

**CURRENT SCHEDULING, TEAMING, AND CURRICULUM
PRACTICES IN VIRGINIA'S MIDDLE SCHOOLS**

by

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(ABSTRACT)

The purpose of this study was to describe the current schedules employed, teaming practices, and curricula used by the middle-level schools in the Commonwealth of Virginia, and it was conducted through the use of descriptive statistics. A questionnaire was sent to experts in the area of middle school education for review and field-tested with practicing administrators in middle-level education. The questionnaire was revised and mailed to 237 principals of the public schools in Virginia which have at least three grade levels drawn from five, six, seven, or eight but not grade levels four or nine. Principals from 134 schools, 57 percent of middle schools in Virginia, returned the questionnaire. Data collected from these questionnaires were used to describe the types of schedules employed, teaming practices, and curricula utilized by the participating middle schools.

The number of middle schools in Virginia has continued to grow since their reported existence in the 1970's and the Virginia Department of Education's emphasis on the use of middle school practices in 1986. In 1985, Jessie Charles Zedd reported that there were 110 middle schools in the state. By 1996, the Virginia Educational Directory listed 237 middle schools, a percentage gain of 46. An increased use of middle school flexible scheduling and interdisciplinary teaming has occurred since that study.

Most of the middle-level schools that participated in this study were mid-sized schools with 501 to 1,000 students and housing grades six, seven, and eight. The majority of middle-level schools in the Commonwealth of Virginia was found to utilize interdisciplinary teaming and a core curriculum. Flexible scheduling is utilized in most middle schools at grades six and seven but traditional schedules are used more frequently at grade eight. The use of flexible scheduling and teaming decreases from the sixth grade to the eighth grade in middle schools in the Commonwealth of Virginia. Ability grouping was reportedly used in more than 75 percent of middle schools participating in the study. Students are required to take all core subjects in most middle-level schools in Virginia and are offered high school level classes even before the eighth grade.

The emphasis on the importance of middle-level education continues to be stressed nationally as well as within the Commonwealth of Virginia. Middle-level practices such as flexible scheduling and interdisciplinary teaming have served as examples of effective practices being considered and utilized by high schools. Advocates, practitioners, administrators, and teachers of the middle-level schools need to continue their emphasis on effective middle-level programs and practices for the continued improvement and success of middle schools. Improvement in the use of flexible scheduling, interdisciplinary teaming, and fewer grouping practices should be a goal of many middle-level schools to become exemplary schools. Middle schools should have high expectations for all and make their programs accessible to all students.

Recommendations and data reported from this study may be used as a resource by administrators and other interested practitioners to restructure their programs in order to better serve middle-level children.

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Even hope may seem futile,
When with troubles you're beset,

But remember you are facing

Just what other men have met.

You may fail, but fall still fighting;

Don't give up, what e'er you do.

Eyes front, head high to the finish,

See it through!

-Edgar A. Guest

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CHAPTER I

INTRODUCTION

Middle School education emerged nationally during the late 1960's and early 1970's (Wiles & Bondi, 1986). The middle school concept emerged because of the changing societal needs of the pre- and early adolescent (Stradley, 1972) and the belief that the middle school program was better suited than that offered by the junior high school to meet the unique need of its students. Programs in the middle school are based on practices that respond effectively to the developmental needs that students have at this period of adolescence. Such practices are focused on the physical, intellectual, social, and emotional characteristics of students in the middle school (Alexander & George, 1981; George & Alexander, 1993).

The program needs of the middle school have been identified by The National Middle School Association in their position paper "This We Believe." Six of the position paper's statements identify general characteristics that should exist in order to make the most appropriate decisions for middle school programs, and six statements target major program components that should be present in a middle school. The six characteristics and six components, together, combine to shape the vision of what a middle school should be. The position paper reads:

The National Middle School Association believes:
Developmentally responsive middle-level schools are characterized by:
Educators committed to young adolescents
A shared vision
High expectations for all
An adult advocate for every student
Family and community partnerships
A positive school climate

Therefore, developmentally responsive middle-level schools provide:

Curriculum that is challenging, integrative, and exploratory
Varied teaching and learning approaches
Assessment and evaluation that promote learning
Flexible organizational structures
Programs and policies that foster health, wellness, and safety
Comprehensive guidance and support services

("This We Believe," National Middle School Association, 1995, p. 11).

The importance of middle schools in Virginia increased when the Virginia Department of Education began emphasizing middle-level practices for the middle-level grades in 1986, and provided workshops and training for those school divisions that had not yet begun using middle-level practices. The workshops defined the various educational concepts and practices that characterize a successful middle school educational program (Virginia Department of Education, 1990) and encouraged the use of middle-level practices in schools with grades six, seven, and eight. Middle schools grew rapidly in Virginia though they did not exist prior to 1967 (Alexander, 1968). Brooks and Edwards identified 132 middle schools in Virginia in 1978 (as cited in Zedd, 1986). The number of middle schools in Virginia grew to 237 by 1995 (1995-96 Virginia Education Directory, Virginia Department of Education).

Early growth and the initial development of middle schools were not always based on the practices identified to best meet the needs of the middle school student. Many schools formed this grade level configuration because it was a national trend, to assist the need for desegregation, to reduce overcrowding of elementary schools, or for other political reasons such as budgetary constraints.

Prior to the middle school organization, junior high or intermediate schools were the accepted grade configurations. The grade organizations were an extension of the high school program to grades seven, eight, and nine and were typified by rigid scheduling and departmentalization. The junior high school, with its emphasis on content needed to prepare students for the high school program, never materialized into a transitional program as was intended. Dissatisfaction grew as the junior high school continued to ignore the needs of the adolescent (Kindred, Wolotkiewicz, Mickelson, Coplein, & Dyson, 1976) and it became apparent the junior high school was unlikely to break away from the influences of the traditional high school (George, Stevenson, Thomason, & Beane, 1992).

Although many practices have been recommended for use in the middle-level grades, middle schools continue to cling to many of the traditional junior high school elements. "America's Middle Schools: Practices and Progress - A 25 Year Perspective" identifies many of these traditional practices that schools continue to use, such as teaching discreet disciplines rather than using an interdisciplinary approach. Forty-six middle schools from the Commonwealth of Virginia were included in the national study of traditional middle school concepts. The study reviewed and reported on enrollments and articulation, instructional organization, curriculum, and reporting pupil progress. It also included results of the use of grouping practices, teacher advisory programs, athletic programs, and faculty characteristics (McEwin, Dickinson, & Jenkins, 1996).

Middle school practices implemented partially or independently of one another are unlikely to produce a significant rise in student achievement. It is important for schools to understand that in order for middle school programs to allow students to achieve significant positive outcomes,

they must implement practices and have them to operate together. Structural changes and rhetoric have little impact on student outcomes (Lipsitz, Jackson, & Austin, 1997; Lipsitz, Mizell, Jackson, & Austin, 1997).

Middle school education has existed for more than 30 years, focusing on the goal of providing appropriate educational practices to adolescents while resisting the same high school influences that restricted the success of the junior high school. School systems nationally have recognized that the practices of middle-level schools are important and have implemented middle school programs. After rapid growth of the middle school and now the acceptance of the middle school concept, educators must make efforts to establish or maintain actual middle school practices within their organization (Alexander & George, 1981; George & Alexander, 1993; George, Stevenson, Thomason, & Beane, 1992).

Statement of the Problem

The purpose of this study is to describe the current scheduling, teaming, and curricula practices at the middle-level schools in the Commonwealth of Virginia. The number of middle schools in the Commonwealth of Virginia has continued to increase as the number of middle schools has nationally, but there has not been a study documenting the practices in Virginia's middle schools since 1986. Many schools have implemented the middle school concept since that study, and many other middle schools have continued to improve or change their scheduling, teaming, and curricula practices as they have become more knowledgeable of the middle school concept and as other scheduling, teaming, and curricula practices have emerged. It is important to document the current scheduling, teaming, and curricula practices at the middle-level schools in the Commonwealth of Virginia to ascertain their current status, to provide direction for the continued development of middle school programs, and to have a resource for middle-level administrators and practitioners. This study describes the current scheduling practices used at the middle-level grades in Virginia, identifies the core academic and exploratory courses being taught in Virginia's middle schools, and describes the teaming arrangements and practices used in the middle-level grades in Virginia.

Purpose of the Study

The purpose of this study was to provide a descriptive profile of the scheduling, curricula and teaming practices used in middle schools within the Commonwealth of Virginia. Recommendations are presented based on a review of the literature and an analysis of what is currently being utilized. Documentation of the current practices along with recommendations will serve as a guide for assisting middle-level school administrators as they develop and improve their programs. It also documents current practices that have emerged within the middle school movement.

Significance of the Study

It is important to document the current practices within the middle schools in Virginia as a guide for assisting middle schools as they develop and reorganize their programs. It is also important to document the practices within the middle school movement to assess where schools should now place their emphases in efforts to improve their practices and programs. The need for research of middle-level programs is supported by middle school advocates such as Joyce Epstein, Douglas Mac Iver and Joseph Murphy who indicate that very little of middle school restructuring comes from studies of what is actually happening in schools and classrooms (Felner et al, 1996). John Mergendollar further emphasizes the need for research of middle-level programs in his comment that “a past characteristic of middle-grades reforms that has slowed change is that it has been powered more by rhetoric than by research . . . Reform cannot be left to rhetoric alone. Research is needed to validate, guide, and extend it” (as cited from Felner et al, 1996).

The importance of this study has been verified by key authorities in the field of middle school education such as Dr. Tom Gatewood, associate professor of education at Virginia Tech; Mildred Sexton, President of the Virginia Middle School Association; and Dr. Nancy Doda, professor at National-Louis University. These authorities have agreed that practices in the areas of scheduling, curriculum, and teaming are important middle school practices and should be studied. Therefore, it was believed that this study might be useful to the Virginia Middle School Association, boards of education, school administrators, and other professionals in the field of education.

Definition of Terms

Middle-level grades for this study are those schools with three of the following grades - five, six, seven, or eight, but not grade levels four or nine.

The curriculum is defined as those basic subjects required to be taken all year by all students; those elective subjects that may be taken all year by students for high school level credit according to the Virginia accreditation standards; and exploratory courses that are offered.

Interdisciplinary teaming is an organizational strategy by which a common group of teachers shares the following: (1) the responsibility of planning, teaching, evaluating curriculum and instruction in more than one subject in the core curriculum; (2) the same group of students; (3) the same schedule; and (4) the same area of the building (Alexander & George, 1981).

Scheduling is a vital process which defines how the school day is structured and how students are organized to access the school’s curricular program.

Limitations of the Study

This study only applies to those schools with a minimum of three grades within a five-through-eight configuration that responded to the questionnaire instrument; excluded from the study are those schools that have a different grade configuration but employ the middle school concept within their schools. There are schools that include different grade levels and practice a school-within-a-school concept. While the practices identified are middle-level practices, each school community is different, and the practices are applicable to other schools only when the practices meet the need of that school population and community. This study is also limited to those current practices of scheduling, curriculum and teaming that authorities in the field of middle school education indicate are key components of the middle school concept.

The data collected from the questionnaire are dependent upon the cooperation and interpretation of principals across the state. Review of the questionnaire was performed by authorities in the field of middle school education; however, the interpretation of terms among school principals within the state may vary based upon their experiences, school philosophy or personal beliefs. The questionnaire was pretested by three administrators knowledgeable of the middle school concept for the purpose of identifying confusing and unclear questions.

Organization of the Study

Chapter II contains a review of the literature documenting the history of the middle school concept. Scheduling practices are described with explanations of the importance of instruction in the middle school. Interdisciplinary instructional practices and curricula practices are reviewed, described and explained.

The methodology is presented in Chapter III. This chapter includes a description of the population included in the study, the questionnaire, the analysis of the responses to the questionnaire, and the procedures used in this study.

Chapter IV includes an analysis of the data. Data are reported narratively and presented in tables as well as interpreted.

Chapter V presents the findings, conclusions, and recommendations of the study. The conclusions address the types of scheduling, curricula, and teaming practices used in Virginia's middle schools and make recommendations for further study.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The primary purpose of this chapter is to review the literature on scheduling, teaming, and curricula practices of the middle-level schools. Although research on the status of middle-level schools is available, the research for the identified areas of this study -- scheduling, teaming, and curriculum -- is limited for the Commonwealth of Virginia. There have been studies published that looked at the status of all practices of middle-level schools in the nation and in the Commonwealth of Virginia.

This chapter is divided into four sections. An overview of the development of the middle-level schools is presented in section one. Section two presents the characteristics and practices of scheduling the middle-level school. The characteristics of teaming practices are presented in section three. Curricula practices are presented in section four, along with the curriculum requirements set by the Commonwealth of Virginia.

Overview and Development of the Middle School

Middle schools began to exist in the 1950's, and according to Gatewood, the earliest middle schools in rural areas were essentially innovative junior high schools (as cited in Wiles, 1995). William Alexander introduced the term "middle school" in the 1960's and defined it as follows:

A school providing a program planned for a range of older children, preadolescents, and early adolescents that builds upon the elementary school programs for early childhood and in turn is built upon the high school's program for adolescence (Alexander et al, 1968, p. 5).

"Middle school" has also been defined in these terms:

A school of some three to five years between the elementary and high school focusing on the educational needs of students in these in-between years and designed to promote continuous educational progress for all concerned (Alexander & George, 1981, p. 3).

A third definition follows:

Middle-level education is the segment of schooling that encompasses early adolescence, the stage of life between the ages of 10 and 15. In order to be developmentally responsive, middle-level schools must be grounded in the diverse characteristics and needs of these young people. It is this concept that lies at the heart of middle-level education ("This We Believe," National Middle School Association, 1995, p. 5).

Since Alexander's call for middle schools, there has been a marked increase in the number of 6-8 middle schools in the United States, while there has been a significant decline in the number of 7-9 junior high schools. The number of 5-8 middle schools and 7-8 middle schools has also increased. There were 300 middle schools in the nation in the 1960's (Alexander, 1968), 2,308 public middle schools in 1973, and by 1993, there were 9,573 middle schools (McEwin, Dickinson, & Jenkins, 1996). Jesse Charles Zedd reported 110 middle schools in the Commonwealth of Virginia in 1985 (Zedd, 1986). The early triumphs of, and enthusiasm for, the movement have somewhat subsided, but the number of middle schools continues to increase (McEwin, Dickinson, & Jenkins, 1996).

The growth of middle schools was caused by several factors, such as the dissatisfaction with the junior high school and with the quality of education in the United States. The junior high school was criticized because it tended to practice the programs of the traditional senior high school, although it was recognized that the school programs were not meeting the needs of the adolescents. The traditional programs copied from the senior high school were not adjusted to meet the needs of the children in transition, children between ten and fifteen years of age. Junior high schools continued to offer programs such as interscholastic sports, inflexible scheduling, and content-based, departmentalized instruction. Students' adjustment problems were exacerbated because of rigidity and the absence of change (Kindred, Wolotkiewicz, Mickelson, Coplein, & Dyson, 1976).

The dissatisfaction with the junior high school arose at a time when criticism of schools in the United States was growing strong. Sputnik had been launched in 1957, and continued emphasis on the quality of schooling led to more emphasis on college preparation which, in turn, led to the four-year high school. Many cities were also looking for answers to solve problems with large student populations and older school buildings. These problems were solved by many school boards with the middle school organization. Despite the initial reasons for organizing middle schools, the movement was receiving positive reviews from publications such as education journals (Wiles & Bondi, 1989).

The growth of middle schools also was promoted by the best theorists of the middle school movement, such as William Alexander, John Lounsbury, and Gordon Vars (Wiles & Bondi, 1986). Organizations, such as the National Association of Secondary School Principals, the National Middle School Association, and state and local middle school associations along with

other middle-level professionals, have played, and continue to play, significant roles in the strength of the movement. Support of middle schools has come from the Carnegie Council on Adolescent Development which hailed the middle school as “society’s most powerful force to recapture millions of youth adrift” and stated that it may provide adolescents with the last opportunity to be successful during this period of transition. Middle school advocates Paul George, Conrad Toepfer, John H. Swaim and others continue to provide leadership in the middle school movement (Alexander & George, 1981; George, Stevenson, Thomason, & Beane, 1992).

The middle school concept was developed as a school that bridges the transition from the self-contained elementary school to the departmentalized secondary school. True middle schools are not based on content but on the need to focus on the student as an individual and the need to focus on the adolescents - ages ten through fifteen - as a group in transition (Stradley, 1972). Such schools must be uniquely planned, staffed, and operated to serve their rapidly changing students physically, mentally, and socially (Eichhorn, 1984). The literature presents many lists of key characteristics essential for middle school education generated by educational organizations, such as the National Middle School Association, the National Association of Secondary School Principals and the Carnegie Council on Adolescent Development. These lists have many common elements. An Association of Supervision and Curriculum Development Working Group on the Emerging Adolescent Learner identified the following characteristics as necessary for the middle school:

1. A unique program adapted to the needs of the pre- and early adolescent learner.
2. The widest possible range of intellectual, social and physical experiences.
3. Opportunities for exploration and development of fundamental skills needed by all while making allowances for individual learning patterns. It should maintain an atmosphere of basic respect for individual differences.
4. A climate that enables students to develop abilities, find facts, weigh evidence, draw conclusions, determine values, and keep their minds open to the new facts.
5. A smooth educational transition between the elementary school and the high school while allowing for the physical and emotional changes taking place due to transescence.
6. An environment where the child, not the program, is most important and where the opportunity to succeed is ensured for all students.
7. Guidance in the development of mental processes and attitudes needed for constructive citizenship and the development of lifelong competencies and appreciations needed for effective use of leisure.
8. Competent instructional personnel who will strive to understand the students whom they serve and develop professional competencies which are both unique and applicable to the transescent student.
9. Facilities and time which allow students and teachers an opportunity to achieve the goals of the program to their fullest capabilities (as cited in Alexander & George, 1981, p. 17).

Components have been identified that must be present for an exemplary middle school which provides appropriate programs, policies, and practices that foster intellectual, social, emotional, moral, and physical developmental needs of young adolescents. Five components are generally recognized by educators, associations, foundations, state boards of education, and researchers as the key components of an exemplary middle school. The features are interdisciplinary teaming, advisory programs, varied instruction, exploratory programs, and transition programs (National Middle School Association Research Summary #4: Exemplary Middle Schools, National Middle School Association, 1995).

Grade configurations have often been debated in the organization of the middle school. Trends in the grade organization of middle schools tend to indicate that grades 6-8 are preferable, but there has also been recognizable growth in schools with grades 5-8. Alexander identified the middle school as a school with no more than five consecutive grades, but not fewer than three grades, and the school must consist of grades six and seven. The National Middle School Association reports in a 1995 study that most administrators favor the 6-8 grade configuration as the best suited for middle-level programs. Actually it is the programs and practices that make the difference rather than the grade span, but studies indicate that 6-8 grade schools are more effective because their programs are more appropriate for adolescents. More of these schools provide interdisciplinary teams, common planning time, flexible schedules, activity periods, cooperative learning, and exploratory classes (McEwin, Dickinson, & Jenkins, 1996).

The extent to which these programs and practices have been implemented varies among the individual schools throughout the United States. This fact continues to produce questions about the movement toward middle schools in many school districts and among educators. In "Rhetoric and Reform in Middle Schools," John Arnold (1982) states that the middle school has focused largely on "organizational change and rhetoric" and that there has been little true reform. Past reports and studies completed on the programs and practices of middle-level education document the improvements in many middle schools. There are many schools now practicing interdisciplinary teaming, advisory programs, and transition programs. However, the same reports document that there are significant high school characteristics remaining in large numbers of middle schools (McEwin, Dickinson, & Jenkins, 1996).

Scheduling

Middle school students are described as impulsive and intellectually capricious students with short attention spans. The function of the middle school is to design and implement programs and practices that meet the needs of such students. Therefore, one of the most critical practices that dictates how well a middle-level school function is its schedule. The schedule must meet the philosophy of the middle school and function so that the objectives of the school can be achieved (Alexander & George, 1981; George & Alexander, 1993; Williamson, 1993).

In Turning Points: Preparing American Youth for the 21st Century, the Carnegie Council on Adolescent Development said that flexibility of time spent in classes is a key element in the middle-level school and that the school schedule must serve the needs of the student. Students learn at different rates of time, and when schools allot only 45 or 50 minutes for each class period, then many students will not master the material. Students progress from concrete to abstract thinking at different times, and the schedule must allow the instructional program to have flexibility in order to meet the developmental needs of these adolescents (Alexander & George, 1981; George & Alexander, 1993; Williamson, 1993).

The schedule sets the parameters within which the learning environment is developed; for example, the schedule should allow time for teachers to get to know their students, and, thereby, promote a caring atmosphere. Moreover, the schedule should accommodate students' curricula choices. The type of schedule used in the middle school determines if teachers are empowered to make decisions regarding instruction that best meet the needs and interests of their students. Middle schools should be organized to have teacher teams able to change class schedules when doing so is in the best interest of students or when the adjustment of the schedule enables students to meet instructional goals. Elective classes, exploratory classes, advisory periods and team planning time are all essential elements of an exemplary middle school, and are affected by the type of schedule employed in the middle-level school (Williamson, 1993).

Canady and Rettig (1996) identified many concerns with schedules used in many middle schools. Middle school students see too many teachers in a regular school day and students have a curriculum overload. Exploratory classes are taught too much like regular classes, and they are taught in isolation from other parts of the curriculum. Schools also need to reconsider the fact that most subjects are scheduled for an equal amount of time, and considerations should be given for giving longer periods of time to subject areas such as mathematics in which students need to master the basics in order to be successful in high school. Providing extended learning time to students who need additional time to meet the class objectives for the course is also important.

Characteristics of a middle school are dependent upon each other, and careful thought must be given in making decisions regarding the schedule in order for the school to meet its objectives. Thought must be given to class size, student groupings, team size and whether there will be pure teaming or cross teaming. In addition, personnel decisions, such as teacher licensure or specialization and common planning time, must be considered. Middle-level schools must identify the characteristics that are important to each individual school and balance these characteristics so that the schedule will function in the best interest of the student (Canady & Rettig, 1995; Williamson, 1993).

