student Involved	Conflict or call/date	Topic of Concern

IV. Homework and Test Days

Subject Area	Homework Days (circle one)	Test Days	Other
Language Arts/ English	M T W TH F	M T W TH F	M T W TH F
Mathematics	M T W TH F	M T W TH F	M T W TH F
Reading	M T W TH F	M T W TH F	M T W TH F
Science	M T W TH F	M T W TH F	M T W TH F
Social Studies	M T W TH F	M T W TH F	M T W TH F

V. Instructional concerns of Individual Students/Groups of students. Define concern and list action taken.

VI. Special agenda to be discussed at later date or additional comments (state day to be discussed)

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Activity

Examine the team minutes form developed by Bob James from Hines Middle School. Why is it important to discuss success stories before student concerns? How will you coordinate visits by special education staff during your team meeting? What are the benefits of scheduling testing dates so that there aren't two tests scheduled on the same day? After using this format to record team minutes for a period of time, add to or delete items from this format that will make this more useful to your interdisciplinary team.

Team Conference Communication

Communication among interdisciplinary core and encore (exploratory) team members can be accomplished through the use of a form developed by Erb and Doda (1989). Completion of this form would be a good beginning for a team/parent/student conference. Through this form, encore teachers could indicate the importance of their attendance at the team/parent/student meeting or indicate their willingness to have the student removed from their class during the core team's meeting time.

Date: _____
Room:_____

Dear Teacher:

At our meeting on_____, we discussed_____
_____.

We would like to meet with_____during_____ period on _____to see if we can come up with a workable plan. We would like to know which of the topics listed below are of most interest to you. Please check two or three and add any comments you think are appropriate. Also, you may add your own topics in the space provided below.

_____1. Punctual to class
_____2. Prepared for class
_____3. Participates in class
_____4. Respectful of others
_____5. Responsible
_____6. Neat and organized
_____7. Obedient of class and school rules
_____8. _____
_____9. _____
_____10. _____

Please return this letter by _____ so we can consider your suggestions. I will come to your class to get the student if that is all right.

Sincerely,
Team Leader

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Activity

Connecting core and encore teachers in team meetings is usually an impossibility. It is extremely important that core teachers communicate with encore teachers about the students on their teams. Besides written communication, what are some creative ways that encore teachers can feel more a part of the middle school process? Brainstorm a list of possibilities in how to make the encore teachers feel less alienated.

Team Parent Conference Form

Team records of meetings will assist teams in the development of behavioral and academic programs for students on their teams. When follow-up conferences are a part of the plan for students, reference may be made to previous forms to check on student progress. Maintaining these records may also provide a source for researchers to do a longitudinal study to determine the successes of the middle school. Confidentiality must not be compromised, however.

Student's Name_____ Date_____

Reason for Conference_____
_____
_____

Parent Concerns_____
_____
_____

Team Concerns_____
_____
_____

Student Concerns_____
_____
_____

Plan: (1)_____
(2)_____
(3)_____

Signatures: _____
(Team Representative or Advisor)

_____
(Parent)

_____
(Student)

Next Conference or Follow-up_____

Team Organization: Promise-Practices and Possibilities, by Thomas Erb and Nancy Doda. Copyright 1989. Washington, D.C.: National Education Association. Reprinted by permission of the NEA Professional Library.

Activity

Maintaining minutes from student, parent, and team meetings is important in assessing behavioral and academic progress of students at-risk. More and more students are being identified as Attention Deficit Hyperactivity Deficiency or Attention Deficit Deficiency. As you know, students with this diagnosis do not qualify for special education programs. It is the law that students who do not fit into special education programs, but have a learning problem qualify as 504 students. This means that an educational plan must be established that meets the needs of the students in this category. Administrators or counselors , along with the team, are often in charge of completing and fulfilling the 504 plan.

Choose an at-risk student and complete the Team Parent Conference Form. From the information on the form, please develop a 504 plan with goals and accommodations to meet the academic and behavioral needs of the student.

PARENT INVOLVEMENT

Parents have an enormous stake in ensuring the positive outcome in the education of the young adolescent in our schools. Parent involvement with interdisciplinary teams of teachers assists in the academic and behavioral programming of the student. The energy of parents, once harnessed, can provide the support that educators and students need to receive the education that they deserve.

As advocates for young adolescents, parents' roles can bring pressure for change in education through democratic and cooperative means. Building and district-wide governance committees afford parents an opportunity to help define the mission and goals. Parents involved in working with the schools feel powerful and become good models for their young adolescents.

Parents not interested in serving on governance committees can help support the learning process at home and at school. Support for learning can be provided by home learning activities and tutoring support. Encouragement for their child to work diligently in school will reinforce expectations of the middle school. Middle school parents are also encouraged to support their child's growth by attending school conferences, musical, and athletic events. It is necessary for middle schools to understand the significance of parent involvement to establish a meaningful role in their children's education.

This section of the resource guide offers strategies, techniques, and various approaches to develop a school climate that encourages mutual trust and friendship.

Parent Involvement Programs

Parent involvement programs may have a wide variety of strategies including the following:

* Assistance to your team with numerous activities on how to create a welcoming climate in your school that builds trust and friendship

* Techniques to improve communication between school and home

* Strategies that will involve families and their children's teachers in interactive home learning activities

* A component for training school volunteers

* A component for preparing staff and families to participate in school governance

* Broad spectrum of recruitment techniques appropriate for your family populations

* Plans for establishing effective child-care settings

* Techniques for facilitating large and small groups

* Program design that treats parents as adults with knowledge and skills and has designed activities which are conducted to honor the participants, not preach to them

* Specific strategies and activities to invite the participation of families from the various cultural backgrounds in your school

M. L. Alving, Effective replication of promising and proven programs . . . It won't happen without key elements in place, *Equity and Choice,* Copyright 1993. Reprinted by permission of Corwin Press Inc.

Activity

Alving suggests several strategies for involving parents. One of the particular strategies that affects interdisciplinary teams is the strategy on how to create a welcoming climate in your school that builds trust and friendship. As an interdisciplinary team, brainstorm some ways that your team could build trust with the parents on your team. What are some techniques that would improve communication between school and home? What are some of the ways parents could be included in teaming activities?

Increasing Parent Involvement: Ten Ideas That Work

Research show that improvement in student achievement occurs when parents are involved in the schools. Loucks (1992) has provided ten examples that illustrate how parent may become involved in the schools.

1. Parent/Student Switch Day: Students are excused for one full day if a parent takes their place at school. The parent follows their schedule for the day, and is responsible for all of their school work on that day. Variations included coffee and rolls for physical education classes and study halls. Students also sometimes took their parents' spots at work on the switch day. Other variations included businessmen taking the place of parents for that day.

2. Parent/Student Fund Raising: Some form of parent/student fund raising was reported by all principals. A specific example reported to be especially worthwhile was fund raising for a parent/student camping trip. The camping trip occurred in eighth grade, so parents began fund raising in seventh grade. The principal at that school reported that the project improved parent/child communications.

3. Teachers in the Round: At the end of the first grading period, teachers and parents met in the gymnasium and held roundtable discussions. Parents picked up their student's report card at this event. The principal reported that this as a very successful way to get high school parents to school and opened the door to subsequent parent/teacher communication.

4. Good News Card: Several variations of this practice were reported. At one school "Good News Cards" were printed with a collage of school events on the front. Space was left on the back of the card for teachers to write positive messages about a student in their class. Every teacher was encouraged to send at least one card per week. The school was responsible for postage. At another school a principal reported a barrage of memos and notes to families about student success.

5. Newsletters: The majority of principals interviewed had made some effort at generating newsletters, varying frequency from weekly to annually. The greatest satisfaction with this form of communication effort mailed them to the homes. Monthly to quarterly efforts received the best responses. Some of the columns in the newsletters featured topical information articles including homework strategies, teacher features, getting to know you columns, reports on special projects, and parenting tips. Another principal reported that the local newspaper printed the entire newsletter from the principal and the staff in a special page every other Saturday.

6. Parent/Teacher Organization: Several principals reported excellent results from PTA/PTO organizations. Active PTA and PTO organizations can assist with monthly newsletters, parties, educational programs, and a variety of other chores that need extra hands. One of the schools reported on active All-School Booster Club. This group was formed by combining a number of splinter groups, and raises $25,000 a year to assist with various student group needs.

7. Soliciting Parent/Family Volunteers: The most successful efforts for obtaining parent/family volunteers resulted from checksheets. Ten principals reported sending home a check list of volunteer opportunities. The list included such things as:

   * Speaking to classes/speakers bureau
   * Duplicating teachers' materials
   * Tutoring
   * Field trip/party chaperoning
   * Monitoring
   * Creating bulletin boards
   * Assisting in the computer lab
   * Helping in the library

   The return rate on the checklists was ensured with pop corn parties and ice cream parties for the class with the best returns. Training for volunteers also resulted in improved volunteer programs.

8. Alumni Events: Several principals reported good responses to parent/community involvement from various alumni events. Events that were reported to be especially successful were parent/alumni band concerts, parent/alumni cheerleaders and similar sports or drama events. Most principals reported that such events could serve as excellent fund raisers.

9. Parent Classes: Parenting ideas/problems, homework/tutoring strategies, drug education, and improving communication skills were reported to be especially popular classes. Other ideas for parenting classes were parenting skills/wellness. In both cases, the classes were taught by the school counselors.

10. Invitational Events: Most principals interviewed had reported parent/family participation through some type of specific invitational event such as a parent tea, meet the teacher night, parent/teacher conference, new student/parent orientation night, grand parent day, or financial aid/college information. One

principal reported that the local senior high school sponsors a yearly senior citizen Thanksgiving dinner, resulting in excellent publicity for the school.

H. Loucks, *Increasing parent/family involvement: Ten ideas that work*, Copyright 1992. Reprinted by permission of NASSP.

Activity

Parent/student switch days have been tried in some schools to develop an understanding of what a typical school day is like for the young adolescent. As an interdisciplinary team, brainstorm what you would like parents to know about the educational program at your school. Your team may want parents to know about educational goals and objectives, schedules for team meetings, upcoming events, and other items. What are some of the variations that may be included in the schedule?

