

1989

## Middle school innovation: Interpretation and assessment

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**Middle school innovation: Interpretation and assessment**

**Williams, William Bryant, Jr., Ed.D.**

**The College of William and Mary, 1989**

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MIDDLE SCHOOL INNOVATION:  
INTERPRETATION AND ASSESSMENT

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A Dissertation  
Presented to  
The Faculty of the School of Education  
The College of William and Mary in Virginia

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In Partial Fulfillment  
Of the Requirements for the Degree  
Doctor of Education

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by  
William Bryant Williams, Jr.

May 1989

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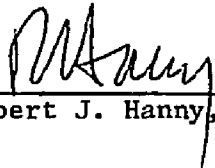
ASSESSMENT OF RATIONAL BASIS  
FOR MIDDLE SCHOOL INNOVATION

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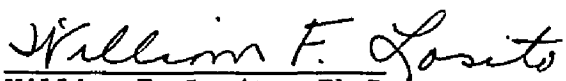
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ASSESSMENT OF RATIONAL BASIS FOR MIDDLE SCHOOL INNOVATION

W. B. Williams, Jr.

College of William and Mary

1988

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## CHAPTER I

### Introduction

During the last two and half decades, there has been an increasing number of reorganized schools for the middle grades, six through eight. As early as 1963, a general proposal for reorganization of schools in the middle was made at a junior high school conference at Cornell University. Although some authorities identify grades 5 through 8 as appropriate for the middle school, others limit it to grades 6 through 8. However, according to Romano, Georgiady and Heald (1973), "the importance of the middle school lies not in the grade levels included but rather in the philosophy and provisions for recognizing and meeting the truly unique needs of the youth it seeks to serve" (p. 4).

The middle school had its beginning with the emergence of the junior high school in the early 1900's. Society was ready at that time for a change from the 8 - 4 schooling pattern and a reorganization of the work of the seventh and eighth grades. Some saw the junior high school as a program that would keep students in school. Others felt it was important to teach high school academic subjects in earlier grades. Still others were concerned about providing a program that was more student-oriented. "The widely different ideas about the junior high school ranged from a simple straight forward belief in the downward extension of the senior high school programs and activities into the 7th and 8th grades to the call for an entirely new program addressing the uniqueness of early adolescence" (Lounsbury, 1984, p. 7). Another factor for the rise of the junior high school in the 1920's was the increase in school enrollment following World

War I. To alleviate these crowded conditions, the two upper grades were removed from the eight-year elementary school, and the ninth grade was taken from the high school.

The 1950's and the decade of the 1960's saw mounting criticism of the junior high school. According to Arth, "leading the list of complaints was the concern that the junior high school had become a carbon copy of the senior high school with the Carnegie units, departmentalized program of studies and organization, and social activities" (Arth, 1968, p. 13). Others stated that it housed the wrong students, had lost sight of its transitional nature and purpose, and was too subject-matter oriented.

In 1959, Donald Eichhorn proposed to the Pennsylvania Department of Instruction "a grade 6 - 8 middle school as 'desirable and educationally sound' because it provided 'a more natural grouping' and would permit 'a better social program,' and make the transition from 'the self-contained classroom to a departmental program more gradual" (Lounsbury, 1984, p. 17). The Fort Couch Middle School opened in Upper St. Clair in 1962-63.

Building upon the basic principle of the need for a program specifically designed for the 10 to 15 year old child, other middle schools emerged in the 1960's. These middle schools were organized to provide an environment which focused on the learning styles and developmental characteristics of the early adolescent. According to anthropologist Margaret Mead, these students "are more unlike each other than they have ever been before or ever will be again in the course of their lives" (Romano, Georgiady, and Heald, 1973, p. 99). Dr. Donald Eichhorn states that transescents "are similar only in their diversity. They are unique persons in need of unique programs" (Lounsbury, 1984, p. 31).

William Alexander states that the goal of the middle school is to contribute to the articulation between the elementary school and high school by providing a unique experience for the education of older children and early adolescents; a middle way between the elementary self-contained classroom and the high school department (Lounsbury, 1984, p. 17).

Alexander's 1967 survey and Brooks' 1977 survey indicate that the major reasons for establishing middle schools was to bridge the elementary and high school better, and to provide a program specifically designed for children in this age group (Lounsbury, 1984, p. 15).

The number of middle schools has increased significantly since the 1960's. A survey report in 1967-68 identified 1101 middle schools, with that number increasing to 4060 a decade later. Although twenty years in the life of an institution such as middle schools is a very short time period, the number is stabilizing and it is time to determine if the middle school concept is a reasonable innovation that is worthy of continued efforts to implement and refine. "The middle school itself is a topic for further examination and judgment about the effectiveness and utility of its goals for individual growth and development" (Stein, 1978, p. 284). In addition, "applied research related to practices and procedures that result in more effectively educating middle school students should be emphasized. Since the middle school movement has apparently reached the point where empirical investigation of its practices is needed" (Johnson and Markle, 1986, p. 101), this study will interpret historically the middle school movement, as well as assess reasons offered in support for certain curriculum and instructional proposals that are a part of a middle school program.

Assessing a program of educational reform such as the middle school is a historic problem. Santayana warns that "those who ignore history are doomed to repeat its mistakes" (Presseisen, 1985, p. 2.). The middle school reform needs to be assessed to determine if it has a rational basis. "There is a definite need for more pertinent research related to all facets of the middle school program in terms of curriculum, instruction, and communications" (Kohut, 1976, p. 17).

### Theoretical Framework

During the last two decades, many schools, school divisions, and even state organizations have placed an increased emphasis on middle level education. Many have developed goal statements for the program and appointed task forces to identify program components. Increasing in popularity, the number of middle schools has increased fourfold. It is, therefore, appropriate to determine if there is a rational basis for the middle school reform.

An analysis of educational reform identifies several reasons or causes. James and Tyack tie periods of reform to political eras (Presseisen, 1985, p. 50). Certain periods are identified as more conservative, emphasize the basics, and restrict a program. Other periods are more liberal and broaden the functions of schools. In addition to political influences, economics also has an effect on education. Changes in American society results in various educational reform movements. These changes result from both international competition, as well as population changes. "A growing minority population, the aging of white America, and the changing role of women in the workplace are all generating new social

conditions that will, one way or another, transform schools" (Presseisen, 1985, p. 86).

"There is a tendency for every age to think itself unique. In one sense, at least, this is true. Each age has its own conditions, people, and relationships that make it different from every other age. It is the same with educational reform periods" (Presseisen, 1985, p. 7). Presseisen cites several events that are significant in tracing the history of secondary educational reform. One such event was the meeting in 1893 of the Committee of Ten. These college presidents and professors identified four uniform programs of study in classical, Latin/scientific, modern languages, and English to ensure the development of high intellectual ability among college-bound youth. This report was followed by the Carnegie Foundation defining educational units for secondary school courses which are acceptable for admission to higher education (Presseisen, 1985, p. 14).

According to Presseisen, a new era of reform began in the early 1980's. "Most of its issues, however, hark back to 1893 - the first era of educational reform - and echo the hopes and fears of reforms ever since" (Presseisen, 1985, p. 22). One of these issues was the interest in middle level education. As Gruhn and Douglas wrote in 1974, "The basic philosophy and practically all of the important administrative and instructional features of the early junior high schools were largely the outgrowth of the recommendations of the various deliberative committees that served for two decades beginning with the Committee of Ten in 1893.

The basic concepts underlying the junior high school idea stressed by these various committees included:



1. better provisions in the school program for the needs of adolescents
  2. provisions for the exploration of pupil-interest and ability
  3. individualization of the instructional program
  4. better articulation between elementary and secondary education"
- (Lounsbury, 1984, p. 6).

Two Harvard professors, James Bryant Conant and Jerome S. Bruner, did much to generate educational reform in the 1960's. "Conant's proposals were relatively conservative. He was convinced that American education can be made satisfactory without any radical changes in the basic pattern" (Presseisen, 1985, p. 20). His report confirmed the importance of the transitional function of the junior high school, but indicated a lack of conviction as to what grade level organization would best achieve it. In the next few years other proponents of reorganization found the junior high school lacking in providing a transitional program.

"The time was ripe in 1960 for a new plan for the education of transescents to be tried, and it is not surprising that proposals for a new middle school were listened to with interest and widely, if not always wisely, implemented" (Alexander and George, 1981, p. 11). The number of middle schools increased significantly over the next two decades, as well as a discussion of essential characteristics of good middle schools. According to the research of Alexander and George (1981) there is now near consensus on the desirable characteristics of middle schools.

Although much less has been written about middle schools, twenty years in the life of an educational reform is a very short period.

It can even be that the almost landslide movement into this organization has restricted the careful evaluation and planning and replanning sorely needed with new organizations and institutions. The numbers of schools are now stabilizing, and educators can make real middle schools out of their grade organizations; if not, the middle school of 1980 may be replaced by some other school in the middle by the year 2000, or even earlier (Alexander and George, 1981, p. 24).

In order to assess the rational basis for certain middle school practices, teacher teaming, core and exploratory curricula, and flexible scheduling need to be examined.

### Research Questions

#### I. Main Question

In light of the available body of knowledge is the middle school a reasonable innovation to sustain and implement?

#### II. Instrumental Questions

A. Does the history of the middle school movement provide an interpretation and explanation which helps in understanding the middle school innovation?

The middle school movement has had a reasonable, although somewhat rapid, implementation. George and Oldaker (1985) state, "It is one of the largest and most comprehensive efforts at educational reorganization in the history of American public schooling" (p. 1). During the last two decades many schools, school divisions, and state organizations have placed an increased emphasis on middle level education. Yet articles asking whether

the middle school is a fad continue to generate widespread interest and concern. It is important, therefore, to determine if the middle school reform movement has followed a rational process of implementation.

B. Are there identifiable characteristics agreed upon for an exemplary middle school?

The middle school movement has reached the point where empirical investigation of its practices is needed. During the last decade, some researchers have continued to study the exemplary middle school program with similar results. The program is quite different from that offered in the elementary school or the high school. It becomes a bridge that provides a smooth transition from the self-contained elementary classroom into the departmentalized structure of the high school.

Studies by middle level educators confirm that model middle schools share similar program components. These program components are those which conform to the recommendations of the literature on middle school education.

C. Is it reasonable to include teacher teaming, flexible scheduling, and an integrated curriculum in the middle school on the basis of educational research?

A study by George and Oldaker (1985) confirm that exemplary middle schools:

-organize their teachers into interdisciplinary teams. These teacher teams are responsible for providing instruction for a common group of students and have a common planning period.

- provide for a flexible schedule. Teacher teams have the flexibility to modify the daily schedule.
- include a home-base or advisor-advise program.
- focus the curriculum on student personal development as well as academic achievement.

Although other studies also state that these components exist in exemplary middle schools, the inclusion of them as part of the middle school is not conclusive. It is important, therefore, to determine if there is sufficient rationale and support by practitioner and middle school experts for teacher teaming, flexible scheduling, and an integrated curriculum to be reasonably included as part of the middle school.

## Methodology

### 1. Introduction

This section includes a discussion of several topics relevant to the study. The major topics include: an historical interpretation and explanation of the middle school movement, rationale for middle school curriculum and instructional practices, and summary and conclusions.

### 2. History of the Middle School Movement

Middle level educational reform will be historically interpreted and explained beginning with the work of the Committee of Ten in 1893. The history will include a description of the successes and failures of the junior high school movement from 1920 to 1960. The analysis of the junior high school movement will include how it met the characteristics

established by the Committee of Ten and how it did not meet these characteristics.

The characteristics of the middle school program, as well as the growth of the middle school movement, will be identified through a comprehensive review of the literature of the past twenty-seven years. In addition to a review of the literature, documents from state departments of education and school divisions with exemplary middle schools will be reviewed. This will help in understanding the middle school innovation in meeting the intent established by the Committee of Ten in 1893. The educational, social, and political issues that affected the development of the middle school program will also be examined.

### 3. Rationale for Middle School Curriculum and Instructional Practices

Since middle schools have been established with increasing frequency in the last two decades with school districts in many states having adopted a middle school plan, the literature on middle level education for the past quarter of a century is replete with discussions and lists of essential characteristics of good middle schools. Most of these have centered around a transitional program and meeting the needs of the early adolescents.

From an analysis of these lists and others, the following characteristics are identified for further study:

1. teacher teaming
2. flexible scheduling
3. core and exploratory curriculum.

Middle school literature including research studies, dissertations, journals and other writings will be reviewed to determine what the rationale is for these characteristics to be implemented in middle schools. It is important for these characteristics to be defined as they relate to the organization of the middle school program. An explanation and justification for their inclusion in the middle schools will also be determined by citing facts from existing programs and current research studies. The reasonableness of these characteristics being included in model middle schools will be determined by identifying schools with existing programs and reviewing research studies.

For this study, teacher teaming designates a type of instructional organization involving the teaching staff and students assigned to them. The concept of teacher teaming will be defined as it relates to the middle school program.