Effective middle school schedules provide large blocks of time that facilitate creative teaching and that are flexible enough to meet the needs of the student. They must include appropriate planning time and serve the needs of the exploratory and elective programs. The needs of the students and programs drive the development of the middle school schedule (George & Alexander, 1993; Eichhorn, 1984; Williamson, 1993).

Types of Schedules

The traditional school schedule (Figure 1) is based upon a fixed number of class periods, usually six or seven, with each block of time being equal in length. They are usually 45 to 55 minutes long. Students in this schedule have to move to a different teacher and different subject every 45 to 55 minutes each day. This schedule has lost its popularity in middle schools because it presents many disadvantages to instruction in failing to provide what is best for the middle-level student or instruction. Short blocks of time do not allow teachers to get to know their students and do not allow the teacher to personalize instruction. The schedule causes the teacher to see too many students daily. It also causes all the students in the school to be dumped into the school hallways at the same time during class changes which increase the number of discipline problems and, thereby, create chaos. Traditional schedules prevent good instructional practices. Time is too limited for teachers to complete instruction in the cases where hands-on and laboratory lessons are being planned. Teachers are limited to using traditional instructional techniques, such as lecture, rather than cooperative learning activities, role-playing, hands-on activities, and other, more creative, teaching strategies (Canady & Rettig, 1995). The traditional schedule is the conventional high school and junior high school model (Wood, Nicholson, & Findley, 1979).

SAMPLE TRADITIONAL SCHEDULE							
Home room	1 st Period	2 nd Period	3 rd Period	4 th Period	5 th Period	6 th Period	7 th Period
8:00-8:05	8:05-9:00	9:05-10:00	10:05-11:00	11:05-12:00	12:05-1:00	1:05-2:00	2:05-3:00
Jones	Eng.	Eng.	Eng.	Eng.	Eng.	Eng.	Plan
Hall	Math	Math	Math	Math	Plan	Math	Math
Smith	Social Studies	Social Studies	Social Studies	Social Studies	Social Studies	Plan	Social Studies
Ross	P.E.	P.E.	P.E.	Plan	P.E.	P.E.	P.E.
Cary	Plan	Chorus	Band	Band	Chorus	Chorus	Band
Bain	F. Language	F. Language	Plan	F. Language	F. Language	F. Language	F. Language
Moss	Sci.	Plan	Sci.	Sci.	Sci.	Sci.	Sci.

Figure 1. Sample Traditional Schedule.

Flexible block schedules are designed to provide a team of teachers large blocks of time to work within while teaching their core academic subjects, such as language arts, math, science and social studies. The schedule is not set with the traditional 45 minute or 50 minute class period where students change subjects and teachers each period. This schedule is designed to work with interdisciplinary teaming which is typically two to seven teachers working with a group of students. This team of teachers may decide how long an instructional period will be within the block of time allocated to their team. They may decide that math class will last for 90 minutes on a particular day but only 30 minutes later that week based on the instructional plans needed to meet the needs of the student. A school with multiple teams may have each team deciding their core academic schedule, and each team functioning as a separate unit within the school guidelines. Scheduled times will be set by the school schedule for lunch, physical education, and exploratory or elective classes. Those are set times that do not change unless the school schedule is altered.

Flexible block schedules provide many advantages. In addition to providing for teaming and responding to the developmental needs of students, the flexible schedule provides the following advantages:

1. It provides opportunities for teachers to correlate and integrate subject matter.
2. It allows the length of classes to be adjusted for individual subjects or special activities based on teacher and student needs.
3. It permits teachers on the team to group and adjust grouping regularly without causing tracking.

4. It allows the team to decide when to provide large group instruction and small group instruction.
5. It allows for the team to adjust the schedule to see all students when the school has special activities such as assemblies or field trips.

Several disadvantages of flexible block scheduling exist. Flexible block scheduling may not be understood, and such misunderstanding may result in decisions that are not advantageous to students. For example, a team of teachers may decide to change classes continuously on 45 or 55 minute cycles although the flexible block schedule is designed to provide larger blocks of instructional time. It also requires collaboration among the team of teachers to plan their instructional day together and doing so sometimes creates conflicts among them. The intent of the schedule is to be flexible, but the resistance to change, along with the anxiety caused by the decision-making, may prevent the schedule from functioning as it should. Many become concerned about the flexibility in the schedule because of accountability for time devoted to an individual subject such as that characterizing the traditional schedule with classes meeting for a specified amount of time. The scheduling of itinerant teachers is also difficult when schools sharing teaching staff use various forms of scheduling or the flexible schedule (Spear, 1992; Wiles & Bondi, 1989; Williamson, 1993). An example of the flexible block schedule is shown in Figure 2.

BLOCK SCHEDULE (Team A)	
8:00 a.m. (Block 1) 11:00 a.m.	Core Instruction
11:00 a.m.	Lunch
11:30 a.m. (Block 2) 1:30 p.m.	Core Instruction
1:30 p.m.	Exploratory Class
2:15 p.m.	Physical Education

Figure 2. Flexible Block Schedule.

The four-block schedule divides the day into four equal blocks of time, usually 90 minutes in length. How the blocks are used within the school day is determined by the school administration or the decision-making body at the school. The school may give the teacher teams at each grade level the flexibility to make decisions based upon their needs for instruction and the needs of their group of students within that 90-minute block. It may be decided that all teams will follow a set school schedule. The school may decide to establish 90-minute blocks of time for core subjects that meet daily because they have been identified as basic or critical within the school or school division. Most schools establish one reading and language arts block to facilitate integrated instruction. A second block is established to concentrate on mathematics. Decisions may be

made to vary the time for special instructional activities within the blocks when the 90-minute blocks are adjoining or back-to-back. In addition, teams may decide to have alternating day periods for identified classes or semester classes for other subjects. In the case of semester classes, the student will take a different subject during that same block of time the second semester; for example, social studies may be taught daily the first semester in a 90-minute block and science daily during the same block the second semester. Blocks of time established for subjects such as physical education, exploratory or elective classes are usually 45 minutes each, although the school may decide to use other options such as alternating day classes, semester classes or other options suitable for that school community. An example of a four-block schedule for a two-teacher team is shown in Figure 3 (Canady & Rettig, 1996).

FOUR BLOCK SCHEDULE					
TIME	8:00 a.m. 9:30 a.m.	9:35 a.m. 11:00 a.m.	11:05 a.m. 11:30 a.m.	11:35 a.m. 1:00 p.m.	1:05 p.m. 2:35 p.m.
TEACHER A Language Arts & Social Studies	Group A Language Arts	Group B Language Arts	Lunch	Group A (1 st Sem.) Group B (2 nd Sem.) Social Studies	PE & Exploratory Block
TEACHER B Math & Science	Group B Math	Group A Math	Lunch	Group A (2 nd Sem.) Group B (1 st Sem.) Science	Team & Teacher Planning

Figure 3. Four Block Schedule.

Alternate day block schedules provide schools another scheduling option that creates blocks of time longer than the traditional 45 or 50-minute period. This schedule will meet the needs of schools with six, seven, or eight classes. The concept of the alternate day block schedule is for half the classes to meet one day for double periods, while the other half of the classes meets the next day in double periods. When a school has seven periods, one period needs to be a singleton meeting every day. One description of the alternate day schedule with seven periods may find periods 1, 3, and 7 meeting on one day and periods 2, 4, and 6 meeting on the next day (Figure 4). The fifth period would meet each day as a singleton. Alternate day schedule plans are also known as “A Day, B Day” or “Day 1, Day 2” schedules and in some cases “Odd Day, Even Day” where the odd period classes meet on odd dates of the week and even periods meet on even dates of the week (Canady & Rettig, 1995).

Alternate day schedules may be modified to meet the needs of the school rather than always following the basic plan. Rather than having alternating day classes each day, specific days may be scheduled to follow the traditional school schedule. Canady and Rettig suggest that it is best to leave Mondays and Fridays as regular scheduled days when the traditional schedule is followed on some days and not on others. Such an arrangement allows teachers to meet with classes two days during the week to introduce concepts before the block classes are held (Canady & Rettig, 1995).

BASIC 7 PERIOD BLOCKED ALTERNATE DAY SCHEDULE						
Days	Mon. Odd	Tue. Even	Wed. Odd	Thu. Even	Fri. Odd	Mon. Even
Block I 90 min.	1	2	1	2	1	2
Block II 90 min.	3	4	3	4	3	4
Period 5	5 45 min.	5 45 min.	5 45 min.	5 45 min.	5 45 min.	5 45 min.
Block III 90 min.	7	6	7	6	7	6

Figure 4. Alternate Day Schedule.

Schools may also create an alternating block schedule in which specific periods are identified not to be blocked but must meet every day, while others maintain their block of time and continue to meet on alternating days. This may be done in situations where identified courses are able to provide better instruction to students if they meet daily or where the school has a need to maintain certain periods as constant to meet identified needs such as sharing staff with other schools that operate on a different schedule (Canady & Rettig, 1995).

The modifications for alternate day block schedules are endless, and careful planning must be done to implement the alternate day scheduling plan without conflicts. Careful thought needs to be devoted to teacher planning periods so that they are evenly distributed through the week. The course workload needs to be considered so that teacher teams won't have difficulty in balancing the course workload among different subjects. It is important to consider which classes should be single block periods and double block periods. For instance, science is suited to be in double blocks because of the equipment used and the need for time to complete experiments and hands-on activities. Attendance is required to be taken in all schools, and when there are no homeroom periods, careful consideration must be given to prevent multiple teachers from being accountable for many different students creating havoc for keeping accurate records (Canady & Rettig, 1995).

The alternate day block schedule offers many advantages. It provides additional time for teachers to provide instruction and present multiple instructional activities with students actively involved. Instruction is improved because teachers must provide multiple activities to keep students engaged in the instructional activity because lecture and seat work cannot maintain student interest for 90 minutes. Students have to make fewer arrangements to make up missed work because of absences. Students miss fewer classes although they might miss more work for one class. Time is gained by preventing the waste of time for students to change classes and the setting up for six or seven class periods rather than three or four. Fewer class changes appear to create quieter schools and better school environments. Canady and Rettig state that custodians report less vandalism in schools that use alternate day block schedules and say that schools are cleaner. Alternate day schedules also require less travel for itinerant teachers and may allow them to be at one school for a complete day. Schools districts with several schools would have to require schools sharing teachers to have the same type of schedule to prevent schedule conflicts even though different school communities may have a need for flexibility to meet the needs of their students (Canady & Rettig, 1995; Hackmann, 1995).

Modular schedules may provide for large blocks of time. The concept is designed with periods that have set short periods of time, usually 30 minutes. These units of time may be arranged to provide 30-minute classes one day, 60-minute classes another day, or 90-minute classes, when necessary, by adding or deleting a 30-minute block of time. The set block of time may be arranged to fit the time needed to complete the instructional activity. Each school determines what governing level in the school decides on how many blocks of time to match together. If it is a school decision, it is more difficult to regularly change the schedule because such changes have to accommodate more teachers than does a team with fewer teachers. It is

possible for the school to schedule the periods on predetermined blocks of time; teachers then would provide instructional plans based on the schedule (Alexander & George, 1981; George & Alexander, 1993; Wood, Nicholson, & Findley, 1979).

The schedule may have thirteen set 30 minute periods (Figure 5) that can be grouped together as needed or there may be some other time configuration such as 25 fifteen-minute blocks of time (Alexander & George, 1981; Rottier, 1996; Wood, Nicholson, & Findley, 1979).

MODULAR SCHEDULE WITH 30 MINUTE BLOCKS												
M	English	Science			Social Studies		Math		P.E.			
T	English		Activity Period	Social Studies		Math			Exploratory			

Figure 5. Modular Schedule (Each shaded block represents 30 minutes).

Rotating schedules follow a master schedule, much like the traditional schedule, where class periods are scheduled at certain times, but the classes are rotated one period later each day. The classes would be held at different times each day. This process may be used by the entire school, or the school may decide that it is a team decision. Rotating schedules allow subjects to be taught at various times during the school day (National Middle School Association, 1996).

The dropped period schedule allows more students to be scheduled for more classes than there are class periods. Several different classes, programs, and activities are scheduled during one period each day, maybe the last period or the middle period of the day, and one of those classes or activities is held each day. These varied classes or activities are simply alternated or scheduled for this period on identified days of the week. Programs such as advisory, intramurals, study skills, activities, remedial instruction or other school offerings may be scheduled for that period (National Middle School Association, 1996).

Another form of block schedules is the Copernican Plan or intensive scheduling. Such block schedules may be known as semester plans, trimester plans, quarter plans, 75-75-30 plans, 60-30-60-30 plans, or 75-15-75-15 plans. Classes are taught in periods with varying lengths of time but longer than the 45 to 55 minutes per period as in a traditional schedule. In 1990, Carroll described “intensive scheduling” as a plan where students are scheduled in classes for two to four hours per day for a various number of school days within the school year. Students may be scheduled in courses for 30, 45, 60, or 90 days during the school year. There may be other classes scheduled in the school

day that meet daily for shorter terms, such as 15 days or 30 days, for activities, tutoring, help classes and seminars. Band and physical education are examples. The total time scheduled in classes is equal to the time assigned during a traditional schedule for a typical 180 day school year. These plans have been used mainly in private schools throughout the country and in some forms of alternative schools (Canady & Rettig, 1995).

John Carroll (1994) reports that the Copernican Plan provides many advantages. He contends that the plan fosters improved classroom environments and relationships between students and teachers. The plan also provides workloads that are manageable for teachers because they teach fewer students per day and also for students because they have fewer courses scheduled for periods of time. In 1995, Canady and Rettig agreed that the basic intensive schedules provided improved possibilities for teaching and learning but stated they could not define the schedules as flexible. Schools may make the schedules flexible by adding short terms of 15 or 30 day sessions in the schedule or by providing other options appropriate for the teachers, students and community (Alam & Seick, 1994; Canady & Rettig, 1995).

One characteristic necessary to implement a successful middle school instructional program and organization is the flexible schedule. The flexible schedule has many characteristics and designs, and it demonstrates the school's willingness to meet the needs of the adolescent student. Gordon Cawelti in 1994 described block scheduling as a schedule in which "at least parts of the daily schedule is organized into larger blocks of time (more than sixty minutes) to allow flexibility for a diversity of instructional activities" (as cited in ERIC Digest, 1996). Williamson stated in 1993 that "no one model for flexibility has greater advantages than the other." The key to a schedule's success is the school's commitment to and support of the educational process (Williamson, 1993).

National Practices

Implementation of flexible scheduling in the middle-level school has increased over the years, although the reported rate of implementation was about only 20% of the middle-level schools in 1990. Schools continue to struggle with the common school routines such as curriculum requirements, lunch, and bus schedules. The National Middle School Research Summary (1996) reports that most exemplary middle schools use some form of flexible scheduling but that randomly sampled middle schools show less use of flexible scheduling. Their report states that the majority of middle schools use seven instructional periods, and each is taught for a uniform length of time from 41 to 55 minutes. McEwin, Dickenson, and Jenkins (1996) report that the daily period that is uniform in length is the most used scheduling concept. Although their reports show most middle schools still using traditional schedules, the report also shows that there has been an increase in the number of middle schools that use some form of flexible scheduling. The largest increase in the use of flexible schedules was reported to be at the sixth grade level where 40 percent of the schools in the study report using a flexible schedule as compared to 30 percent

in 1988. Forty percent of the schools in the study also reported using flexible schedules at the seventh grade, but only 27 percent reported using flexible scheduling at the eighth grade which showed only a 6 percent increase in use. Their studies were done in 1988 and 1993 (McEwin, Dickinson, & Jenkins, 1996).

Teaming

The senior high school and junior high school structure is based on departmentalization, each teacher concentrating on a single subject area. A cornerstone to the change in organization of schools from the junior high school to the middle school is teaming, also known as interdisciplinary teaming. Middle schools are to provide a period of time for the transition of students from the self-contained elementary school to the departmentalized high school. The elementary student spends several hours of the school day with one teacher developing a trusting relationship, whereas the high school student is older and more independent with the development of their relationships based on their preferences. It is the interdisciplinary teaming characteristic of the middle school organization that facilitates this transition and affects other essential concepts of the middle school. It is the most distinguishing feature of the middle school (Alexander & George, 1981; George & Alexander, 1993) and is the foundation on which most successful middle-level programs are built (Clark & Clark, 1987). Turning Points: Preparing American Youth for the 21st Century identified the need for middle schools to become more personal by providing “learning communities,” small groups of teachers and students between whom “trusting relationships” may be formed (Carnegie Council on Adolescent Development, 1989).

Clark and Clark traced teaming back to the Eight Year Study of 1933-1941. J. Lloyd Trump and Lloyd Michael made the teaming organization more realistic in 1960's through their study, the Commission on the Experimental Study of the Utilization of Staff in the Secondary School, done for the National Association of secondary Schools. In the late 1960's, William Alexander wrote important books emphasizing teaming on middle-level education as did Eichhorn. Teaming was implemented in many middle schools and secondary schools because of these efforts (Clark & Clark, 1987).

Interdisciplinary team organization was defined by Alexander and George in 1981 as “a way of organizing the faculty so that a group of teachers shares: (1) the responsibility for planning, teaching, and evaluating curriculum and instruction in more than one academic area; (2) the same group of students; (3) the same schedule; and (4) the same area of the building.” Teaming simply is a group of teachers, two or more, working together with a common group of students, creating a school within-a-school. The team plans and provides instruction to their group of students while assessing their social and intellectual development. This organization of teachers allows better communication among teachers. Planning time must be provided to teachers so that they have the autonomy to make decisions regarding what is best for improving students’ academic skills (Richardson, 1993), and teachers must have the proper training and resources necessary to treat each student as an individual (Walsh & Shay, 1993).

There is a difference between interdisciplinary organization and interdisciplinary instruction, and a middle school may exist without interdisciplinary instruction but not without interdisciplinary organization. Interdisciplinary instruction is concerned with the style of instructional delivery, such as small or large group instruction, and as a strategy to enhance the flexibility of instruction. Interdisciplinary organization is the model or structure of how the school program operates; the four factors defined by Alexander and George must be present for middle school organization to exist. The interdisciplinary team organization does affect the way instruction is delivered and facilitates interdisciplinary instruction (Alexander & George, 1981; Clark & Clark, 1987; George & Alexander, 1993).

There are no set models of how teams of teachers are developed or organized. Teams vary in size but are most often found with two to five teachers, but they may be as large as twelve to fifteen teachers. They also vary in the way they operate. They have different responsibilities, degrees of authority, students assigned to them based on various criteria, and different schedules. Even with these differences, each team can still meet the definition of the four factors necessary to a successfully functioning middle school (Alexander & George, 1981; George & Alexander, 1993).

Smaller teams of two teachers are better suited for students coming from a single teacher and smaller school environments of the elementary schools, but larger teams are a better transition for students as they prepare to enter the departmentalized high school. Smaller teams allow students and teachers to spend more time together within the school day, promoting the development of trusting relationships, and reducing the number of students a teacher must teach within a day. They also promote more interdisciplinary instruction and allow for more use of a flexible schedule. As teams become larger, it becomes more difficult to manage their planning, instruction, scheduling, and use of facilities. Teams of two and four teachers are more manageable (Clark & Clark, 1987; Rottier, 1996).

The team size decision is affected by several factors. The decision is determined by teacher certification and expertise, school size, course offerings, the ability to relate to students, teaching styles, along with the ability and preferences for working with one another. When teams are smaller, teachers need to be certified to teach several subjects, but they may have a single endorsement if on a larger team. Teachers on smaller teams will need to teach several subjects; for example, a teacher on a two-teacher team may need to teach math, science, and social studies or reading, language arts, and social studies. When the team is larger, the teacher may only need to teach one and sometimes two classes. A teacher on a five-member team may only teach one subject, such as science, but a teacher on a four-member team may need to teach science and social studies. Careful consideration must be given in making team composition decisions because teachers should be assigned areas in which they are confident and professionally prepared to teach. Schools must organize teams in the best interest of students. Balance is necessary when organizing teams (Arnold, 1991; Rottier, 1996).

Roles and responsibilities of team members develop as teams are organized. Most teams have a team leader. This person may be assigned this role by the principal, achieve it over time, or be elected by the team itself. Most teams usually function without a lot of hierarchical positions so that all involved in the process have the opportunity to participate equally. It is important for teams to develop comradery and cooperation. Goals must be identified by the team to function without conflict (Alexander & George, 1981; George & Alexander, 1993; Rottier, 1996).

Teams evolve to become more effective units of operation and normally transition through phases to achieve higher functioning levels. Erb and Doda in 1989 identified the phases of team development as management issues and meetings, working on student needs, personal growth and collective responsibilities, and, finally, coordinating curriculum and instruction (as cited in Shillington, 1994). The meetings and management issues include activities such as setting team goals within the school expectations, determining rules for the team to operate within, scheduling students, and developing common rules for students about classwork, homework, discipline, and grading procedures (Alexander & George, 1981; George & Alexander, 1993; Rottier, 1996; Shillington, 1994; Smith, 1991).

Phase two of teaming, working on student needs, involves teachers identifying and discussing student strengths, weaknesses, interests and needs. This may involve establishing a team identity such as having a team name and mascot along with providing activities such as intramural activities, award programs, remedial and peer tutoring programs, and other activities related to the school curriculum and student interest. Teams meet with parents, guidance counselors, and other faculty members to develop strategies to improve the performance of individual students. Phase three of development involves teachers planning and teaching collaborative units where two or more of their teachers of different subject areas will plan and provide instruction during which skills and concepts are taught interrelatedly without students recognizing the separate subject areas. Teams at this level of development discuss and share instructional strategies, correlate instructional objectives, group students for specific activities, and bring students together as a large group on occasion for team activities (Alexander & George, 1981; Rottier, 1996; Shillington, 1994; Smith, 1991).

Maximum team development requires teams to perform responsibilities through all four phases of functioning. Phase four involves the participation of the teams in shared decision making with the school administration in regard to school governance and operation. Teams are found to function at different levels of operation, and the amount of time spent together as a team has not been identified as a factor determining the level of operation at which the team functions (Alexander & George, 1981; George & Alexander, 1993; Rottier, 1996; Shillington, 1994; Smith, 1991).