INTERDISCIPLINARY TEAMS AND THE STUDENT

Interdisciplinary Teams and the Student

All teacher educators whether they teach in middle schools, junior highs, elementary, or secondary schools focus on the student as the learner. Teachers in all settings are concerned about educating the student in their classroom. Motivating student learning through a variety of teaching strategies is a goal of every good teacher educator.

This task can be a lonely task done in isolation, but there is strength through interdisciplinary team organization. Many approaches to student motivation can be discussed by the team. What works for one interdisciplinary team member with a unique student can be suggested to other team members in their work with the student.

Cooperative learning and curriculum integration are teaching strategies that are used in all classrooms at all levels. However, those two techniques are recommended for the middle school structure. To meet the social emotional needs of the young adolescent, cooperative learning is a strategy that enhances the educational process for middle school students because socialization and peer relationships are very important in this stage of development.

Curriculum integration in middle schools meshes the "real world" to middle school students exploring who they are and where they fit. Concepts, skills, and curriculum can be integrated to make learning more meaningful.

The section of the guide on interdisciplinary teams and the student focuses on student motivation, cooperative learning, and curriculum integration. The lack of motivation may be connected to learning problems or delinquent behavior. The Student Motivation chapter gives characteristics that affect motivation, techniques to improve motivation, and an example of a motivation program in a middle school. The section on cooperative learning addresses how the interdisciplinary team of teachers may model cooperative behavior for their students, and addresses how the team may use cooperative learning in their classrooms. For interdisciplinary team members who have been discipline oriented, curriculum integration requires new thinking about curriculum. The resource guide provides a philosophical basis for teams to begin to look at curriculum integration. Models and activities are designed for teams to further their thinking about curriculum integration.

STUDENT MOTIVATION

Some students are so eager to learn while others are disinterested and must be forced to learn. Ability may account for part of the answer, but the most significant factor is motivation. Motivation is a broad and difficult topic because so many factors and combinations of factors can influence the end result.

There are many factors that affect motivation, and students vary in the characteristics they bring to the learning environment:

* abilities and aptitudes
* desire for success
* physical and psychological health
* variety of background experiences
* parental support and encouragement
* record of academic success
* expectation of reward for successful learning experiences
* personal interest (s) in particular subject(s)
* self-confidence and self-esteem
* perseverance
* desire for competition

Each of these characteristics may influence a student's level of motivation, but so do unique combinations of factors. A student with high abilities and aptitudes who resents strong parental pressure to do well in school may respond by refusing to study. Students with less ability who anticipate some type of "payoff" for good grades may be willing to work hard to achieve them. There are a variety of methods to improve motivation in middle school students.

Techniques To Improve Motivation

1. Take individual differences into account. Each student in a particular classroom has a unique set of needs, abilities, aptitudes, attitudes and background experiences. Teachers should expect to find some students who are "self-starters" and highly motivated to learn; some who need a moderate degree of encouragement or external incentives; and some who require a great deal of encouragement or external incentives; and some who require a great deal of attention; assistance, and reinforcement to perform at minimally acceptable levels. Even achievement oriented students may experience periods of low motivation because of illness, arguments with or rejection by parents or peers, personality differences with specific teachers, family situations such as divorce or separation, or uncomfortable physical environments. Teachers should try to get to know each student as a person and help each one see school learning as a personal need or priority.

2. Insure, to the extent possible, that students' deficiency needs are satisfied. Unfortunately, some students come to school without even their most basic needs met. Students who are hungry or lack adequate clothing are likely to focus most of their attention on meeting these needs, and not on learning. Or, the classroom environment itself may be physically uncomfortable, unsafe, or be distracting to learning. Students may also be afraid of being picked on, humiliated, or embarrassed. Teachers should be aware of the psychological characteristics of their students and their learning environments as much as possible.

3. Subject matter should be made as interesting as possible. Attention should be paid to students' needs and goals. Teachers who maintain their enthusiasm for a subject and who look for ways to make boring topics more interesting are more likely to motivate their students. Understanding how material is relevant to the student's lives will certainly increase students' motivation for learning.

4. Various forms of reinforcement as incentives will assist in enforcing the need for extrinsic motivation. Teachers and administrators should consider a selective use of rewards. Students are motivated by different things, so a variety of rewards should be available--praise, certificates, public recognition, or special privileges. The reward should be commensurable with the level of effort required to accomplish the task (s).

5. Establish clearly defined goals and means of achieving them. Sometimes students lack motivation because they are unsure or unclear about what is expected of them. Students are more likely to be motivated if they know exactly what they are expected to learn and how best to accomplish the learning.

6. Provide opportunities for students to develop self-confidence, self-esteem, and the need for achievement. Students need the experience of success to gain faith in themselves and to place value on the effort required to accomplish goals. Teachers should help students set attainable goals and experience incremental successes. Play down comparisons among students, allow student to work toward individualized goals, and encourage more self-competition. Once students begin to experience more successes than failures and to attribute their successes to their efforts or abilities, they will be more motivated to work on their own.

7. Establish a climate within the school that encourages motivation. Administrators and other school leaders can enhance motivation at the school in this way:

   * Reinforce high expectations/standards for themselves, teachers and students
   * Fostering a climate that is purposeful and achievement oriented
   * Honoring student achievement in both academic and cocurricular programs
   * Recognizing student performance on the basis of mastery of objectives rather than comparison with other students
   * Promoting school-parent relationships that support schooling motivation and high achievement
   * Implementing a curriculum that is both demanding and realistic
   * Selecting faculty members who are caring and willing to work with students on an individual basis

L. Grace & R. L. Buser, *The Practitioner,* Copyright 1987. Reprinted by permission of NASSP.

Activities

After reading the information by Grace and Buser about student motivation. Discuss ways to make subject matter as interesting and relevant to middle school students as possible. Brainstorm a list of extrinsic motivators for your students.

Identify one unmotivated students among the many that you have on your interdisciplinary team. List the characteristics of that student. Discuss ways to meet his/her needs. Meet with the student's parents during a team meeting to establish goals and objectives that meet the learning needs of the child. Discuss a reward system that will encourage the student to complete schoolwork in an appropriate manner. Implement the plan.

Student Motivation

Grace and Buser have written about motivation programs in high schools and middle schools. One of the motivation programs uses tokens to promote student achievement. Winnisquam Regional Middle School in Tilton, New Hampshire, has developed a Positive Action Program with various incentives to promote student achievement. Students must apply for admission into the program. Their entrance in the program is assessed on the basis of their effort and not on academic grades. Any student demonstrating outstanding or satisfactory effort in academic or specialty areas is eligible for the program. Students in the program receive tokens from classroom teachers:

* 0 tokens: Not working to capacity
* 1 token: Does what is required
* 2 tokens: Does more than what is required

Tokens are awarded on the following basis:

* Works to capacity
* Shows care and effort in assignments
* Demonstrates enthusiasm and initiative
* Shows improvement
* Participates in class
* Turns in consistently good work
* Does more than is required
* Generally exhibits a positive attitude toward school
* Is prepared for class
* Manages independent study

Tokens gain admission into activities sponsored by the Positive Action Program. The activities are supported by year-round fund-raising activities. Positive Action Activities include:

Month	Activities	Tokens
Oct.	Bike Hike	10
	Mountain Hike	20
Nov.	Funspot	20
	Movie	10
Dec.	Mall Shopping	25
Jan,	Bowling, Roller Skating	20
	Winter Carnival	10
Feb.	Snow Sculpture	10
	Ski Trip	30

Month	Activities	Tokens
Mar.	Movie, Pizza	10
April	Sun, Fun, Swim	20
	Boston (Red Sox game, New England Aquarium Sites and Sounds of the City)	40
May	Cookout	15
	Carnival	5
June	Ocean Trip	40
	Alpine Ridge Water Slide	30
	Camp Out	30

L. Grace & R. L. Buser, *The Practitioner,* Copyright 1987. Reprinted by permission of NASSP.

Activity

After reading the material by Grace and Buser, select an area in which your team perceives student motivation to be a problem. Brainstorm what might be done to enhance student motivation. Be creative! No idea is too ridiculous. When you've exhausted your own ideas, consult Connors list of ideas, and extend your list with those that might apply. At the conclusion of this exercise, agree on a strategy for improving student motivation.

Strategies for Motivating Students to Learn

1. Supportive environment
2. Appropriate level of challenge/difficulty
3. Meaningful learning objectives
4. Moderation/optimal use
5. Program for success
6. Teach goal setting, performance, appraisal, and self-reinforcement
7. Help students to recognize linkages between effort and outcome
8. Provide remedial socialization
9. Offer rewards for good (or improved) performance
10. Structure appropriate competition
11. Call attention to the instrumental value of academic activities
12. Adapt tasks to students' interests
13. Include novelty/variety elements
14. Allow opportunities to make choices or autonomous decisions
15. Provide opportunities for students to respond actively
16. Provide immediate feedback to student responses
17. Allow students to create finished products
18. Include fantasy or simulation elements
19. Incorporate game-like features
20. Include higher-level objectives
21. Provide opportunities to interact with peers
22. Model interest in learning and motivation to learn
23. Communicate desirable expectations and attributions about students' motivation to learn
24. Minimize students' performance anxiety during learning activities
25. Project intensity
26. Project enthusiasm
27. Induce task interest or appreciation
28. Induce curiosity or suspense
29. Induce dissonance or cognitive conflict
30. Make abstract content more personal, concrete, or familiar
31. Induce students to generate their own motivation to learn
32. State learning objectives and provide advance organizers
33. Model task-related thinking and problem solving

N.A. Connors, *Teaming--The Core of the Effective Middle School*, Copyright 1990. Reprinted by permission of Valdosta State College, Valdosta, GA.