Another characteristic being investigated in this study is flexible scheduling. The flexible schedule will also be defined to determine if it provides a transitional environment between the elementary and high school organization. The flexible schedule will also be examined as it facilitates the interdisciplinary team organization by allowing groups of teachers organized into teams in collaboration with the building administrators to control the schedule.

The third characteristic is an examination of the core and elective curriculum. The study will determine if exploration in the middle school curriculum is a continuing and expanded program that is fostered in required courses, as well as in electives or special interest courses.

#### 4. Summary and Conclusions

This study concludes with an analysis of the middle school movement to determine if it followed a rational process of development. It investigates the relationship between the middle school program and the original conclusions of the Committee of Ten.

The curriculum and instructional practices utilized in the middle school are also analyzed to determine if there is sufficient evidence for their implementation. They are evaluated to determine if they help provide the transition from the self-contained elementary school to the departmentalized structure of the high school.

## CHAPTER II

### HISTORY OF THE MIDDLE SCHOOL MOVEMENT

#### Introduction

Chapter II focuses on an historical explanation, including the social context, of the development of middle schools. Although the first middle school opened only a quarter of a century ago, its evolution is traced back to the early reform movement of the 1890's and the Committee of Ten. Presseisen (1985) and Lounsbury (1984) state that this committee is the basis of educational reform which eventually led to the middle school movement of the 1960's. The work of other committees of the late 1890's and early 1900's are also described as they relate to the formation of specific programs for middle level education.

Since educational reform is influenced by society, the social, political, and economic issues of the period are also presented as an additional explanation for changes in schools. These issues are reviewed as they relate to the rise of the junior high school in the early 1900's and its subsequent decline in the 1960's. These issues are also related to the implementation of the middle school program during the 1960's. An explanation is provided that describes the 1960's as a more liberal period, where people worried less about consistency and more about overcoming past rigidity.

The chapter is divided into the following sections: definition of a middle school, Committee of Ten, success and failure of the junior high school, emergence of the middle school, concerns of the early middle



school, success of the middle school movement, and conclusions.

#### Definition

In defining "middle school," some simply describe it as a school that eliminates grade nine and adds grade six or grades five and six. Others see the middle school as a program that bridges the gap between elementary school and high school. In the Emergent Middle School, the following definition first appeared:

...a school providing a program planned for a range of older children, preadolescents, and early adolescents that builds upon the elementary school program for earlier childhood and in turn is built upon by the high school's program for adolescence (Alexander, 1968, p. 7).

Since this definition in 1968, the middle school is seen to embody more than just a bridging program. More emphasis has been placed on the identification of a unique program for this school in the middle. In the literature of the 1980's, the middle school is not subordinated to the impact of the elementary school or the demands of the high school.

Alexander and George updated their definition in 1981 to emphasize how the program meets the specific needs of the early adolescent. They defined the middle school as "some three to five years between the elementary and high school focused on the educational needs of students in these in-between years and designed to promote continuous educational progress for all concerned" (Alexander and George, 1981, p. 3). The middle school was also described as "an educational response to the needs and characteristics of youngsters during transecence and, as such, deals

with the full range of intellectual and developmental needs" (National Middle School Association, 1982, p. 9).

#### Committee of Ten

Whatever the definition, Presseisen (1985) states that current educational reform dates back to 1893 - the first era of educational reform (p. 22). Lounsbury (1984) also references 1893 and the Committee of Ten as the basis for the deliberation of the early junior high schools which provided a foundation for the further improvement of education at the middle level (p. 6).

This Committee of Ten was established to address the concern of the unruly secondary curriculum of the period. It was precipitated by an address by Harvard President Charles W. Eliot to the superintendents' association in 1888 when he "contended that much of the time spent in grammar-grades reviews could be used profitably in teaching new materials and that the elementary school programs needed to be shortened and enriched" (Noble, 1938, p. 343). The following year the National Council of Education appointed a committee of college presidents and professors to develop a plan for systematizing and improving the work of the secondary school. Dr. Eliot was appointed chairman of the committee. The focus of the Committee was the rapidly expanding and overcrowded secondary educational system.

The Committee created four sub-committees for the following curricular programs: classical, Latin/scientific, modern languages, and English. The task of each sub-committee was to specify the content for the program of study in order of difficulty. The courses were to provide for instruction

in English, the foreign languages, ancient and modern, the natural sciences, history, and mathematics. All four programs emphasized foreign languages, especially Latin. The committee also included a large number of science courses. Two fundamental principles set forth by the committee were:

1. the disapproval of short courses and the recommendation that every subject be taught for a period sufficiently long to ensure real benefit to the pupil.

2. the student who was going immediately into a vocation be given the same thorough instruction as the one who expected to enter college (Noble, 1938, p. 344).

It was also the intention of the committee that these programs "be taught consecutively and thoroughly, and would all be carried on in the same spirit; they would all be used for training the powers of observation, memory expression, and reasoning; and they would all be good to that end, although differing among themselves in quality and substance" (Hahn and Bedna, 1965, p. 165-166). Furthermore, the committee's report stated, "(Members of) the committee were perfectly aware that it is impossible to make a satisfactory secondary-school program limited to a period of four years and founded on the present elementary school subjects and methods" (Johnson ed., 1980, p. 270).

Gruhn and Douglas stated that "the basic philosophy and practically all of the important administrative and instructional features of the early junior high school were largely the outgrowth of the recommendations of the various deliberative committees that served for two decades beginning with the Committee of Ten in 1892" (Gruhn and Douglas, 1942, p. 34). This

committee, as well as others of the time, advocated the introduction of secondary studies beginning in the seventh grade and that departmentalized instruction be introduced in the upper elementary grades. Opposition to these practices resulted in a complete reorganization of the seventh and eighth grades early in the new century.

It was urged that many unessential or utterly useless topics needed to be pruned from the curriculum; that topics properly belonging to high school or college curriculum were being prematurely presented in the grammar grades; that the elementary course, as a whole, did not articulate with that of the high schools; and that both retarded and superior pupils were being neglected (Noble, 1938, p. 344).

Other factors that influenced the reorganization movement were the population explosion in 1890; the technological advancements which caused fewer children to be employed and, as a result, remain in school; the development in psychology which emphasized the need for a special program to address the uniqueness of the period of early adolescence; the increasing number of students dropping out of school at the end of grade eight; and a growing popular demand for universal secondary education.

#### Emergence of the Junior High School

The first decade of the twentieth century brought with it the junior high school. In 1918, the report from the Commission on the Reorganization of Secondary Education stated:

We, therefore, recommend a reorganization of the school system whereby the first six years shall be devoted to the elementary

education designed to meet the needs of pupils approximately 6 to 12 years of age, and the second six years to secondary education designed to meet the needs of pupils approximately 12 to 18 years of age. The six years to be devoted to secondary education may well be divided into two periods which may be designated as the junior and senior periods (Alexander and George, 1981, p. 10).

The work of the various study committees that served for two decades beginning with the Committee of Ten in 1893 stressed that the program of the junior high school needed to provide for the needs of the adolescent. The committee also stated that provisions should be made for pupils to explore areas of interests, and that the program should provide for the individualization of instruction. Another characteristic that the committees stressed was for the junior high school program to provide better articulation between the elementary and secondary education. "Flexibility and promotion, departmentalized teaching and earlier introduction of secondary studies were among the administrative and instructional practices that were also proposed by some of the committees" (Lounsbury, 1984, p. 6).

Although the junior high school was created as a unique program to meet the needs of the early adolescent, many schools were reorganized for administrative reasons. For example, an increase in school enrollment following World War I in the 1920's required new facilities. Moving two grades into the junior high school organization was an economic solution.

One of the major features of these schools was a differentiated curriculum. The schools were designed to make educational planning and guidance possible at an earlier age. Joel H. Spring (1972) stated that

"the original purpose of the junior high school was to differentiate students into separate courses of study according to abilities and vocational goals" (p. 91). A second feature of these schools was to provide opportunities for socialization. Emphasis was placed on personal guidance and extra-curricular cooperative group activities. The conduit for these activities and guidance was the homeroom period.

An exact date and location for the first school for early adolescents is in question, but one of the first schools was an intermediate school for grades 7 and 8 in Richmond, Indiana, in 1896. In 1909, a three-year intermediate school was established in Columbus, Ohio.

Dr. Frank F. Bunker of Berkeley, California, and J. H. Francis of Los Angeles, California, are considered leaders in the movement. Bunker initiated a reorganization according to a six-three-three plan in 1909 in Berkeley, California. The following year, Francis opened two introductory high schools in Los Angeles, California. During the next several years the number of junior high schools continued to increase (Noble, 1938, p. 345).

Whatever the reasons, the junior high school had remarkable growth. By 1918, the number of junior high schools had grown to 557 and two years later to 883. That growth pattern continued until there were more than 7,000 junior high schools in the United States (Lounsbury, 1984, p. 7). "The 6-3-3 organization became widely adopted, so that by 1960 the situation of forty years earlier had been reversed, with now about four out of five high school graduates having gone through the 6-3-3 organization rather than the 8-4 one" (Alexander and George, 1981, p. 10).

Prior to the introduction of the junior high school, educators and the general public were alarmed at the dropout rate of students in the seventh

and eighth grade. With the advent of the program changes introduced in the junior high school, the dropout rate was significantly reduced. Specialized courses in home economics, industrial arts, and laboratory science were being introduced at an earlier age and provided a level of interest that resulted in a marked increase in the holding power at these grade levels. These courses provided a level of exploration that was unavailable before and was one of the major keystones of the junior high school success. Students were provided with their first opportunity to work with teachers having specialized training and skills in specific disciplines. "Through these experiences, some students found life-long avocational interests and others even vocational interests" (Lounsbury, 1983, p. 10).

In addition to the curriculum changes, other programs associated with the new junior high school program dealt with the provision of guidance services and co-curricular activities. Guidance counselors also became an integral part of the total school program and assisted teachers in understanding the needs of the early adolescent. Another response to the guidance program was the homeroom or advisory period. "This special period was eventually utilized as both a center for social activity in the school and as part of the guidance program" (Spring, 1972, p. 99).

The inclusion of co-curricular activities into the daily schedule also helped the students to develop social and leadership skills. Athletics, clubs and other school sponsored activities provided the junior high students with the opportunity to explore a wide range of interests and to develop social instincts. These activities gave the students on an

informal basis, the chance to learn how to cooperate and work together. They also helped to guide developing interests.

Other innovative practices were introduced in some junior high schools; such as, team planning and teaching, core curriculum, block scheduling, and unified arts. These practices were only possible, however, in those schools that were not restricted by the granting of Carnegie Units or the pressure for an academic schedule. "While a few junior high schools attempted to develop a curriculum that was responsive to the needs of the students in the middle grades, most of these schools were little more than a 'junior edition' of the senior high school" (Johnson, 1980, p. 271).

Although junior high schools had increased in number, the late 1950's and the decade of the 1960's brought mounting criticism of these schools. Critics were protesting against the program of the junior high school and not the concept. They stated that it housed the wrong students, had lost sight of its transitional nature and purpose, and was too subject matter oriented. There was also dissatisfaction with the junior high school's replication of the curricular offerings and teaching practices of the senior high schools since most were organized by departments and followed an academic cycle of mid-terms and final examinations. The schools had lost their individuality and had adopted programs that were high school oriented. Social activities, clubs and interscholastic sports events were duplications of those in the high schools. Donald Overly noted that "the major fault of the junior high school is that it had become a social copy of the senior high school" (Klingele, 1979, p. 11). Alvin W. Howard wrote, "Most of the diverse reasons which gave rise to the junior high school either no longer exist or are much changed. The junior high school was



conceived and grew not because of any strong and proven educational values but more as an expedient, an effort to remedy supposed weaknesses of the 8-4 system" (Howard, 1968, p. 1-2).

The following criticisms were often voiced about the junior high school:

. The rigid, departmentalized programs were more suitable for the intellectual development and social maturity of the high school student rather than the 9- to 13-year old.

.Course content was a watered down version of high school studies and not appropriate for the preadolescent.

.An excessive emphasis on competition, particularly interscholastic sports, involved only a small percentage of students.

.Students were often divided or counseled into two different tracts, vocational and academic, very early in their schooling.

.A heavy emphasis on testing, grading, and group norms characterized the evaluation process.

.There was a lack of discussion about social behavior and peer interaction at a time when such discussions are essential to preadolescent development (Reinhartz and Beach, 1983, p. 5).

In surveys conducted by Alexander in 1967 and Brooks and Edwards in 1977, principals identified the following weaknesses of the junior high school:

.adoption of the high school program of studies and grading system, size, regimentation, and impersonal climate as compared with the feeder elementary schools.

.lack of personnel trained for work with the age group.

.the name "junior high school."

.lack of continuing instruction in basic skills.

.lack of extended relationship of each student with one teacher or counselor (Lounsbury, 1984, p. 16-17).