Wiles and Bondi in 1989 identified twenty-one advantages of the interdisciplinary team approach and other middle school practitioners provide support for their conclusions. Most of the advantages involve teacher empowerment, collaboration and the sharing of teaching strategies, flexibility of schedules and instruction, the ability to better meet the need of individual

students, and the opportunity to work with parents and other faculty members to solve problems.

Arhar, Johnston, and Markle have found that teaming has important effects on the school climate, the support, satisfaction, and development of teachers, and collaboration within the workplace, but they stopped short of declaring that teaming has a direct effect on student achievement; however, it was concluded that teaming does allow conditions to exist that facilitate instructional effectiveness and student success (Arhar, Johnston & Markle, 1989; Wiles & Bondi, 1989).

Teaming organization was found to reduce discipline problems, engage students on academic tasks more often, and provide clearer expectations. (Arhar, Johnston & Markle, 1989). Students benefit by identifying with a team and having the opportunity to develop relationships with adults. Instruction is more meaningful and student-centered with teaming, which allows the students' academic needs to be better met (Golner & Powell, 1992). Arhar and Irvin concluded that studies on interdisciplinary instruction have established a relationship between teacher teaming and increased student achievement which results from teaming's effects on teachers (Arhar & Irvin, 1995).

National Practices

McEwin, Dickinson, and Jenkins report from their study that the use of interdisciplinary organization has continued to grow for the past 25 years, while the use of departmentalization and self-contained classrooms has declined. The teaming pattern was used to facilitate instruction in all the core subject areas, such as reading, language arts, math, science, and social studies, although the teaching of reading declines in grades seven and eight. Sixty percent of the schools indicated the use of the interdisciplinary team organization. While the use of this organizational model continues to grow, only 20 percent of middle-level schools, grades six through eight, report providing teachers with two planning periods. Team effectiveness is hindered by the lack of adequate planning time. No established pattern of assigning team leaders has developed as schools continue to have teams either select leaders or principal appointed ones. Twenty percent of the teams reported no team leader (McEwin, Dickinson, & Jenkins, 1996).

Middle-Level Curriculum

The middle school curriculum varies in meaning from what is defined as a set of subjects which students are required to take while at the middle school to the methodology in the delivery of that instruction. John H. Lounsbury in 1991 defined curriculum as "the sum total of the planned learning experiences and activities provided by the school." Movement toward the middle school concept focused on the need to provide an appropriate program for the developing 10 to 14-year-old students who had unique needs different from those of the elementary school and those of the senior high school. Although this movement focused on the concept that students at these ages make transitions at different times, the early middle school movement focused upon the organizational components of the program while calling for what has been called a core curriculum consisting of language arts, mathematics, science, and social studies as the pure academics subjects or required subjects.

Other advocates for a middle-level curriculum have called for what is known as a general curriculum. In The Emergent Middle School (1968), William Alexander identified what he thought should be the middle school curriculum. He identified “personal development, skills for continued learning, and organized knowledge.” The core curriculum makes up what he calls the organized knowledge. Other components of the middle-level curriculum mentioned by Alexander and others are known as the exploratory program, advisor-advisee programs, intramural and interscholastic programs and physical education, which is usually taught as a separate subject. As the movement progressed, the curriculum became a critical focus and attention to it continues to develop even after 30 years (Beane, 1993).

Advocates for middle school education have begun to focus on the need for a different kind of curriculum. The National Middle School Association, in a position paper titled “Middle Level Curriculum: A Work in Progress”, advocates phasing out the following conditions:

1. Curriculum that consists of separate subjects and skills taught and tested in isolation from one another.
2. Content judged to be more important than the process by which it is learned.
3. Students being labeled and tracked into rigid ability groups.
4. The excessive use of lecturing, rote learning, and drill.
5. Instruction dominated by textbooks and worksheets.
6. Faculties organized by departments.
7. Staff development efforts that are short term and non-productive. (Middle Level Curriculum: A Work in Progress, National Middle School Association, 1996)

This position is supported by many leading advocates of middle school education such as James Beane, Julia Thomason and Kenneth McEwin. The continued effort to change the middle school curriculum stands to face tough issues such as state mandated requirements, the move toward more national standards, local expectations and history itself. The issue of change itself is a drawback because real change comes within the classroom, and teachers have been slow to move forward because of the continued pressure they face from high school expectations and other stakeholders (Beane, 1993).

While the structure of middle schools has progressed, reports continue to illustrate that the curriculum maintains the single subject approach from the junior high school (Lounsbury, 1991). Therefore, emphasis was, and continues to be, placed on the delivery of the content as a focus to affect the curriculum. Efforts have been placed on thematic instruction, interdisciplinary instruction or multidisciplinary instruction, integrated instruction, thinking skills, and problem solving. The pressures generated from standards and expectations have turned many of these thoughts into rhetoric while single-subject teaching continues (Capelluti & Stokes, 1991).

Other focuses of curriculum bring “high content programs” to the middle school as promising practices. Subjects such as algebra and foreign language are being encouraged and opened to all students along with technology and computer courses. Still other options seek to change or add content to the present curriculum for all students. This may be seen as old content adapted from the high school (Epstein & Salinas, 1991).

The general curriculum is said to focus on the needs of the adolescent. Curriculum advocates, such as Beane and Arnold, state that the curriculum should be more personal, using societal issues relevant to the present time. This form of curriculum would also serve to solve many of the problems encountered by females in the middle school by providing a more gender- equitable and diverse curriculum (Butler & Sperry, 1991). The curriculum would focus around themes through which expected skills would be taught and students’ interest would be maintained. Curriculum will continue to evolve and become a major focus of middle school advocates because it is the critical element that has been overlooked through the developing middle school program (Arnold, 1991; Beane, 1993).

Curriculum Requirements for Virginia

The Standards and Regulations for Public Schools in Virginia identifies middle schools as those having grades six through eight and specifies a program of instruction that must be followed in order to be accredited by the state. Middle schools in Virginia are required to “provide each student a program of learning experiences organized to meet the needs of early adolescence.” The requirements further identify disciplines within which learning must take place. They are art, health, language arts, mathematics, career and vocational exploration, and foreign language. In addition each student must receive instruction in music, physical education, science, and history and social sciences. Eight course offerings must be available to students at the eighth grade. They include one course each of language arts, science, math, history and social sciences, foreign language, health and physical education, fine arts, and career and vocational education. Further descriptions of instructional expectations are identified by the Standards of Learning which detail the expected skills to be taught within each subject as well as technology skills that students are expected to learn prior to leaving the eighth grade. Schools are presently monitored on their progress through the Outcome Accountability Project which measures such factors as how many students take a foreign language and algebra, how many minorities enroll in foreign language and algebra and other factors assessing school and student performance. Students at the sixth grade are required to take the Literacy Passport Test which measures their ability in the areas of reading, math, and writing. Students must pass the Literacy Passport Test in order to receive a standard high school diploma. Beginning in 1997, students at the eighth grade level will be required to take both standardized and criterion-referenced tests to measure how well they are performing as compared to others and how well they have mastered the skills identified in the Virginia Standards of Learning (Virginia Department of Education).

National Practices

McEwin, Dickinson, and Jenkins reported in 1996 that the majority of middle schools in the nation have students taking the core subjects of language arts, mathematics, science, and social studies for the full school year. There was a decline in the offering of physical education for the entire year, but an increase in the offering of health and foreign language. Reading continued to show a decline as a single subject or subject of major emphasis (McEwin, Dickinson, & Jenkins, 1996).

Summary

This chapter presented a review of the literature concerning the history and development of the middle school, the characteristics, types, and national practices of scheduling. Teaming was also discussed, as well as the middle school curriculum, requirements by the Commonwealth of Virginia for a middle school curriculum, and an overview of the national curricula practices. The literature illustrates agreement among advocates for the middle school organization and the concepts of scheduling and teaming, but the struggle continues for an identification of a curriculum appropriate for the adolescent and their changing needs. The continued identification of concepts within the middle school program and emerging emphasis on the development of a middle-level curriculum with high expectations will move the middle school programs further toward meeting goals established more than 30 years ago.

A national consensus has formed in support of the middle school concept over this period. The continued increase in the number of middle schools and the use of middle school practices have placed middle schools as a concept that is here to stay. Middle school advocates have defined the benefits of the middle school concept to students and stress that the strong support for middle-level education will continue (George, Stevenson, Thomason, & Beane, 1992).

CHAPTER III

METHODOLOGY AND PROCEDURES FOR RESEARCH

Introduction

The purpose of this study was to determine and describe the current practices related to scheduling, curriculum and teaming within the middle schools in the Commonwealth of Virginia. In particular this study describes the current practices reported by respondents to a questionnaire developed to focus on scheduling, teaming, and curriculum. This study resulted in the current documentation of what scheduling, teaming and curricula practices are in operation in Virginia's middle schools and describe those practices in a manner that practitioners may understand. The status of the reported practices is explained as compared to the literature reported in Chapter II. Recommendations for the interested middle-level administrators, policy-makers, and other professionals interested are presented to assist in the development and improvement of middle school programs.

Design of the Study

The study uses descriptive research. Descriptive research is useful for studying educational problems and concerned with conditions that exist or are developing. It depicts the way things are and important discoveries may be made by describing them. School visits were used to describe four schools' scheduling, teaming, and curriculum practices.

A questionnaire (Appendix B) was adapted from a 1988 survey instrument developed by The Johns Hopkins University Center for Research on Elementary and Middle Schools. Data were gathered from the questionnaire that provided a current view of scheduling, curricula, and teaming practices of middle schools in Virginia. The study was also designed to give an overview of those identified practices, analyze the practice in relation to the literature review, and to provide recommendations for those interested in implementing or improving programs in middle-level education. The recommendations provide information toward the improvement of each identified practice and toward the overall improvement of the middle school movement in the Commonwealth of Virginia.

Visits were made to four middle schools included in the study's population as a follow-up to the questionnaire. The visits included observation of the school's operational practices and an interview with the principal. Interview questions focused on scheduling, teaming and curricula practices used by the middle schools visited. A narrative of each visit describe the scheduling, teaming, and curriculum practices observed.

Both findings from the questionnaire and school visits were reported. It is important to understand the report's organization to better gain from the amount of information presented. The data are presented in a narrative form as well as in the form of frequencies and tables. Tables contain a wealth of data and will be referred to throughout the findings.

Population

The population included 237 Virginia public middle-level schools that consisted of a minimum of three grade levels within the grade range of five through eight, but not including grades four or nine. These organizational patterns were selected because they were the most commonly reported in the middle school literature and since they met the grade level definition provided by Alexander in 1984. The Virginia Education Directory of 1995-96 was used to identify the schools in the state that met the identified grade criteria for the population included in the study, and it was also used as a resource to identify the names of principals and addresses for each middle school. The population was not restricted to schools with grades six through eight, which is recognized by many educators as the typical grade organization for a middle school, but included schools that may have grade configurations of five through seven as well as five through eight.

Instrumentation and Validation

A questionnaire was developed for this study but 90 percent of the questions were adapted from a previous questionnaire used by the Center for Research on Elementary and Middle Schools at The Johns Hopkins University. The questions represented the desired characteristics of practices related to scheduling, curriculum and teaming in an educational setting for the middle school level. The instrument was used to gather the descriptive data needed for this study and was focused specifically to answer the questions presented in Chapter One.

The instrument used to develop the questionnaire had been validated by The Johns Hopkins University Center for Research on Elementary Education and Middle Schools where it was verified through a correlations and regression study where the questions agreed with a previous used middle school questionnaire and middle school literature.

A panel of four middle school authorities and practitioners reviewed the questionnaire. The panel of experts who reviewed the instrument included Dr. Nancy M. Doda, Professor of Education at National-Louis University; Dr. Helen Stiff, Professor of Education at Hampton University; Dr. Ronald Williamson, Professor of Education at the University of North Carolina at Greensboro; and Dr. William Birchette, Jr., Assistant Superintendent of Instruction, Isle of Wight County Public Schools. All of these individuals have documented their professional knowledge in the area of middle-level education through their scholarly writing and research on middle-level education, their knowledge of middle-level concepts and educational practices, or their personal experiences within the field of the middle-level school.

A cover letter (Appendix D) was mailed to each of the authorities identified seeking their cooperation in the review of the survey instrument. An overview was given regarding the purpose of the study. They were requested to review, provide feedback, and critique the instrument as it related to the key elements of scheduling, curricula, and teaming practices at the middle school level using a review form (Appendix D). The middle school authorities and practitioners were to include the following in their feedback: (1) questions to be added or deleted; (2) whether the questions were relevant, clear, and to the point; (3) feedback on the length of the survey; and (4) suggestions that may improve the instrument. Once the authorities provided their results, the questionnaire was improved in accordance with the suggestions.

Site interviews and observations were made at four middle-level schools included in the study's population. The interview questions were designed based on the survey questions to describe the operation of the middle school as related to scheduling, teaming, and curricula practices in the middle-level schools in Virginia.

Pilot Study

A pilot study was conducted with three middle school principals or assistant principals familiar with the practices at the middle-level schools in the Commonwealth of Virginia. These administrators were selected because their school did not meet the identified criteria for the middle-level school that was defined for the population in this study, although their schools included middle-level grades and practiced the middle school concept, or they were assistant principals that were knowledgeable of middle schools. The three administrators were contacted, given an explanation for the purpose of the study and the revised questionnaire. They were asked to review each document and provide feedback. Direct follow-up was held with each to gather their recommendations which were used to review and revise the questionnaire. Their recommendations were used to improve the instrument further.

Data Gathering Procedures

The questionnaire (Appendix B) was mailed to the 237 schools identified within the study's population, with at least three grade levels from five through eight, but not four or nine. All 237 middle-level schools in the Commonwealth of Virginia were identified using the Virginia Education Directory. Each principal of the schools identified in the study's population was mailed a letter (Appendix A) explaining the purpose of the study, the importance and relevancy of the study, and the importance of completing and returning the questionnaire. Confidentiality was assured to each respondent. Included with the mailings was a stamped, self-addressed envelope to assist in the return of the questionnaire.

A follow-up letter (Appendix C), a duplicate questionnaire, and a stamped, self-addressed envelope were sent if there was no response within two weeks. An additional follow-up was conducted by telephone to increase the number of questionnaires returned.

Site visits were made to four middle-level schools in the study's population. Observations were made of the school's operational practices with a focus on the scheduling, curricula and teaming patterns. An interview was also conducted with the principal while at the site.

Analysis of the Data

The data gathered represent current middle school practices based upon the statement of the problem developed in Chapter One. These data are described narratively, in frequency tables and percentages. The data are also reported in tables based on the grade configurations when applicable. The data were reported and analyzed according to the following format: (1) the grade configurations of the schools participating in the study; (2) current scheduling practices; (3) current teaming practices; (4) curricula practices identified; and (5) the responses to the open-ended questions from the sample of middle school principals in Virginia. The data provided information documenting the current practices involving scheduling, curriculum, and teaming within the middle-level schools in Virginia as well as providing recommendations and valuable information to those interested in the status and further development of middle-level education.

CHAPTER IV

PRESENTATION OF THE DATA AND FINDINGS

Introduction

The purpose of this chapter was to present the findings of the study and describe the current practices related to scheduling, teaming, and curriculum within the middle-level schools in the Commonwealth of Virginia. Descriptive data were used to describe the current status of scheduling, teaming, and curriculum. Findings were presented for the total population of survey returns as well as for small (0 to 500 students), mid-sized (501 to 1,000 students), and large schools (more than 1,000 students). The findings describe the types of scheduling used in the middle schools within the Commonwealth of Virginia along with grouping practices and degree of autonomy given to teachers to provide scheduling flexibility. Data will describe the teaming practices -- team size, team and personal planning time, team make-up, and activities done during team planning period -- within the Commonwealth of Virginia. Curricula practices are described by data and identified required subjects, reading, health, and remedial subject practices, and the high school level subjects offered in the middle-level schools within the Commonwealth of Virginia. Data are presented describing the status of exploratory programs in Virginia's middle schools.

Overview of Procedures Used to Gather and Analyze the Data

The questionnaire and school visits were techniques used to gather descriptive data and were used to collect up-to-date information on middle-level schools within the Commonwealth of Virginia. The questionnaire was mailed to principals of 237 middle-level schools in the Commonwealth of Virginia listed in the Virginia Education Directory. Each of these schools contained a minimum of three grades, including grades six and seven, but not grades four or nine. Questionnaires were mailed a second time and telephone calls were made to increase the response rate. One hundred thirty-two of the 134 principals' responses were used because their schools contained three of the appropriate grade levels for the definition of middle schools as used for the study. The rate of response for this study was 57 percent. Questionnaires from two principals indicated that their schools did not contain three of the defined grade levels and, therefore, were not usable.

Visits were made to four non-responding schools in different geographical locations of Virginia and their scheduling, teaming, and curricula practices were observed and described narratively.

Overview of the Schools Participating in the Study

One hundred thirty-four questionnaires were returned from the two hundred thirty-seven middle-level schools as identified from the 1995-96 Virginia Education Directory. One hundred thirty-two of the schools responding contained a minimum of three grades, including grades six and seven, but not grades four or nine (Table 1). The responses on two questionnaires were not usable because they indicated the schools did not meet the definition of a middle-level school. Three percent of the participating schools consisted of grades five through seven, 2 percent consisted of grades five through eight, and 95 percent of the schools consisted of grades six through eight (Table 2). Seventeen percent of the responding schools were small schools with an enrollment of 500 or fewer students. Fifty-six percent of the schools participating were mid-sized schools with enrollment ranging from 501 students to 1,000 students and 27 percent of the schools were large schools with an enrollment from 1,001 or more students. Thirteen percent of small schools consisted of grades five through seven and the remaining 87 percent of the small schools have grades six through eight. One percent of mid-sized schools consisted of grades five through seven, 4 percent consisted of grades five through eight, and 95 percent of mid-sized schools consisted of grades six through eight. All the large schools (100 percent) consisted of grades six through eight (Table 2).

Table 1
Distribution of Grades in the Middle Schools that Responded to the Questionnaire

<u>Grades</u>	<u>All Schools</u> N=132		<u>Small Schools</u> N=23		<u>Mid Size</u> <u>Schools</u> N=74		<u>Large Schools</u> N=35	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
5	7	5	3	13	4	5	0	0
6	132	100	23	100	74	100	35	100
7	132	100	23	100	74	100	35	100
8	128	97	20	87	73	99	35	100

Table 2

Distribution by Grade Configuration of Middle Schools that Responded to the Questionnaire

Grades	<u>All Schools</u> N=132		<u>Small Schools</u> N=23		<u>Mid Size Schools</u> N=74		<u>Large Schools</u> N=35	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
	5-7	4	3	3	13	1	1	0
5-8	3	2	0	0	3	4	0	0
6-8	125	95	20	87	70	95	35	100

Identification and Presentation of the Major Findings Scheduling Practices

The following sections report on scheduling practices employed in middle-level schools in the Commonwealth of Virginia. The flexible schedule is one component of a middle school that provides the opportunity for the school's faculty and staff to meet the instructional needs of the adolescent. Schools use various forms of schedules, grouping practices, allow different degrees of teacher autonomy in scheduling decisions, and have other factors that influence their scheduling decisions. The following sections report on each of those practices as it relates to scheduling.

Types of Schedules by Grade Levels

The questionnaire requested principals to indicate the type of schedule employed at each grade level in their school. The responses the principals could select from for each grade level included the traditional fixed period schedule of the five, six, seven, or eight period day; the modular schedule; the alternate day schedule; the four block schedule; and the flexible block schedule. Table 3 shows the different types of schedules employed at the different grade levels in the middle-level schools. Principals reported that the flexible block schedule was the most frequently employed schedule for grades five and six; 57 percent of middle-level schools with grade five and 52 percent of the middle-level schools with grade six employed the flexible block schedule. The flexible block schedule was used in 40 percent of the middle-level schools at the seventh grade while the traditional fixed seven period day schedule was the most frequently utilized schedule at grade eight. Forty-one percent of schools with grade eight indicated the use of the traditional seven period day schedule. The trend indicates that fewer schools employ the flexible block schedule as the grade level increases from grade six to grade eight. Both the traditional fixed seven period day and modular schedules were the second most frequently utilized schedules at grade five. Each was used at grade five 14 percent of the time. Traditional fixed seven period day schedules were the second most frequently utilized at grades six and seven, 21 percent at grade six and 29 percent at grade seven. The seven period schedule was the most frequently utilized schedule for middle schools that contained the eighth grade. Other schedule

types were reported to be employed less frequently. The alternate day schedule was reported to be employed in 13 percent of the middle schools at grade six, 14 percent at grade seven, and 13 percent at grade eight. Principals reported the traditional fixed six period schedule was employed by 11 percent of schools at grade eight, and all remaining types of schedules were employed by less than 10 percent of schools at grade five, six, seven or eight. The utilization of traditional fixed period schedules increases as the grade level increases and the utilization of the nontraditional schedules decreases. More middle schools use traditional fixed period schedules at the eighth grade than middle schools using nontraditional schedules.

Table 3
Frequency of Schedule Types Utilized in Virginia’s Middle Schools

<u>Type of Schedule</u>	<u>Grades</u>							
	<u>5</u>		<u>6</u>		<u>7</u>		<u>8</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Traditional Fixed Block</u>								
5 Period	0	0	0	0	0	0	0	0
6 Period	0	0	8	6	12	9	14	11
7 Period	1	14	28	21	38	29	53	41
8 Period	0	0	3	2	1	1	2	2
Totals	1	14	39	30	51	39	69	54
<u>Nontraditional</u>								
Modular Schedule	1	14	3	2	4	3	2	2
Alternate Day Schedule	0	0	17	13	19	14	17	13
Four Block Schedule	0	0	3	2	4	3	4	3
Flexible Block Schedule	4	57	69	52	53	40	34	27
Other plan	1	14	1	1	1	1	2	2
Total	6	85	93	70	81	61	59	46

Note. Rounding may prevent the percentage from equaling 100.