Special Education and the Role of the Team

Interdisciplinary team members work with students who are involved in many programs. It is important that team members have a working understanding about the special education programs in their districts. Special education federal and state laws provide for programs in learning disabilities, mentally handicapped, multihandicapped, vision impaired, speech-language, emotionally disturbed, hearing impaired, and orthopedically impaired. Teacher specialists in these areas work with teams to integrate students into the least restrictive environments and play an important part in the appropriate programming of these students. A good relationship for interdisciplinary team members with teacher specialists in these areas will promote a program that meets the unique needs of the students for their best educational development and the development of other students around them. The brief descriptions that follow have been paraphrased from the Special Education Handbook developed by the directors of special education in the Bismarck Public School district in Bismarck, North Dakota. These programs exist in schools across the United States, but may be defined in slightly different ways.

Students with specific learning disabilities may be helped in some of the basic psychological processes involved in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The team does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

Mentally handicapping conditions are classified as "mentally retarded" which means significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period, which adversely affects a child's educational performance. Eligibility is determined by a full scale individual intelligence score of below seventy, with documented evidence of consistent impairment of adaptability in social interaction and daily living skills in the school, home environment, and/or the community.

Multihandicapped students have accompanying impairments such as mental retardation, blind, or orthopedically impaired. The combination of these impairments causes such severe educational problems that they cannot be accommodated in special education programs solely for one of the impairments. This term does not include deaf-blind students.

Visually handicapped students have visual impairments which, even with correction, adversely affect a child's educational performance. This term includes both partially seeing and blind students.

Speech-language impaired students have a communication disorder such as stuttering, impaired articulation, a language impairment, or a voice impairment, which adversely affects a child's educational performance.

Seriously emotionally disturbed students have a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree, which adversely affects educational performance: an inability to learn which cannot be explained by intellectual, sensory, or health factors, an inability to build or maintain satisfactory interpersonal relationships with peers and teachers, inappropriate types of behavior or feeling under normal circumstances, a general pervasive mood of unhappiness or depression, or a tendency to develop physical symptoms or fears associated with personal or school problems. The term does not include children who are socially maladjusted, unless it is determined that they are seriously emotionally disturbed.

Hearing impaired programs are designed for students who are hearing impaired or deaf. Deaf means a hearing impairment which is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, which adversely affects educational performance. Hard of hearing means a hearing impairment, whether permanent or fluctuating, which adversely affects a child's educational performance but which is not included under the definitions of deaf in this section.

Orthopedically impaired programs involve students with severe orthopedic impairments that affect a child's educational performance. Students in these programs are impaired by congenital anomalies, impairments caused by disease such as poliomyelitis, bone tuberculosis, or from other causes such as cerebral palsy, amputations, and fractures or burns which cause contractures.

The importance of interdisciplinary teams is reflected in the way eligibility is determined for students in these programs. Child study teams determine eligibility by consensus of the members of the group in their work with the parent and child. Interdisciplinary teams in a middle school, in their work with the special education specialist, have the responsibility of following the recommendations made by them and the child study team. The best educational experience for the student is planned and enacted by all parties involved in this process.

Bismarck Public Schools, 1988, *Special education handbook,* Bismarck, ND. Reprinted by permission.

Activities

Meet with individual specialists and get to know the learning styles of identified special education students and how the interdisciplinary team can best serve them. Plan to meet with the specialists for the students on your team on an ongoing basis, but start out the year knowing the basic modifications and adaptations of your students.

Select a special education student on your team who is a part of the learning disabilities program. Examine the special education file and review strengths, weaknesses, and the learning style of the student. Discuss how you and your interdisciplinary team members could modify and adapt curriculum to meet the needs of the student. This will assist you in the upcoming Individual Educational Plan for the student.

Invite a special education instructor to your team meeting to present current research on Attention Deficit Deficiency, Attention Deficit Hyperactivity Deficiency, Fetal Alcohol Syndrome, or Fetal Alcohol Effect.

Juvenile Services and their Role with Interdisciplinary Teams

Interdisciplinary teams often meet with a variety of persons involved with students in their middle schools. Examples of this may include students involved in adjudicated situations because of legal violations, or because of drug and alcohol related incidences, or placement in foster care situations. These people assist interdisciplinary team members in behavioral or academic concerns. It is important that team members are acquainted with probation officers from Juvenile Court, Police Youth Bureaus, and the Division of Juvenile Services. A good working relationship with foster care families and group home settings and interdisciplinary teams will assist in the academic and behavioral programs of students.

Students in adjudicated situations are under eighteen years of age and have been found to be delinquent, neglected, abused, deprived, unruly, or status offenders. Probation is to provide guidance and support to parent and child, preferably while the child remains in the home. Juvenile Court, as a community resource, provides resources to resolve conflicts with the family, school, and community.

Police Youth Bureaus don't exist in all communities. When they do, they provide an integral part of the county Juvenile Justice System. The Youth Bureau works with young people under the age of eighteen who have come into conflict with the law and/or are experiencing personal, home, or school problems. These youth have come to the attention of the Youth Bureau through a process of juvenile diversion, crisis intervention, or prevention/education. The Youth Bureau is staffed by professional youth workers with special training and experiences in all aspects of youth issues, counseling, and intervention services. Their goal is to combine a caring, listening, approach and firm consequences emphasizing individual responsibility. Most services are provided without cost.

Since adolescence is a time of confusion and conflict, with few places of safety and few times of innocence, drug and alcohol abuse has become widespread. Hospitals and drug and alcohol facilities have adolescent units that are dedicated to the treatment of chemically dependent youths eighteen years old and younger. Treatment is often based on the Twelve-Step philosophy of Alcoholics Anonymous and Al-Anon. It is a program that involves a family component dedicated to the recovery of the adolescent. Middle schools and hospitals and treatment facilities work together to continue the academic program of the child while they are receiving treatment for drug and alcohol abuse.

The Division of Juvenile Services program works with children in our schools that are wards of the state. As a part of DJS, students may live at home, be in foster care family settings, group homes, or residential twenty-four hour programs. The role of interdisciplinary teams is to work with DJS, foster families and group home personnel

in providing the best possible educational programming for the students in their middle schools.

Some middle school students live in a world that doesn't seem fair. Some students live in such a devastating situation that they may be affected in every area of their lives; academically, emotionally, socially, spiritually, and socially. The best chance adolescents have for a healthy and productive life is to be educated in a safe environment. Adolescents respond when caring adults work together and show that they care.

Activity

A panel presentation is planned by law enforcement representing the Police Youth Bureau, Juvenile Court, and the Division of Juvenile services. Brainstorm a list of questions to ask the panel about their role in law enforcement and how interdisciplinary teams in a middle school can assist in the process of adjudicated youth.

COOPERATIVE LEARNING

Cooperative learning is one of the most important techniques for the successful middle school teacher. Middle school teachers on interdisciplinary teams that utilize group process skills in an effective way have mastered the art of cooperation and collaboration in their work, and are able to transfer that talent in their classrooms. Middle school educators utilize cooperative learning because of the social nature of middle school students. Young adolescents are at a point in their development to learn about cooperation and group interaction.

Middle school teachers attempt to develop small group learning strategies that combine academic inquiry and learning. Teachers who use cooperative learning play a much more indirect role in instruction. In all successful versions of cooperative learning, teachers ensure that all students are involved in the learning process, and that they are learning interpersonal and social skills in the process as well.

The following cooperative learning strategies and activities are taken from Breeden and Mosley (1991), Johnson and Johnson (1987), and Johnson, Johnson, and Holubec (1988). Other cooperative learning models have been developed by Bosch (1991), Ferguson (1989), Joyce, Showers, and Weil (1991), and Slavin (1991).

Activity

Before you begin cooperative learning in your classrooms, complete an introductory team activity that will enable team members to see the benefits of cooperative learning. Write each interdisciplinary team member's name on a piece of paper. List the strengths of each person on the team. Discuss the strengths of each team member, and decide which teaming role would be the most appropriate to assume: team facilitator, communicator, recorder, or esteem builder.

Cooperative Learning

Cooperative learning is students working together in structured groups helping each other learn and earning rewards for their effort. Breeden and Mosley (1991) define cooperative learning in this way.

"Students working together"-- The classroom teacher divides the class into small groups. These groups should have between two and six members. They should consist of high, medium, and low achieving students.

"Helping each other learn"--The students are assigned a specific task. Then, the groups help one another do the assignment. When the assignment is done, each student should have acquired the knowledge or skills necessary to do a similar assignment on his/her own, without the help of others.

"Earning rewards"--A positive reinforcement point system is used to reward groups that follow cooperative norms of behavior and demonstrate the ability to master skills practiced in the cooperative groups.

T. Breeden & J. Mosley, Copyright 1991, *The middle grades teacher handbook.* Reprinted by permission from Incentive Publications.

Cooperative learning fits into teaching methods that are used in today's classrooms. Cooperative learning does not replace these methods, and should be used in lessons that lend themselves to a group cooperative effort. Current teaching methods have been identified by Breeden and Mosley (1991):

* Individual Task Structure--The students study the same work individually.

* Small Group Task Structure--This is the category where cooperative learning is found.

* Tutorial Structure--The teacher reteaches individual students.

* Didactic Structure--The teacher lectures to the students.

* Conference Structure--The teacher asks a question and then allows the students to solve the problems.

* Class Meeting Structure--This is the same set up as the conference structure except the teacher is involved in the problem-solving.

* Socratic Method--The teacher answers a question with a question.

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Activity

Choose one of the discipline areas on your team. Look at the class lists of those students in all of the English classes. Organize those students into cooperative groups by ability with one high, two average, and one low achieving student. Brainstorm other ways that students can be divided into cooperative learning groups other than by ability.

Organizing Cooperative Groups

Breeden and Mosley (1991) have developed six steps in organizing cooperative groups:

Step 1: List the students in your class. Place the student with the highest base score first. Continue to list the students in "top down" order. The student with the lowest base score should be the last student on the list.

Step 2: On the first chart, fill in the base scores, sex, race, and any other information that would help you when organizing cooperative groups.

Step 3: Decide how many groups you want and how many students in each group.

Step 4: Select your first group by choosing the student with the top base score. Place a "1" by his/her name. Then select the student with the lowest base score. Place a "1" by his/her name. Fill in the rest of the group with students with middle range scores. If you are forming groups of three, select one student with a middle base score. If you desire groups of four, select two middle range students. Continue until the first group is selected. Now select the other groups following this same pattern. Continue until all students have been assigned a group number.