It was also the opinion of some educators that the junior high schools were not offering a transitional program. In 1962, Mauritz Johnson wrote that "the junior high school is supposed to be a bridge between the elementary school and the upper secondary level and, indeed, a bridge between childhood and that attenuated near adult stage we call adolescence" but that "many schools, it must be conceded, have been less than successful in this regard" (Johnson, 1962, p. 40). Alexander summarized the views many educators held as follows:

However needed a transition between the elementary and the high school, there are grave doubts as to the functioning of the junior high school in this regard...the usually departmentalized program and organization of the junior high school tends to defeat the transitional functioning...The general adoption by junior high schools of the activity program and the organization of the high school attests to the dominance of the idea that the bridge was fundamentally a vestibule added at the front door of the high school (Lounsbury, 1984, p. 16).

In addition to the criticism about replicating the high school program and failing to offer a transitional program, there was also concern that the junior high schools were not responding to the physical, intellectual, emotional and social needs of the early adolescent. Conditions had changed

dramatically since the early 1900's without appropriate changes being made to accommodate the youth of the 1960's.

Anthropologist Margaret Mead pointed out that "junior high school students are more unlike each other than they have ever been before or ever will be in the course of their lives" (Lounsbury, 1984, p. 18). She argued that the grades included in junior high school were inappropriately based on age rather than size or stage of puberty. By thus classifying the students, boys and girls were placed together when they differ most. These differences were not only reflective of students of the opposite sex, but also young adolescents of the same sex. Also, students in the seventh grade were separated from those more like their own past selves and ninth graders from older adolescents whom they would someday become. The problems were multiplied by the fact that the junior high school exerted social pressures more appropriate in senior high school.

Wilfred Dacus' study also questioned the appropriateness of the grades housed in the junior high school. The results of his study indicated that the least differences were found between pupils in grades six and seven, and pupils in grades nine and ten. Hull claimed that the junior high was "a poor investment," and that "it put the unstable child at a most vulnerable period in his life in a situation more appropriate for older youth" (Alexander and Williams, 1965, p. 218).

The early 1960's found many educators dissatisfied with the junior high school. Some contended that a junior division of the senior high school had resulted in a lack of necessary recognition and identity for the transitional school, and a high-school type of instructional program that was incompatible with the characteristics of the students. The insistence

by others that a unique level of education existed apart from either elementary or secondary programs led to the new middle school movement.

#### Emergence of the Middle School

Just as the junior high school was organized early in the twentieth century in opposition to practices existing at that time, the middle school was also developed in the early 1960's as the result of the junior high school's deviation from its original practices. Although there were certain junior high schools that exemplified a substantial number of characteristics of the middle school program, it was not until a period of promotion and dissemination during the 1960's that the middle school concept fully emerged. One of the first references to the reorganization of school in the middle was at a junior high school conference at Cornell University in 1964. That same year the Fort Couch Middle School in the Upper St. Clair School District, Pennsylvania, was opened under the planning and leadership of Donald H. Eichhorn. Other schools and school divisions quickly followed, and the number of middle schools mushroomed. The middle school movement erupted with such speed that by 1965 Paul Woodring, education editor for the Saturday Review, stated that "it now appears that the 6-3-3 plan, with its junior high, is on the way out" (Woodring, 1965, p. 77).

Several research studies dealing with the earliest maturation of children indicated the need for a new organizational structure for the early adolescent. Tanner's studies stated that young people were reaching adolescence at an earlier age as compared to youth of 100 years ago as typified by the age for menarche or the growth spurt. His analysis of the

heights and weights of children of school age showed that the whole process of growth had been progressively speeded up. "One of the justifications for accepting the middle school concept was the realization that, biologically, tranescents were attaining maturation at an earlier age" (Lounsbury, 1984, p. 32). Robert Rowe reported that physicians, psychologists, and physiologists found that children mature at a rate of four to twelve months faster than they did 40 years ago. It was also his observation that children were becoming more socially sophisticated at an earlier age than they did in the past (McCarthy, 1972, p. 17). These findings suggested the need for a new educational institution that housed students who had similar physical, social, and emotional characteristics. Since the sixth graders were more like seventh graders, it was recommended they be grouped in the same school. For the same reason, it was recommended that students in the ninth grades be grouped with students in the tenth grade at the high school.

In 1966 Donald Eichhorn suggested the concept of transescence as a means of defining the early adolescent and justifying the middle school organization. He defined transescence as:

The stage of development which begins prior to the onset of puberty and extends through the early stages of adolescence. Since puberty does not occur for all precisely at the same chronological age in human development, the transescent designation is based on the many physical, social, emotional, and intellectual changes in body chemistry that appear prior to the time which the body gains a practical degree of stabilization over these complex pubescent changes (Eichhorn, 1966, p. 3).

Another reason frequently cited for the rise of the middle school was the need to move grade nine to the high school (Connant, 1960, p. 22). As was stated previously, studies on physical growth and maturity indicated that ninth and tenth grade students are more similar and that a new organizational structure needed to be created for early adolescents. Alexander's survey in 1967 and Brooks' and Edwards' survey in 1977 also indicated a significant number of respondents who cited the need to move grade 9 to the high school. Education was also responding in the early 1960's to the post-Sputnik clamor for greater emphasis in science and mathematics. Alexander noted that interest in this move included the need for a more academic program for students in grade 9. It was also felt that ninth graders needed to have the opportunity to participate in interscholastic athletics and the more sophisticated social activity program of the high school, while those students in grades 7 and 8 needed a less sophisticated program (Lounsbury, 1984, p. 20). At the same time, concern was expressed that the rigid academic requirements be reduced for students in grades 7 and 8.

Other factors that were instrumental in the emergence of middle schools were local politics and the economy. William Cuff (1967) noted that some school divisions implemented the middle school program to help ease the problems associated with an increase in student enrollment or to assist with integration. Other educators wrote in 1967 that middle schools facilitated integration by gleaning groups of youngsters from neighborhood schools and feeding them into centrally located schools (Romano, Georgiady, and Heald, 1973, p. 426). New York and Philadelphia were two examples of

school divisions that used the middle school as a vehicle to bring about earlier racial integration.

"Physical facilities have also been a major factor in many school systems, particularly in smaller ones in which changes in organizational patterns are easier to effect than in larger systems" (McGlasson, 1973, p. 13). Many local school authorities concerned with overcrowded conditions in some schools used the realigned grade levels to implement middle schools. Other school divisions used the grade level realignment with middle school to implement public kindergarten for the first time.

Building facilities and enrollment were not the only reasons for the emergence of the middle school program. Others saw it as a transitional unit between childhood education in the elementary school and later adolescent education in the high school where the focus was the learner and not the subject discipline. The next several years witnessed a series of national surveys that documented, at least in terms of grade organization and title, the emergence of the middle school. The first comprehensive survey was conducted in 1965-66 by William H. Cuff. His survey included all schools with grades 6 and 7 which did not extend below grade 4 or above 8. It revealed 499 middle schools operating in 446 school districts in 29 states. During the first quarter of 1967, Bernard Gross identified 950 middle schools in forty-seven states and the District of Columbia. Nearly two-thirds of these schools were located in the states of Texas, California, Illinois, Michigan, New Jersey, and Ohio (Kindred, Woltkiewicz, Mickelson, and Coplein, 1981, p. 2). William Alexander's survey in 1967-68 revealed 1,101 middle schools in the United States. For his survey, Alexander defined the middle school as having not more than five grades and

not less than three and including grades 6 and 7 (Alexander and George, 1981, p. 12). His survey of 110 middle school principals identified the need to eliminate crowded conditions in the schools as the number one reason for establishing middle schools. Next in order of priority were reasons more associated to the identification of the middle school as a distinct educational program -- the need to provide a program specifically designed for children in this age group and one to better bridge the elementary and high school. Other reasons cited dealt with the need for a more appropriate grade level structure by moving grade 9 to the high school and including grade 5 and/or 6 in the middle school. The reason selected as least significant was to aid desegregation.

The survey also asked principals to identify the person or persons that were most influential in deciding to establish a middle school. System-level administration was identified as being involved and most influential. The building level principal was next in priority followed by teachers and parents. The local board of education was perceived by the principals as being less influential than the other groups in establishing middle schools. A follow-up study a decade later showed significant changes in who was involved in this decision.

Regardless of the reasons for its implementation, school divisions and educators of the period developed an educational case for this new organization in the middle. Samuel H. Popper noted that "the learning of cognitive skills was by no means neglected, but the paramount valuation in middle school education did shift to the affective domain" (Popper, 1967, p. 262). In 1968, Alexander stated that the program of the emergent middle school needed to adapt to the wide range of individual differences and



special needs of the early adolescent. He envisioned school divisions creating a school ladder arrangement that promoted continuity of education from school entrance to exit.

A list published in a 1969 NEA Research Bulletin expanded Alexander's recommendations. It included the following essential features for an effective middle school:

1. A span of at least three grades to allow for the gradual transition from elementary to high school instructional practices.
2. Required special courses, taught in departmentalized form such as industrial arts, home economics, foreign language.
3. Guidance program as a distinct entity to fill the special needs of this age group.
4. Limited attention to interschool sports and activities.
5. Emerging departmental structure in each higher grade to effect gradual transition from the self-contained classroom to the departmentalized high school.
6. Flexible approaches to instruction - team teaching, flexible scheduling.
7. Faculty with both elementary and secondary certification (Romano, Georgiady, and Heald, 1973, p. 59).

Concerned with the lack of a set of goals for the burgeoning middle schools, Theodore Moss recommended that the curriculum make provision for health, physical education, and mental health with special attention to sex education. It was also suggested that classroom instruction employ strategies and learning situations geared to the transescent which included a continuous educational guidance program that used teachers as advisors.

Another recommendation that Moss made was for the inclusion of activities related to the interests and needs of middle school students (Moss, 1969, p. 20-21).

Each year the number of middle schools continued to increase. In 1969, Mellinger and Rackauskas conducted a survey that defined a middle school as having at least two grades between five and eight, but in all cases grades six and seven. They identified 1,696 middle schools using this definition and 1,294 using Alexander's 1967 definition that a middle school have not more than five grades and not less than three including grades 6 and 7 (Klinge, 1979, p. 12). Kealy, a graduate assistant associated with Alexander's work, conducted a follow-up survey during 1969-70 and identified 2,298 middle schools using the definition.

#### Concerns of the Early Middle Schools

Although the middle school had logically emerged as a result of social, political, and economic issues of the period, the establishment of specific goals and the increase in the number of middle schools did not alleviate some of the concerns associated with the middle school movement of the '60's. An article in the 1969 December issue of The High School Journal stated that "the middle school will go the way of the junior high school, a path toward which it seems already to be moving, unless those involved in the reorganization plan and prepare carefully, designing the program as the basis of the nature of the transescent learner" (Alexander and Kealy, 1969, p. 156). One of the reasons for this concern was the rapidity with which the movement was growing. Inherent with this type of growth was the tendency for schools to simply change the name of the school

and little more. In some cases the middle school was founded more upon grounds of administrative expedience than of educational improvement. This caused disillusionment among the staff and dissatisfaction for the parents and students when appropriate changes were not implemented. There was also the tendency not to take the necessary time or allocate appropriate funds to retrain the staff. Without retraining, the staff was unable to develop self-commitment and transition to the new program effectively and efficiently. In essence, the middle school movement seemed to be encountering the same problem which had blocked the development of the junior high into a legitimate educational organization in the first 65 years of this century.

#### The Middle School Movement

By 1973, attitudes were changing, Eichhorn's article, "Middle School in the Making," in Educational Leadership cited a number of positive outcomes regarding middle school effectiveness. In it he stated that the middle school movement had prompted a reconsideration of the purpose and programs for the transescent learner and provided society with a means to adjust to the pluralistic needs of its citizenry. He emphasized that middle schools enabled teachers to focus on the learner and pioneer learning strategies. He saw it as a convenient vehicle for the employment of promising instructional concepts such as open education, continuous learner progress, and nongradedness. The article also stated that the middle school reaffirmed the concept that a unique level of education existed between the elementary and high school levels, and it served as a catalyst for change and articulation of the total K-12 program. A 1974

survey by Compton, another graduate assistant of Alexander, supported the continuing growth of the middle school movement. Using the same criteria of Alexander's 1967 survey, Compton's survey resulted in the identification of 3,723 middle schools (Lounsbury, 1984, p. 22). By 1976, Thomas Gatewood stated that "there were promising, indeed healthy signs that the American middle school had turned corners and overcome obstacles which the earlier junior high movement had been unable to surmount."

In order to ensure the continued success of the middle school reorganization, middle school educators emphasized the need for the staff and community to be involved in defining objectives and the directions for the middle grades. They also stated that sufficient time needed to be provided for curriculum planning and that adequate funds needed to be secured for implementing the program. After studying several exemplary schools, Conrad Toepfer offered the following guidelines for districts seeking to initiate middle school projects.

1. Curriculum improvement in the middle grades of a school district must be undertaken only after a careful identification of how proposed changes will affect elementary and high school programs.

2. The objectives of projected changes in middle grade programs, as well as means to assess their projected improvements, should be carefully specified before launching the innovations.

3. Objectives of proposed changes in middle grades should be stated in terms of characteristics of the emerging adolescent population as defined in the local school-community setting.