Principals of small middle schools reported that the flexible block schedule was utilized more frequently in grades five (67 percent), six (61 percent), and seven (44 percent) than grades five, six, and seven in either mid-sized or large schools. The flexible block schedule was employed less as the grade level increased from grade six to grade eight. The traditional seven period day schedule is the most utilized schedule at the eighth grade in small middle schools and

the second most utilized schedule in small schools at the sixth and seventh grades. It is utilized in 17 percent of small schools at the sixth grade, 26 percent of small schools at the seventh grade, and 40 percent of small schools at the eighth grade. Principals of small middle schools reported using the alternate day schedule in 9 percent of schools at the sixth grade, 13 percent of schools at the seventh grade and 15 percent of schools at the eighth grade (Table 4).

Table 4
Frequency of Schedule Types Utilized in Virginia’s Small Middle Schools

<u>Type of Schedule</u>	<u>Grades</u>							
	<u>5</u>		<u>6</u>		<u>7</u>		<u>8</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Traditional Fixed Block</u>								
5 Period	0	0	0	0	0	0	0	0
6 Period	0	0	1	4	1	4	2	10
7 Period	0	0	4	17	6	26	8	40
8 Period	0	0	0	0	1	4	1	5
Total	0	0	5	22	8	35	11	55
<u>Nontraditional</u>								
Modular Schedule	1	33	2	9	2	9	1	5
Alternate Day Schedule	0	0	2	9	3	13	3	15
Four Block Schedule	0	0	0	0	0	0	0	0
Flexible Block Schedule	2	67	14	61	10	43	5	25
Other plan	0	0	0	0	0	0	0	0
Total	3	100	18	78	15	65	9	45

The flexible block schedule was utilized by 57 percent of mid-sized middle schools at the sixth grade and 42 percent of mid-sized middle schools at the seventh grade. Traditional fixed seven period schedules were reported to be employed more frequently at the eighth grade in mid-sized middle schools. The traditional fixed seven period schedule was utilized in 51 percent of the schools at the eighth grade. Principals of mid-sized middle schools reported the utilization of the alternate day schedule in 8 percent of schools in grade six, 12 percent in grade seven, and 10 percent in grade eight (Table 5).

Table 5
 Frequency of Schedule Types Utilized in Virginia’s Mid-Sized Middle Schools

Type of Schedule	Grades							
	5		6		7		8	
	No.	%	No.	%	No.	%	No.	%
<u>Traditional Fixed Block</u>								
5 Period	0	0	0	0	0	0	0	0
6 Period	0	0	2	3	4	5	5	7
7 Period	1	25	18	24	25	34	37	51
8 Period	0	0	3	4	0	0	1	1
Total	1	25	23	31	29	39	43	59
<u>Nontraditional</u>								
Modular Schedule	0	0	0	0	1	1	1	1
Alternate Day Schedule	0	0	6	8	9	12	7	10
Four Block Schedule	0	0	2	3	3	4	3	4
Flexible Block Schedule	2	50	42	57	31	42	18	25
Other plan	1	25	1	1	1	1	1	1
Total	3	75	51	69	45	61	30	41

Note. Rounding may prevent the percentage from equaling 100.

Large middle schools employed the flexible block schedule more frequently in the eighth grade but the traditional seven period schedule, the traditional six period schedule, and the alternate day schedule were also frequently employed in the eighth grade. Flexible block schedules were utilized in 31 percent of large middle schools at the eighth grade while the traditional seven period schedule was utilized in 23 percent of large middle schools at the eighth grade and the traditional six period schedule was utilized in 20 percent of large middle schools at the eighth grade. The alternate day schedule was employed by 26 percent of the large middle schools in grade six, 20 percent in grade seven and 20 percent in grade eight. Principals of large middle schools reported much more utilization of the alternate day schedule than the principals of small or mid-sized middle schools (Table 6).

Table 6
Frequency of Schedule Types Utilized in Virginia's Large Middle Schools

<u>Type of Schedule</u>	<u>Grades</u>							
	<u>5</u>		<u>6</u>		<u>7</u>		<u>8</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Traditional Fixed Block</u>								
5 Period	0	0	0	0	0	0	0	0
6 Period	0	0	5	14	7	20	7	20
7 Period	0	0	6	17	7	20	8	23
8 Period	0	0	0	0	0	0	0	0
Total	0	0	11	31	14	40	15	43
<u>Nontraditional</u>								
Modular Schedule	0	0	1	3	1	3	0	0
Alternate Day Schedule	0	0	9	26	7	20	7	20
Four Block Schedule	0	0	1	3	1	3	1	3
Flexible Block Schedule	0	0	13	37	12	34	11	31
Other plan	0	0	0	0	0	0	1	3
Total	0	0	24	69	21	60	20	57

Ability Grouping

All schools must determine how to schedule students into subjects being offered. This decision determines how opportunities will be provided to students as well as having an impact on the school's climate and instructional program. Because students have a range of academic skills and interest, schools either schedule students into classes or assign students to teams based on some developed criteria, or they schedule students into classes randomly where they are a heterogenous group representative of the school's population. When students are scheduled into classes or teams based upon criteria, the criteria are usually determined to be prior grades or class performance, standardized test scores, parent request, criterion-referenced tests, or teacher recommendations. Principals were asked to indicate if ability grouping was used in their school and what criteria were used for assigning students to classes.

Principals in 24 percent of the middle schools responded that their schools did not employ ability grouping (Table 7). One percent of principals indicated that their schools utilized only standardized test results to determine how to schedule students into subjects, while 75 percent of the schools utilized more than one criterion to determine how to schedule students into subjects. Twenty-five percent of the schools that did not employ ability grouping did, however, place students in teams or in special classes for gifted and talented instruction. In these schools only the non-identified gifted students were heterogeneously grouped into classes.

Ability grouping was not utilized in 22 percent of small schools. Respondents reported that 32 percent of mid-sized schools did not utilize ability grouping, and that 9 percent of large schools did not utilize ability grouping. Principals of all other middle schools in each size range reported that more than one criterion was used to schedule students into classes or teams. Principals responded that grades or prior class performance (64 percent), teacher recommendations (64 percent), and standardized test results (58 percent) were the most frequently utilized criteria to schedule students into subjects. Parent request (37 percent) and criterion-referenced tests (41 percent) were employed less frequently (Table 7). The trend of use was consistent in small, mid-sized, and large schools. Grades or prior class performance was employed in 57 percent of small schools, 65 percent of mid-sized schools, and 64 percent of large schools. Teacher recommendations were employed in 57 percent of small schools, 61 percent of mid-sized schools, and 64 percent of large schools. Standardized test results were employed in 61 percent of small schools, 51 percent of mid-sized schools, and 58 percent of the large schools. Both parent request and criterion-referenced tests were employed in less than 50 percent of the schools in each size category (Table 7). One percent of principals responded that grouping only occurred for subjects such as pre-algebra, algebra and foreign language.

Table 7

Distribution of Criteria Employed for Assigning Students to Class; Use of Ability Grouping

<u>Criteria</u>	<u>School Size</u>							
	<u>All Schools</u>		<u>Small</u>		<u>Mid Size</u>		<u>Large</u>	
	<u>N=132</u>		<u>N=23</u>		<u>N=74</u>		<u>N=35</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Ability grouping is not used	32	24	5	22	24	32	3	9
Grades/prior class performance	85	64	13	57	48	65	24	69
Standardized test results	77	58	14	61	38	51	25	71
Parent Request	49	37	6	26	29	39	14	40
Criterion-referenced test	54	41	6	26	31	42	17	49
Teacher recommendations	84	64	13	57	45	61	26	74
Other	6	5	5	21	10	12	6	18

Note. Many schools reported utilizing more than one criterion to schedule students.

Authority to Change the Schedule

Schools that use flexible block or modular schedules have the capability of making scheduling adjustments. The adjustments may include changing the rotation of classes and length of the classes. An individual student's schedule may also be adjusted in the best instructional interest of that student. Schools also establish varying levels of authority as to who will make the decision to make the adjustments. Principals of schools that employed flexible block or modular schedules were asked to identify who makes the decision to change the schedule. Only those schools that had flexible block and modular type schedules were asked to respond.

Principals from 75 schools (57 percent) responded to the question. Those that did respond reported 59 percent of teams made the decision to change the schedule. Teachers at each grade level were allowed to make the decision to change the schedule in 20 percent of the schools responding; the administration made the decision in 11 percent of the schools; and 3 percent of schools allowed the total faculty to make the decision to change the schedule. Eight percent of the schools allowed a decision to be made by either the team and guidance counselor or the team and the administration (Table 8).

Mid-sized schools allowed 69 percent of their teams to make the decision to adjust the schedule, while 43 percent of large schools allowed teachers to do so, and 44 percent of small schools provided teachers the decision-making power to change the schedule. The teachers at

each grade level, where either flexible block or modular scheduling was employed, were allowed to change the schedule in 38 percent of the small schools, 18 percent of the mid-sized schools, and 7 percent of the large schools. Principals of large middle schools responded that 43 percent of schools allowed schedules to change if agreed upon by the team and guidance counselor or the team and the administration. The administration made the decision to change the schedule in 19 percent of the small schools, 9 percent of the large schools, and 7 percent of the mid-sized schools. The total faculty was given the authority to change the schedule in less than 5 percent of schools of each size category (Table 8).

Table 8
Distribution of Decision-Making Authority to Change Schedules in Middle Schools with Flexible or Modular Schedules

Decision <u>Making Authority</u>	<u>School Size</u>							
	All Schools <u>N=75</u>		Small <u>N=16</u>		Mid Size <u>N=45</u>		Large <u>N=14</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Each team	44	59	7	44	31	69	6	43
Teachers at each grade level	15	20	6	38	8	18	1	7
Total Faculty	2	3	0	0	2	4	0	0
Administration	8	11	3	19	4	9	1	7
Other	6	8	0	0	0	0	6	43

Note. Rounding may prevent the percentage from equaling 100.

Frequency of Schedule Changes

Schools that have flexible block and modular schedules have the capability of changing the rotation of classes, the length of class periods, and frequency with which classes are held within a period of time. The length and rotation of classes are usually adjusted to facilitate the instructional activities provided by the team of teachers. Principals were asked to indicate how often the schedule changes in their school -- daily, 2 to 3 times a week, weekly, or each grading period. Only schools using flexible block or modular scheduling were asked to respond.

Responses were received from 69 middle schools, 52 percent of all schools participating in the study. Principals responded that 54 percent of teams changed their schedule for some other time period than the questionnaire indicated. The principals indicated the frequency in changes of the length of class periods, rotation of classes, and how often classes were held was based on reasons such as the instructional needs of students, needs of the team, special activities or test schedules and early dismissal days, rather than estimating how often the school's schedule

changed. Many principals commented that although the school’s schedule was designed to be flexible, teams rarely changed the schedule. Respondents indicated that 14 percent of teams changed the schedule each grading period, 13 percent weekly, and 12 percent two to three times a week. The schedule changed daily in 7 percent of the schools responding (Table 9).

Principals of middle-level schools, regardless of size, responded that teams changed their schedule most frequently for reasons such as the instructional needs of students, test schedules, or special activities. Eighty percent of small schools, 51 percent of mid-sized schools, and 31 percent of large schools changed their schedule when other reasons necessitated a change. Principal responses indicate that schedules change more frequently in large schools. Schedules changed daily in 23 percent of large schools and 2 to 3 times a week in 23 percent of large schools. Small and mid-sized schools changed their schedules daily in less than 10 percent of their schools and changed their schedules 2 to 3 times a week in 12 percent of mid-sized schools. None of the principals from small schools indicated schedule changes of 2 to 3 times a week. Schedules changed weekly in 13 percent of small schools, 15 percent of mid-sized schools, and 8 percent of large schools. Principals of mid-sized middle schools reported their schools’ schedule changed more often each grading period (20 percent) and principals of large middle schools reported their schedule changed each grading period in 15 percent of their schools. None of the principals from small schools reported their schedule changing each grading period (Table 9).

Table 9
Distribution of How Often the Flexible and Modular Schedule Changes

<u>Frequency of Change</u>	<u>School Size</u>							
	<u>All Schools</u>		<u>Small</u>		<u>Mid Size</u>		<u>Large</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Daily	5	7	1	7	1	2	3	23
2 to 3 times a week	8	12	0	0	5	12	3	23
Weekly	9	13	2	13	6	15	1	8
Each grading period	10	14	0	0	8	20	2	15
Other	37	54	12	80	21	51	4	31

Scheduling or Adjusting the Schedule of Individual Students

Students are scheduled into classes and assigned to teams based upon criteria developed by the school unless the school has all heterogeneous classes. Students may be assigned to classes by ability based on criteria such as reading tests, standardized test scores, prior grades, teacher recommendations or a combination of criteria. Once students are scheduled into classes based upon criteria, students tend to maintain the same classmates although they have different levels of ability in different subjects, but the students' schedule is not adjusted. In schools where students are maintained with the same group of students throughout the school year, students become labeled as bright or slow learners with the varying levels of ability in different subjects, and they may not be challenged. Adjusting the schedule of individual students prevents them from being labeled, as well as allows students to be scheduled into classes based on their instructional needs so that the school might be able to better challenge students instructionally.

Seventy-six principals responded to the question whether teams could schedule or adjust the schedule of individual students. Teams are allowed to schedule or adjust the schedule of individual students in 88 percent of the schools that responded (Table 10). Principals of small middle schools reported that 81 percent of the 13 responding schools using flexible block or modular scheduling allowed teams to schedule and adjust the schedule of individual students. Principals in 41 mid-sized schools, 91 percent of those responding, reported allowing individual students' schedules to be changed by teams. The principals in large schools indicated that 87 percent of their 13 schools responding allow teams to schedule and adjust the schedule of individual students.

Table 10
Frequency and Percentage of Middle Schools that Allow Teams to Schedule or Adjust the Schedule of Individual Students When the School has a Flexible or Modular Schedule

<u>Response</u>	<u>School Size</u>							
	<u>All Schools</u>		<u>Small</u>		<u>Mid Size</u>		<u>Large</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Yes	67	88	13	81	41	91	13	87
No	9	12	3	19	4	9	2	13

Mixing Students From Different Grade Levels

The school must decide whether to mix students between grade levels when deciding course offerings and how its schedule will function. When schools offer the same classes at multiple grade levels, sometimes the school decides to mix students from different grade levels because of the number of students requesting the course. This decision may reduce the number of teachers needed within the school. The decision to mix students also increases the number of teachers a student sees within the day while it reduces the opportunity for teachers to have large blocks of flexible time within their schedules. Mixing students among the different grade levels also reduces the opportunity for teachers to have common team planning time.

All 132 principals participating in the survey responded to the question of whether their school mixed students from different grade levels for any subjects including exploratory and physical education. Sixty-four percent of all principals responded that their school did not mix students from differing grade levels. The percent of schools not mixing students among the different grade levels remained consistent with principals of small middle schools reporting 61 percent not mixing students between the grade levels, 64 percent of principals from mid-sized middle schools reporting not mixing students between the different grade levels, and 69 percent of principals from large middle schools reporting not mixing students between the different grade levels within their school (Table 11). Mathematics was the common core class reported for mixing students between grade levels while foreign language, physical education, and music classes were identified as the exploratory or elective classes in which students were mixed between grade levels.

Table 11

Frequency and Percentage of Middle School Schedules that Mix Students From Different Grade Levels, 5, 6, 7, or 8 for Any Subjects

<u>Response</u>	<u>School Size</u>							
	<u>All Schools</u>		<u>Small</u>		<u>Mid Size</u>		<u>Large</u>	
	<u>N=132</u>		<u>N=23</u>		<u>N=74</u>		<u>N=35</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Yes	47	36	9	39	27	36	11	31
No	85	64	14	61	47	64	24	69

Circumstances That Influence the Kind of Schedule Employed

The scheduling process takes large amounts of time, organization, and planning. Students' instructional needs are dependent upon the schedule providing the course offerings they request. Many times the schedule of a school is influenced by decisions made outside of the school. The school may not have a sufficient faculty to operate the schedule it prefers or the school must share teachers with other schools. Student course offerings and student course requests may require decisions that determine the kind of schedule employed in the school. Instructional activities, programs and the need for middle school students to be successful should be the determining factors in what type of schedule is utilized in the school.

It was reported by principals responding that there were circumstances influencing the kind of schedule employed in 58 percent of their schools (Table 12). A large number of middle school principals responded that the kind of schedule employed was influenced by the use of itinerate teachers. Principals from middle schools of all sizes indicated that they shared teachers with other schools and their schedule was developed to accommodate this arrangement. Other responses, less frequently included, were student requests for specific classes or high school level classes, pupil-teacher ratio, team planning, decision not to mix students between grade levels, overcrowded facilities, and music offerings.

Principals from 48 percent of small middle schools reported that the kind of schedule employed in their schools was so influenced, as compared to 54 percent of principals from mid-sized middle schools and 71 percent of principals from large middle schools (Table 12). The use of itinerate teachers was the most frequently reported reason for determining the kind of schedule utilized in their school regardless of size.

Table 12

Frequency and Percentage of Middle Schools that have Circumstances that Influence the Kind of Schedule Employed

<u>Response</u>	<u>School Size</u>							
	<u>All Schools</u>		<u>Small</u>		<u>Mid Size</u>		<u>Large</u>	
	<u>N=132</u>		<u>N=23</u>		<u>N=74</u>		<u>N=35</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Yes	76	58	11	48	40	54	25	71
No	56	42	12	52	34	46	10	29

Unique Scheduling Characteristics

Each principal was asked to identify if their school’s schedule had unique characteristics. Fifteen principals responded, three with the same response that their schedule was flexible. They identified the following unique characteristics about their schedule:

1. Each team has its own physical education teacher and special education teacher.
2. The schedule allows for teacher inservice during the school day.
3. Physical education and exploratory classes are taught in alternate day blocks of time.
4. Each grade level has a different schedule.
5. Social studies and science are semester-length classes.
6. The schedule is flexible.
7. Math is taught daily in an alternating day block schedule.
8. The school operates without bells.
9. Teachers are provided with personal planning and team planning time.
10. The schedule is teacher-owned.
11. An instructional block is provided for interdisciplinary instruction.
12. A homebase period that the teacher may use for core instruction is next to the lunch period.

Teaming Practices

Departmental Teaming

Departmental teaming consists of teachers of the same subject sharing the same group of students, for example, two or more science teachers teaching the same students. The teachers from the same instructional department or subject area discipline share common time to plan together, provide students with large and small group instruction, and regroup students based on their instructional needs.

The majority of middle-level school principals, 86 percent, reported that their school did not employ departmental teaming (Table 13). Departmental teaming was only employed by 6 percent of middle schools at the sixth grade level and 7 percent at the seventh grade level. Departmental teaming was reported to be utilized more at the eighth grade level where principals reported that 12 percent of middle-level schools utilized departmental teaming. Ninety-one percent of principals from small middle schools, 81 percent of principals from mid-sized schools, and 94 percent of principals from large middle schools reported no use of departmental teaming (Table 13). Principals of small middle-level schools reported utilization of departmental teaming in 4 percent of their schools in both sixth and seventh grades. Departmental teaming was reported to be employed in 8 percent of the mid-sized schools in the sixth grade and 9 percent in the seventh grade. The use of departmental teaming at the eighth grade level was reported by 10 percent of principals from small middle schools and 15 percent of principals from mid-sized middle schools. Principals reported using departmental teaming in 3 percent of the sixth and seventh grades in large middle-level schools. The principals of large middle-level schools reported 6 percent utilization of departmental teaming at the eighth grade level. No principals reported using departmental teaming in the fifth grade.

Table 13

Frequency and Percentage of Middle Schools Using Department Team Organization by Grade

<u>Grade</u>	<u>N</u>	<u>All Schools</u>		<u>Small Schools</u>			<u>Mid-Sized Schools</u>			<u>Large Schools</u>		
		<u>No.</u>	<u>%</u>	<u>N</u>	<u>No.</u>	<u>%</u>	<u>N</u>	<u>No.</u>	<u>%</u>	<u>N</u>	<u>No.</u>	<u>%</u>
5	7	0	0	3	0	0	4	0	0	0	0	0
6	132	8	6	23	1	4	74	6	8	35	1	3
7	132	9	7	23	1	4	74	7	9	35	1	3
8	128	15	12	20	2	10	73	11	15	35	2	6
Do Not Use	132	114	86	23	21	91	74	60	81	35	33	94

Interdisciplinary Teaming

Interdisciplinary teams are comprised of two or more teachers sharing the same students and having a common planning time to coordinate and integrate content across subject areas, to discuss and solve students' problems, to regroup students as needed, to conduct conferences with parents, and to adjust the team's schedule when it is flexible. Teachers on interdisciplinary teams discuss students' need for special help, arrange for additional instructional help, and provide additional time for learning. Such teams are advocated by middle school supporters as a key organizational feature that eliminates or reduces problems teachers face and provides the needed teacher support to solve problems more quickly when they do present themselves.

All principals were asked if their school employed interdisciplinary teaming. The utilization of interdisciplinary teaming was reported by 93 percent of principals, but the percentage of utilization for interdisciplinary teaming varied at each grade level within the school. Seventy-one percent of principals from all middle schools reported the utilization of interdisciplinary teaming at the fifth grade, 89 percent at the sixth grade, 87 percent at the seventh grade, and 75 percent at the eighth grade (Table 14).

Middle-level schools, whether small, mid-sized, or large, employ interdisciplinary teaming most often at the sixth and seventh grade levels. There is a decline in the utilization of interdisciplinary teaming at the eighth grade level. Interdisciplinary teaming is employed at the sixth grade level in 83 percent of small schools, 89 percent of mid-sized schools and 94 percent of large schools. Teams are employed at the seventh grade in 83 percent of small schools, 88 percent of mid-sized schools, and 89 percent of large schools (Table 14). Students experience teaming less in the eighth grade, as principals report 75 percent utilization in both small and mid-sized schools and 83 percent utilization of interdisciplinary teaming in large middle-level schools at the eighth grade.