Step 5: Look over your groups. Are they satisfactory? Do you have a good balance of boys and girls? Are they racially and ethnically balanced? Did you put discipline problems in the same group? How about mainstreamed students? How does his/her group look? In general, do you see any reason to do some shifting? If so, shift students who have similar abilities.

Step 6: List the group members. Fill in each student's base score.

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Activity

There are many ways to divide into cooperative learning groups other than by ability. Brainstorm some unique ways to divide your classes into cooperative groups utilizing concepts from your subject area. For example, geography classes may divide into groups according to continents; English classes could divide into groups according to the various parts of speech. List other ways that cooperative groups may be organized other than by concepts.

Basic Elements of Cooperative Learning

Johnson, Johnson, and Holubec (1988) have identified five basic elements of cooperative learning:

Positive Interdependence

Students perceive that they need each other in order to complete the group's task ("sink or swim together"). Teachers may structure positive interdependence by establishing mutual goals (learn and make sure all other group members learn) joint rewards (if all group members achieve above the criteria, each will receive bonus points), shared resources (one paper for each group or each member receives part of the required information), and assigned roles (summarizer, encourager of participation, elaborator).

Face to Face Promotive Interaction

Students promote each other's learning by helping, sharing, and encouraging efforts to learn. Students explain, discuss, and teach what they know to classmates. Teachers structure the groups so that students sit knee-to-knee and talk through each aspect of the assignment.

Individual Accountability

Each student's performance is frequently assessed and the results are given to the group and the individual. Teachers may structure individual accountability by giving an individual test to each student or randomly selecting one group member to give the answer.

Interpersonal and Small Group Skills

Groups cannot function effectively if students do not have and use the needed social skills. Teachers teach these skills as purposefully and precisely as academic skills. Collaborative skills include leadership, decision-making, trust-building, communication, and conflict management skills.

Group Processing

Groups need specific time to discuss how well they are achieving their goals and maintaining effective working relationships among members. Teachers structure group processing by assigning such tasks as (a) list at least three member actions that helped the group be successful and (b) list one action that could be added to make the group even more successful tomorrow. Teachers also monitor the groups and

give feedback on how well the groups are working together to the groups and the class as a whole.

D. W. Johnson, R. T. Johnson, & E. J. Holubeck, Copyright 1988, *Cooperation in the classroom.* Reprinted by permission.

Activity

Discuss how to instruct your students on the five basic elements of cooperative learning according to Johnson, Johnson, and Holubec. What does it mean to have positive interdependence? Describe face to face interaction. How are students in cooperative learning groups made to be individually accountable? What kind of group processing skills necessary to work in cooperative groups? Discuss the importance of processing.

Cooperative Learning Starters

Johnson and Johnson (1987) have identified other cooperative learning starters for writing skills, concept clarifiers, group reporting, summarizing, and elaborating.

1. Writing Response Groups: Students read and respond to each other's papers three times.

   A. They mark what they like with a star and put a question mark anywhere there is something they don't understand or think is weak. Then they discuss the paper as a whole with the writer.

   B. They mark problems with grammar, usage, punctuation, spelling, or format and discuss it with the author.

   C. They proofread the final draft and point out any errors for the author to correct. Teachers can assign questions for students to answer about their group members' papers to help them focus on certain problems or skills.

2. Skill Teachers/Concept Clarifiers: Students work with each other on skills (like identifying adjectives in sentences or showing proof in algebra) and/or concepts (like ecology or economics) until both can do or explain it easily.

3. Group Reports: Students research a topic together. Each one is responsible for checking at least one different source and writing at least three notecards of information. They write the report together; each person is responsible for seeing that his/her information is included. For oral reports, each must take a part and help each other rehearse until they are all at ease.

4. Summary Pairs: Have students alternate reading and orally summarizing paragraphs. One reads and summarizes while the other checks the paragraph for accuracy and adds anything left out. They alternate roles with each paragraph.

5. Elaborating and Relating Pairs: Have students elaborate on what they are reading and learning by relating it to what they already know about the subject. This can be done before and after reading a selection, listening to a lecture, or seeing a film.

6. Playwrights: Students write a play together, perhaps about a time period recently studied, practice, and perform it for the class.

D. W. Johnson & R. T. Johnson, Copyright 1987, *Structuring cooperative learning: Lesson plans for teachers.* Reprinted by permission.

Some Quick Cooperative Starters

Middle school interdisciplinary teams beginning cooperative learning have difficulties in deciding how to easily begin cooperative learning. Johnson and Johnson (1987) have identified five simplistic ways to begin cooperative learning.

1. Turn to your neighbor: Three to five minutes. Ask the students to turn to a neighbor and ask something about the lesson: to explain a concept you've just taught; to explain the assignment; to explain how to do what you've just taught; to summarize the three most important points of the discussion, or whatever fits the lesson.

2. Reading Groups: Students read material together and answer the questions. One person is the Reader, another the Recorder, and the third, the Checker (who checks to make certain everyone understands and agrees with the answers). They must come up with three possible answers to each question and circle their favorite one. When finished, they sign the paper to certify that they all understand and agree on the answers.

3. Jigsaw: Each person reads and studies part of a selection, then teaches what he or she has learned to the other members of the group. Each then quizzes the group members until satisfied that everyone knows his or her part thoroughly.

4. Focus Trio: Before a film, lecture, or reading, have students summarize together what they already know about the subject and come up with questions they have about it. Afterwards, the trios answer questions, discuss new information, and formulate new questions.

5. Drill Partners: Have students drill each other on the facts they need to know until they are certain both partners know and can remember them all. This works for spelling, vocabulary, math, grammar, test review, etc. Give bonus points on the test if all members score above a certain percentage.

D. W. Johnson & R. T. Johnson, Copyright 1987, *Structuring cooperative learning: Lesson plans for teachers.* Reprinted by permission.

Activity

After reading the two sections on cooperative starters. Come up with three different ways that you could apply these ideas to the various core disciplines on your interdisciplinary team. For example, how could social studies utilize the jigsaw, focus trio, or drill partners cooperative starters?

A Few More tips About Cooperative Start-Up

Johnson, Johnson, and Holubec (1988) have identified some ways to ensure the skills of positive interdependence and individual accountability. Expected student behaviors and monitoring techniques have also been identified.

Some Ways to Ensure Positive Interdependence

1. One pencil, paper, or book given to a group.
2. One paper written from a group.
3. Task divided into jobs; it can't be finished unless all help. Pass one paper around the group, each member must do a part.
4. Jigsaw materials; each person learns a part and then teaches it to the group.
5. A reward (like bonus points) if everyone in the group succeeds.

Some Ways to Ensure Individual Accountability

1. Students do the work first to bring to the group.
2. Pick one student at random to orally answer questions studied by the group.
3. Everyone writes, then certifies correctness of all papers; you pick one to grade.
4. Listen and watch as students take turns orally rehearsing information.
5. Assign jobs or roles to each student.
6. Students get bonus points if all group members do well individually.

Some Expected Behavior To Tell Students
(Pick four or five that fit)

1. Everyone contributes and helps.
2. Everyone listens to others with care.
3. Encourage everyone in your group to participate.
4. Praise helpful actions or good ideas.
5. Ask for help if you need it.
6. Check to make sure everyone understands.
7. Stay with your group.
8. Use quiet voices.

Some Things to do When Monitoring

1. Give immediate feedback and reinforcement for learning.
2. Encourage oral elaboration and explanation.
3. Reteach or add to teaching.
4. Determine what group skills students have mastered.
5. Encourage and praise use of good group skills.
6. Determine what group skills to teach students next.

7. Find out interesting things about your students.

D. W. Johnson, R. T. Johnson, & E. Holubec, Copyright 1988, *Cooperation in the classroom.* Reprinted by permission.

Activity

After a cooperative learning has been tried in all of the core classes, use this tip sheet to evaluate how well positive interdependence, individual accountability, expected student behavior, and monitoring techniques have been accomplished. As a classroom teacher, check the areas that you feel still need work in your cooperative learning activities. Share these results with the team. What patterns do you observe? What have you learned from this assessment?

Checklist for Teachers' Role in Cooperative Learning

Johnson, Johnson, and Holubec (1988) have identified a variety of responsibilities of classroom teachers in ensuring the success of cooperative learning in their classrooms.

- Specifying Academic Objectives
- Specifying Cooperative Objectives
- Deciding on Group Size
- Assigning Students to Groups
- Arranging the Room
- Planning Materials
- Assigning Roles
- Explaining the Academic Task
- Structuring Positive Interdependence
- Structuring Individual Accountability
- Structuring Intergroup Cooperation
- Explaining Criteria for Success
- Specifying Desired Behaviors
- Monitoring Students' Behavior
- Providing Task Assistance
- Intervening to Teach Collaborative Skills
- Providing Closure to the Lesson
- Evaluating the Quality and Quantity of Students' Learning
- Having Groups Process Their Effectiveness
- Doing Whole Class Processing
- Having Individuals Process Their Effectiveness
- Teaching Needed Cooperative Skills
- Giving Feedback on Cooperative Skill Use
- Rewarding Skillful Groups
- Rewarding Skillful Students
- Using Student Observers
- Demonstrating Cooperative Groups to Other Professionals

D. W. Johnson, R. T. Johnson, & E. J. Holubec, Copyright 1988, *Cooperation in the classroom.* Reprinted by permission of Interaction Co.

Activity

While classes are involved in cooperative learning activities, teachers don't sit by their desks and do clerical work. Cooperative learning is one of the most engaging activities for classroom teachers. Brainstorm a list of activities for classroom teachers in the preparation and maintenance of cooperative learning in their classes. Add to your list from the Johnson, Johnson, and Holubec list.