4. The development of the curriculum plans should identify both a time schedule for designing and implementing the innovations as well as the

kinds of staff development experiences necessary to prepare staff to initiate the program. Means to evaluate the project should also be identified in determining the curriculum plan (Leeper, ed., 1974, p. 78).

Toepfer based the guidelines on the theory and practice of systematic curriculum planning and found that, if the guidelines were applied appropriately, the staff generally had more confidence in and a greater sense of ownership for the program. The program was also better understood and had more credibility in the community.

In 1977-78 Brooks and Edwards completed a project that identified 4,060 middle schools. They used the same definition as Alexander (Kindred, Woltkiewicz, Mickelson, and Coplein, 1981, p. 78). By the fall of 1983, data from the U.S. Department of Education reflected 11,406 middle level schools. Only 29% of which were organized as traditional (7-9) junior high schools (Lounsbury, 1984, p. 23).

A recent study of middle schools in Virginia indicated a similar trend in the rapid increase in the number of middle schools. From 1960-66 there were only two middle schools operating in the state. Fifteen additional schools were organized during the next seven years. The largest increase came during the period from 1974-80 when thirty-four middle schools were opened. By 1986, an additional twenty-five middle schools were identified. This data indicated that middle schools are a recent phenomenon in Virginia and increased rapidly in the last two decades in number and popularity (Zeed, 1986).

Although the number of middle schools increased dramatically during the last two decades, there was not a corresponding increase in the number of colleges and universities offering a program for middle school teacher

certification. In a study of 160 accredited teacher training institutions, only 23 percent reported having middle school teacher preparation programs (George, ed., 1977, p. 118). A 1981 survey of member institutions of the American Association of Colleges for Teacher Education found that only 30 percent of the responding institutions had specialized middle level teacher education programs, with only 23 percent of the institutions without such programs considering establishing them (McEwin and Alexander, 1986, p. 1).

However, the number of states requiring special middle school teacher certification was on the increase. In 1968, only two states had certification requirements for middle level teachers, as compared to eight in 1975 and fifteen in 1978. A 1985 study of certification practices noted that twenty-six states had special certification requirements for middle level teachers, with such certification mandatory in eleven states (Middle Ground, 1986, p. 11).

In addition to the establishment of state teacher certification standards during the current decade, other state agencies developed documents supporting middle level education. In February 1986, the Georgia State Board of Education adopted a set of criteria for a middle school program. The criteria outlined specific guidelines for middle school curriculum and instruction, as well as teacher certification requirements. In California, the Superintendent of Public Instruction, Bill Honig, commissioned a middle school task force that developed specific middle school recommendations that had implications for legislative initiatives, educational policies, administrative guidelines, and professional practices. The recommendations were directed to those occupying leadership roles and having authority and power to give meaning and substance to the

reform of middle grade education in California's public schools. Honig stated in the foreword of the report, "For too long, the middle grades have been treated as a wild card for solving facilities and enrollment problems. Now it is time to face the critical educational issues at stake in these 'neglected grades.'" Honig, 1987, p. v.).

The 1980's also found renewed interest in middle level education in the state of Virginia. The Governor's 1986 Commission on Excellence in Education recommended that the middle school be the focus of major educational improvement. As a result, a state task force was established to revise the Guidelines for Middle Schools in Virginia. These revised guidelines were presented to the State Board of Education on January 14, 1988, for adoption. In addition, the state budgeted for four model middle schools to be established throughout the commonwealth in 1988-90 (Virginia Board of Education Agenda, 1988).

As more middle schools opened and state agencies emphasized this level of education, a group of educators recognized the need for a national organization. The National Middle School Association was established in 1974 when the three-year-old Midwest Middle School Association boldly reconstituted itself. Begun as a regional organization for middle school administrators and university professors, NMSA evolved into a national organization for anyone interested in the transesent.

The first conference of the National Middle School Association was held in 1974 in Columbus, Ohio with 372 participants. By 1977, over 1,200 attended the NMSA conference in Denver. Also during this period the Middle School Journal expanded under the leadership of John Lounsbury from a mimeographed document of twenty pages with a distribution of five hundred

copies to a much improved journal of thirty-two pages with a distribution of two thousand copies.

The period from 1978 to 1980 was one of revision. The purposes of the NMSA were confirmed, and a committee established a written definition and basis for organizing a middle school. This paper was published in 1982, This We Believe. In 1979, the activities and programs of the association grew to the extent that an Executive Director was appointed, as well as an Administrative Assistant and a part-time editor.

The next four years saw continued improvements in the association. Membership increased in 1983 to 2,500. There was also a restructuring of the regions and the roles of the Trustees. The National Middle School Association became a voice for the middle school concept and linked together teachers, administrators, university educators, parents and others by a common bond - concern for middle level learners.

#### Conclusion

The last twenty-eight years have seen an increased emphasis toward a middle level of schooling. School systems of three levels, each of which has a program and organization appropriate to its place in a sequential educational pattern, is much nearer realization today as documented by the significant increase in the number of middle schools.

The initiation of middle level education reform, however, dates back earlier than the 1960's. It began in 1893 with the Committee of Ten and progressed from a grade level reorganization to the current middle school program. Although the Committee of Ten was concerned with secondary education, their emphasis on academic achievement led to the development of



a more pluristic curriculum and a new grade level organization for all students. The insistence that secondary curriculum be presented in the elementary grades soon led other committees to recommend the realignment of grade levels. These new junior high schools were not only developed to provide a differentiated curriculum for the early adolescent, but also to provide better articulation between elementary and secondary education.

Since educational reform is not isolated from societal influences, this new grade level organization was education's response to the political and economical needs of the early 1900's. Society was making demands which called for schools to meet an increased enrollment of students, to provide programs for new technological advancements, and to better meet the needs of early adolescence.

As society moved from a more conservative period to a more progressive decade in the 1960's, a new school reform emerged. It grew out of the dissatisfaction with the junior high school in providing a transitional program between the elementary and secondary school, as well as the need for a new program to meet the unique needs of the early adolescent. Educational reform was again responding to the historical needs of the period.

The middle school movement was a direct response to the criticism of the junior high school. Its program was developed to meet needs of the transescent by serving as a bridge between the elementary schools and the high schools by removing rigid academic requirements and sophisticated social programs from the curriculum. The middle school was also used as a response to local political and economical pressures. For instance, many

communities opened middle schools to aid in alleviating overcrowded conditions or to assist with integration.

Whatever the reason the number of middle schools increased significantly since the early 1960's. Numerous surveys were completed that document the rapid increase in the number of middle schools opened in the United States from 1965 to 1983. Data from Alexander's 1967 survey, Brooks' 1977 survey, and the U.S. Department of Education 1983 unpublished sources report the following number of schools:

	<u>1967</u>	<u>1977</u>	<u>1983</u>
Middle Schools	1,101	4,060	5,515

It is important to note that each of these schools housed at least three grade levels including grades 6 and 7, but not grade 9. There were other middle level schools, but they did not fit this criteria.

Other surveys validated the reasons for implementing the middle school program. Both Alexander in 1967 and Brooks and Edward in 1977 surveyed a stratified random sample of middle school principals and asked them to indicate the reason why their schools were established. A similar study was also conducted by the National Association of Secondary School Principals in 1983. Their survey used the same list of reasons for changing to a middle school organization, except the statement, "to aid desegregation" was deleted since it was no longer an issue (Keffe, Clark, Nickerson, Valentine, 1983, p. 30). The results of all three surveys are shown in the chart indicating some significant shifts in reasons for reorganizing to a middle school.

As indicated on the survey, the first middle schools were opened to assist with increased student enrollment in schools. Secondary to this reason was the need to provide a unique program for the transescent or school that bridges the elementary and high school better. During the last decade, the focus for implementing the middle school program has shifted to the need for a program specifically for the transescent. The second reason identified was the need for a transitional program between elementary and high school.

REASONS FOR ESTABLISHING MIDDLE SCHOOLS

<u>REASON</u>	<u>RANK</u>		
	<u>1967</u>	<u>1977</u>	<u>1983</u>
To eliminate crowded conditions in other schools	1	3	5
To provide a program specifically for children in this age group	2	1	1
To bridge the elementary and high school better	3	2	2
To provide more specialization in grades 5 and/or 6	4	7	9
To remedy the weakness of the junior high school	5	4	4
To move grade 9 into the high school	6	5	6
To try out various innovations	7	6	3
To utilize a new school building	8	8	8

REASONS FOR ESTABLISHING MIDDLE SCHOOLS

<u>REASON</u>	<u>RANK</u>		
	<u>1967</u>	<u>1977</u>	1983
To use plans which have been successfully implemented in other school systems	9	10	7
To aid desegregation	10	9	

Alexander and George, 1981 and Valentine, 1983)

Although the middle school movement has had remarkable growth, it is often not a high priority in school districts, in universities or in state certification departments.

The growing emergence of a nonadversarial middle-grades movement is seen as a means to provide the three-stage public educational system that has long been awaited by proponents of the junior high concept. The articulation of the three units - early childhood schools, transescent schools, and adolescent schools - appear to be at hand (Toepfer, 1982).

## CHAPTER III

### MIDDLE SCHOOL CURRICULUM PROPOSALS AND RATIONALE

#### Introduction

Not only has the number of middle schools increased significantly since the early 1960's, but also the literature describing effective middle school programs. In addition to middle level education specialists, many individual schools, school districts and even state organizations have developed their own statements of the goals of middle school education. Although numerous lists of essential characteristics of good middle schools are found in the literature, there is increasing unanimity by middle level educators.

A review of current middle school literature reveals that many educators with experience in middle level schools strongly suggest some common elements. They see as paramount the need for a program that is based on the unique characteristics of the early adolescent - physical, social, emotional and intellectual. Some of the most frequently referred to components incorporated in effective middle school programs are the need for: organizing teachers into cooperative units; recognizing the importance of effective education by providing for a teacher advisor program; providing for flexibility in scheduling on a daily, weekly, and even monthly block of time; offering an enriched curriculum with a wider range of exploratory experiences keyed to the interests of the transescent; utilizing a variety of instructional strategies and techniques that consider the characteristics of the learner; and ongoing plans for evaluating student progress and the school program.

Similar characteristics were identified by a group of persons, outstanding in the field of middle school education, who participated in a study in 1976. The group consisted of college deans, professors of education, superintendents and assistant superintendents of education, directors of middle schools, coordinators of middle school programs, and authors of current middle school books and articles. The twenty-three educators responded to an inventory of success indicators on three different occasions. A significant level of convergence was present in the top fourteen success indicators which identified the need for: 1. teachers who demonstrated the skills and attitudes necessary to understand the unique characteristics of middle school students, 2. organizing the staff into teams and providing each team with a common planning time, 3. providing for flexibility in scheduling, 4. planning a program of instruction that provides for balanced attention to both personal and cognitive development, 5. offering exploratory activities for socialization, interest-development, and leisure-enriching purposes, and 6. constantly reviewing and evaluating the program (Fuller, 1977, pps. 104-106).

From these lists of middle school characteristics teacher teaming, flexible scheduling, and an enriched curriculum are identified for further study in Chapter 3. Each characteristic will be defined and examined as it relates to the total middle school program. The study will also identify how the characteristics relate to each other.

## Organizing for Instruction through Teacher Teaming

### Assumptions

Before defining and evaluating the effectiveness of teacher teaming in the middle school, certain assumptions are identified as they relate to the topic. The first assumption is that teacher teaming is an essential part of the middle school program. Many middle school advocates consider the organization of teachers in teams as the cornerstone of the middle school. Alexander and George state that "the interdisciplinary organization of teachers is the most distinguishing feature of the middle school and without it other program components operate with considerable more difficulty if at all" (Alexander and George, 1981, p. 113). A second assumption is that this teaming organization helps smooth the transition from the security of a self-contained classroom to the more impersonal departmentalized structure of the high school, therefore, the organizational arrangement of the middle school needs to be different from the elementary self-contained classroom organization or the departmentalized structure of the high school.

An assumption identified by George and Lawrence, (1982) is that instruction in the middle grades planned cooperatively by teams of teachers is more effective than instruction without team planning, provided team members are compatible. They also state that team planning and team teaching both involve skills and procedures beyond those that teachers need for individual planning and teaching, and that some teachers have been burned or bored by problem solving groups and see group work as a waste of time.

Beggs (1964) supported assumptions made about teachers who work in teams and students who are taught by teams. He stated that teachers can work productively and in harmony with other teachers on instructional problems. An improvement in teaching performance can take place through team membership, and teachers are afforded an opportunity to specialize in content and methods of instruction. Students also profit from being in specialized classes of varying sizes and increased learning can result through the cooperative efforts of the teaching team. Student interest in content can also be increased as the result of team planning, presenting and structuring appropriate learning activities.

#### Definition

Just as there are several assumptions regarding teacher teaming, there are equally as many terms and definitions used to describe the organization for instruction in the middle school. Some of the terms used are team teaching, teacher teaming, team planning, interdisciplinary team teaching and interdisciplinary team organization.