Table 14
 Frequency and Percentage of Middle Schools Using Interdisciplinary Team Organization by Grade

<u>Grade</u>	<u>N</u>	<u>All Schools</u>		<u>Small Schools</u>			<u>Mid-Sized Schools</u>			<u>Large Schools</u>		
		<u>No.</u>	<u>%</u>	<u>N</u>	<u>No.</u>	<u>%</u>	<u>N</u>	<u>No.</u>	<u>%</u>	<u>N</u>	<u>No.</u>	<u>%</u>
5	7	5	71	3	2	67	4	3	75	0	0	0
6	132	118	89	23	19	83	74	66	89	35	33	94
7	132	115	87	23	19	83	74	65	88	35	31	89
8	128	99	75	20	15	75	73	55	75	35	29	83
Do Not Use	132	9	7	23	3	13	74	4	5	35	2	6

Team Size

Interdisciplinary teams are usually smaller at the lower grades, fifth or sixth grades, and increase in size as students move to the eighth grade. The utilization of small teams initially at the middle school level and gradual increase in the size of teams at the seventh and eighth grades provide a better transition for students from the self-contained elementary school to middle school while preparing them for high school. Teachers are able to become more familiar with student needs and build better relationships with students if teams are smaller. Students spend more instructional time with their teachers in smaller interdisciplinary teams.

Principals were asked to report the number of teachers assigned to interdisciplinary teams at each grade level in their school. Because many principals reported multiple responses, the number of responses is greater than the total schools participating in the study. Other middle school principals only indicated a response for the grade level at which teaming existed within their school. Principals from 60 percent of middle schools with the fifth grade reported having two teachers on a team, 20 percent of the fifth grade teams had three teachers on a team, and 20 percent had four teachers on a team. Sixth grade teams primarily ranged in size from two to five teachers with 43 percent of the teams consisting of two teachers, 30 percent consisting of three teachers, 26 percent consisting of four teachers, and 19 percent of the sixth grade teams consisting of five team members (Table 15). Interdisciplinary teams at the seventh grade primarily consisted of three, four, and five teachers. Twenty-six percent of the teams had three teachers, 52 percent of the teams had four teachers, and 20 percent consisted of five team members in the seventh grade (Table 15).

Over half of principals from the middle schools reported that teams at the eighth grade consisted of four teachers. Principals reported 53 percent of teams had four teachers, 21 percent had five teachers, and 13 percent of teams had three teachers on them. Principals did report that teams at the eighth grade level with two, six, and seven teachers were employed in less than 10 percent of middle schools.

Table 15
Distribution of Middle Schools by the Number of Teachers on a Typical Interdisciplinary Team

<u>No. of Teachers</u>	<u>Grade 5 N=5</u>		<u>Grade 6 N=125</u>		<u>Grade 7 N=125</u>		<u>Grade 8 N=115</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
	2	3	60	54	43	15	12	6
3	1	20	38	30	32	26	15	13
4	1	20	32	26	65	52	61	53
5	0	0	24	19	25	20	24	21
6	0	0	1	1	3	2	7	6
7 or more	0	0	3	2	2	2	7	6

Note. Several middle schools use more than one size team in their school.

The size of teams in small middle-level schools range most frequently from two to five teachers. The interdisciplinary team in the sixth grade of the small middle schools was most frequently composed of two teachers (35 percent). Small schools utilized three-teacher teams and four-teacher teams at the sixth grade level in 20 percent of schools and the five-teacher team was utilized at the sixth grade level in 15 percent of the small schools. Seventh grade teams were composed of teams ranging in size from two to seven or more teachers. The three and five teacher teams were used in 25 percent of schools. Eighth grade teams in 33 percent of the small middle schools were composed of five teachers and the four teacher team was utilized in 27 percent of the small middle schools (Table 16).

Table 16
 Distribution of Small Middle Schools by the Number of Teachers on a Typical Interdisciplinary Team

<u>No. of Teachers</u>	<u>Small Middle Schools</u>							
	<u>Grade 5</u>		<u>Grade 6</u>		<u>Grade 7</u>		<u>Grade 8</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
2	0	0	7	35	4	20	0	0
3	1	100	4	20	5	25	2	13
4	0	0	4	20	3	15	4	27
5	0	0	3	15	5	25	5	33
6	0	0	0	0	1	5	2	13
7 or more	0	0	2	10	2	10	2	13

Note. Several middle schools use more than one team size in their school.

Mid-sized middle schools utilized two-teacher teams in 75 percent of schools at the fifth grade level. The sixth grade teams were composed of two, three, and four teachers most frequently. Sixty percent of the seventh grade teams in the mid-sized middle school were composed of four teachers and the eighth grade teams were composed of four teachers on 54 percent of the teams (Table 17).

Table 17
 Distribution of Mid-Sized Middle Schools by the Number of Teachers on a Typical
 Interdisciplinary Team

No. of Teachers	Mid-Sized Middle Schools							
	Grade 5		Grade 6		Grade 7		Grade 8	
	N=4		N=70		N=70		N=70	
	No.	%	No.	%	No.	%	No.	%
2	3	75	33	47	9	13	4	6
3	0	0	25	36	22	31	9	13
4	1	25	21	30	42	60	38	54
5	0	0	6	9	15	21	14	20
6	0	0	0	0	1	1	3	4
7 or more	0	0	1	1	0	0	5	7

Note. Several middle schools use more than one team size in their school.

Interdisciplinary teams in large middle schools were composed of two teachers in 40 percent of the schools, three teachers in 26 percent of the schools, and four teacher teams in 20 percent of the schools at the sixth grade level. The four-teacher team was primarily utilized in the seventh and eighth grades of large middle schools. Large middle schools utilized the four-teacher team at the seventh grade level in 57 percent of schools and 63 percent utilized the four-teacher team at the eighth grade level (Table 18).

Table 18
 Distribution of Large Middle Schools by the Number of Teachers on a Typical Interdisciplinary Team

No. of Teachers	Large Middle Schools							
	Grade 5		Grade 6		Grade 7		Grade 8	
	N=0		N=35		N=35		N=30	
	No.	%	No.	%	No.	%	No.	%
2	0	0	14	40	2	6	2	7
3	0	0	9	26	5	14	4	13
4	0	0	7	20	20	57	19	63
5	0	0	6	17	6	17	5	17
6	0	0	1	3	2	6	2	6
7 or more	0	0	0	0	0	0	0	0

Note. Several middle schools use more than one team size in their school.

Status of Planning for Teachers

Teachers need common planning time to use the interdisciplinary team effectively. The common planning period is usually a period of time equal to an instructional period when all the teachers assigned to the team meet to discuss and plan for student needs and instructional activities to provide students with shared instructional objectives. The Standards and Regulations for Public Schools in Virginia requires that all teachers have an individual planning period. The common planning period is a period of time set aside in addition to the individual planning period.

The questionnaire asked principals to respond to the statement that best describes planning in their school. Middle school principals report that the majority of their teachers have two planning periods, and there were no reports of teachers without a planning period. Respondents reported that their teachers had two planning periods in 36 percent of schools, one personal and one team; 33 percent indicate that all core teachers in their school had two planning periods except exploratory teachers who had one planning period. Teachers had one personal planning period and no team planning period in 18 percent of the schools participating in the study (Table 19).

Other less frequently employed arrangements were described for planning. They included planning on alternating days; 75 or 73 minutes for personal and team planning daily; team planning done during contract time before or after school; personal and team planning time twice a week; sixth grade teachers having personal and team planning time, while other teachers have only personal planning time; and all teachers having a planning period in common and one additional planning period for one semester.

Principals of large middle schools reported that 46 percent of their teachers have two planning periods, one personal and one team, as compared to 34 percent of mid-sized schools and 26 percent of small schools. Teachers having two planning periods, while exploratory teachers have only one personal planning period, was reported to be frequently utilized in 26 percent of small schools, 38 percent of mid-sized schools, and 29 percent of large schools. Principals from small middle schools reported that teachers had only one personal planning period in 35 percent of schools, while only 16 percent of principals from mid-sized middle schools and 11 percent of principals from large middle schools reported that their teachers had only one personal planning period (Table 19).

Table 19
Status of Planning Time in Middle Schools

Number of Planning Periods	School Size							
	All Schools N=132		Small N=23		Mid Size N=74		Large N=35	
	No.	%	No.	%	No.	%	No.	%
Teachers have one personal planning period	24	18	8	35	12	16	4	11
Teachers have two planning periods - one personal and one team	47	36	6	26	25	34	16	46
Core teachers have two planning periods but exploratory teachers have one	44	33	6	26	28	38	10	29
Teachers do not have planning	0	0	0	0	0	0	0	0
Other	17	13	3	13	9	12	5	14

Principals were also asked to indicate how much planning time was officially scheduled to be utilized for team planning. Team planning time is usually allocated for a period equal to that of a typical instructional period, but schools use different arrangements to provide teams with the common planning period. Forty-nine percent of all middle-level schools indicated that teams have more than three hours of planning time per week, while principals reported that 17 percent of schools provided teachers with between two and three hours a week, 14 percent between one and two hours per week, and 8 percent between one half hour and one hour per week. Principals in 11 percent of middle schools reported they did not provide an official common planning time (Table 20).

The amount of official team planning time scheduled was similar at large and mid-sized middle schools. Principals of large middle schools reported that 54 percent of their schools provided more than three hours per week for team planning and principals from mid-sized middle schools reported 51 percent of their schools providing more than three hours of official team planning time, while principals from small middle schools reported 35 percent providing more than three hours of official team planning time per week. Principals of small middle schools reported that 35 percent of their schools have no official team planning time, while only 7 percent of principals from mid-sized middle schools and 6 percent of principals from large middle schools report having no official common team planning time (Table 20).

Table 20
Amount of Planning Time Scheduled to be Used in Middle Schools

<u>Amount of Planning Time</u>	<u>School Size</u>							
	All Schools N=132		Small N=23		Mid Size N=74		Large N=35	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Less than 30 minutes per week	0	0	0	0	0	0	0	0
Between one half hour and one hour per week	11	8	2	9	7	9	2	6
Between one and two hours per week	19	14	2	9	11	15	6	17
Between two and three hours per week	22	17	3	13	13	18	6	17
More than three hours per week	65	49	8	35	38	51	19	54
No official common planning time	15	11	8	35	5	7	2	6

Time Spent on Team Planning Activities

Interdisciplinary teams should have an officially scheduled planning time for the team of teachers to use to coordinate, plan, and complete instructional activities. The activities of these teams vary, and they may include the coordination of instruction; adjusting the team schedule; regrouping students by ability; discussing strategies to solve student problems; parent conferences; planning special activities; and participating in special education meetings. Teams will vary in the kind of activities they plan and employ and normally go through several phases of implementation.

Principals were asked to report the estimated average amount of time per week the teams in their school spend on activities during their scheduled team planning period. Most middle-level school principals responding to the question report middle schools using one-fourth to one-half of their team planning time per week on diagnosing individual student needs, with teachers discussing strategies to solve student problems (58 percent); conducting conferences with parents to solve student problems (48 percent); and coordinating subject area content and integrating instruction (48 percent). It was reported that 35 percent of interdisciplinary teams used one-fourth to one-half of their common planning time to plan special events such as assemblies and trips (Table 21). Principals reported that 61 percent of teams use less than one-fourth of the scheduled team planning time for revising schedules and adjusting time for instruction within the scheduled block. Seventy percent of principals reported that their teams used less than one-fourth of their scheduled planning time for participating in eligibility or individual education plan meetings; 56 percent of principals reported that teams used less than one-fourth of their scheduled team time regrouping students for instructional needs; and 57 percent of middle-level schools use less than one-fourth of their scheduled team planning time on planning special events such as assemblies or trips. A number of teams use common planning time for individual preparation; 19 percent use more than one-half of their time, 22 percent more than one-fourth to one-half of their time, and 24 percent less than one-fourth of the time (Table 21).

Table 21

Amount of Time Spent on Activities During Team Planning Time

<u>Amount of Time</u> <u>Activity</u>	<u>N</u>	<u>All Middle Schools</u>							
		<u>None</u>		<u>Less than 1/4</u>		<u>Between 1/4 and 1/2</u>		<u>More than 1/2</u>	
		<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Individual Team Preparation	122	43	35	29	24	27	22	23	19
Coordinate content	122	13	11	38	31	58	48	13	11
Revise schedules and adjust time within the block	122	30	25	74	61	15	12	3	2
Regroup students	122	43	35	68	56	10	8	1	1
Diagnose individual students' problems	122	6	5	25	20	71	58	20	16
Conduct conferences with parents	122	8	7	47	39	59	48	8	7
Plan special events	122	7	6	69	57	43	35	3	2
Participate in eligibility/IEP meetings	122	25	20	86	70	7	6	4	3

Note. Principals from ten schools did not respond.

Principals from the different sized schools reported that teams more frequently used one-fourth to one-half of their common planning time to coordinate instruction, diagnose individual student problems, and conduct conferences with parents. Middle schools of all three sizes reported the majority of their teams using less than one-fourth of the team planning time on special education meetings. Responses from principals indicated that the majority of small, mid-sized, and large teams spent less than one-fourth of team planning time on revising or adjusting schedules, regrouping students for instruction, and participating in eligibility and individualized education plan meetings.

Small schools did differ in that principals reported that 35 percent of their teams used one-fourth to one-half of their common planning time and 24 percent of their teams used more than one-half of their common planning time for individual team preparation. Fifty-nine percent of teams in small middle schools use between one-fourth and one-half of their time diagnosing individual student problems, 29 percent use between one-fourth and one-half coordinating

content, 29 percent use between one-fourth and one-half conducting parent conferences, and 24 percent use between one-fourth and one-half planning special events. Many small middle school teams used less than one-fourth of their planning time coordinating content, conducting parent conferences, and planning special events (Table 22).

Table 22

Amount of Time Spent on Activities During Team Planning Time in Small Middle Schools

<u>Amount of Time</u> <u>Activity</u>	<u>N</u>	<u>Small Middle Schools</u>							
		<u>None</u>		<u>Less than 1/4</u>		<u>Between 1/4 and 1/2</u>		<u>More than 1/2</u>	
		<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Individual Team Preparation	17	4	24	3	18	6	35	4	24
Coordinate content	17	1	6	11	65	5	29	0	0
Revise schedules and adjust time within the block	17	6	35	10	59	1	6	0	0
Regroup students	17	8	47	8	47	1	6	0	0
Diagnose individual students' problems	17	1	6	6	35	10	59	0	0
Conduct conferences with parents	17	1	6	11	65	5	29	0	0
Plan special events	17	1	6	12	71	4	24	0	0
Participate in eligibility/IEP meetings	17	5	29	12	71	0	0	0	0

Fifty-four percent of mid-sized middle school teams used between one-fourth to one-half of their team planning time to coordinate content and 54 percent of mid-sized middle school teams utilize between one-fourth and one-half of the team planning time to diagnose individual student problems (Table 23).

Table 23

Amount of Time Spent on Activities During Team Planning Time in Mid- Sized Schools

<u>Mid Size Middle Schools</u>									
<u>Amount of Time</u> <u>Activity</u>	<u>N</u>	<u>None</u>		<u>Less than 1/4</u>		<u>Between 1/4 and 1/2</u>		<u>More than 1/2</u>	
		<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Individual Team Preparation	74	30	41	14	19	16	22	14	19
Coordinate content	74	10	14	18	24	40	54	6	8
Revise schedules and adjust time within the block	74	17	23	45	61	10	14	2	3
Regroup students	74	25	34	41	55	7	9	1	1
Diagnose individual students' problems	74	5	7	16	22	40	54	13	18
Conduct conferences with parents	74	7	9	30	41	33	45	4	5
Plan special events	74	6	8	43	58	23	31	2	3
Participate in eligibility/IEP meetings	74	17	23	48	65	6	8	3	4

Large middle school teams (68 percent) spent between one-fourth and one-half of their planning time each on diagnosing student problems and conducting parent conferences (Table 24).

Table 24

Amount of Time Spent on Activities During Team Planning Time in Large Middle Schools

<u>Amount of Time</u> <u>Activity</u>	<u>N</u>	<u>Large Middle Schools</u>							
		<u>None</u>		<u>Less than 1/4</u>		<u>Between 1/4 and 1/2</u>		<u>More than 1/2</u>	
		<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Individual Team Preparation	31	9	29	12	39	5	16	5	16
Coordinate content	31	2	6	9	29	13	42	7	23
Revise schedules and adjust time within the block	31	7	3	19	61	4	13	1	3
Regroup students	31	10	32	19	61	2	6	0	0
Diagnose individual students' problems	31	0	0	3	10	21	68	7	23
Conduct conferences with parents	31	0	0	6	19	21	68	4	13
Plan special events	31	0	0	14	45	16	52	1	3
Participate in eligibility/IEP meetings	31	3	10	26	84	1	3	1	3

Assigning Teachers to Interdisciplinary Teams

Assigning teachers to teams is one of the principal's most important tasks. It is important to have teachers on teams who can work together harmoniously and professionally. Middle-level schools utilize different methods for assigning teachers to interdisciplinary teams. Teachers may be assigned to interdisciplinary teams by administrators; administrators may assign teachers but make adjustments based on teacher request; teachers may choose other teachers for their team from the school's faculty. Ultimately the teacher's assignment to a team should benefit the students.

The questionnaire asked principals to identify how teachers were assigned to interdisciplinary teams in their school. Responding principals indicated that teachers were assigned to teams by the school administrator in 53 percent of schools and 36 percent of team assignments were made by the administrator but adjustments were allowed. Teachers chose their team members in 5 percent of the middle-level schools participating in the study (Table 25).

In small schools the school administrator made the assignment 61 percent of the time, and the school administrator in mid-sized schools made the assignment 57 percent of the time. Only 39 percent of school administrators in large schools made the assignment, but large schools

reported that 55 percent of the time an administrator made the assignment of teachers to teams with the understanding that adjustments could be made. Teachers were allowed to choose other teachers for their teams in 6 percent of small schools and 7 percent of mid-sized schools. No large schools reported allowing teachers to choose their teams (Table 25).

Table 25
Teacher Assignment to Interdisciplinary Team

<u>Assigned By</u>	<u>All Schools</u> <u>N=121</u>		<u>Small Schools</u> <u>N=18</u>		<u>Mid Size Schools</u> <u>N=70</u>		<u>Large Schools</u> <u>N=33</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
	School Administrator	64	53	11	61	40	57	13
Teachers choose the other teachers on their teams	6	5	1	6	5	7	0	0
Administrators make assignments but adjustments can be made	44	6	3	17	23	33	18	55
Other	7	6	3	17	2	3	2	6

Note. Rounding may prevent the percentage from equaling 100.

Selection of a Team Leader

Team leaders are vital in the middle-level school. They must work with all members of the team to help them perform to the best of their ability. Team leaders need to have an understanding of the social and emotional development of students and be able to advise the team on the management of student behavior. The team leader should be a good communicator who is able to manage resources to meet instructional responsibilities. The effectiveness of the team is dependent on the team leader.

Principals were asked to identify how team leaders were selected in their schools. The school administrator in 42 percent of middle-level schools appointed team leaders. Thirty-four percent of schools had team leaders elected by the other members on the team, while 14 percent of schools had teachers share or rotate the team leader responsibilities. Two percent of middle-level schools allow the team leader to emerge over time, and one percent of schools have teams with no identified team leader. Seven percent of middle-level schools utilized a combination of methods for selecting the team leader (Table 26).

Schools of all sizes allowed team leaders to be elected by other members of the team, 50 percent of the small schools, 33 percent of mid-sized schools, and 29 percent of the large schools. Team leaders in 51 percent of the mid-sized schools were appointed by the principal while the

school administrator appointed the team leader in 33 percent of the small schools and 26 percent of the large schools. Large schools allowed the team leader responsibilities to be shared or rotated in 24 percent of schools, while only 11 percent of small and mid-sized schools reported team leader responsibilities being shared (Table 26).

Table 26
Selection of the Team Leader in Middle Schools

<u>Team Leader is Selected by</u>	<u>All Schools</u> <u>N=125</u>		<u>Small</u> <u>Schools</u> <u>N=18</u>		<u>Mid Size</u> <u>Schools</u> <u>N=73</u>		<u>Large</u> <u>Schools</u> <u>N=34</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Appointed by the school administrator	52	42	6	33	37	51	9	26
Elected by the other members of the team	43	34	9	50	24	33	10	29
Team leader responsibilities are shared or rotated among the team members	18	14	2	11	8	11	8	24
Leader emerges informally as the team works together	2	2	0	0	2	3	0	0
No leader is identified	1	1	0	0	0	0	1	3
Other	9	7	1	6	2	3	6	18

Determining Team Size

Middle-level schools should decide the size of interdisciplinary teams based upon the needs of the students. Generally middle schools have smaller teams at the lower grades and gradually increase the team size as students move to the higher grades level. This practice facilitates the transition of students from the elementary school to the high school. Teams of two to four teachers are most workable. The important thing to observe about smaller teams is the automatic reduction in the number of different students taught and the increase in the amount of time teachers and students have together. The extended time teachers and students spend together has advantages.

Principals were asked to identify what determines the number of teachers that comprise an interdisciplinary team in their school. The most frequent responses given were student enrollment, number of teachers on the faculty, and the number of core classes required. The least frequently given responses were teacher wishes and the ability to group students; student needs; transitional organization of the grades; teacher certification; and the school's criteria for the number of teachers to be assigned to teams by grade level.

Curricula Practices

Subjects Taken by Students

Middle schools have a core curriculum consisting of subjects or skills that all students are expected to complete. The subjects usually include language arts, reading, mathematics, science, and social studies. Middle-level schools also have exploratory programs that are made of high-interest classes that relate to students' daily lives, physical education, and electives. The Standards and Regulations for Public Schools in Virginia requires middle-level schools to offer the core subjects to students, as well as high school classes such as Algebra I and foreign language.

The questionnaire asked principals to identify if the core subjects and physical education were taken by all students in their school. Responses indicated that 100 percent of all middle-level schools participating in the study had all students take language arts, mathematics, and science. Social studies was taken by all students in 96 percent of the middle schools and physical education was taken by all students in 94 percent of the schools (Table 27).