Closing Activities for Cooperative Learning

Breeden and Mosley (1991) feel that it is imperative that processing be included at the end of each cooperative group activity. Allowing five to ten minutes to evaluate the cooperative learning activity is recommended. A group processing inventory is one example of a closure activity. Other methods of closure include the following:

* Students demonstrate the new skill
* A game activity
* A class discussion that begins with the statement, "The best cooperative thing we did today was_____."
* A quiz over the material
* Students verbally praise fellow group members, shake hands, or pat each other on the back
* Students discuss the target cooperative behavior. Were quiet voices used? Did we perform our roles?
* Students review the teachers monitoring checklist and student observer's data.
* Students list one thing they learned that day in the group.
* Students compose a song, rap, or riddle about cooperative learning.

T. Breeden, & J. Mosley, Copyright 1991, *The middle grades teacher handbook.* Reprinted by permission of Incentive Publications Inc.

Activity

Select one of the cooperative learning activities that one of the core teachers on your team has completed in the last week. Brainstorm a list of different ways to process the cooperative learning activity using alternative ways of assessment.

The Basics of Making a Cooperative Lesson Work

The teacher's role increases in cooperative learning activities. The success of the activity can be measured by following these five strategies:

1. Specify the academic and the collaborative skills objectives for the lesson.

2. Make decisions about placing the students in groups and have materials needed.

3. Explain the task, goal structure, and learning activity to the students (This includes clear positive interdependence, individual accountability, criteria for success, and the desired collaborative behaviors).

4. Monitor the effectiveness of the cooperative learning groups and intervene to provide task assistance or to increase students' interpersonal and group skills.

5. Evaluate students' achievement and help students analyze how well they collaborated with each other.

K. Kostel, Copyright 1994, *Strategies for teaching middle school.* Reprinted by permission.

Activity

After your team has tried cooperative learning activities for about three weeks, discuss these five basics to see how closely you have developed cooperative learning activities. Discuss the curriculum goals and objectives that have been met in your curriculum area through cooperative learning. What are some of the ways that you have placed students into groups? What are some of the social skills that you've taught to students, but still need work? What kind of techniques do you use to monitor the effectiveness of your cooperative learning groups? Discuss grades that students have received working in cooperative learning groups. Have final test scores improved? Why or why not?

CURRICULUM INTEGRATION

Integrated curriculum in a middle school is complex and evolves slowly. Once teams are organized, it is important for them to visualize the goal to integrate curriculum. Often integrated curriculum does not occur for the first two to three years of interdisciplinary team organization. Significant benefits to youth will result as teachers collaborate to fuse their subjects.

Curriculum integration may occur in steps. The level of curriculum integration is described in varying ways. Schumacher (1992) has identified five levels of curriculum integration ranging from departmentalized, parallel, complementary, and webbed to integrated curriculum. Departmentalized instruction is what is typically seen in a traditional junior high. The easiest method to integrate curriculum is to begin with parallel lessons in which two disciplines work together. For example, English and science may work together by having the English classes study and test science spelling words. Science classes could do a term paper on a scientist concentrating on format and writing styles. Complementary lessons occur when two naturally connected disciplines may work together. For example, history and science might connect in the study of space exploration. Webbed curriculum integration involves developing curriculum around themes. Curriculum integration is ideal when the maximum coherence is achieved in all core subject areas and segmentation is minimal.

Lounsbury (1992) predicts that by the year 2000, successful middle school teachers must see themselves as more than a single subject teacher. He further states that connecting the curriculum via interdisciplinary instruction is not an optional activity for middle level educators--it's mandatory! (p. 1)

The following examples of integrated curriculum in the resource guide may be enhanced by books written about integrated curriculum by Beane (1990), Drake (1993), Fogarty (1991), Hawkins and Graham (1994), Palmer (1991), Springer (1994), and Stevenson and Carr (1993).

Building an Interdisciplinary Planning Matrix

In developing any kind of curriculum integration, one of the first steps would be to develop a curriculum map. A curriculum map can be developed by listing the units that the individual discipline covers by month.

	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Science									
Math									
Social Studies									
Language Arts									
Exploratory									
P.E.									

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Activity

With your team, sit down and list all the major concepts, units, skills, each of you will be covering during the school year. Try to record by subject area and by month. Look for overlaps or changes which could be easily worked into interdisciplinary units.

Reasons to Integrate the Disciplines

There is a belief that integrated learning activities can contribute to the efficient use of time, and program offerings can be expanded and strengthened if students can work on two or more subject area objectives simultaneously. Units integrated between subjects and skills can provide instances of the same piece of work being marked from the perspective of several different subjects. Here are some of the justifications offered for this approach:

1. The "real world" is integrated.

   Although learning is a natural, integrated process, in order to organize school time, educators have often defined getting an education as having separate and unrelated experiences in different disciplines. Despite this arrangement, one relies on the interrelatedness of learning in one's work and everyday life. Individuals do not purchase a car, cast a vote, or listen to a symphony performance with the knowledge and skill of a single discipline. In the real world, we mesh what we know and do.

2. Students do best when learning is connected.

   Recent research in the areas of effective teaching, reading in the content areas, and writing across the curriculum suggests that students learn and remember best those things that are reinforced and integrated in more than one curricular area. Students respond when one subject area supports another. School subjects are also more meaningful to students if they are shown to have contact outside their own spheres.

3. Students become the focus of learning, not the teacher.

   Students first get hooked by a topic or focus that has a sense of wholeness. Because of the process-orientation of the approach, students are actively involved as decision-makers and problem solvers. They have choices and can work with their peers. Although there is recognition of involvement at different ability and interest levels, a sense of group effort is still fostered. Integrated units or programs create an air of enthusiasm among teachers, students, and the community. Students often consider such study "not like school" and a "real break from textbooks."

4. Integrated programs are useful in tracking other areas of concern.

   Individual teachers or the entire professional staff have other goals that can be addressed successfully through an integrated curriculum approach. Some additional reasons to integrate; integrating the disciplines broadens a teacher's

knowledge and understanding of all disciplines and goals at a particular grade level, links a successful program with a less successful one, draws on the strength of master teachers to assist less capable teachers, improves group achievement test scores in a particular area, increases community involvement, and improves school spirit and a sense of belonging in students.

5. It is difficult to teach subjects and skills in isolation during a five and one-half hour instructional day.

   Integrated learning activities can contribute to the efficient use of time, and program offerings can be expanded and strengthened if students can work on two or more subject area objectives simultaneously. Integrated units between subjects and skills can provide instances of the same piece of work being marked from the perspective of several different subjects.

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Activity

Integrated curriculum may be new to your school and school community. Though it makes sense to educators to connect curriculum for students, the concept may not be accepted by all members of the community. How could your interdisciplinary team explain the reasons for connecting learning activities in the curriculum. How could you convince Fundamentalist Christians who were opposed to integrated curriculum that this was one of the ways to connect curriculum? Make list of reasons community members coming from different perspectives might oppose integrated curriculum? How would an advocate respond responsibly to each one? What are the implications of these responses for your movement to work with this innovation?

Steps for Beginning to Integrate the Disciplines

Forte and Schurr (1993) have identified ten steps for beginning interdisciplinary teams to consider when integrating subject areas.

Step 1: Each teacher on a team should develop a workable definition of interdisciplinary instruction as he or she understands it. All team members compare and discuss individual interpretations of interdisciplinary instruction. Finally, the team synthesizes the best ideas from all team members and come up with a workable definition.

Step 2: Each team member brainstorms a wide variety of possible topics for interdisciplinary instruction that would most easily incorporate their core subject areas. Team members meet to share their respective lists, to eliminate duplicates or overlaps, and to compile a master list that appeals to all team members.

Step 3: Each team schedules a formal meeting to select any one of the designated themes for future implementation. Team members brainstorm related topics for each of the core subject areas. Next, teams locate resource materials on the topic and look for activities that lend themselves to science, social studies, math, or language arts.

Step 4: The fourth step involves a series of team meetings that requires team members to complete an outline for teaching the interdisciplinary topic agreed upon in Step Three. Each teacher determines the key skills or concepts that are important parts of the interdisciplinary process.

Step 5: Team members exchange classes for at least one period, teaching one another's subject areas according to prepared lesson plans. For example, the science and math team members teach each other's classes for a session while the social studies and language arts team members do the same.

Step 6: Next, team members set aside the textbook in their subject area for a minimum of three consecutive days. Emphasis is placed on the use of other resources and delivery systems for teaching required basic skills and concepts. This requires team members either to practice using other types of reproducible materials for instruction with students or to develop individual activities of their own using varied tools and techniques to differentiate instruction.

Step 7: Team members spend at least three days practicing the art of "creative questioning" within their disciplines. This approach encourages students

to tease their minds and stretch their imaginations. Using the same types of higher order questions in different subject areas can help the young adolescent to see the connectedness of both content and thinking skills.

Step 8: Team members decide upon an individual skill such as drawing conclusions or the concept of measurement and develop a short lesson in science, math, social studies, and language arts to present to their students for one week. This activity will provide each team with a chance to approach a skill or concept from several interdisciplinary points of view.

Step 9: The team composes a letter to parents or guardians outlining plans for the interdisciplinary unit and the involvement of the family. The content of the letter includes specific information about theme, purpose, length, objectives, varied activities, and projected outcomes. In addition, the letter invites parents to become involved in a variety of ways. The team members should also prepare their homeroom or group of assigned students for this interdisciplinary adventure, making certain that all stakeholders understand its purposes.

Step 10: Finally, the interdisciplinary unit is field tested by team members with their students. The team designs a simple student evaluation form for assessing the unit's effectiveness. The evaluation form includes questions about all aspects of the interdisciplinary unit including appropriateness of the subject matter, activities, time span, team teaching, and learning resources.

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Activity

Develop a list of possible themes for each discipline on your interdisciplinary team. Look for ways two disciplines could connect the theme in the instruction of the material. Design a plan to connect the curriculum theme. What are the concepts that will be taught through this theme? How many days will this theme be carried out? What curriculum goals are being met in this thematic instruction?
How will students be prepared in this lesson? Ask students what they think about this kind of learning.

Shared

In shared discipline integration, two disciplines that seem to have natural relationships are scrutinized for concepts and ideas that overlap. Topics and units from two related disciplines offer rich possibilities for integration by identifying basic concepts, skills, and attitudes.