A generic definition of team teaching is the cooperative or collaborative effort of two or more teachers who share in both the planning and implementation of instruction. Other sources add two other variables to this definition by including the evaluation of the instruction and the need for a commonly shared group of students. Shaplin, one of the original conceiver<sup>s</sup> of team teaching, defines the concept as "a type of instructional organization involving teaching personnel and students assigned to them in which two or more teachers are given responsibility, working together, for all or a significant part of the instruction for the



same group of students" (Shaplin and Olds, 1964). In 1964, Singer added the variable that teachers are placed on teams to take advantage of the special competencies of team members.

These early definitions grew out of the experimental projects of the Commission on Curriculum Planning and Development led by Trump. The Commission, created in 1956 by the National Association of Secondary Principals, studied the problems associated with the teacher shortage and attempted to find new approaches to curriculum and instruction. Team teaching was one of the most significant ideas generated by the work of the Commission.

Since the advent of the middle school, most sources cite the term interdisciplinary to describe this organization for instruction. The two most frequently used terms are 'interdisciplinary team teaching' and 'interdisciplinary team organization.' Alexander and George prefer the term organization since it focuses on the structural requirements of the team and fits Shaplin's definition. Their definition of interdisciplinary team organization, however, goes further. They define it as "a way of organizing the faculty so that a group of teachers share: 1. the responsibility for planning, teaching, and evaluating the 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" (Alexander and George, 1981, p. 115). The key factors that are included in their definition are the need for teachers to teach an identified group of students and that the teachers' classrooms be in close proximity to each other. Alexander and George's definition also emphasized the need for a commonly shared planning period and teaching schedule so that team members

can plan, implement and evaluate their instructional program. Alexander and George state that the four factors included in the definition are necessary for an interdisciplinary team organization, and that an interdisciplinary team organization is critical for an exemplary middle school.

#### Research and Evaluation

Although critics of teacher teaming state that it is deficient in research, "current descriptive and narrative documentation does provide a framework within which to view the total concept of team teaching, its background, its philosophy, its purposes, and its operations" (Kerfut, 1977, p. 34). The literature concerning middle schools is replete with references to teacher teaming and the need to organize the staff into interdisciplinary teams. During the last twenty-eight years, increasing unanimity is reported by middle school experts and practitioners that interdisciplinary teams are an essential characteristic of exemplary middle schools. The following are statements supporting teacher teaming as a component of the middle school:

Team teaching, or interdisciplinary teaming as it is sometimes called, is another component of the middle school (Holmes, 1987, p. 75).

The interdisciplinary organization of teachers is both the most distinguishing feature of the middle school and the keystone of its structure. In the presence of a stable interdisciplinary team organization, other components of the program function more smoothly. In its absence they operate with considerably more difficulty if they operate at all (Alexander and George, 1981, p. 113).

Imaginative middle school staff designs encourage interdisciplinary planning and teaching (Kindred, et al, 1981, p. 170).

The most promising change has been the substitutions of teaching teams (in the middle school) which work as units in place of departments (Callahan and Clark, 1977, p. 233).

Thomas Gatewood stated middle schools are characterized by "the use of interdisciplinary arrangements for cooperative planning, instruction, and evaluating" (Leeper, 1974), p. 13).

Georgiady and Romano state that "a team teaching approach which utilizes teacher strengths in working with students individually and in groups is the logical way to meet the transescent's needs" (Leeper, 1978, p. 27).

I have concluded that the interdisciplinary team organization is fundamental, the fulcrum on which most of the remainder of the components are moved. Attempts to implement other elements of the program without first resolving the question of the method of organizing teachers for instruction almost always leads to less than satisfactory results (George, 1983, p. 6).

One of the most frequent references in the literature is the conscious effort of middle schools to create a smaller environment in their schools by organizing the student and staff into teams. "Smaller instructional units achieved through interdisciplinary teaming or similar type of grouping arrangements appear to be essential in effective school programs" (Stefanich, 1984, p. 19). George and Oldaker (1985) in a study of exemplary middle schools stated that 90% of the schools used an

interdisciplinary team organization as a central feature of their school (p. 19). Researchers at the Center for Early Adolescence in Carrboro, North Carolina, also found that successful middle schools used an organizational pattern that established a sense of community through a house or team structure.

As a research associate for the National Institute of Education, Joan Lipsitz spent a year identifying and examining effective middle grade schools. She found that all effective middle schools had a team or house structure that:

Minimizes size, personalizes the environment, increases communication among students and teacher, and reduces tension. The schools reduced the influence of subject-oriented departments to provide more authority to interdisciplinary teams. They scheduled teams with a common planning period so that every student is known by a team of teachers, and they have time to consult with each other about each student's academic progress and general well-being. The common planning period also promotes collegiality and professionalism in curriculum development and review (Lipsitz, 1984, p. 194).

Current middle school literature also states that teacher efficacy results from involvement on teacher teams. A normal school environment does not provide teachers with a systematic opportunity to talk professionally with their peers. Most teachers are isolated in making many decisions and find themselves alone in understanding their students and the challenges they face each day. Middle schools that organize their staff in teams, however, alleviate teacher isolation and encourage interdependence.

Teachers are provided opportunities during team planning to interact with each other as professionals and to support and assist each other. "When teachers on teams share the same students, they report renewed confidence and satisfaction, improved communication with parents, and the development of a more student-centered perspective" (Doda, George, and McEwin, 1987, p. 4).

Teaming encourages cohesiveness among its members by providing teachers the opportunity to increase their understanding of and regard for one another. "Staff working relationships improve, in part, because teaming provides a place for staff members to ventilate concerns and frustrations in a setting where they can be heard and understood (Bluhm and Malouf, 1979, p. 4).

Teamed teachers also benefit professionally by improving their interpersonal skills. Exposure to a wide-range of problems, situations, and techniques in team meetings enable teachers to increase their ability to understand and assist their students. In a study to explore the relationship of school organization to teachers sense of efficacy, Nancy Doda observed that middle school teachers:

1. were continually generating new ideas for teaching and improving the quality of school life for themselves and their students.
2. viewed the job of teaching as an opportunity to create, explore, and experiment with educational issues.
3. unquestionably felt that the significance of their job was first and foremost determined by the students.
4. perceived themselves as agents of personal development.

5. believed that the roles of teacher-helper and relationship-enhancer were complemented by the role of team member.

6. valued colleague relationships, expected support and assistance from team members and acknowledged many of their beliefs and practices as shared.

7. referred to their ideas, practices and beliefs as 'ours,' and used the pronouns 'we' more often than 'I' in describing themselves and their work (Doda, 1982, pp. 6-10).

Thus middle school teachers who team and develop trust in each other learn new methods from one another and grow professionally. Even less able and less enthusiastic teachers are helped by observing and/or discussing concerns with the stronger team members. It is also true that all team members benefit from the increased intellectual stimulation which results from the interaction of people with different academic perspectives and professional points of view.

Not only do teachers benefit from teaming, but also students. Teacher teams provide an environment for students that is consistent from one class to another. Since team expectations are mutually developed at team meetings, as well as classroom rules and directions, students are more likely to remember and observe them. George and Oldaker (1984) reported in a study that "all of the anecdotal evidence supported the positive effects of middle school programs on school discipline. Specifically, interdisciplinary team organization and grouping students in houses enable teachers to develop consistent procedures for handling disruptions" (p. 6). The development of uniform performance standards lessens the confusion and

anxiety students face when confronted by teachers who possess different standards. However, when individual students or groups of students do experience difficulty in school, the interdisciplinary team meeting becomes the vehicle for removing road blocks. Through team discussion, all team members are not only informed about the potential reasons for the problem but are also encouraged to generate possible solutions. The team is used to develop a plan of action for improved student performance. At times membership on the team is expanded to include others to broaden the talents of the team; such as, the counselor, school psychologist, or social worker. When appropriate, parents are also invited to meet with the team to exchange ideas, identify concerns, and develop possible solutions (Merenbloom, 1983, p. 40).

Another distinct advantage of the interdisciplinary team is the teachers' ability to plan and evaluate the instructional program for an identified group of students. Teams are able to utilize a group problem-solving process and integrate their curriculum. There is less tendency for a single subject to be emphasized at the expense of the total curriculum as teams consider the needs of the students in their team. The evaluation of each student's performance is more comprehensive, and deficiencies in one class are shared with other team members so that the total group is part of the remedial effort. The students, not the various curricula, are the focus of decision-making and program planning. Instead of three or more educators independently evaluating a student's performance, "the young adolescent is viewed through the eyes of the several team members as well as by the counselor and any others the team

might invite to participate in team meetings and instructional activities" (Arth and Lounsbury, 1982, p. 19).

As the team focuses on the student, the various curricula are also coordinated and integrated. By discussing and sharing objectives during team meetings, skills learned in one class are practiced and reinforced in another class. Teamed teachers are provided the opportunity to effectively utilize the variable of transfer in assisting students to understand the relationship of skills learned in one content to another content. For instance, all teachers on a team become teachers of reading and written communication. "Similarly, math and science teachers can rely upon each other to prepare for the specific emphasis each intends to pursue, and supply follow-up with practice exercises to clinch the skill learning sought" (Callahan and Clark, 1977, p. 14).

Although many lists of advantages for utilizing an interdisciplinary team structure are found in the middle school literature, one study developed a list from the input of teachers. This list capsulizes many of the ideas found in other sources. The teachers stated that the advantages of a school's interdisciplinary team teaching model centered on:

1. a better wholistic view of their students as individuals;
2. increased communication among team members leading to a more integrated approach to a coordinated curriculum and a more consistent approach in implementing the schools' policies and practices;
3. a better orientation of new student and staff to the school;
4. more effective home-school communication in relation to the students' academic and social/emotional functioning;



5. adequate planning time to arrange flexible scheduling to better meet student and/or program needs (Kerfut, 1977, p. 121).

In addition to the opinions of middle school experts outlining the importance of organizing teachers into interdisciplinary teams, various research projects also support this type of organization. In the book, What Research Says to the Middle Level Practitioner, published by the National Middle School Association in 1986, the following studies were presented.

In a comparative study of a middle school, a junior high school, and two elementary schools, Trauscke (1970) concluded that students in the middle school had more favorable attitudes toward school, themselves, and their teachers and peers. He also found that, after two years in middle school, the achievement of the middle school student was higher than the same grade level student in a junior high school. Smith (1975) also found in comparing two junior high schools in Ohio, that the students attending the one organized with a teamed structure scored higher in reading and mathematics than did the students who attended the school organized in a more traditional approach. Sadone's (1976) comparison of 190 junior high school students and 1215 middle school students in eighth grade in New Jersey showed that the middle school students out scored the junior high school students in basic skills, verbal creativity and figurative creativity. Schoo (1970) also found that middle school students had more positive attitudes toward school than did junior high school students. Two other studies also support improved student achievement and attitude. The 1975 study by Baker and Beauchamp found that seventh and eighth graders achievement was better and that attitude toward school was better for all

grades. Brantley (1982) found that reading and mathematics achievement was higher after the schools reorganized as middle schools.

In contrast, other studies such as Mooney's (1970) in Florida found no differences in achievement between junior high and middle school students. However, his study did reveal that attendance patterns overwhelmingly favored the middle school organization. Gaskill (1971) found that junior high students outscored middle school students on total language skills, total mathematics skills, and knowledge and use of reference materials. Elie's study (1970) also found that there were no differences between junior high and middle school students on measures of socio-emotional problems, self-concept, and ability to learn, critical thinking and physical fitness and health. Several other studies (Nash 1973, Fallen 1969, Tobin 1969, Soares 1973) found that there were no significant differences between the attitudes of junior high or middle school students.

Other sources provide additional research findings. Patrick Mooney studied the achievement of students in grades 5 - 8 in a middle school with elementary students in grades 5 and 6 and junior high school students in grades 7 and 8. The results of his research were that twenty-five null hypotheses indicated no significant differences in achievement of middle school pupils on standardized test scores, whereas, seven hypotheses indicated greater academic achievement for the students in the middle school. His study also indicated improved attendance by middle school students and a more favorable attitude toward school (Leeper, ed., 1974, p. 11-12)

A study of the effects of a middle school interdisciplinary staffing pattern and a departmentalized staff pattern on student achievement,

perception of school environment and attitudes towards teachers was conducted in 1976 in a middle school in Ohio by Paul Sinclair and Drea Zigarmi. They identified a stratified random sample of 110 eighth graders and assigned them to an interdisciplinary team of four teachers. A control group of students were assigned under a departmental structure. The students were pre/post tested with the California Achievement Test and the Purdue Teacher Evaluation Scale. The Perception of School Environment Scale was used as a post test only. The results of the study indicated that students taught under the interdisciplinary staff organization pattern had greater gains in academic achievement than the control group taught under the departmental staffing organizational pattern. The group assigned to the team also enhanced to a greater degree their perception of school climate. However, the research showed that there was no significant difference between the group concerning their attitudes toward their teachers. "If the results of the study can be generalized, middle school educators will have objective research data supporting the organization of staff into interdisciplinary patterns. If implementing Interdisciplinary Staff Organization Patterns can improve students' achievement and perceived school climate over the Departmental Staff Organizational Patterns, these facts should present enough evidence for public educational leaders to re-evaluate middle school staffing patterns" (Sinclair and Zigarmi, 1977, p. 60).