Table 27
Frequency of Core Subjects Taken in Middle Schools by All Students in Each Grade Level

<u>Subject</u>	<u>N</u>	<u>No.</u>	<u>%</u>
Language Arts	132	132	100
Mathematics	132	132	100
Science	132	132	100
Social Studies	132	127	96
Physical Education	132	124	94

Schools with less than 100 percent of students taking social studies indicated that students may take a foreign language rather than social studies or that students are pulled from social studies to take a remedial class. Schools that did not have 100 percent of students in physical education stated that students were allowed to take a year-long elective because physical education was an elective class or that students were required to take a remedial subject rather than physical education.

Small schools did indicate that 100 percent of their students took social studies, but mid-sized schools only had 97 percent of all students taking social studies, and 91 percent of large schools had all students taking social studies. Physical education was taken by all students in 87 percent of small schools, 95 percent of mid-sized schools, and 97 percent of large schools.

Reading Instruction

Reading instruction is a fundamental in the learning of all students, and schools seek to provide appropriate instruction to students by different methodologies. Schools offer reading instruction by teaching it as a separate subject, integrated with language arts, or integrated through the total school program possibly through other subjects. All principals indicated how their middle-level school taught reading.

Many reported that their school employed multiple methods for teaching reading. Seventy-five percent of principals indicated that reading was integrated through language arts classes; 35 percent of the schools taught reading as a separate subject; 12 percent integrated reading instruction throughout their total school program; and 6 percent of middle-level schools taught reading as a separate subject but blocked it with another subject in multiple periods (Table 28).

Reading instruction integrated with language arts is the most frequently reported method of teaching reading. Sixty-five percent of small schools, 76 percent of mid-sized schools, and 82 percent of large schools reported that reading was integrated with language arts. Reading taught as a separate subject was the second most frequent method reported for the teaching of reading. Small schools reported the utilization of the separate subject in 43 percent of its schools, while mid-sized schools reported that 34 percent taught reading as a separate subject, and large schools reported that 32 percent taught reading as a separate subject (Table 28). The integration of reading throughout the total school program or as a separate subject blocked with another subject was employed less frequently.

Table 28
Description of How Reading is Taught in Middle Schools

<u>How Reading is Taught</u>	<u>All Schools</u> N=132		<u>Small Schools</u> N=23		<u>Mid Size Schools</u> N=74		<u>Large Schools</u> N=35	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Separate subject with its own period	46	35	10	43	25	34	11	32
Integrated with language arts	99	75	15	65	56	76	28	82
Separate subject, but locked with another subject	8	6	1	4	4	5	3	9
Integrated throughout the total school program	16	12	5	22	3	4	8	24

Note. Many schools reported teaching reading by two or more methods.

Remedial Instruction

Middle-level schools make every effort to prepare students for high school. Many students need additional instructional support to be academically successful at their assigned grade level and to be prepared to take more challenging subjects. Schools either require or provide different remedial programs to assist students in gaining the skills necessary to be successful.

Principals were asked to identify the arrangements employed to offer remedial courses at their school. Most schools offered multiple programs for remediation. More than 50 percent of all middle school principals reported the utilization of an additional subject period for remediation rather than an elective or exploratory period. Other frequently reported arrangements for remediation included extended day class, after school class, or before school class; collaborative, in-class support; and summer school programs (Table 29). Pull-out programs for reading were offered in 34 percent of middle schools and 19 percent of middle schools reported having pull-out programs for mathematics. Principals from only 3 percent of middle schools reported having no remedial classes. The different sized middle-level schools maintained similar remedial program offerings. Additional subjects, extended day programs, and summer school were the most frequently employed remedial strategies among the different sized schools.

Table 29
Arrangement of Remedial Courses in Middle Schools

Arrangement for <u>Remedial Courses</u>	All Schools <u>N=132</u>		Small Schools <u>N=23</u>		Mid Size Schools <u>N=74</u>		Large Schools <u>N=35</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
No remedial program	4	3	1	4	3	4	0	0
Pull-out program for reading/language arts	45	34	8	35	26	35	11	31
Pull-out program for mathematics	25	19	3	13	16	22	6	17
Additional subject period instead of elective or an exploratory course	67	51	11	48	39	53	17	49
Extended day/after school activities or before school classes or tutoring session	60	45	9	39	31	42	20	57
Collaborative, in class support	70	53	5	22	42	57	23	66
Summer school	82	62	16	70	43	58	23	66

Note. Most middle schools provide remedial instruction by two or more methods.

Health Instruction

Health instruction is a vital component of a middle-level school's curriculum. Middle-level schools teach health by several different methods. Health is usually taught as a separate subject, taught with physical education, or integrated with science. Results of the questionnaire show that more than 50 percent of all middle-levels schools teach health with physical education in grades six, seven, and eight (Table 30). Forty-three percent of middle schools with fifth grade integrate health with science, while 29 percent of fifth grade students received health instruction as a separate subject, and 29 percent with physical education.

Table 30

Health Instruction in Middle Schools

<u>Health Instruction</u>	<u>5th Grade</u>		<u>6th Grade</u>		<u>7th Grade</u>		<u>8th Grade</u>	
	<u>N=7</u>		<u>N=132</u>		<u>N=132</u>		<u>N=128</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Separate Subject	2	29	16	12	12	9	10	8
With Physical Education	2	29	88	67	100	76	114	89
Integrated with Science	3	43	28	21	20	15	4	3

Note. Rounding may prevent the percentage from equaling 100.

More sixth-grade students in small and mid-sized schools had health taught as a separate subject or integrated with science than did students in large schools. Health was taught with physical education in 65 percent or more of mid-sized middle schools in grades six, seven, or eight. Eighty percent or more of large middle-level schools taught health with physical education at the sixth, seventh, or eighth grades (Tables 31, 32, and 33).

Table 31

Health Instruction in Small Middle Schools

<u>Health Instruction</u>	<u>Small Middle Schools</u>							
	<u>5th Grade</u>		<u>6th Grade</u>		<u>7th Grade</u>		<u>8th Grade</u>	
	<u>N=3</u>		<u>N=23</u>		<u>N=23</u>		<u>N=20</u>	
<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	
Separate Subject	0	0	4	17	3	13	2	10
With Physical Education	1	33	12	52	17	74	17	85
Integrated with Science	2	67	7	30	3	13	1	5

Note. Rounding may prevent the percentage from equaling 100.

Table 32
Health Instruction in Mid-Sized Middle Schools

<u>Health Instruction</u>	<u>Mid-Sized Middle Schools</u>							
	<u>5th Grade</u>		<u>6th Grade</u>		<u>7th Grade</u>		<u>8th Grade</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Separate Subject	2	50	9	12	6	8	5	7
With Physical Education	1	25	48	65	54	73	65	89
Integrated with Science	1	25	17	23	14	19	3	4

Table 33
Health Instruction in Large Middle Schools

<u>Health Instruction</u>	<u>Large Middle Schools</u>							
	<u>5th Grade</u>		<u>6th Grade</u>		<u>7th Grade</u>		<u>8th Grade</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Separate Subject	0	0	3	9	3	9	3	9
With Physical Education	0	0	28	80	29	83	32	91
Integrated with Science	0	0	4	11	3	9	0	0

Note. Rounding may prevent the percentage from equaling 100.

High School Level Classes

The core curriculum and electives in middle-level schools are made up of academically challenging subjects. High school level subjects such as Algebra I, Algebra II, Geometry, and foreign language are offered to students. The Standards and Regulations for Public Schools in Virginia requires middle schools to offer Algebra I and foreign languages.

Middle school principals reported offering eighth grade students the opportunity to take a foreign language in 96 percent of their schools, Algebra I in 98 percent of their schools, Algebra II in 19 percent of their schools, and geometry in 52 percent of their schools (Table 34). Other high school level classes such as World Geography, Earth Science, Work and Family Studies, and Art were offered infrequently to eighth grade students for high school credit.

Seventh grade students were offered foreign language in 23 percent of middle-level schools, Algebra I in 38 percent of middle-level schools, Algebra II in 6 percent of middle-level schools, and Geometry in 8 percent of middle-level schools. Algebra I and foreign language were available to 7 percent of sixth grade students in the middle schools (Table 34).

Table 34
High School Level Classes Offered in Middle Schools

Subject	Not Offered N=132		5 th Grade N=7		6 th Grade N=132		7 th Grade N=132		8 th Grade N=128	
	No.	%	No.	%	No.	%	No.	%	No.	%
	Foreign Language	8	6	0	0	9	7	31	23	123
Algebra I	4	3	0	0	9	7	50	38	125	98
Algebra II	107	81	0	0	1	1	8	6	24	19
Geometry	65	49	0	0	0	0	10	8	66	52

Foreign language was offered in 100 percent of small middle schools at the eighth grade, 22 percent of small schools at the seventh grade, and 13 percent at the sixth grade. Small middle schools offered Algebra I to students at the eighth grade in 90 percent of small middle schools and to students in the seventh grade in 26 percent of small middle schools. Algebra II and geometry were offered in only a few small middle schools, Algebra II in 15 percent of the schools and geometry in 40 percent of the schools (Table 35).

Table 35
High School Level Classes Offered in Small Middle Schools

Subject	Small Middle Schools									
	Not Offered N=23		5 th Grade N=3		6 th Grade N=23		7 th Grade N=23		8 th Grade N=20	
	No.	%	No.	%	No.	%	No.	%	No.	%
Foreign Language	3	13	0	0	3	13	5	22	20	100
Algebra I	3	13	0	0	0	0	6	26	18	90
Algebra II	20	87	0	0	0	0	0	0	3	15
Geometry	15	65	0	0	0	0	0	0	8	40

Mid-sized middle schools offered foreign language in 93 percent of their schools at the eighth grade, 11 percent of their schools at the seventh grade, and 3 percent of their schools at the sixth grade. Algebra I was offered in 99 percent of mid-sized schools at the eighth grade, 28 percent of schools at the seventh grade, and in 7 percent of mid-sized middle schools at the sixth grade. Mid-sized middle schools offered Algebra II to eighth grade students in 21 percent of schools and geometry in 45 percent of schools at the eighth grade. Algebra II and geometry were offered in very few mid-sized middle schools below the eighth grade (Table 36).

Table 36
High School Level Classes Offered in Mid-Sized Middle Schools

Subject	Mid-Sized Middle Schools									
	Not Offered N=73		5 th Grade N=4		6 th Grade N=74		7 th Grade N=74		8 th Grade N=73	
	No.	%	No.	%	No.	%	No.	%	No.	%
Foreign Language	5	7	0	0	2	3	8	11	68	93
Algebra I	1	1	0	0	5	7	21	28	72	99
Algebra II	58	78	0	0	1	1	4	5	15	21
Geometry	40	54	0	0	0	0	6	8	33	45

Foreign language and Algebra I are offered in 100 percent of large middle schools in the eighth grade. Foreign language is available to students in large middle schools at the sixth and seventh grades, 11 percent of schools at the seventh grade and 3 percent of the schools at the sixth grade. Large middle schools provide Algebra I to students in 66 percent of schools at the seventh grade and 11 percent of the schools at the sixth grade. Geometry is offered in 71 percent of large middle schools in the eighth grade while Algebra II is offered in 17 percent of schools at the sixth grade. Both Algebra II and geometry are offered in 11 percent of large middle schools at the seventh grade (Table 37).

Table 37
High School Level Classes Offered in Large Middle Schools

Subject	Large Middle Schools									
	Not Offered N=35		5 th Grade N=0		6 th Grade N=35		7 th Grade N=35		8 th Grade N=35	
	No.	%	No.	%	No.	%	No.	%	No.	%
Foreign Language	0	0	0	0	4	11	18	51	35	100
Algebra I	0	0	0	0	4	11	23	66	35	100
Algebra II	29	83	0	0	0	0	4	11	6	17
Geometry	10	29	0	0	0	0	4	11	25	71

Exploratory Program

The exploratory program allows the middle school to provide opportunities for adolescents to discover their strengths, weaknesses, likes, dislikes, and potential subject area choices. Students are provided the opportunity to learn about a variety of subjects so that they make better decisions in the future. The typical exploratory program consists of classes taught for less than a semester, such as art, music, home economics, industrial arts or technology, computer science, and, possibly, drama and foreign language.

Responses to the questionnaire indicate that 96 percent of middle-level schools offer exploratory classes. All the large middle schools report offering exploratory and 99 percent of the mid-sized schools offer exploratory classes, while 83 percent of small schools offer exploratory classes (Table 38). The frequency of middle schools offering exploratory classes increases as the size of the school increases.

Table 38
Number and Percentage of Middle Schools Offering Exploratory Classes

All Schools N=132		Small Schools N=23		Mid-Sized Schools N=74		Large Schools N=35	
No.	%	No.	%	No.	%	No.	%
127	96	19	83	73	99	35	100

Length of Exploratory Classes

Principals in 59 percent of middle schools report that eighth grade exploratory classes are most often offered for 18 weeks. Seventh grade exploratory classes are most often 18-week classes (39 percent) and 30 percent of middle schools offer nine-week classes in the seventh grade. Exploratory classes at the sixth grade are most often offered for nine weeks (40 percent), while 39 percent of exploratory classes at the sixth grade are six weeks in length. Exploratory classes at the fifth grade level range in length from three weeks to twelve weeks.

Mid-sized and large middle schools most often offer exploratory classes that are 18 weeks in length at the seventh and eighth grades. Small schools offer 18 week classes more often at the eighth grade level but offer nine week classes most often in the seventh grade. Six week and nine week exploratory classes are offered more often at the sixth grade in mid-sized schools, while large schools offer nine week classes most often at the sixth grade.

Number of Exploratory Courses Offered

Principals reported that middle schools most often offered four to six exploratory classes. Middle schools offered four to six exploratory classes at the eighth grade level in 28 percent of schools, but almost as many middle schools (26 percent) reported not offering exploratory classes to eighth grade students. Forty-two percent of middle schools offered four to six exploratory classes in seventh grade; 64 percent of middle schools offered four to six exploratory classes in sixth grade; and 57 percent of middle schools offered four to six exploratory classes in fifth grade. Small, mid-sized, and large middle-level schools most often offer four to six exploratory classes. Exploratory classes were offered less frequently in the eighth grade.

Most Offered Exploratory Classes

The most frequently offered exploratory classes were reported to be Art, Computers or Keyboarding, Technology Education, Work and Family Studies or Teen Living, and Music at the sixth, seventh, and eighth grades. Those classes were the most frequently offered in schools of all sizes for sixth, seventh, and eighth grades. Art, Music, Keyboarding, Technology Education, Industrial Arts, and Band were the most frequently offered exploratory classes for the middle schools with a fifth grade. The other reported most frequently offered exploratory classes included foreign language, band, careers, agriculture, and drama.

Single Sex Classes

Principals were asked to report if their school had single sex classes in which the boys and girls were separated for instruction in a particular subject area. Respondents indicated that there were no single sex classes offered in 95 percent of middle schools. Single sex classes were reported to be offered by six school principals (5 percent) and the classes reported as single sex subjects included math, physical education, health, and chorus. A middle-level school principal reported that their school had a single sex team.

Extended Year Programs

The questionnaire asked principals to identify if their school had an extended year program, a program in which students were required or offered the opportunity to attend school beyond the regular school year. Principals indicated that 16 percent of their schools did offer such a program. Extended year programs such as Study Skills and Project Development, Governors School, and programs required for special education were offered in 35 percent of small schools. Mid-sized middle schools offered extended year programs in 11 percent of their schools. The programs focused on special education requirements, remedial programs, gifted programs, and one school reported offering an Art and Technology Institute. Extended year programs in the large middle schools focused on special education requirements and basic and remedial skills. A large middle school reported that an extended year program was provided to sixth grade students which lasted for four weeks beyond the regular school term.

School Visits

Visits were made to four middle-level schools in the Commonwealth of Virginia for the purpose of observing their scheduling and teaming practices. The four schools were selected from the non-respondents during the telephone follow-up to the survey. Each of the schools is located in a different geographical area of the state. During each visit attention was focused on the operation of the school's schedule and on visiting a team within the school. Teachers on the team shared the objectives and activities of their team.

Sussex Middle School

Sussex Middle School is a small middle school with 357 students located in Sussex, Virginia. It has sixth, seventh, and eighth grades. The principal described Sussex Middle School as a middle school because it contained the sixth, seventh, and eighth grades in an environment where teachers could meet the unique needs of its students and because the school provides a transition for students moving from elementary school to high school. The school operated on a traditional six-period day schedule for the eighth grade and an alternating day schedule for the sixth and seventh grades. Students moved on bells and the schedule did not change. Eighth grade students traveled between the middle school and the high school for high school level classes;

therefore, the middle school followed the same schedule as the high school at the eighth grade. Subjects offered to eighth grade students included English, mathematics, science, world history, health and physical education, and an elective class. The classes were 60 minutes in length.

Sixth and seventh grades operated on an alternating day schedule with 90 minute classes. The course offerings for the sixth grade and seventh grade included reading, English, mathematics, social studies, science, health and physical education, and study skills.

The school did not employ interdisciplinary teams. Teachers at the eighth grade had one period of daily planning, and sixth and seventh grade teachers planned every other day for 90 minutes.

Bluestone Middle School

Bluestone Middle School is a mid-sized middle school with 597 students located in Skipwith, Virginia. The school consists of grades six, seven and eight and operates on a flexible block schedule. Bluestone's principal described the teaming, scheduling, and the exploratory block as components unique to their school. The school operated with a flexible block schedule, but students moved on bells, and the principal indicated that teachers seldom adjusted their team schedule. There were only two instances when it appeared that some students were changing classes at a different time than the other members of the student body.

The school did have interdisciplinary teams with core academic teachers having daily common planning time that was 45 minutes and a personal planning period, while exploratory and elective teachers only had a personal planning period. Two- and three- teacher teams existed at the sixth and the seventh grades, and the eighth grade teams had four teachers. The eighth grade teachers all taught one core subject. One team of teachers described their team activities during a team planning period. The team discussed students' needs, grades and performance of students, promotion and retention of students, and student behavior. They also used the team planning to meet with students, share ideas about students, organize the remediation for Literacy Passport Testing, plan activities for an enrichment period, and proof work for other teachers on the team. Very little of their time was used for the integration of subjects or adjusting student schedules.

English, mathematics, science, social studies, and health and physical education were offered to all students in grades six, seven and eight. Reading was taught as a separate subject in the sixth and seventh grades. Pre-algebra was offered to students in the seventh and eighth grades, and Algebra I and foreign language were offered to eighth grade students. Exploratory classes were offered to all grade levels.

Jack Jouette Middle School

Jack Jouette Middle School, a mid-sized middle school with 520 students, is located in Albemarle County, Virginia. The school consists of grades six, seven and eight. Jack Jouette's principal described the school's unique components as teaming, program offerings, the exploratory classes and the core program. The school operates on an alternating day block schedule. Teachers do not have flexibility to adjust length of periods.

Interdisciplinary teams did exist at Jack Jouette Middle School, and the teams did have a common planning period. The sixth and eighth grades consisted of one large team of six teachers at each grade level. There were two teams of four each at the seventh grade level. One team of teachers described their activities saying that their activities had evolved over time and changed as the team size and schedule changed from year to year. They described their main function as serving as a support group for each other. Activities included troubleshooting; having parent conferences; organizing special programs; preventing scheduling problems; coordinating field trips; and being sure the curriculum didn't overlap. The team said this was important because on a large team such as theirs, students did not see all teachers on the team which prevented interdisciplinary teaching. Each teacher had to see that all areas of their subject were taught. This team of teachers appeared very experienced.

The school provided students with a core curriculum that included reading, language arts, math, science, and social studies for sixth, seventh and eighth grades. High school level classes such as Algebra I, geometry and foreign language were offered to eighth grade students. Exploratory and physical education classes were available to all grade levels.

Crittenden Middle School

Crittenden Middle School is large middle school with 1,200 students located in Newport News, Virginia. The school consists of grades six, seven, and eight. Crittenden's principal described the important components of the school as the grade organization, teaming, schedule, and its exploratory offerings. The school operated on an alternating day schedule and teams could make adjustments to the schedule as long as doing so did not prevent students from missing their high school level classes. Students changed classes on bells, and they all changed classes at the same time.

Interdisciplinary teaming did exist at Crittenden Middle School. Sixth grade teams were made up of two teachers while seventh and eighth grade teams were made up of three teachers. Seventy-five minutes of common planning time was provided daily for teams. Grade level team meetings were held once a week. An eighth grade team said they were involved in adjusting the

schedule, changing student's schedules as long as it did not effect their high school level classes, scheduling parent conferences, having student conferences, meeting with guidance counselors, keeping team minutes, correlating instruction and interdisciplinary activities, and organizing special projects.

The school's curriculum included language arts, mathematics, science, social studies, exploratory and physical education for all students. Students were also offered foreign language and Algebra I at the seventh and eighth grades. Geometry was offered to eighth grade students.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The major purpose of this descriptive study was to determine the current scheduling, teaming, and curricular practices in Virginia's middle schools and to present the findings to serve as a resource for school administrators, practitioners, and policymakers. Specifically, the study investigated the type of schedules employed; the use of ability grouping; characteristics of flexible schedules, such as who can change the schedule and how often the schedule changes; whether students from different grade levels are mixed in classes for any subjects; and whether the team can adjust the schedule of individual students. The teaming practices investigated included whether middle schools employed teaming and the type of teaming practices employed; the size of teams; the status of planning and the amount of planning time available to teachers; the kinds of activities teams are involved in during their common planning period; how teachers are assigned to the team; and how the team leader is chosen. Curricula practices such as core class offerings, high school level class offerings, exploratory class offerings, and single sex class offerings were also investigated. The study investigated the subjects offered to all students; described how reading, health and remedial courses are arranged in middle schools; identified the high school level classes offered in middle schools; and described the exploratory program of middle schools. The final purpose was to present the findings and make recommendations for further use by school administrators, practitioners, and policymakers.

The objectives of this chapter were to describe scheduling, teaming, and curricular practices in Virginia's middle schools. A discussion of the major findings was presented along with conclusions and recommendations for school administrators, practitioners, and policymakers.

Summary and Descriptive Profile of the Scheduling, Teaming, and Curricula Practices in Virginia's Middle Schools

Most of the middle-level schools participating in this study serve grades six, seven, and eight. Only 5 percent of the middle schools participating in this study contained grade five and 97 percent contained grade eight. All the schools contained grades six and seven. The majority of the middle-level schools responding to the questionnaire were mid-sized schools, ranging in size from 501 students to 1,000 students. All the large schools with 1,001 or more students serve grades six, seven, and eight.