Two disciplines that seem to have natural relationships are scrutinized for concepts and ideas that overlap.

Science	Overlap	Language Arts
Photosynthesis		Interviews
ecology	cycles	biography
ecosystem	concepts	(life cycle)
conservation (respect for ecosystem)	respect	respect for point of view
flow charts	sequencing skills	following the plot line

From *The Mindful School: How to Integrate the Curriculum* by Robin Fogarty, Copyright 1991, IRI/Skylight Publishing Inc., Palatine, IL. Reprinted with permission.

Activity

Select units from two of the content fields for which your team is responsible. Develop a shared integration model for these units using the technique that is suggested in the model.

Transdisciplinary Approach

Interconnections in the transdisciplinary approach are so vast that themes, strategies, and skills seem to merge when the theme is set in its real-life context. Disciplines are transcended, but embedded naturally within the connections. The transdisciplinary approach is on meaning and relevance through a life-centered approach. Drake (1993) has developed an example of the transdisciplinary approach to integrated curriculum.

Transdisciplinary Web

Politics

Media Law

Business Environment

Economic Forces FOCUS Technology

Social Issues Time (past, present, future)

Global View

From *Planning Integrated Curriculum* by S. Drake, Copyright 1993. Reprinted by permission of ASCD, Alexandria, VA.

Activity

Brainstorm various themes that could be carried throughout the year in the four or five curriculum disciplines. An example might be thinking skills strategies utilizing the levels in Bloom's Taxonomy. How would the various disciplines carry out the theme on a daily basis in their classes? Reference may be made to the book called Watershed: A successful voyage into integrative learning. In this book, a full day experiential program is described that involves students in real life activities through integrated curriculum.

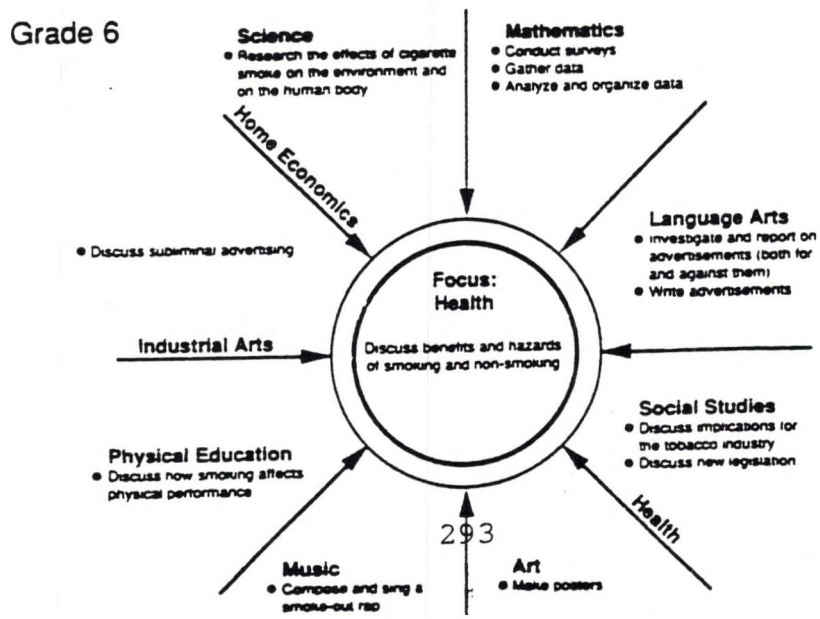
Planning Wheels

Planning wheels may be used to create interdisciplinary curriculums that make learning more meaningful. Planning wheels keep the teachers' content area central and allowed for the integration of logical, natural elements of associated content. The design allowed the insertion of as many subject areas as needed or desired, and the discipline-designated pies changed according to specific needs. This planning tool allows teachers to continue to focus on a specific subject area while identifying appropriate connections with other content. Palmer (1991), describes the flexibility of the planning wheel and indicates that students use the planning wheel for themselves as they have become aware of the need to integrate information from many different sources.

From *Planning Wheels Turn Curriculum Around*, by J. M. Palmer, Copyright 1991. Reprinted by permission of ASCD.

Activity

Using the planning wheel model Sample Planning Wheel 9: Smoke Free 2000 as a source, develop connections for curriculum by identifying a common goal, objective, theme, or skill. For example, the theme may be thinking skills. Discussion should occur among the disciplines to determine how thinking skills will be integrated into the curriculum.



Integrated Studies Planning Framework

The focus or theme of integrated studies should be interesting to young adolescents. Teachers or students may choose, or everyone may agree on the topic. Most importantly, the topic should generate student interest, and learning should be as authentic as possible. Stevenson and Carr (1993) wrote about an interdisciplinary team in Vermont that generated a list of students' expressed interests.

Activity

As an interdisciplinary team beginning to develop themes for integrated curriculum, list everything that is known to be of interest to your own students. What do they talk about? What do they do outside of school? What are their hobbies and interests? What is going on in the world? What does the community have to offer? When you have developed your list, look at the list by Stevenson and Carr for additional ideas. Additional information about integrated curriculum may be found in the book by Stevenson called Teaching ten to fourteen year olds.

music	skiing	baseball cards	pets
bicycles	football	clothes	sports
superstitions	boys	girls	3-wheelers
TV	dolls	video games	food
money	vacations	rock stars	movie stars
movies	themselves	fads	toys
UFOS	collections	photography	super heroes

Community Resources

cemeteries	rivers	lakes	trucking
mountains	businesses	services	bridges
dumps	hospitals	airports	museum
transportation	careers	power plants	newspaper
TV stations	malls	barns	radio station
fairs	railroads	churches	buildings
local government	circuses	crafts/crafters	forests
roads	farms	senior citizen centers	

From *Integrated studies in the middle grades. Dancing through walls*, Copyright 1993, by C. Stevenson & J. F. Carr. Reprinted by permission of Teachers College Press, New York, NY.

Worksheet for Use in Planning a Unit

The following is an outline of a process which can be used by teams in planning and implementing an interdisciplinary unit of study. Swaim, while at the University of Northern Colorado Laboratory School, developed this worksheet which is included in the text Connecting the curriculum through interdisciplinary instruction.

* Title/Theme selected

* Short description/focus of the unit

* Broad learning objectives to be achieved in the unit

* Identify major ideas to be stressed

* Identify skills across the content areas to be taught

* Identify major attitudes to be developed

* Strategies/methodologies to be employed:

  1. Direct experiences
  2. Simulations, role-playing/dramatizations and/or debates
  3. Investigations and/or study trips
  4. Constructions (exhibits, TV programs, murals, interviews, etc.)
  5. Read and/or listen to: (literature, speakers, community resources)

* Groupings to be employed: Which learning experiences are most effectively provided in:

  1. Large group activities?
  2. Small group activities?
  3. Cooperative learning activities?
  4. Individual activities?

* What type of unit evaluation could or should be used?
  Post-testing
  Performance-based assessment?

* Time-line and responsibility plan
  Activity
  When/where
  Who's responsible?
  Deadline?

* Annotated list of resources and materials

* Team reflections and evaluation of teaching the unit in order to improve the effectiveness on the next unit, and for improving this specific unit for next year. Student evaluation of the unit is important to consider also.

Activity

Choose a service learning activity that can be developed into an integrated unit. Use the worksheet to plan the unit following the proposed outline. Shineman (1994) has developed a list of ideas for youth service projects that may provide an idea for your team.

1. Big buddies: Act as "big buddies" to children who need support and guidance.

2. Board membership: Serving on non-profit and governmental advisory and decision making boards.

3. Building: Build houses, public facilities, parks, playgrounds, school materials or other structures. Put up snow fences, bleachers, or other temporary structures.

4. Clothes collection: Collect clothes, food, toys and other goods for public pantries and other organizations.

5. Community history: Research oral history or other local history projects for communities.

6. Cook meals: Cook meals at soup kitchens or for community dinners.

7. Crisis Centers: Support the staff of battered women's shelters and emergency shelters.

8. Day Care: Care for young children in day care centers, pre-schools and other facilities.

9. Emergency services: With appropriate training: Give medical aid as Emergence Medical Technicians on Volunteer Ambulance Services. Fight forest fires. Build dikes and sandbag to prevent flooding.

10. Environmental research: Conduct environmental research in such areas as acid rain and water quality.

11. Environmental cleanup: Clean up rivers, lakes and parks and otherwise beautify the environment.

12. Fundraising: Raise funds for charities or to fund service projects.

13. Garden: Develop and maintain community gardens.

14. Home bound: Daily or weekly, check in on home bound people to make sure they are all right and to run errands for them.

15. Home chores: Paint houses, check and/or replace smoke detectors, put up storm windows, rake leaves, move heavy items and other work for senior citizens or disabled people who live alone.

16. Hotlines: Staff youth hotlines or other public information lines.

17. Meals on wheels: Deliver Meals on Wheels or distribute government commodities, toys or other goods to people in need.

18. Paint-a-thons: Organize large scale community service projects possibly with pledges to raise money for charity.

19. Peer helpers: After training in communications, referral and other necessary skills:

    Orient new students to the school
    On referral from the school counselor, talk with troubled students.
    Pair up as "big buddies" with special education students.
    Tutor peers who are having trouble with their classes.
    Help resolve conflicts.

20. Performing arts: Perform music, theater, dance, puppetry and other arts for young people. Performances are best if they promote audience interaction.

21. Plant trees: Plant trees, shrubs, flowers, and other plants. Wild bird or habitat enhancement are also needed.

22. Public awareness: Convey information about health issues, current events, public safety, social and environmental issues, academic or other subjects to young people and to the public through the arts, videos, lectures, written works or experiential activities.

23. Public media: Produce newsletters, newspapers, cable TV programs or other public information sources.

24. Read for the blind: Read written materials for blind people. Assist others with disabilities.

25. Recreation programs: Run recreation or other outdoor education programs for younger youth.

26. Recycling: Increase public awareness about and then collect and process recyclables.

27. Research: Research information for non-profit organizations or public agencies. Examples include: surveying households about their solid waste disposal; counting wild birds; collecting local crime statistics; interviewing youth, seniors, or other groups about their need for services.