The study completed in 1985 by George and Oldaker investigated the outcomes of middle schools identified as exemplary by a 1982 Phi Delta Kappan Study, the 1983 U.S.D.O.E. National Secondary School Recognition Program, a panel of middle school experts, and lists of exemplary schools

identified in current middle school literature. Of the schools identified, 130 schools or 81% participated in the study. The schools completed a lengthy questionnaire and provided documentation of their achievements after reorganizing as a middle school. Some of the significant findings are:

- .65% noted consistent academic improvement
- .85% observed that teacher confidence in student abilities increased
- .80% noted significant reduction in office referrals and suspensions
- .90% noted that teacher and staff confidence in managing disruptive students increased
- .95% stated student attitudes toward school and teachers were moderately or strongly positive
- .86% noted greater student participation in activities
- .75% noted better attendance
- .94% described staff morale and rapport as moderately or strongly positive

(George and Oldaker, 1985, p. 20-29).

The results of this study indicate that exemplary schools are similar in many program components. It also supports similar findings by other researchers that schools that organize their staffs on interdisciplinary teams create an environment that encourages professional support and decision-making.

The most recent results of a national study report that sixth grade students do best when team teaching methods are used. This study was based on a day's observation of 132 students in 44 states in March 1987. The observers were teachers and principals who shadowed randomly-selected sixth

grade students. It was concluded that teaming provided a transition between grades that is highly desirable for sixth grade. The study was released at the National Association of Secondary Principals' annual meeting (Education USA, March 1988).

#### Characteristics and Organization of Interdisciplinary Teams

The interdisciplinary team is the most frequently referred to characteristic of the modern middle school. This combining of two or more teachers on a team provides teachers an opportunity to combine their talents and their efforts to bring about a more effective educational program for the early adolescent. Team organization requires a structural change for the school. It is fundamentally more of a structural change than the team teaching that was popular in the 1960's and early 1970's.

Erb (1987) identified four organizational aspects that define team organization. They are: 1. common planning time or team meeting time, 2. shared students, 3. common block-of-time teaching schedule, and 4. common team space composed of adjacent classrooms and the connecting hallways. Middle school teaming is more of a social organization than a mechanical organization where teachers gather together to improve their competencies and make better use of time for planning.

According to Honig (1987), "the faculty and the schedule must be organized so that small groups of teachers share the same students and are enabled to work together collegially. The investment in collegial faculty relationships is the hallmark of the most successful middle schools. This kind of rapport leads to shared planning and creative improvements in curriculum and instruction" (Honig, 1987, p. 41). Teacher teaming is

perceived by many middle school advocates to be the most common and most effective organizational vehicle for encouraging a positive school environment. It is recommended as a way to bridge the gap for students between the self-contained elementary school and the departmentalized classroom of the high school.

This cooperative-collaborative arrangement allows a teacher in a single discipline to plan the instruction for two or more classes with teachers of other disciplines. Teachers representing all major subject areas are grouped to plan for and teach the same group of students. Thus, the team is provided the opportunity for setting long range and short range goals and developing the techniques for meeting these goals. They also are encouraged to become involved in curriculum decision-making then the authority for rearranging groups of students for instruction is given to the teams.

According to Merenbloom, teams go through several developmental phases as they begin to function in the middle school. The first is the philosophy phase where the teachers and staff of a school determine their level of commitment to the teaching organization. This is the time they develop statements of beliefs in the concept. Merenbloom (1983) states that a group of teachers in the process of becoming a team must examine their identity as a team. Team members should be able to determine who they are and why the team exists (p. 21). The next phase is organizational. At this time teachers who are teaming are placed in classrooms in close proximity to each other. Their classes are located in adjacent classrooms or across the hall. Teachers are physically now organized as teams. Community is the next phase for the team. The

teachers and students begin to develop an esprit de corps that is unique to this team of individuals in the school. This phase may include the team selecting colors, a mascot, or a team motto. The last phase is instructional. At this level the team members begin to provide an interdisciplinary instructional program. Curriculum objectives are shared between teachers and efforts are made to support objectives across content areas. Although these four phases are distinct and separate, they overlap as a team develops within a middle school and generally are not found in isolation. It is important, however, that a team incorporates each of the four stages in the development of a team (Lounsbury, 1984, p. 58).

In order to function effectively, teams also are dependent upon several very important conditions. A survey of the literature indicates that team planning is probably the most important of the prerequisites to teamed instruction (Honig, 1987, p. 107, Lipsitz, 1984, p. 194, Lounsbury, 1984, p. 61, Kerfut, 1977, p. 136). This common planning time or team meeting time requires the teachers who share an identified group of students to be unencumbered at the same time for planning purposes. During this planning time teachers and staff assess students' profiles, evaluate students' performances, develop appropriate schedules for use of instructional time, group/regroup students for instruction, and share curriculum objectives.

Another condition is flexibility. The team of teachers is provided large blocks of time for scheduling its instruction. Modifications in the schedule become part of the daily planning session. The team is able to re-shuffle the students assigned to it whenever the need arises. This also involves scheduling large groups and small groups of students for specific

instructional purposes. Scheduling double blocks of time in the daily schedule permits teachers to plan extended periods for science laboratory experiments or group project presentation. The reverse is also possible where the team schedules shorter time spans for specific remedial or skill instruction in the less than typical forty-five minute class period.

Teacher teams working with a shared group of students and a block schedule have the opportunity to employ any number of grouping techniques. This is done to provide the most appropriate instruction for the differing needs of the pupils. Students can be grouped and re-grouped by the teachers on a team without necessarily involving the administrators. With imagination and effort, the team can create groups based on the special interest, academic, social, emotional, or physical needs of adolescent (Merenbloom, 1983, p. 41).

Another factor to be considered is the composition of the team. Teams should be representative of the makeup of the faculty and the various personalities, abilities, and talents of teachers are considered in organizing the team. It is important that the various content disciplines are represented on the team as they plan for instruction.

A critical requirement of team planning is the ability of the members to successfully communicate. The success of teamed instruction emerges from the nature of interpersonal communication. "Much of the success of the team will depend on how well members communicate with each other; knowing how to listen so that others will talk to you; knowing how to talk so that others will listen to you; and knowing how to solve problems in an essentially democratic fashion" (Alexander and George, 1981, p. 248). It is important for members of the team to respect the rights of each other



and to take turns in presenting each member's ideas. No one person should monopolize everyone's time. Cooperating with other requires each member to actively listen to the other person's opinions and ideas. Equally important is the responsibility that each person on the team has to willingly share their suggestions. Key factors effecting good communication are the ability to be: 1. flexible, 2. willing to share your expertise, 3. open-minded, and 4. aware of the importance of respecting your team members as professionals (Noe Middle School Handbook, p. 17).

Theoretically, open communication begins when the structure of the team meeting encourages individuals to feel comfortable in contributing ideas. If a thought gets a negative reaction, a team member may be reluctant to contribute in the future. However, if positive group dynamics follow, then this positive perception may help both the team and the person to grow professionally. To ensure the effectiveness of interpersonal communications, the team needs to develop a procedure for making decisions and resolving conflicts. A nationally recognized middle school in Kentucky, Noe Middle School, recommends the following assessment for determining the level of team involvement in resolving conflict:

1. Define the conflict.
2. Determine what support personnel will be involved.
3. Decide who will be the facilitator (i.e., team leader, principal, counselor).
4. Select which process will be used for solving the conflict.
  - a. majority vote
  - b. consensus
5. Identify pertinent information that will lead to a solution.

6. Involve ALL team members in brainstorming for solutions.
7. Identify specific points to be agreed upon.
8. Delete impractical solutions.
9. Establish clear and agreeable delineation of duties.

(Noe Middle School Handbook, p. 43)

A school-wide communication system is essential for school planning and decision-making procedures. This system needs to include procedures for resource staff members, such as the nurse, counselors, librarian to follow.

As part of the communication system, many middle schools organize a school senate, leadership-teacher team, or coordinating committee that determines school policies, coordinates activities, and reviews the total school operation. This leadership team or faculty senate, with the leadership of the principal, is generally composed of the various team leaders, both academic and elective teams, and representatives from the other areas as appropriate - librarians, counselors, special education teachers, etc.

Staff involvement in the decision-making process is the key to the successful operation of the total program. This group offers an excellent opportunity for strengthening the instructional program and should serve as a clearing house for ideas and suggestions from staff. Ideas and suggestions offered by the principal and committee members should be discussed and ranked in priority order. Those that are thought to have merit should be taken back to the team for their input and review by the team leaders. The reverse also occurs, suggestions from team members are presented to the senate/committee by team leaders. This system provides an

easy two-way flow of information and all staff the means of submitting their ideas or suggestions (Kindred, Woltkiewicz, Mickelson, Coplein, 1981, p. 171).

Since the basic instructional unit of the middle school is the individual student, it is important to describe his/her relationship to the team and the team's to the school. Generally, each student should be a member of a home-based group of about twenty-five pupils. The home-based teacher should serve a teacher-counselor role. Usually, the home-based group is combined with another group or groups to form a team of from two to five teachers. These teachers meet regularly as a team to cooperatively plan instruction for the shared students. They generally provide instruction in the core areas of language arts, mathematics, social studies, and science. The teachers function as a curriculum planning committee and as a teaching team. They are responsible for grouping the students for instruction. When appropriate all the students in the team are combined as one class for a film or lecture. At other times, small groups are more appropriate for interactive discussions or skill instruction (Alexander and George, 1981, p. 123).

Some middle schools cluster the teams on the same grade level as a unit and plan activities or programs that are germane to that group of teams. Other schools cut across grade levels and cluster teams representative of all grade levels in the school, as well as related arts teams. This unit combines four or more teams and gives the pupils a wider community in which to live, explore, and develop new social understandings. It is still small enough, however, to promote a sense of identity and belongingness. This type of organization becomes a school within a school.

The organization of the students and staff in a middle school has a spiral effect. The students and teacher moves from a single classroom to a team consisting of two or more teachers, to a grade level or cluster unit, and finally to the school. Each level has a unique teaming philosophy and is supportive of the next level.

At the middle school level, the important goal is the matching of students, teachers, and situations to facilitate the interactive process. As teams develop, the members cooperatively agree on the purpose and goals for the team and develop a realistic understanding of what may be expected from teacher teaming (Merenbloom, 1983, p. 25). Strong administrative support provides a common planning time for the team and a suitable place for team planning. The team is also provided adequate means to accomplish its goals and the ability to control as many variables as possible. They are responsible for the utilization of personnel within a team, for scheduling instruction within blocks of time, and for the grouping of students for instruction. On an interdisciplinary team, certain givens have to exist if it is ever to function as a unique, instructional force.

#### Types of Middle School Teams

Just as there are many definitions for teacher teams, there are many ways to organize teachers into teams. No one way satisfies all students and staffs. Each school is different consisting of students with specific needs and strengths, as well as staff. Flexibility is a key concept in organizing teams from school to school. This is also true from school year to school year as staff changes occur and new students are enrolled. Each year teachers and administrators need to cooperatively assess their options

by reviewing the profiles of their students and identifying the strengths of the teaching staff. Some of the options that need to be considered are:

1. types of team - disciplinary and interdisciplinary
2. grade organization - simple, crossgraded, multiaged
3. teaching assignment - single content, multiple content
4. size of team - two, three, four, five, or six (Morrison, 1978, pp. 12-13).

Each of the two organizational methods for teaming - disciplinary and interdisciplinary - are found in the middle school literature. Disciplinary or single subject teams consist of two or more teachers. The teams consist of any content area in the curriculum. The teachers are teamed and agree to teach the same subject to the same group of students in a common period. The students are grouped or re-grouped for instruction as determined by the teachers. The flexibility provided by the team to group students allows greater variation in the sizes of the groupings. All classes are not of the same size because instruction is tailored to the needs of the pupils. Special programs are developed for students in particular subject areas. Teachers specialize and provide instruction in a particular subject area. Department heads coordinate the effort of the team in that department and schedule team meetings on a regular basis for planning and evaluating the program. This organization provides excellent opportunities for curriculum development and implementation at a school (Merenbloom, 1983, pp. 11-12).

Merenbloom states that some disciplinary teams combine more than one grade level to allow for individual differences and form student groups that spread over two or more years. This is also an attempt to move toward

the nongraded approach. These teams are sufficiently large enough to allow the grouping and re-grouping of students into clusters for specialized instruction. Students who are ready to move on are switched to another group, while students who move at a slower pace are re-grouped to provide additional time in the same content.

There are, however, certain potential limitations in organizing teams of teachers by a single subject. The most significant limitation is the inability of the teachers to provide for transfer of skills across content areas. Skills in a particular content are taught in isolation and are not integrated with other content areas. There is also less focus on personal development in the disciplinary team structure. Since the students move from one team of students to another, they are forced to adjust to perhaps as many as six or seven different teams of pupils. From an administrative and management viewpoint, more hall traffic is generated and less control is possible since students move throughout the school from one department/team area to another.