Middle-level schools in the Commonwealth of Virginia employ a variety of scheduling arrangements. The flexible block schedule was the most frequently employed at grades five, six, and seven, but the traditional seven period day is the most frequently employed schedule at grade eight. The flexible block schedule is employed less frequently as the grade level increases, and it is the second most frequently utilized schedule at the eighth grade level. Grades six and seven employ the traditional seven period day schedule as the second most frequent type of schedule. Alternate day schedules are the third most frequently employed schedule in grade six, seven and eight. Other types of schedules, traditional schedules, four block schedules, and modular schedules, were employed infrequently in the schools participating in this study. The utilization of the flexible block and traditional seven period day schedules is the most frequently employed scheduling arrangement in middle schools of all sizes, but the alternating day schedule and the traditional six period day schedule are employed as often in the seventh grade in large schools. The alternating day schedule is the second most frequently employed schedule in the sixth grade in large schools.

Most middle-level schools use more than one criterion to assign students to classes. Grades or prior class performance, standardized test scores, and teacher recommendations are the most frequently criteria utilized to schedule students. Schools utilize parent requests and criterion-referenced tests less often to determine assignment of students to class. Less than 25 percent of middle schools employed no ability grouping. Large middle-level schools indicate the utilization of ability grouping more often than small and mid-sized schools.

The middle schools that employ flexible and modular schedules reported that teams are given the authority to make the decision to change the team schedule in the majority of the schools responding to the questionnaire. Teams in the small and mid-sized middle schools maintain authority to change the team schedule, but there were as many large middle schools reporting that teams must consult with guidance counselors to change the schedule as there are large schools reporting that teams have the authority to change the schedule themselves.

Although flexible block scheduling is the most frequently employed schedule at the fifth, sixth, and seventh grades, many principals responded that the teams rarely changed the schedule. In fact most principals indicated that schedules changed as needed for instruction but did not report how often the schedule changed. Schools responded most frequently that schedules changed each grading period, weekly or two to three times a week, but such change was reported in less than 15 percent of middle schools for each of those responses. Large middle school schedules changed more frequently than small or mid-sized schools. The majority of middle schools using flexible or modular schedules allow their teams to adjust the schedule of individual students.

Most middle school schedules do not mix students from different grade levels for subjects. Most frequently mathematics is the subject in which students participate in mixed classes, while fewer schools reported mixing students for foreign language, physical education, and music classes. Scheduling decisions in middle schools are often influenced by outside factors. More

than 50 percent of middle schools are subject to such external influences; most middle schools of all sizes have to arrange the schedule to accommodate teachers who are shared between schools. Other circumstances that influence scheduling decisions are: requests for high school level subjects; the pupil-teacher ratio; team planning; and the decision not to mix students in different grades for subjects. Fifteen schools identified unique scheduling characteristics, the most frequent characteristic being that the schedule is flexible.

Interdisciplinary teaming is utilized in most middle-level schools with the extent of use varying between the different grade levels, but the frequency of utilization is consistent between the different sized middle schools. The utilization of interdisciplinary teaming increases from the fifth grade to the sixth grade and decreases from the sixth grade to the eighth grade. Although interdisciplinary teaming decreases at the eighth grade, only 12 percent of middle schools employ departmental teaming at that level. Departmental teaming is employed less frequently at the sixth and seventh grades and is not employed at the fifth grade level.

The size of interdisciplinary teams varies among grade levels within schools, but the teams tend to be smaller at the fifth grade level and to increase in size as the grade level increases. Two-teacher teams are utilized more at the fifth and sixth grades, while the four-teacher team is utilized more at the seventh and eighth grades. The three-teacher team is the second most frequently reported team size being employed at the sixth and seventh grades, and the five-person teacher team is the second most frequently reported team size employed at the eighth grade. Small and mid-sized middle schools utilized five-member teams and seven or more teachers on a team more often than large schools. Principals reported that the size of their school teams was determined by the student enrollment, number of teachers on the faculty, and the number of core classes required.

Teachers having two planning periods -- one personal and one team -- is the most frequently reported planning arrangement for teachers. The second most frequently reported planning arrangement is core teachers having two planning periods but exploratory teachers having one planning period. That frequency of utilization remained consistent in mid-sized and large middle schools, but small schools reported that teachers most often have one personal planning period. The two-planning-period arrangement was the second most frequently reported in the small middle school. Most frequently, the amount of time scheduled for planning was reported to be more than three hours a week. Thirty-five percent of small schools reported that teachers were allocated no planning time for interdisciplinary team meetings. These schools provided fewer than three hours of planning time per week.

Interdisciplinary teams spend the common planning time most frequently coordinating subject content, diagnosing student problems, and conducting conferences with parents and students. Thirty-five percent of small middle schools reported spending between one-fourth and one-half of their common planning time for individual team preparation while mid-sized and large

middle schools' utilization of common planning time was consistent with the finding for all schools involved in the study. A majority of the middle-level schools reported using less than one-fourth of their time revising and adjusting time within the scheduled block, regrouping students, or planning special events. Large middle-level schools reported using between one-fourth and one-half of the common planning time planning special events.

Teachers are assigned to the team by the administrator in the majority of middle-level schools. The second most frequently reported method for assigning teachers to teams was that of administrators making the assignment with the willingness to make adjustments. Those responses were consistent in the small and mid-sized middle schools, but large middle schools most often assigned teachers to teams with adjustments allowed. Team leaders were most often appointed by the administrator. That remained true in mid-sized middle schools, but team leaders in small middle schools were most often elected by the other members of the team. Large middle-level schools most frequently reported using three methods of selecting the team leader; they were team leaders appointed by the administrator, team leader elected by the members of the team, and team leader responsibilities being shared or rotated among the team members.

Language arts, mathematics, and science were taken by all students in all middle schools. Social studies was reported to be taken by all students in 96 percent of middle schools and physical education in 94 percent of middle schools. Those middle schools with less than all of their students taking social studies and physical education allowed students to take an elective class or required students to take a remedial class. The Standards of Learning require schools to offer social studies to all students at each grade level. Reading is taught as an integrated subject with language arts in the majority of the middle schools, while it is second most frequently taught as a separate subject. Many schools also reported teaching reading by multiple methods. Remedial instruction is taught by multiple methods in middle schools. The three most frequently reported arrangements for remedial instruction are summer school, collaborative in-class support, and an additional subject period instead of an elective or an exploratory class. Small and large middle schools utilized extended day or after school activities for remedial instruction more often than mid-sized schools. Health instruction is most often integrated with science at the fifth grade level but is taught with physical education most often in the sixth, seventh, and eighth grades. Mid-sized middle schools more frequently teach health as a separate subject at the fifth grade.

High school level classes are offered to middle school students at grades six, seven and eight. The most frequently offered high school level classes are foreign language, Algebra I, and geometry. The classes are most often offered at the eighth grade level; however, 38 percent of middle schools offer Algebra I at the seventh grade and 7 percent report offering the course at the sixth grade. Foreign language is also offered most often at the eighth grade, but it is offered in 23 percent of middle schools at the seventh grade and 7 percent of the middle schools at the sixth

grade. A small number of middle schools reported offering earth science, Work and Family Studies, art, agriculture, and Western Civilization. A higher percentage of large middle schools reported offering high school level classes prior to eighth grade than small schools or mid-sized middle schools.

Exploratory classes are offered in most of the middle-level schools. All large middle schools offered exploratory classes while 99 percent of mid-sized schools offered exploratory classes. Only 83 percent of small middle schools offered exploratory classes. The exploratory classes most often are 18 weeks at the seventh and eighth grades but are usually nine weeks at the sixth grade. Most middle schools offer four to six exploratory classes to students in grades six, seven, or eight. The most frequently offered exploratory classes were art, keyboarding, Technology Education, Work and Family Studies, and music. Foreign language, band, careers, agriculture, and drama were less frequently reported exploratory offerings.

Very few middle-level schools reported having single sex classes but one school reported offering single sex math classes and one school reported the utilization of a single sex team. Sixteen percent of middle schools reported having extended year programs. The programs focused on students meeting special education requirements, remedial programs, gifted programs and assistance for students to gain the basic skills.

Conclusions

The study presents a current description of the scheduling, teaming, and curricular practices of middle-level schools in the Commonwealth of Virginia. The middle school movement has continued to expand and improve its programs since the early 1960's and since the Zedd study in 1986. Middle schools in Virginia continue to increase in number and many have practices and programs designed to meet the needs of adolescents. The number of desirable and age-appropriate programs continues to increase. The utilization of flexible scheduling, interdisciplinary teaming, and challenging curricular practices are encouraging. Teams of teachers in middle schools with flexible schedules are allowed to make decisions regarding the schedule and make decisions that may provide more appropriate instructional activities. Teams may also make adjustments to student schedules. Middle schools are using interdisciplinary teams where teachers are teaching multiple subjects to reduce the number of teachers students have to see within the school day. Interdisciplinary teams are smaller at the fifth and sixth grades and become larger as students progress to the seventh and eighth grades to provide for a better transition for students. Teachers on interdisciplinary teams are given a common planning period so that they can meet as a team. Most schools provide more than three hours of team planning time a week, and teams use this time to work on activities that serve the needs of students, to coordinate

instruction, and to conduct conferences with parents and students. Middle schools offer required subjects, remedial opportunities and high school level subjects. The high school level subjects are often offered prior to the eighth grade. Exploratory opportunities are provided to students at each grade level in most middle schools.

The majority of middle schools in the Commonwealth of Virginia have implemented the flexible scheduling, interdisciplinary teaming, and curricular practices recommended by middle education practitioners and theorists. Despite the many middle-level practices reported to be employed in schools, there are indications that flexible block scheduling practices recommended by practitioners for the middle-level schools are not practiced effectively and the trend for utilization of the flexible scheduling practices shows a decrease from the sixth grade to the eighth grade. Comments from principals indicated that the schedules are seldom adjusted. The schedule then becomes just another traditional fixed-period schedule. Middle schools are subject to circumstances that influence scheduling decisions and restrict the use of middle school scheduling practices. Ability grouping was utilized by large numbers of middle schools when middle school programs should be accessible to all students. There were indications that a few middle schools employed large interdisciplinary teams and that the size of the team was usually determined by the number of students enrolled, the size of the faculty, or the students' class requests rather than the need for the school to provide interdisciplinary instruction or for a smooth transition for students from the elementary school through the middle school to high school. Many small middle schools fail to provide a common planning time for teachers to meet as an interdisciplinary team. The exploratory and elective teachers in many middle schools are not involved in the team process and are not provided team planning time.

The scheduling, teaming, and curricular practices in many middle-level schools in the Commonwealth of Virginia no longer resemble the old junior high school practices, but middle-level schools need to continue increasing identified practices recommended for use by middle school practitioners. The majority of middle schools that have implemented appropriate practices, most frequently at fifth, sixth, and seventh grades, should make continuous efforts to improve the middle-level practices they have implemented to become an exemplary middle school.

Middle-level schools have begun to gain their own identity, one that is different from the junior high school; however, there needs to be continuous effort to implement middle school practices fully. The trends toward utilizing flexible schedules, interdisciplinary teams, and curricula practices described in this study indicate that middle school practices provide transition from the practices of elementary school at the early middle school grades to the influence of high school practices at the eighth grade. The full potential of the middle school program will not be achieved until all middle school practices are successfully employed and are effectively utilized in concert so that students may receive the greatest benefit from these practices. The implementation of the middle-level practices has been recognized as effective and efficient for the early adolescent by middle school advocates.

Recommendations for Practice

1. There needs to be a continuous effort for middle schools to implement flexible type schedules, particularly in the eighth grade. Middle-level schools should make efforts to overcome the influences that restrict adjustments to flexible schedules. Teachers need to review grouping arrangements of students and adjust their schedules when authority is given so that students will receive the appropriate level of instruction. Training and support should be provided to teachers so that they will have the knowledge of and confidence to utilize these schedules effectively. Schedules need to provide blocks of time for effective instruction so that a team of teachers can meet the needs of students.
2. Most middle schools employ interdisciplinary teaming at specific grade levels, and they need to continue to increase the utilization of interdisciplinary teaming at each grade level in more middle schools. Efforts should be made for all schools to provide two planning periods for teachers, one personal and one team, particularly in small middle schools. The amount of planning time allocated for teachers is important and should not be reduced. There should be an increase in the amount of planning time provided in many of the small middle schools. Interdisciplinary teams need to spend more time adjusting time in the flexible block schedule and more time regrouping students. Small middle schools need to focus more team planning time on coordinating subject area content, revising flexible schedules, and planning special events for students. Interdisciplinary teaming and planning, advocated by middle school authorities as important characteristics of middle schools, must be used effectively.
3. Middle-level schools should continue to offer required subjects so that students will meet all required state standards. Particular attention should be paid to the curriculum so that high school level classes are offered to students when they are intellectually ready. In addition, small and mid-sized middle schools should provide high school level subjects at earlier grades if their students are ready intellectually to take and successfully complete those subjects. Middle-level schools need to provide social studies and physical education to all students.

Recommendations for Further Research

The following recommendations for further research were based on the findings of this study, a review of the literature, and the conclusions of the researcher.

1. The use of flexible block scheduling needs further study. Many middle-level schools employ flexible block scheduling, but indications are strong that adjustments to the schedules do not occur. It would be useful for middle-level practitioners to know how often adjustments are made to the schedule so that the schedule may be evaluated. Recommendations could be made on the most effective schedules for the middle school program.

2. Study needs to be done on the instructional activities carried out during the interdisciplinary planning period. The findings would be beneficial to teams of teachers, administrators, and practitioners so that all could focus planning time on those activities that are most beneficial to instruction and the needs of students.
3. The offering of various high school level subjects to middle-level students needs to be studied. Middle schools need to offer challenging instructional opportunities to students but need to do so when students are intellectually ready for such challenges. Study of this area can provide information to administrators, practitioners, and policymakers on how successful students are in these subjects and how they affect students later in high school.

Commentary

Middle-level education programs and practices continue to increase as well as the number of middle schools. Middle schools are seen as the remedy to inappropriate practices now present in the junior high school, and advocates for middle school programs continue to promote a structure and organization designed around the transitional period adolescents experience from elementary school to high school. The development of the middle school concept has called attention to practices such as block scheduling and interdisciplinary teaming that can be considered as models by schools at other levels.

Middle-level school administrators continually review their programs and practices and make adjustments as a way of meeting the needs of adolescent students. When adjusting their programs, middle-level practitioners, administrators, and teachers should regularly review the latest research findings to implement programs that are effective. High expectations should be set for all and middle school programs should be accessible to all students. The achievement of academic success for middle level students is dependent upon all their needs being met. Programs and practices advocated by middle school experts and curriculum specialists need to become part of the ongoing school philosophy and practice, and shouldn't be treated as passing fads, a practice all-too-often observed in public education. Only in this way can lasting positive change be effected.

References

- Alam, D., & Seick, R. E., Jr. (1994, May). A block schedule with a twist. Phi Delta Kappan, *75*, 732-733.
- Alexander, W. M., & George, P. S. (1981). The exemplary middle school. CBS College Publishing.
- Alexander, W. M., & McEwin, C. K. (1989). Schools in the middle: Status and progress. National Middle School Association.
- Alexander, W. M., Williams, E. L., Compton, M., Hines, V. A. & Prescott, D. (1968). The emergent middle school. New York: Holt, Rinehart and Winston.
- Arhar, J. M. and Irvin, J. L. (1995, May). Interdisciplinary team organization: A growing research base. Middle School Journal, *26*, 65-67.
- Arhar, J. M., Johnston, J. H., & Markle, G. C. (1988, July). The effects of teaming and other collaborative arrangements. Middle School Journal, *19*, 22-25.
- Arhar, J. M., Johnston, J. H., & Markle, G. C. (1989, January). The effects of teaming on students. Middle School Journal, *3*, 24-27.
- Arnold, J. (1982, March). Rhetoric and reform in middle schools. Phi Delta Kappan, *61*, 453-456.
- Arnold, J. (1991, April). The revolution in middle school organization. Momentum, *22*, 20-25.
- Arnold, J. (1991, November). Towards a middle level curriculum rich in meaning. Middle School Journal, *23*, 8-12.
- Arnold, J. (1993, Fall). A curriculum to empower young adolescents. Midpoints: Occasional Papers, *4*, pp. 1-11.
- Arth, A. A., & Lounsbury, J. H. (Eds.). (Copyright pending). The middle school primer. University of Wyoming.

Beane, J. (1992, October). Integrated curriculum in the middle school. [On-line]. Available: <http://www.ed.gov> Directory: ERIC_ Digest/ed351095.html

Beane, J. A. (1986). A human school in the middle. Schools in the Middle, 90, 14-17.

Beane, J. A. (1993). A middle school curriculum from rhetoric to reality (Rev. ed.). National Middle School Association.

Beane, J. A. (1993, March). The search for a middle school curriculum. The School Administrator, 50, 8-14.

Beane, J. A. (1993, September). Problems and possibilities for an integrative curriculum. Middle School Journal, 25, 18-23.

Becker, H. J. (1990, February). Curriculum and instruction in middle-grade schools. Phi Delta Kappan, 71, 450-457.

Butler, D. A., & Sperry, S. (1991, November). Gender issues and the middle school curriculum. Middle School Journal, 23, 18-23.

Calhoun, F. S. (Eds.). (1983). Organization of the middle grades: A summary of research. Educational Research Service, Inc.

Canady, L. & Retig, M. (1996, May). Block scheduling for middle schools. Block Scheduling in the Middle School. Paper presented at the one day workshop for middle school leaders at James Madison University, Harrisonburg, VA.

Canady, R. L., & Rettig, M. D. (1992, Summer). Restructuring middle level schedules to promote equal access. Schools in the Middle, 1, 20-26.

Canady, R. L., & Rettig, M. D. (1993, December) Unlocking the lockstep high school schedule. Phi Delta Kappan, 75, 310-314.

Canady, R. L., & Rettig, M. D. (1995). Block scheduling: A catalyst for change in high schools. Eye on Education, Inc.

Capelluti, J. & Brazee, E. N. (1992, January). Middle level curriculum: Making sense. Middle School Journal, 22, 11-15.

Capelluti, J., & Stokes, D. (Eds.). (1991). Middle level education: Programs, policies, and practices. National Association of Secondary School Principals.

Carnegie Council on Adolescent Development. (1989). Turning points: Preparing american youth for the 21st century. Carnegie Corporation of New York.

Carnegie Council on Adolescent Development. (1996). Great transitions: Preparing adolescents for a new century. Carnegie Corporation of New York.

Carroll, J. M. (1994, March). Organizing time to support learning. The School Administrator, 51, 26-33.

Carroll, J. M. (1994, October). The Copernican Plan Evaluated: The evolution of a revolution. Phi Delta Kappan, 76, 105-133.

Clark, S. N. & Clark, D. C. (1987, October). Interdisciplinary teaming: Organization, rationale, and implementation. Schools in the Middle: A Report on Trends and Practices. National Association of Secondary School Principals.

Compton, M. F., & Hawn, H. C. (1993). Exploration: The total curriculum. National Middle School Association.

Eichhorn, D. H. (1966). The middle school. The Center for Applied Research in Education, Inc.

Epstein, J., & Salanas, K. (1991, Annual Theme). New directions in the middle grades. Childhood Education, 67, 285-291.

Epstein, J., & Salinas, K. C. (1992). Promising programs in the middle grades. National Association of Secondary School Principals.

Epstein, J. L., & Mac Iver, D. J. (1990). Education in the middle grades: Overview of a national survey of practices and trends. National Middle School Association.

Felner, R. D., Jackson, A. W., Kasak, D., Mulhall, P., Brand, S., and Flowers, N. (1997, March). The impact of school reform for the middle years. Phi Delta Kappan, 78, 528-550.

Felner, R. D., Kasak, D., Mulhall, P. & Flowers, N. (1997, March). The project on high performance learning communities. Phi Delta Kappan, 78, 520-627.

Framework for education in the middle school grades in Virginia. (1990). Virginia Department of Education. Richmond, VA.

Gatewood, T. Commentary. (1995, Winter). How early is to early? *Crucial Link*, p. 2.

George, P. S. (1996, November). Arguing integrated curriculum. *Middle School Journal*, *28*, 17-21.

George, P. S., & Alexander, W. M. (1993). *The exemplary middle school* (Rev. ed.). Holt, Rinehart, and Winston, Inc.

George, P. S., Stevenson, C., Thomason, J., & Beane, J. (1992). *The middle school and beyond*. Association for Supervision and Curriculum Development.

Georgiady, N. P., & Romano L. G. (1994). *Building an effective middle school*. William C. Brown Communications, Inc.

Golner, S. J., & Powell, J. H. (1992, September). Ready for teaming? Ten questions to ask before you jump in. *Middle School Journal*, *24*, 28-32.

Hackman, D. G. (1995, September). Improving school climate: Alternating-day block schedule. *Schools in the Middle*, *5*, 28-34.

Herr, K. (1996, May). Creating safe spaces in middle schools for the voices of girls and women. *Middle School Journal*, *27*, 16-21.

Husband, Ronald E., & Short, Paula M. (1994, November). Interdisciplinary teams lead to greater teacher empowerment. *Middle School Journal*, *26*, 58-61.

Johnston, William F. (1994, May). How to educate all the students...together. *Schools in the Middle*, *3*, 9-14.

Kain, D. L. (1995, May). Teaming with a purpose? *Schools in the Middle*, *4*, 6-9.

Kindred, L. W., Wolotkiewicz, R. J., Mickelson, J. M., Coplein, L. E., & Dyson, E. (1976). *The middle school curriculum: A practitioner's handbook*. Allyn and Bacon, Inc.

Klingeale, W. E. (1985, April) Middle level education: Do we need it? *The Clearing House*, *58*, 334-336.

Lipsitz, J., Jackson, A. W., & Austin, L. H. (1997, March). What works in middle-grades school reform. Phi Delta Kappan, 78, 517-519.

Lipsitz, J., Mizell, M. H., Jackson, A. W., & Austin, L. M. (1997, March). Speaking with one voice: A manifesto for middle-grade reform. Phi Delta Kappan, 78, 533-550.