28. Special equipment: Construct special equipment such as wheelchair ramps for disabled people.

29. Special Olympics: Run Special Olympics or other events for mentally or physically handicapped youth.

30. Tutoring: Work with teaching staff to help younger students in need of extra tutoring. Tutors may teach groups, individuals, or even a whole class.

31. Victim aid: Follow through with crime or accident victims to assist with their recovery.

32. Visit institutionalized people: Provide companionship for hospital patients, prisoners, or residents in nursing homes or institutions for the mentally or physically handicapped. Individual youth may pair up with individual people in need through Adopt-a-Grandparent or similar programs.

33. Visual arts: Design posters for non-profit organizations or for public information. Design parks or other public spaces. Paint murals in downtown areas. Create cards or gifts for senior citizens.

34. Voter education: Distribute voter registration information. Help register voters.

35. Youth agencies: Lead youth leadership groups such as Camp Fire, YMCA, YWCA, 4-H, Boy Scouts, Girl Scouts, Junior Achievement, Jack and Jill, ethnic leadership groups, and many others.

36. Youth leadership: Organize youth leadership training events.

37. Youth sports: Athletes can coach younger athletes in their sport. Using one of the service learning themes, develop an integrated unit using the format provided by Swaim.

From *Connecting the Curriculum Through Interdisciplinary Instruction* by J.H. Lounsbury, Copyright 1992. Reprinted by permission of NMSA, Columbus, OH.

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PROFESSIONAL STAFF DEVELOPMENT

Professional staff development must play a significant role in preparing all educators to help students be successful in school. It is likely that staff development activities will be needed in a variety of forms to help educators reach goals they set for themselves and for students.

The section of the resource guide on peer coaching will assist educators in the implementation of the most effective teaching approaches, school and classroom organizational practices, management strategies, and curriculum development. Peer coaching encourages observation to enhance educational practices. Middle school interdisciplinary teams have an opportunity to observe one another, conference about the observation, and learn from each other.

Evaluation of interdisciplinary team organization may provide ideas for staff development opportunities. Using the observation forms that are provided as examples in this section of the resource guide will define areas for improvement. Using this as a basis for information, the staff developer or the administrator in the middle school may plan additional staff development delineated by the evaluations.

PEER COACHING

Peer Coaching

Interdisciplinary teams in a middle school have the potential to observe one another to develop new teaching strategies because of the way team and personal planning periods are organized in the schedule. Pair up with another teacher in your middle school on another interdisciplinary team, and move through the process that has been outlined by Welch, (1988). Decide what you want to observe. Plan the observation. Observe and take notes. Conference with the peer teacher.

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Peer Analysis/Coaching Process

I. Before the Observation:

* Teacher chooses a topic (criteria for selection)
* Teacher/Observer agree on form of observation (choices: live, audio, video)
* Teacher fills out the observation/data form
* Teacher provides observer with a copy of any materials/handouts for the lesson
* Teacher sends observation/data sheet to observer the day before the lesson
* Teacher prepares the students for the observation if necessary
* Observer reads the observation/data sheet, clarifying with the teacher any necessary information before the observation

II. During the Observation:

* Observer writes specific examples of what the teacher says and/or does in the area (concept/skill) to be observed (notes to be taken on the observation/data form) (You said, etc.)
* Observer collects examples throughout the time of the observation

III. After the Observation: Planning/analysis of the Lesson

* Observer labels the examples using the concept/skill he/she was to look for
* Observer reviews the format in which the feedback is to be given (as outlined on the observation/data form) (You said, etc.)

IV. Conference with the Peer Teacher

* Observer outlines the conference process for the teacher
* Observer states examples for the teacher, using the feedback format (no more than 10 minutes)
* Teacher listens to examples and the labels given by the observer and examines his/her (the teacher's) own understanding of the concepts addressed in the workshop
* Teacher lists any examples he/she would label differently
* Teacher states any questions raised in his/her mind by his/her attempts to utilize the concept/skill (no defense is necessary from observer or teacher)
* Observer writes on observation/data form examples listed by the teacher that he/she would label differently
* Observer writes on observation/data form any questions he/she had after the discussion with the teacher about this concept/skill
* Teacher reads over the examples and questions listed by the observer
* Teacher reads over the example/concern/question of the teacher that is listed accurately to prevent misunderstanding through translation

V. Conference with the Peer Teacher

* Teacher discusses all the reasons he/she can think of for using the concept/skill and identified times when this concept/skill would be useful in the learning process
* Observer adds any reasons for using the concept/skill or identified additional times when it could be used that were not mentioned by the teacher
* Observer records all rationale and times when concept/skill could be used on the observation/data form

VI. Summary/Journal

On the day of the conference, teacher and observer write their reactions to the peer analysis experience in the Observation/Teaching Journal. Using the following stems:

I liked I wondered I think I feel
I discovered I refined I believe I am proud
I rediscovered

VII. Before the next workshop session

* Observer reads over the examples the teacher would have labeled differently (listed on the observation/data form)

* Observer reads over the questions the teacher had after attempting to use the skill
* Observer reads over the questions he/she had after the discussion with the teacher

From *Developing Peer Coaching Skills,* Copyright 1989, by S. W. Welch. Reprinted by permission by ASCD, Orlando, FL.

Peer Coaching

This is an example of a conference sequence developed by Welch (1988) for use in the post conference. Develop a suitable method for the post conference that you may feel comfortable with in your peer coaching experience.

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Conference Sequence - Phase II

Observer	Teacher
1. Introduction of conference.	3. Give any additional examples (labeled) of the skill used in the lesson.
2. Give examples using attached format.	4. Examples which the teacher felt should be labeled differently (if any).
5. Give evidence the skill(s) was used appropriately (productive to learning process).	6. Give any additional evidence the skill(s) was used appropriately.
8. Observer's questions about the skill/concept.	7. Questions raised by the teacher as a result of trying the skill/concept.

Conference Summary

What did I do that facilitated the conference with this teacher?

How could I improve to make the conference process even more productive to the teacher?

How will the information/examples discussed in this conference help me make future instructional decisions?

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Peer Coaching

Observation/Planning

Develop an observation and planning sheet to assist in the organization of the preconference sequence. You may use this observation sheet from Sue Wells Welch as an example.

Name (teacher)_____ Name (observer)_____

Lesson Topic _____ Date _____ Time _____

Special requests from teacher for the observer _____

_____

Objective(s) for the lesson _____

_____

Concept/skill to be observed _____

Date (notes) taken during the lesson by the observer. Label examples below.

Any evidence of the appropriate use of the skills labeled above.

Other strategies which could be used for the skills labeled above.

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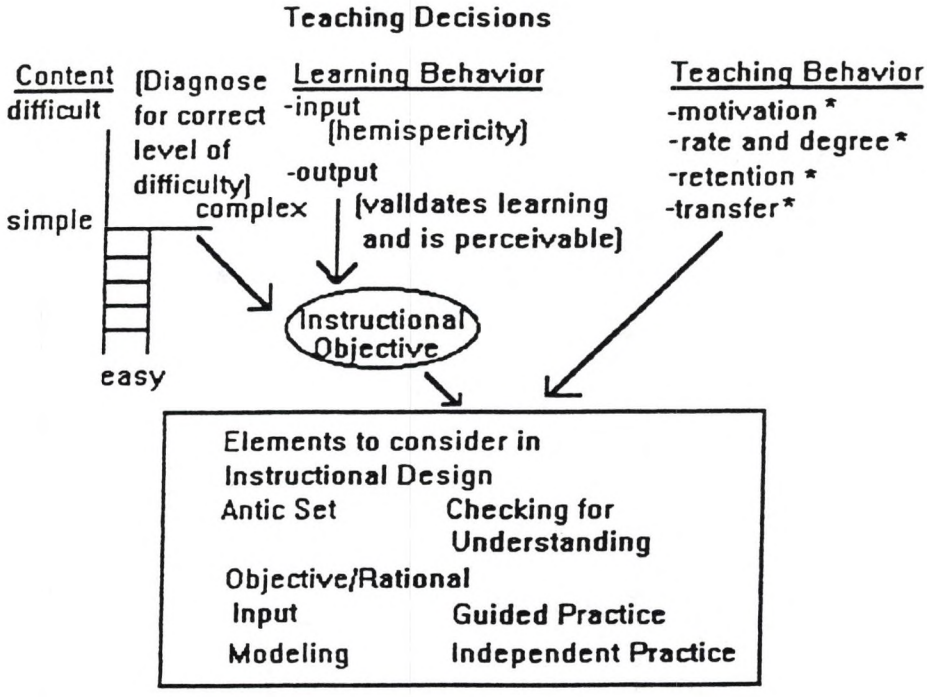
Elements of Instruction

Peer coaching observations may be drawn from the Elements of Instruction that Madeline Hunter has developed. Madeline Hunter states: "Teaching is a stream of decisions, the implementation of which increases the probability that learning will take place.



From *Mastery Teaching,* Copyright 1982, by M. Hunter. Reprinted by permission of Corwin Press Inc.

Activity

Read the research from Madeline Hunter on the Elements of Instruction. Select a teacher behavior and discuss how it might be observed using the peer coaching model.

TESA

Teacher Expectations Student Achievement

This program developed by Kerman (1980), works well with Peer Coaching because of the way it is designed. Teams of five teachers observe each other over a period of months and record interactions between teachers and students. It is the contention of this program that children for whom a teacher holds expectations of academic success need the quality and degree of respect, supportiveness, and response opportunities that the same teacher affords children for whom high expectations of academic success are held.

In this program, teachers choose five high and five low target students that are charted by four observers in the classroom. Target areas include five different strands. This fits into the Peer Coaching model of observation and recording of data. The preconference and post conference to the observation complete the peer coaching experience.

Activity

Select the strand on equitable distribution and develop a seating chart to record interactions between the teacher and the students. During a 20 to 30 minute instructional observation, record the number of interactions between the teacher and the students with hash marks on the seating chart. Meet with the instructor to display the interactions that were recorded.