Although some middle schools cluster content areas in disciplinary teams, most middle school advocates prefer the interdisciplinary teams. As a research associate for the National Institute of Education, Lipsitz identified and examined effective middle schools that fostered healthy social development. She concluded that "all the schools adopted a house or team structure so that groups of students live together for several hours of each school day. They have all reduced the influence of subject-oriented departments in order to empower multidisciplinary teams" (Lipsitz, 1984). Even as early as 1972, McCarthy stated in The Ungraded Middle School that "an effective middle school must be organized on a

interdisciplinary basis." Alexander and George consider the interdisciplinary team as the "most distinguishing" feature of the middle school and the "keystone" of its organization. "In the presence of a stable interdisciplinary team organization, other components of the program function much more smoothly. In the absence they operate with considerably more difficulty, if they exist at all" (Alexander and George, 1981). Kindred and others (1981) state that "imaginative middle school staffs design and encourage interdisciplinary planning and teaching by allowing teams the authority to rearrange blocks of time to suit instructional needs" (p. 170).

Although interdisciplinary teams share many common characteristics, there are many different ways to organize them. They vary in size, teacher assignments, student composition, schedule for instruction, and roles of team members. The size of teams ranges from two teachers with approximately fifty to seventy-five students to six teachers with one hundred fifty to one hundred ninety students (Alexander and George, 1981, p. 116). The number of teachers assigned to a team depends on the total number of staff members; or if the students are organized by grades, the number of students assigned at a grade level. The size of a team is also dependent upon the developmental characteristics of the students. Some teams have two teachers instead of four to avoid students having to deal with too many changes or teacher personalities. Four or five teachers are sometimes assigned to provide students the opportunity to have subject matter specialist in each content area. Teacher certification also determines the size of a team and teacher assignment. Nippon Middle School

in Kirkwood, Missouri, exemplifies the varying sizes of teams at the sixth grade level:

- a. modified self-contained
- b. two-teacher team
- c. four-teacher team
- d. two-teacher combined sixth and seventh grade team (Alexander and

George, 1981, p. 116).

Seventh grade teams are organized the same way, excluding the modified self-contained class, to give the greatest flexibility in the sixth grade with gradual movement to the larger four teacher teams in grade eight. This structure takes into account the maturity level of the students and provides a transition from the self-contained elementary organization to the departmentalized organization of the high school.

Another factor that determines team size may be the design of the building. Some middle schools were designed as elementary or high schools. They have little or no pattern for team organization; for example, two classes at one end of a hall, four in the center, and two at the other end. The layout of the building provides the opportunity for the principals and staff to be creative in making the most of their building and varying the size of the teams.

Regardless of the reason for the size of the team, the number of teachers assigned to the team dictates the subjects each teacher teaches. In a four teacher team, each teacher usually specializes in a specific content area - language arts, mathematics, social studies and science. However, if reading is taught as a separate content area, each teacher is generally responsible for more than one content. This same pattern is true



for teams of two or three teachers where most often each teacher takes the responsibility for planning and teaching at least two academic subjects (Alexander and George, 1981, p. 119).

In other teams, regardless of size, the teachers on a team commonly plan and teach all subjects in a collaborative and coordinated way. Some possible teacher assignments are:

two teacher team:            teacher 1 language arts/social studies  
   teacher 2 mathematics/science  
   teacher 1 language arts/math  
   teacher 2 social studies/science  
   teachers 1 & 2 language arts/math/social  
   studies/science

three teacher team:        teacher 1 language arts/social studies  
   teacher 2 science/social studies  
   teacher 3 math/social studies

four teacher team:        teacher 1 language arts  
   teacher 2 mathematics  
   teacher 3 science  
   teacher 4 social studies

Generally, the teaching assignment is done on the basis of personal preferences, desire for collaboration or perceived subject matter compatibility, as well as certification requirements (Alexander and George, 1981, p. 118-119).

"The interdisciplinary team organization permits and encourages students and teachers to develop a sense of place, of territory, of turf. With belonging comes a sense of ownership, a firm sense of involvement and

responsibility that may be the most important thing our students ever learn - or don't learn" (Lounsbury, 1984, p. 59). The interdisciplinary teaming organization provides teachers with the opportunity to plan and teach special interdisciplinary units and activities to meet the needs of pupils above and beyond the stated curriculum guides. Through regular team planning, all content, as well as skills are readily correlated and reinforced across all content. For example, the teachers on a team decide when a skill/concept is relevant for all to teach or if one teacher will introduce the objectives and the others reinforce when appropriate in their content. At times, this requires the shifting of objectives out of normal sequence, as well as the opportunity for teachers to teach for transfer.

Not only is instruction strengthened by interdisciplinary teams, but programs for personal student development are best implemented when integrated in all subject areas by teachers on a team. School climate and student management is enhanced since the movement of students for the bulk of the day is between classes in close proximity (Alexander and George, 1981, p. 135-136). Class changes generally involve only a third of the student population since teacher teams develop the daily block schedule and are not directed by a bell.

The critical element in exemplary interdisciplinary teaming is sharing. There are several essential components of the interdisciplinary team organization that are always shared. The most essential component shared by interdisciplinary teams is the student. In a true teaming situation, if teacher A has the students first, teacher B, as a team member, instructs the same students in one of the core content areas during the day. Another component is shared space. Team classrooms are located

in close proximity to each other. Students and staff identify the area as team space. A third component is the same schedule. Team teachers share a common schedule which usually consists of large blocks of time for teaching and commonly shared time for instructional planning (Lounsbury, 1984, p. 57). Typically, language arts, mathematics, social studies, and science is taught during a four period block of time. The periods sometime run consecutively while at other times they are interrupted by lunch and/or team planning. Although team members may or may not share the teaching of the same subject, they do share the responsibility for teaching the basic academic subjects to a commonly shared group of students and through joint planning share instructional objectives that are germane to other content areas. Therefore, an interdisciplinary team is a group of two or more teachers who share the same schedule, students, space and, to some degree, curriculum objectives.

Through this sense of team community, students see their place in the larger setting. The team is the homebase for students and provides a sense of security as they begin each day in this safe environment. The team becomes the close area in a spiral where the grade level becomes the next area and that branches out to the total school; meanwhile, the student still feels his/her sense of worth and is known as a person instead of a number.

#### Roles and Responsibilities of Team Members

The roles and responsibilities of team members vary depending upon how the team is structured; however, exemplary teams rely on the expertise of the members and the need for a greater degree of equality. Beltz and

Shaughnessy identified the following four priorities for selecting middle school teachers who serve on a team, "those who (1) had not been afraid of work; (2) had a good sense of humor; (3) had been willing to learn from colleagues; and (4) demonstrated a strong sense of sharing and willingness to help others" (Fuller, 1977). Teachers exhibiting these qualities are better able to connect with one another and the building administrators, build collegiality and participate in a process of shared decision-making. They willingly seek opportunities to plan together, teach together, and observe each other in a nonthreatening environment; and they utilize their common planning time to interact professionally with their colleagues. They foster the belief on teams that professional respect is more important than personality respect.

The interdisciplinary team organization improves the professional work-setting of the middle school teacher. "Teachers in teams enjoy more frequent discussions with colleagues about instruction, students, and curriculum than those not so organized. And they are more active in decision-making" (Erb, 1987). The teams are empowered to make joint decisions on several key issues with the principal serving a consultative and collaborative role. The team generally makes all decisions regarding the administration and organization of their group. In some middle schools the teams decide on the teaching responsibilities of their members. After conferring with the principal about staff certification and other related concerns, they determine who will teach what subjects. Frequently this information is considered by the principal in order to give teams greater flexibility in organizing themselves.

Depending upon the physical arrangement of the school, some teams are allocated rooms or appropriated spaces in the building to decide how these rooms/spaces are assigned. It is, however, the responsibility of most middle school teams to develop the daily instructional schedule for their team. Typically the team is notified when their students will be leaving the academic team for lunch, physical education, and elective courses. The rest of the day is a large block of time which is left to the discretion of the team to schedule. Jointly the teachers decide what subjects are taught, when they are taught, and how much time is allocated to teach each subject during the course of a week. The team is responsible for establishing and evaluating a daily schedule for students, teachers, and subjects (Alexander and George, 1981, p. 175).

In similar fashion, some teams decide the grouping patterns of students for instruction within the team. Following established guidelines by the school or school division, they decide how to group students - by ability or heterogeneously. It is also possible for teams to arrange groups by ability for certain skilled areas and heterogeneously for other content areas. The scheduling of students in instructional groups is frequently evaluated by teams and often requires students to be regrouped for an improved instructional setting.

Other instructional decisions are made by team members during their weekly planning times. Curriculum objectives are reviewed, and decisions are made to reinforce common objectives across content areas. The emphasis is to teach for transfer. During the planning sessions, the teachers identify skills that they want the students to transfer from one content area to another. Teams also determine when certain objectives are taught

and by whom (Lounsbury, 1984, p. 60). Some teams go beyond just identifying shared objectives and develop thematic units to coordinate their curricula. A few middle schools offer such units on a schoolwide basis.

An atmosphere must be created which allows for the realization of the concept of emerging leadership whereby different members of the team will assume, on an informal basis, leadership of the team depending on the time, situation, and circumstances. In this way a total team operation can exist and flourish (McCarthy, 1972).

Teachers in a team have time to interact professionally with their colleagues and find themselves involved in a broader range of decisions than are teachers in other settings. One Los Angeles teacher who was a member of an interdisciplinary team stated, "It is easy to become single-minded. Because of this teaming experience, I now look at a book from at least five perspectives. I didn't do that before. It (teaming) works on my creative juices, and that lifts my morale. The possibilities have increased for me" (Maeroff, 1988).

Team members are also responsible for developing, implementing, and evaluating action plans for groups of students or individual students (Weller, Brown, Short, Holmes, DeWeese and Love, 1987, p. 80). If not checked, student concerns dominate each planning session. Teams often need to spend time meeting with various resource staff members; such as counselors, administrators, school psychologists, social workers and others. They are often instrumental in helping the team solve pupil personnel problems. Through this joint decision-making process, teachers are more confident of their decisions about students. They are better able

to isolate and diagnose problems and not just react to students' personalities. Teachers also have more input into decisions that directly affect their teaching situation.

Although interdisciplinary teams rely on the expertise of all their members and focus on equality within the teams, most teams have a leader. These team leaders are either appointed to the position by the building principal or are elected or selected by mutual consent of the team members. Their primary functions are to serve as the liaison between the administration and the team and to coordinate and organize the responsibilities and activities of the team (Fredrickson, 1976, p. 9, Merenbloom, 1983, p. 52). More specific activities include:

1. chairing team meetings,
2. developing agendas for team meetings,
3. coordinating between his/her team and other teams,
4. serving on and appointing team members to various committees,
5. facilitating communications between team members,
6. planning parent conferences,
7. preparing a team budget, if appropriate,
8. facilitating the planning and implementation of the team's instructional program,
9. coordinating new schoolwide programs, soliciting creative ideas from other members and actively contributing suggestions for new team programs, and
10. directing support staff assigned to the team (Lounsbury, 1984, p. 63, Merenbloom, 1983, p. 51).

Although the activities listed above were presented as the responsibilities of the team leader, some of them, as well as others, can be delegated to the other team members. By delegating duties to others, the team leader is relieved of some management responsibilities, and other team members are given a vested interest in what direction the team takes. Some of the activities that are assigned to various team members are:

1. coordinating with the librarian,
2. coordination of substitute teachers,
3. coordinating the teacher's duty schedules,
4. coordinating the testing program,
5. coordination of textbooks and materials,
6. coordinating field trips,
7. coordination of volunteers, and
8. coordinating special activities (Weller, Brown, Short Holmes,

DeWeese, and Low, 1987, p. 85-86).

Another important responsibility in the team is the position of team recorder. This person needs to keep an accurate record of team meetings. In this way the team can refer to information from previous meetings that is pertinent to current topics under discussion. It also provides a documentation for team members when conferencing with students or parents. The team minutes are a quick reference for reviewing the success or failure of team initiatives. They become the record for program evaluation and are used in making future plans (Merenbloom, 1983, p. 45).

Some of these responsibilities are assigned on a yearly basis while others are assigned as needed to complete a task. It is important, however, that each member of a team has certain responsibilities and is a



contributing member. It is not only important that the leadership of the team comes from within the team but from various members at different times.

### Team Planning

Regardless of their type or size, teaching teams, in order to be effective, need several periods of unencumbered time each week for team planning activities. "It is here that the real strength of the team teaching program lies. For it is here that all instructional activities and teaching techniques are planned for each instructional unit" (Weller, Brown, Short, Holmes, DeWeese, and Love, 1987, p. 75). There is a direct correlation between the quality of the team planning and the instructional program. What occurs in the classroom of the team members is the result of plans developed during the planning periods.