Lounsbury, J. H. (Eds.). (1984). Perspectives: Middle school education, 1964 - 1984. National Middle School Association.

Lounsbury, J. H. (1991). As I see it. National Middle School Association.

Lounsbury, J. H., & Vars, G. (1978). A curriculum for the middle school years. Harper and Row, Inc.

Lundt, J. C. (1996, May). Curriculum for the future: A futurist looks at middle school. Middle School Journal, 27, 29-34.

Mac Iver, D. J., & Epstein, J. L. (1993, May). Middle grades research: Not yet mature, but no longer a child. The Elementary School Journal, 93, 520-533.

Matranga, M. (1992, April). Team teachers: The importance of the selection process. Journal of School Leadership, 2, 225-231.

McEwin, C. K., Dickinson, T. S., & Jenkins, D. M. (1996). America's middle schools: Practices and progress: A 25 year perspective. National Middle School Association.

Middle Matters. (1997, Winter). Middle school keystone: What research says about teaming. National Association of Elementary School Principals Newsletter, p. 1-6.

NASSP's Council on Middle Level Education. (1988). Assessing excellence: A guide for studying the middle level school. National Association of Secondary School Principals.

NASSP's Council on Middle Level Education. (1989). Middle Level Education's Responsibility for Intellectual Development. National Association of Secondary School Principals.

NASSP's Council on Middle Level Education. (1993). Achieving excellence through the middle level curriculum. National Association of Secondary School Principals.

National Middle School Association. Position paper. Middle level curriculum: A work in progress. [On-line]. Available: <http://www.nmsa.org> Directory: wip.

National Middle School Association. NMSA research summary #2: Flexible scheduling. [On-line]. Available: <http://www.nmsa.org> Directory: ressum2.

National Middle School Association. NMSA research summary #4: Exemplary middle schools. [On-line]. Available: <http://www.nmsa.org> Directory: ressum4.

National Middle School Association. NMSA research summary #5: Young adolescents' developmental needs. [On-line]. Available: <http://www.nmsa.org> Directory: ressum5.

National Middle School Association. NMSA research summary #6. Heterogeneous grouping. [On-line]. Available: <http://www.nmsa.org> Directory: ressum6.

National Middle School Association. (1995). This we believe: Developmentally responsive middle level schools. National Middle School Association.

Perry, W. C. Gender-based Education: Why it works at the middle school level. [On-line]. Available: <http://www.server.mediasoft.net> Directory: vmsa/clgend

Porod, G. N. (1993, November). New roles for teachers: Instructional team leaders. Schools in the Middle, 3, 7-10.

Powell, R., & Mills, R. (1994, November). Five types of mentoring build knowledge on interdisciplinary teams. Middle School Journal, 26, 24-30.

Richardson, A. (1993, Summer). School-based teams help improve school learning environments. Schools in the Middle, 2, 26-29.

Rottier, J. (1996). Implementing and improving teaming: A handbook for middle level leaders. National Middle School Association.

Scales, P. C. (1993, September/October). Do middle schools work? In a word: YES. PTA Today, 16-17.

Seick, R. E., Jr. & Alam, D. (1992, November). A restructuring option: The intensive core program at the middle level. NASSP Bulletin, 76, 109-111.

Shillington, N. M. (1994, September). Four components for promoting team development. Middle School Journal, 26, 48-52.

Smith, H. W. (1991, May). Guide teaming development. Middle School Journal, 22, 21-23.

Spear, R. C. (1992, Fall). Middle level team scheduling: Appropriate grouping for adolescents. Schools in the Middle, 2, 30-34.

Standards and Regulations for Public Schools in Virginia. Virginia Department of Education. Richmond, VA.

Stradley, W. E. (1971). A practical guide to the middle school. The Center for Applied Research in Education, Inc.

Subrahmanyam , L., & Bozonie, H. (1996, May). Gender equity in middle school science teaching: Being “equitable” should be the goal. Middle School Journal, 27, 3-10.

Trimble, S. B., & Irvin, J. L. (1996, May). Emerging from the mists: The field of teaming. Middle School Journal, 27, 53-56.

Virginia Department of Education. (1991, Fall). Workshop on restructuring education in the middle school grades. Virginia Department of Education. Richmond, VA.

Virginia Department of Education. (1996). Virginia Education Directory. Virginia Department of Education. Richmond, VA.

Walsh, K. J., & Shay, M. J. (1993, March). In support of interdisciplinary teaming: The climate factor. Middle School Journal, 24, 56-60.

Wiles, J. (1995, September). Middle level education in rural America. [On-line]. Available: <http://www.ed.gov Directory : databases/ERIC Digest/ed385426>

Wiles, J., & Bondi, J. (1986). Making middle schools work. Association of Curriculum and Development.

Wiles, J., & Bondi, J. (1989). Curriculum development: A guide to practice. Merrill Publishing Company.

Wiles, J., Bondi, J., & Sansom, E. (1993, March). The true middle level school: Putting theory into action. NASSP Bulletin, 77, 81-84.

Williamson, R. (1993). Scheduling the middle level school to meet early adolescent needs. National Association of Secondary School Principals.

Williamson, R., & Johnston, J. H. (1991). Planning for success: Successful implementation of middle level reorganization. National Association of Secondary School Principals.

Williamson, R. D. and Johnston, J. H. Through the looking glass: The future of middle level education. [On-line]. Available: <http://www.nmsa.org:80> Directory: services/future

Zedd, J. C. (1986). Descriptive study of the current status of middle schools in Virginia. Doctoral dissertation, Virginia Polytechnic Institute and University.

APENDIX A. LETTER TO PRINCIPALS

802 Shamrock Drive
Fredericksburg, Virginia 22407-6527
April 11, 1997

Dear Principal:

The enclosed survey concerned with the scheduling, teaming, and curriculum practices in the middle level schools of Virginia is a statewide study. Mrs. Mildred Sexton, president of the Virginia Middle School Association, and Dr. Thomas Gatewood, associate professor and middle school authority at Virginia Polytechnic Institute and State University, both endorse the study. Dr. Glen I. Earthman of Virginia Polytechnic Institute and State University is the chair of my committee that has approved the study. Results from the study will be relevant to determining the current status of middle level practices in Virginia and will provide a resource of information to school administrators and middle level organizations for the continued improvements and development of middle level programs.

Your participation and knowledge as a middle level principal are most valuable and essential to the success of this study. Please respond by completing the enclosed survey validated by a panel of college professors knowledgeable of middle school programs.

It will be appreciated if you will complete and return the enclosed survey in the self-addressed stamped envelope enclosed before May 2, 1997. The study cannot be completed until I receive your survey for an analysis of the data.

The information gathered from this questionnaire will be held in strictest confidence. There will not be a comparison or evaluation of schools, but rather an attempt to describe the current practices of scheduling, teaming, and curriculum used in Virginia's middle level schools.

I will be more than willing to send you a summary of the survey results if you wish. You may contact me at (540)898-6032, business phone, or by e-mail at charris@theonramp.net if there are questions. Thank you in advance for your cooperation and participation.

Sincerely,

Charles H. Harris, III

APPENDIX B. QUESTIONNAIRE

**SURVEY OF VIRGINIA MIDDLE LEVEL SCHOOLS
1996 - 1997**

General Information

1. Name _____ Title: Principal Assistant Principal
2. Name of School _____ Current Enrollment _____
- Which best describes the location of your school? Rural Suburban Urban
3. Do you wish to be sent a copy of the survey report? Yes No

Grade Organization

4. Please check (✓) all grades included in your school. 5 6 7 8 Other: ____

Scheduling Practices

5. Please indicate by checking (✓) the type of schedule that applies to each grade level in your school. Check all that apply.

TYPE OF SCHEDULE		GRADES			
		5	6	7	8
Traditional Fixed Period Block Schedule (Class periods are uniform in length not including lunch.)	5 Period Day				
	6 Period Day				
	7 Period Day				
	8 Period Day				
Modular Schedule (Small blocks of time that may be moved and added to other blocks.)					
Alternate Day Schedule (Classes meet on alternating days of the week.)					
Four Block Schedule (Schedule is divided into four equal blocks not including lunch.)					
Flexible Block Schedule (Flexible scheduling within blocks for teams/length of periods may be changed.)					
Other plan (explain)					

Describe: _____

6. Regarding your school's use of ability grouping, check (✓) the criteria used for assigning students to the class.

- Ability grouping is not used Parent Request
 Grades/prior class performance Criterion-referenced tests/other screening tests
 Standardized test results Teacher recommendations
 Other(describe) _____

PLEASE CHECK (✓) THE MOST APPROPRIATE ANSWER TO THE FOLLOWING QUESTIONS.

If your school uses a flexible or modular schedule, please respond. If not, skip to question 10.

7. Who makes the decision to change the schedule?

- Each team Teachers at each grade level Total Faculty Administration
 Other: _____

8. How often does the schedule change?

- Daily 2 to 3 times a week Weekly Each grading period
 Other: _____

9. Are teams allowed to schedule or adjust the schedule of individual students?

- Yes No

10. Does your schedule mix students from different grade levels, 5, 6, 7, or 8, for any subjects including exploratory and physical education?

- Yes No

If yes, list subjects: _____

11. Are there circumstances that influence the kind of schedule used in your school?

- Yes No

If yes, please explain. _____

12. Please describe any characteristics that you consider unique about your school's schedule.

Teaming Practices

13. Does your school use Department (single subject, ex. all science teachers) Team Teaching? Teachers in the same department plan and teach together creating small group and large group activities by combining classes or regrouping students. Check (✓) all grades in which you use Department teams:

- Do not use 5 6 7 8

14. Does your school use Interdisciplinary Team Teaching? Two or more teachers of Different Subjects share the same group of students and/or coordinate their instructional programs of core subjects. Check (✓) all grades in which you use Interdisciplinary Teams:

- Do not use 5 6 7 8

If you answered no to questions 13 and 14, skip to question 22.

15. How many teachers are on a typical interdisciplinary team? Check for all grades that apply to your school.

GRADES	# OF TEACHERS ON INTERDISCIPLINARY TEAM					
5 th	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7 or more
6 th	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7 or more
7 th	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7 or more
8 th	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7 or more

16. Please check (✓) the statement that best describes the status of planning for teachers at your school.

- All have one personal planning period
- All teachers have two planning periods (one personal and one team)
- All core teachers have two planning periods but exploratory teachers have one planning period
- Teachers do not have a planning period Other(describe)

17. If you indicated that teachers have team planning time, please check (✓) the most appropriate box below indicating the amount of time officially scheduled to be used.

- Less than 30 minutes per week
- Between one half hour and 1 hour per week
- Between 1 and 2 hours per week
- Between 2 and 3 hours per week
- More than 3 hours per week/daily team planning period
- No official common planning time

18. How much of the assigned time for team planning per week do the average teams in your school spend on each activity below? Please indicate with a check (✓).

ACTIVITY	HOW MUCH PLANNING TIME PER WEEK?
a. Individual Teacher Preparation	<input type="checkbox"/> none <input type="checkbox"/> less than 1/4 <input type="checkbox"/> between 1/4 and 1/2 <input type="checkbox"/> More than 1/2
b. Coordinate content/integrate instruction	<input type="checkbox"/> none <input type="checkbox"/> less than 1/4 <input type="checkbox"/> between 1/4 and 1/2 <input type="checkbox"/> More than 1/2
c. Revise schedules/adjust time within block	<input type="checkbox"/> none <input type="checkbox"/> less than 1/4 <input type="checkbox"/> between 1/4 and 1/2 <input type="checkbox"/> More than 1/2
d. Regroup students/arrange groups by ability	<input type="checkbox"/> none <input type="checkbox"/> less than 1/4 <input type="checkbox"/> between 1/4 and 1/2 <input type="checkbox"/> More than 1/2
e. Diagnose individual students teachers discuss strategies to solve student problems	<input type="checkbox"/> none <input type="checkbox"/> less than 1/4 <input type="checkbox"/> between 1/4 and 1/2 <input type="checkbox"/> More than 1/2
f. Conduct conferences with parents/team meets with parent to solve student problems	<input type="checkbox"/> none <input type="checkbox"/> less than 1/4 <input type="checkbox"/> between 1/4 and 1/2 <input type="checkbox"/> More than 1/2
g. Plan special events/teachers arrange assemblies, trips, other team activities	<input type="checkbox"/> none <input type="checkbox"/> less than 1/4 <input type="checkbox"/> between 1/4 and 1/2 <input type="checkbox"/> More than 1/2
h. Participate in eligibility/IEP meeting	<input type="checkbox"/> none <input type="checkbox"/> less than 1/4 <input type="checkbox"/> between 1/4 and 1/2 <input type="checkbox"/> More than 1/2
i. Other (describe) _____	<input type="checkbox"/> none <input type="checkbox"/> less than 1/4 <input type="checkbox"/> between 1/4 and 1/2 <input type="checkbox"/> More than 1/2

19. Teachers are assigned to their interdisciplinary teams by:
- School administrator
 - Teachers choose the others teachers on their teams
 - Administrators make assignments but adjustments can be made
 - Other (describe) _____

20. How is the team leader chosen for the interdisciplinary team of teachers?
- Appointed by the school administrator
 - Elected by the other members of the team
 - Team leader responsibilities are shared or rotated among team members
 - Leader emerges informally as the team works together
 - No leader is identified
 - Other (describe) _____

21. What criteria determine the number of teachers (team size) that make-up your interdisciplinary teams?
- _____
- _____

Curriculum Practices

22. Please check (✓) yes or no to indicate if each of these subjects is taken by all students in each grade at your school.

SUBJECT	CHECK	
	YES	NO
Language Arts		
Mathematics		
Science		
Social Studies		
Physical Education		

Please give an explanation for each “no” response answer above: _____

23. Please indicate by a check (✓) how reading is taught in your school.
- Separate subject with its own period
 - Separate subject, but blocked with another subject
 - Integrated with language arts
 - Integrated throughout the total school program
 - Other: Please explain _____
- _____

24. Please indicate by a check (✓) arrangements for remedial courses at your school.
- No remedial programs are offered
 - Pull-out program for reading/language Arts
 - Pull-out program for mathematics
 - Additional subject period instead of elective or an exploratory course
 - Extended day/after school activities or before school classes or tutoring sessions
 - Collaborative, in-class support
 - Summer school
 - Other(Describe) _____

25. Please indicate by a check (✓) how health is taught in your school at each grade level.

HEALTH	GRADES				
	All	5	6	7	8
Separate Subject					
With Physical Education					
Integrated with Science					
Other: _____					

26. Please indicate by a check (✓) each grade in which high school level classes (full year) are offered to students at your school.

SUBJECT	Not Offered	GRADES			
		5	6	7	8
Foreign Language					
Algebra I					
Algebra II					
Geometry					
Other: _____					

Comments: _____

27. Does your school offer exploratory classes? If no, skip questions 28 through 30.
- yes
 - no

28. How many weeks are the exploratory courses taught? Check for all grades that apply to your school.

<u>GRADE</u>	<u># OF WEEKS COURSE IS TAUGHT</u>
5	<input type="checkbox"/> none <input type="checkbox"/> 3 <input type="checkbox"/> 6 <input type="checkbox"/> 9 <input type="checkbox"/> 12 <input type="checkbox"/> 18(semester)
6	<input type="checkbox"/> none <input type="checkbox"/> 3 <input type="checkbox"/> 6 <input type="checkbox"/> 9 <input type="checkbox"/> 12 <input type="checkbox"/> 18(semester)
7	<input type="checkbox"/> none <input type="checkbox"/> 3 <input type="checkbox"/> 6 <input type="checkbox"/> 9 <input type="checkbox"/> 12 <input type="checkbox"/> 18(semester)
8	<input type="checkbox"/> none <input type="checkbox"/> 3 <input type="checkbox"/> 6 <input type="checkbox"/> 9 <input type="checkbox"/> 12 <input type="checkbox"/> 18(semester)

29. How many exploratory courses are offered at each grade level in your school during the school day?

<u>GRADE</u>	<u># OF COURSES</u>	<u>GRADE</u>	<u># OF COURSES</u>
5	_____	7	_____
6	_____	8	_____

30. Please list the four most important exploratory classes for each grade level in your school.

5th Grade

6th Grade

7th Grade

8th Grade

31. Does your school have single sex classes? yes no If yes, please describe.

32. Does your school have extended year programs? yes no If yes, please describe.

33. Please describe any curriculum practices that you consider unique or exemplary in your school.

Reference

Epstein, J.L. and McPartland, J.M. (1988) Education in the middle grades: A national survey of practices and trends. Baltimore MD: Center for Research on Elementary and Middle Schools, Johns Hopkins University.

APPENDIX C. FOLLOW-UP LETTER TO PRINCIPALS

802 Shamrock Drive
Fredericksburg, Virginia 22407-6527
May 5, 1997

Dear Principal:

I know this time of the school year is very busy but I am asking that you take a few minutes of your time to complete the enclosed survey concerned with the scheduling, teaming, and curriculum practices in the middle level schools of Virginia. This is a second request. Mrs. Mildred Sexton, president of the Virginia Middle School Association, and Dr. Thomas Gatewood, associate professor and middle school authority at Virginia Polytechnic Institute and State University, both endorse the study. Dr. Glen I. Earthman of Virginia Polytechnic Institute and State University is the chair of my committee that has approved the study. Results from the study will be relevant to determining the current status of middle level practices in Virginia and will provide a resource of information to school administrators and middle level organizations for the continued improvements and development of middle level programs.

Your participation and knowledge as a middle level principal are most valuable and essential to the success of this study. Please respond by completing the enclosed survey validated by a panel of college professors knowledgeable of middle school programs.

It will be appreciated if you will complete and return the enclosed survey in the self-addressed stamped envelope enclosed before May 12, 1997. The study cannot be completed until I receive your survey for an analysis of the data.

The information gathered from this questionnaire will be held in strictest confidence. There will not be a comparison or evaluation of schools, but rather an attempt to describe the current practices of scheduling, teaming, and curriculum used in Virginia's middle level schools.

I will be more than willing to send you a summary of the survey results if you wish. You may contact me at (540)898-6032, business phone, or by e-mail at chharris@theonramp.net if there are questions. Thank you in advance for your cooperation and participation.

Sincerely,

Charles H. Harris, III

APPENDIX D. QUESTIONNAIRE COVER LETTER AND REVIEW FORM

802 Shamrock Drive
Fredericksburg, VA 22407
(e-mail)chharris@gte.net
March 8, 1997

Dr. Nancy Doda
Teacher To Teacher
10363 Steamboat Landing
Burke, VA 22015

Dear Dr Doda:

I am currently studying the emerging scheduling, teaming, and curriculum trends and practices in Virginia's middle level schools. I will be doing a descriptive study of those practices through a questionnaire of Virginia's middle schools. The practices will be identified, analyzed, and described through narrative reports as well as frequency tables when possible. In addition, the report will include the status of the trends and practices as related to the literature defining the middle school concept. This questionnaire was developed based on literature about the middle school concept and questions from previous surveys of the National Middle School Association and Johns Hopkins University. It will be distributed to the principal of those schools included in the study's population. The middle level schools in this study have been defined as those schools that include at least three grades of 5, 6, 7, or 8, but not grades 4 or 9.

In an effort to make the questionnaire a clear and concise instrument, I am asking for your review and comments. Your review and critique will be highly valued and will help to improve the instrument. Comments and suggestions are welcomed. Approximately four professionals, all experts in the field of education in whom I have the utmost confidence, have been asked to review the survey. These experts do not fall within the population of the study.

I have enclosed a questionnaire, an evaluation form, and a stamped, self-addressed envelope. Please make your comments and return the form and questionnaire to me as soon as your schedule permits.

Thank you for your time and consideration.

Sincerely,

Charles H. Harris, III

REVIEW FORM FOR SURVEY INSTRUMENT
SURVEY OF VIRGINIA MIDDLE LEVEL SCHOOLS

Name of Reviewer _____ Title _____

Please check (✓) and provide comments to assist in the improvement of this instrument.

A. Format

1. The layout of the questionnaire is simple and may be completed easily.

Satisfactory Needs Improvement

Comments/suggestions: _____

2. The items are presented in a logical sequence.

Satisfactory Needs Improvement

Comments/suggestions: _____

3. The items are free of grammatical errors.

Satisfactory Needs Improvement

Comments/suggestions: _____

4. There is sufficient writing space provided where necessary.

Satisfactory Needs Improvement

Comments/suggestions: _____

5. The length of the questionnaire is appropriate and will not adversely affect the return rate.

Satisfactory Needs Improvement

Comments/suggestions: _____

6. The instrument is neat and professional.

Satisfactory Needs Improvement

Comments/suggestions: _____

B. Validity and Reliability

1. The instrument appears to cover the topic to be studied.

Satisfactory Needs Improvement

Comments/suggestions: _____

2. The meaning of each statement or question is clear and understandable.

Satisfactory Needs Improvement

Comments/suggestions: _____

3. There are sufficient items to draw conclusions from the results.

Satisfactory Needs Improvement

Comments/suggestions: _____

VITA

Charles H. Harris, III
802 Shamrock Drive
Fredericksburg, Virginia 22407
charris@spotsylvania.k12.va.us

Education

Ed. D.	1998	Virginia Polytechnic Institute and State University Blacksburg, Virginia Major: Educational Administration
M.Ed.	1981	University of Virginia Charlottesville, Virginia Major: Educational Administration
B.S.	1977	Virginia State College Petersburg, Virginia Major: Social Studies Education

Experience

1991 - present	Director of Middle Education Spotsylvania County Public Schools Spotsylvania, Virginia
1985 - 1991	Principal Spotsylvania Middle School Spotsylvania, Virginia
1984 - 1985	Principal Goochland Middle School Goochland, Virginia
1981 - 1984	Assistant Principal Fluvanna High School Palmyra, Virginia

1977 - 1980

Social Studies Instructor/Coach
Washington and Lee High School
Montross, Virginia

Professional Organizations

National Association of Secondary Principals
Virginia Association of Secondary Principals
National Middle School Association
Virginia Middle School Association
Phi Delta Kappa
Virginia Admissions Council of Black Concerns