TESA Interaction Model

Units	Strand A Response	Strand B Feedback	Strand C Personal Regard
1.	Equitable Distribution	Affirm or correct	Proximity
2.	Individual Helping	Praise of Learning	Courtesy
3.	Latency	Reasons for Praise	Personal Interest
4.	Delving	Listening	Touching
5.	Higher Level Questions	Accept Feelings	Desisting

From *Teacher expectations and student achievement*, Copyright 1980, by S. Kerman, T. Kimball, & M. Martin. Reprinted by permission of Phi Delta Kappan, Bloomington, IN.

EVALUATION

Evaluation of school programs is an essential component of the effective middle level school. This portion of the resource guide has been written to help you evaluate the interdisciplinary team, and team instruction. The examples of evaluations and the activities are designed to assist you in developing an evaluation that will assess the development of your team, and the instruction that takes place among the core teachers on your team.

Within this section is a set of guidelines for conducting informal, in-house evaluation of the interdisciplinary team in the middle school. The model evaluations address how the team is working as a group, how the individual team member is functioning as a member of the team, and the effectiveness of the team meeting.

Team instruction also is a major part of the function of interdisciplinary teams. Forms are included to evaluate the effectiveness of team instruction on an interdisciplinary team.

The importance of evaluation to interdisciplinary teams is to measure the effectiveness of the activities of interdisciplinary teams. These program evaluations are designed to be formative so that teams may improve their work on interdisciplinary teams. Formative evaluation is useful to teams on an ongoing basis, and encourages development and growth in the process.

How to Know If Teamwork is Working: Twenty Questions

Answers to the following questions will help you to gauge the extent of how well your team is working. For each "yes" answer, give the teamwork five points. When you add up the number of yes points, you should give your teamwork the grade that the numerical equivalent would earn in your school. For example, if your teamwork scores an 85, and an 85 is a "B" in your school, then you will have some idea of how well you are working together. Answers which receive a "No" response will provide you with a set of goals for establishing effective teamwork in the future!

_____1. Is the team organized so that teachers share the same students, space in the school, and schedule?

_____2. Does the membership on the team represent all the basic academic subjects?

_____3. Does the team have some common rules, procedures, and expectations?

_____4. Do the students recognize and feel a sense of belonging to the team?

_____5. Do the teachers work together to develop and implement activities that heighten the students' sense of community?

_____6. Do the teachers on the team develop a sense of commitment to each other and draw professional and personal support from each other?

_____7. Do teams have frequent parent conferences and good home-school relationships?

_____8. Is there adequate planning time and a planning space used by the team members for their work?

_____9. Do the teachers on the team use the time and the place for teamwork?

_____10. Do teachers work on interrelating their separate subjects, coordinating major assignments, correlating major units, etc?

_____11. Do the teachers provide, on the average, a special teamwide activity (e.g., a recognition assembly) during each grading period?

_____12. Do teachers take turns in assuming leadership for different activities within the team when appropriate to individual strengths and interests?

_____13. Do teachers meet to discuss their students, at least weekly?

____14. Do team teachers develop and carry out joint strategies in an attempt to resolve the problems identified in #13?

____15. Each time a substitute comes to a team, does at least one team member talk with the sub about team expectations and encourage the sub to contact the nearest team member for any assistance needed?

____16. Do teams have carefully selected team leaders?

____17. Do teams have some control over items like the schedule, the budget, and the curriculum?

____18. Is there a formal school wide group and process for shared decision-making, composed of teachers, and administrators, and others which meets regularly and frequently?

____19. Does the principal work with individual teams regularly and frequently?

____20. Do team members, generally, feel a sense of success and satisfaction about their work together?

From *Teamwork*, Copyright 1988, by Paul George. Reprinted by permission.

Activity

Beginning interdisciplinary teams may complete the teamwork evaluation after the first nine weeks of school. After the evaluation has been completed, assess the portions of the evaluation that need enhancing and discuss this at the Program Improvement Council meeting at your school to build on strengths and weaknesses for the following year.

Team Effectiveness Instrument
Part Two
Team Meeting Observation Form

This form is to be used when a non-team member observes team planning time.

Question	Yes	No	Comments
1. All team members present at the team meeting.			
2. All team members arrived on time.			
3. All team members stayed for the full meeting.			
4. Team members discussed ways to best meet the needs of the students.			
5. The members of the team appear to support the efforts of the team leader.			
6. Each member of the team played an active role during the meeting.			
7. The team had a team notebook which included copies of agendas, minutes, parent and student conference forms, and other pertinent information.			
8. Team members discussed correlating subjects and/or plans for inter-disciplinary instruction.			
9. Each team member had an agenda.			
10. Team members followed the agenda.			
11. Ideas and frustrations were readily shared.			
12. The team has a team name and there was evidence that team identity is strong.			

From *How to Evaluate Your Middle School,* Copyright 1992, by S. L. Schurr. Reprinted with permission of NMSA, Columbus, OH.

Activity

Schurr has developed evaluations of interdisciplinary teams for middle school educators in her book How to evaluate your middle school. Reference may be made to this book for additional ideas on the development of formative evaluations. Invite members from other interdisciplinary teams to observe your team meeting to evaluate its effectiveness. Encourage active communication among interdisciplinary team members and the evaluator as the results produced from the observation are discussed.

Instrument for Evaluation of Classroom Instruction
Part Three
Teacher Interview Form

This form is may be used by a peer coach and the teacher after a classroom observation.

1. How do you determine your objectives for each lesson you teach?

2. How do you structure a typical 45 minute lesson?

3. Have you administered any modality, left brain/right brain, learning style, or interest inventories to your students this year? If so, how do you incorporate this information in your classroom?

4. How do you regularly select your teaching materials and resources for classroom instruction?

5. What percentage of classroom instruction depends on the textbook as a delivery system in any given week?

6. What percentage of classroom instruction incorporates each of the following instructional strategies during any given week:

   _____a. Cooperative Learning groups
   _____b. Individualized Instruction
   _____c. Learning Centers
   _____d. Contracts
   _____e. Independent Study Packages
   _____f. Gaming and Simulation
   _____g. Lecture
   _____h. Peer Tutoring
   _____i. Other (please specify)

7. How do you determine what level of questions to use with students during a given instructional session?

8. How do you know if your delivery system or teaching lesson has been successful?

9. What kind of student feedback do you regularly use in the classroom?

10. What techniques do you use more often to motivate students and how successful do you feel they are?

11. What techniques do you use most often to discipline students and how successful do you feel they are?

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Activity

After a peer coaching observation, use this form to facilitate the post conference discussion. Analyze the observation, and develop strategies to assist instruction in the classroom.

Developing an Instrument

Merenbloom (1991) has developed a list that may be used to develop your own evaluation instrument. Each middle school is unique, and not all areas may need to be evaluated in this process. From this rather lengthy list, items could be selected that are most meaningful to the individual team. Other questions that reflect the priorities, goals, or experiences of team members could be added.

Evaluating the Effectiveness of the Team

	Consistently	Frequently	Occasionally	Comments
1. Does the team respond to needs of students?				
2. Does the team enhance the self-concept of students?				
3. Do members of the team discuss their commitment to the middle school concept?				
4. Do members of the team explore their role and function as a team?				
5. Do members of the team make an effort to know each other?				
6. Do members of the team discuss their expectations of each other?				
7. Does the team work effectively with resource personnel?				
8. Do members of the team support the efforts of the team leader?				

	Consistently	Frequently	Occasionally	Comments
9. Are efforts made to resolve conflicts among team members?				
10. Are leadership responsibilities shared?				
11. Does everyone participate equally in making decisions?				
12. Are guidelines for gaining consensus for shared decision making followed?				
13. Have team decisions been implemented?				
14. Are records kept on team decisions?				
15. Are there specific goals and objectives for the year?				
16. Does the team evaluate goals and objectives periodically?				
17. Do team members correlate content between subjects included on the team?				
18. Do team members correlate the teaching of skills?				
19. Are skills taught in context?				
20. Does the team provide a home base program for students?				

	Consistently	Frequently	Occasionally	Comments
21. Do team members recognize the relationship of planning periods to the instructional program?				
22. Do team members use varied techniques communicating with parents?				
23. Are parent conferences successful?				
24. Does the team strive to include special education students within the team process?				
25. Do team members utilize opportunities for modular/ flexible scheduling?				
26. Do team members develop and utilize rotating schedules?				
27. Do team members identify local options available to the team?				
28. Do team members develop plans to use local options?				
29. Do team members utilize opportunities to group and regroup pupils for various instructional purposes?				
30. Do team members use available data about pupils in developing overall instructional programs?				

	Consistently	Frequently	Occasionally	Comments
31. Are individual team members sensitive to group dynamics at team meetings?				
32. Is the agenda followed?				
33. Does the team have an agenda for all meetings?				
34. Is team planning time kept strictly for team business?				
35. Does the team utilize sub-grouping of the team when appropriate?				
36. Do team members offer suggestions for the design of the master schedule?				
37. Do team members participate in staff development activities?				
38. Do students benefit from the team's efforts?				
39. Do team members discuss appropriate teaching strategies?				
40. Do team members assess team planning logs on a regular basis?				
41. Are opportunities for alternate day rotations utilized?				
42. Is paper work completed in a timely fashion?				

From *The Team Process in the Middle School,* Copyright 1986, by E. Y. Merenbloom. Reprinted by permission of NMSA, Columbus, OH.

Activity

Develop an evaluation instrument that is reflective of the work that your interdisciplinary team accomplishes in the middle school. Items can be selected or adapted from this list provided by Merenbloom.

- Develop an instrument from selections of the Merenbloom evaluation sample that students could fill out to reflect their feelings about how interdisciplinary teaming is progressing. Have students complete the survey and reflect on their responses in goal setting to meet student needs for the next year.

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Resources

Carnegie Council on Adolescent Development
P.O. Box 753
Waldorf, MD 20604
(202) 429-7979

Center for Early Adolescence
Department of Maternal and Child Health
School of Public Health
University of North Carolina at Chapel Hill
Suite 223, Carr Mill Mall
Carrboro, NC 27510

CEYA (Center of Education for the Young Adolescent)
University of Wisconsin-Plattville
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