Before describing the characteristics and components of team planning, it is appropriate that it be defined. Arth defines team planning as "that process which affords the educators of the 10-14 year-old students the time and avenues for professional communication to construct a written educational plan for the 'personalized' school day of those students in their charge, which will be clearly understood by student and teacher" (Arth and Scholl, 1982). Another group states that team planning is "a process by which a group of teachers can plan, organize, and implement instructional and noninstructional designs" (Swick, Henley, Driggers, and Beasley, 1975, p. 13). Both definitions emphasize that team planning provides middle school teachers with a unique opportunity to share and

benefit from the many talents and skills existing among the staff who teach an identified group of students.

In order for teachers to have this opportunity, time becomes the critical element. Although the literature on middle school team planning suggests a range from one period per week to five periods per week, there is unanimity for the planning period to be scheduled during the work day. Furthermore, it should not take place during teacher's duty-free period or be scheduled at the whim of the team. Most authorities agree, however, that in order to be effective, teaching teams need several periods per week for team planning activities. It is also recommended that administrators and supervisors gear their expectations of a team to the number of planning periods per week. Since teachers are provided unencumbered time during the work day, they too are professionally accountable for the use of the time.

It is important that this team planning time be protected from external and internal interruptions. Administrators need to avoid scheduling activities or monopolizing teacher's time during planning periods. Teachers need to be conscious of their responsibilities as a team member by arriving on time prepared to participate in team activities, rather than arriving late and interrupting the group, or grading papers instead of taking part in team discussions. Scheduling the team meeting at the same time of the day or week helps alleviate many problems and ensures stability for all the staff.

In addition to scheduling a specific time for team planning, it is important that an area of the building or a classroom be designated for team planning prior to the first team meeting. The ideal location is a specific area or room designed with sufficient storage space, shelving and

file cabinets for the materials produced and utilized during team planning sessions. However, most middle schools are not designed to house this unique middle school program, and regular classrooms are the only location available for team planning. It is important, therefore, that team members realize that the regular classroom is not the ideal location for the team planning sessions because "meeting in the classroom area provides a thousand and one seductive items which can draw the mental or physical being of even the most interested educator away from the planning business of the team" (Arth and Scholl, 1982). The teacher hosting the team, as well as members of the team, need to discuss these distractions and establish parameters for holding the meetings in a classroom. Just as there was a need to establish a regular time for the team to meet each day or days during the week, it is important for the location of the team meeting to be permanent. Materials and resources are then readily available for team planning, and other staff members know the location of the team when they need to meet with it. These two established factors - time and place - help raise the planning sessions to a more professional level by negating the excuse that a team member did not know when or where the team was meeting. It helps to alleviate the havoc created by misplaced notes or minutes of previous meetings.

In addition to designating a time and place for planning, teacher teams also need to establish procedures for planning and communicating. It is important that each member of the team actively participates in defining these goals, procedures, and guidelines. Some assurances included in these procedures are that the building administration has continual input in team decisions and that all team members are encouraged and provided the

opportunity to have their views/opinions expressed. Refinement of these planning and communication skills require the team members to have a spirit of cooperation and creativity. As was stated previously, it is at this beginning stage that the team needs to develop its own philosophy. As their philosophy is implemented, a team personality develops that identifies them as a unique entity. Another component of planning skills that needs to be defined by the team is a procedure for making decisions and solving problems. It is important that the procedures ensure the involvement of all team members in defining programs, generating solutions, developing plans of action and evaluating outcomes. This assists the team in developing a tactful honesty and a willingness to work and plan together on ideas.

If implemented properly, team planning capitalizes on the unique talents and skills of a middle school staff; and team meetings become the vehicle for teachers to see how others perceive instructional and noninstructional facets of the middle school program. The staff members use the team planning period as a clearing house for sharing innovative instructional approaches. If team planning occurs daily, the middle school staff is provided staff development opportunities, continuous interaction and exchange of ideas, and ongoing planning for improving the total program. "A more extensive evaluation of course content may also emerge from the interdisciplinary situation, encouraging, as it does, a variety of perspectives" (Alexander and George, 1981, p. 133).

Team planning meetings are not only the vehicle for good communication among members of that team, but they also assure vertical and horizontal communication among all staff members. The team meeting becomes the forum

for teachers in other content areas to meet with teams and present concerns, offer advice, or solicit support. Support staff, such as the media specialist, nurse, counselor, or special educator, are invited or requested to attend team meetings to provide input to the team. The team also uses the team planning period to provide a more diverse and accountable method of communicating with parents and the community.

Team planning meetings are critical for the growth of the team. One critical element for the success of the team meeting is an agenda. "A well defined agenda assists team members in maximizing the planning periods for the best use of improving instruction" (Swick, Henley, Driggers, and Beasley, 1975, p. 13). Without an agenda there is the tendency for team discussions to wander aimlessly. The agenda is developed by the members of the team and coordinated by the team leader. It is the responsibility of the leader, after receiving input from all team members, to put the topics in priority order and to designate time limits for certain topics, if appropriate. Specifying time periods for discussions assists team members in being efficient and effective in their planning. Having an agenda also precludes too many nonteam members from monopolizing the meeting or being scheduled on the same day. The agenda is the anticipatory set for team members and helps them develop a focus for the meeting.

Equally important is the need for the team to keep a record of the team meeting. As previously stated, the team recorder is responsible for documenting all decisions made by the team. The minutes are the vehicle for recording both short and long ranged goals developed by the team. They also become the tracking device for determining if the goals are being accomplished. Changes in time schedules, grouping of students, team rules

of conduct, team assignments are all part of the team minutes that assist the team in documenting and evaluating their decisions. By referring to the minutes of previous meetings, the team is able to review data that is pertinent to current topics. If appropriate, minutes are also used by team members to help resolve conflict by reviewing previous decisions agreed to by the team.

In summary the team planning sessions or team meetings provide middle school teachers the opportunity to use the talents and skills of their peers in developing a stronger instructional program. The staff collectively plans, implements, and evaluates a more diverse and flexible curriculum for the young adolescent. Through team planning those who are closest to the students, teacher teams, are provided the opportunity to make many of the decisions affecting their instructional program. Members sharing the same students and a common planning time are interdependent and communicate directly in a coordinated effort to reach mutually agreed upon goals for the enrichment of their students.

#### Conclusion

Although the research of teacher teaming is limited and at times conflicting, a review of middle school literature supports the implementation of an interdisciplinary staffing organization pattern for the middle school. Teacher teaming is recommended as the vehicle for establishing a more intimate school community that better meets the needs of the early adolescent. It creates a school-within-a-school environment that enables students to better make the transition from elementary to high school. As the number of middle schools increase, more and more states are

developing guidelines which suggest or, in the case of Virginia and California, mandate the organization of teachers into teacher teams at the middle school level.

As editor of the Middle School Journal and several books on middle level education, John Lounsbury best summarizes the growing trend of interdisciplinary teacher teaming in middle schools:

The interdisciplinary team is the most frequently cited characteristic of the modern middle school. Rare is the middle school that is not already operating with teams, moving towards the full establishment and implementation of such or openly acknowledging teaming as a goal (Lounsbury, 1978, p. 3).

## CHAPTER IV

### IMPLEMENTING INSTRUCTION THROUGH FLEXIBLE SCHEDULING

#### Assumptions

Successful implementation of an interdisciplinary teaming organization largely depends on the effectiveness of the schedule. Just as the teachers in the middle school are organized differently than those in elementary or high school, so is the method of organizing the daily schedule. The middle school schedule is developed to assist the student in making the transition from the self-contained elementary classroom to the departmentalized high school. Middle school students are neither forced to remain in a classroom for a large single block of time as in elementary school nor required to move from class to class by bells ringing like the high school. The movement of middle school students is directed by teachers organized in teams working together who manipulate the daily time-frame to provide a comprehensive academic program for the students they serve. "The school schedule for middle grades is a direct reflection of a sound educational philosophy and facilitates equal access by all students to the full range of instructional programs and student support services" (Caught in the Middle, 1987, p. 106).

The principal focus in developing a middle school schedule is flexibility. Flexible scheduling becomes the vehicle for better meeting the various needs of students and also enables teachers to make more



productive use of their time. The development of the schedule is extremely important because scheduling without understanding destroys program efficiency.

#### Definition

The term flexible scheduling is difficult to define because there is no one right way to develop a flexible schedule. It is, however, "the structure by which an interdisciplinary team organizes and manages time, resources, curriculum, teachers, and students, so as to meet student needs" (Interdisciplinary Program Handbook, p. 60). Since flexibility is the key, the size and length of a class varies as determined by student and other curricular needs. In a middle school with a flexible schedule, classes do not necessarily meet every day or follow a regimented schedule of 45 to 50 minute periods. Instead, teacher teams make decisions about the length of class time and when it will meet. The opportunity is there for teachers to rotate the schedule so that no class has the advantage or disadvantage of meeting at the beginning or end of the school day.

Flexible scheduling is a way to achieve the structure needed for the total team program. The schedule becomes the vehicle for the team to use in making decisions about how the time will be allocated for various activities, lessons, or enrichment supplements to the curriculum. It is a concept and a basis teachers use for working together to achieve the best learning experience for their students. "Because teachers and students are unique, no one procedure for scheduling or assigning activities is likely to be successful in every classroom. Procedures must be identified,

implemented, and selected from various possible alternatives" (Klingele, 1979, p. 69).

Since there is no one right way to design a flexible schedule, the following examples of flexible scheduling options are defined: flexible-modular schedules, block-of-time schedules, and a combination of modular and block schedules (Weller, Brown, Short, Holmes, DeWeese, and Love, 1987, p. 64). The first option, modular scheduling, utilizes short periods of time, from 10 to 30 minutes, called modules. This differs from the conventional class period of 45 to 60 minutes. Modular scheduling is compatible with interdisciplinary teaming because teams can utilize the appropriate amount of time required to cover the material presented in a wide variety of subject areas. Time requirements for students' schedules can change from day to day. Also, very short periods and very long periods of time are possible by combining modules to help fit the length of the period to the instructional needs of the students.

The block-of-time schedule is an offshoot of the core curriculum movement of the 1970's. It allows for two or more consecutive periods with one teacher or a team of teachers (Callahan and Clark, 1977, p. 204). It is a way of allotting large blocks of time to a subject or a group of interdisciplinary subjects. These blocks of time vary in length and are interchangeable, depending upon the needs of the team. In some cases correlation of subject matter may be taught for an extended period of time, such as math and science. The block schedule facilitates the integration and correlation of courses. Two or more subjects can be fused together as a core curriculum, and the subjects can be interrelated with broad themes or

skills approaches. Block-of-time scheduling, however, requires that the teachers involved are teaching at the same time.

Since the middle school schedule needs to be flexible, a combination of the two options, modular and block-of-time, plus a traditional schedule provide the greatest flexibility. Utilizing a combination enables principals and teachers to initiate numerous possibilities in scheduling the variety of programs they want to implement. "In order to achieve flexibility, there must be a block-of-time and teachers who will utilize modular scheduling techniques" (Merenbloom, 1983, p. 27). A combination also allows the staff to be organized in a variety of ways to maximize their strengths and weaknesses.

#### Research and Evaluation

The dominant word used to describe the middle school schedule is flexibility since flexibility and innovation through team planning results in a more effective use of teachers, time, space, materials, and community resources. According to many middle school experts, flexible scheduling and grouping provide a learning environment that best meets the needs of the middle school student. It provides the opportunity for students to be grouped according to varying social and ability needs. Although there is no one right way to develop the middle school schedule, the use of extended blocks of uninterrupted instructional time for selected core curriculum courses is a predominant practice. George and Oldaker (1985) reported in their study of effective middle schools that 94% of the schools provided for a flexibly scheduled school day that permitted teams of teachers to modify their program (p. 19). Other current middle school authorities

concur with the need for scheduling blocks of time in the daily schedule which permits teachers to plan extended periods for selected courses/ activities or shorter time spans for other instructional strategies. (Arth and Lounsbury, 1982, p. 19). Lipsitz (1984) captures the essence of flexibility which the middle grade schedule should allow:

Finally, the schools are willing, indeed eager, to modify or overthrow the schedule for part of a day, a full day, a week, a session of the year, or for an ad hoc special event, to discourage the monotony of routine endemic to all schools (p. 194).

Although the block-of-time method of scheduling has been around for almost 60 years, its use in the middle schools since the 1960's is seen as the most sensible time distribution to facilitate transition from the self-contained elementary school to the departmentalized secondary school. Teachers teams are able to integrate and correlate their courses. The block-of-time scheduling also makes it possible for teachers to have more opportunities to interact with their students. When student personal growth is the objective, time can be allocated within the block to accommodate advisory activities.

More than anything else though, the selling factor appears to be the block's potential for meeting individual needs and attending to individual differences among the students. When the scheduling process is shared by teachers and students, and when the teaching teams can shuffle membership in student groups based upon intimate knowledge of student needs and interests, the tyranny of the clock and bell is diminished (Callahan and Clark, 1977, p. 205).

Other benefits of this block-of-time approach are that pupils can have more time in certain courses when needed and that by adjusting time modules, the schedule can be rotated within the block. This allows for large groups to view a film or hear a resource speaker and not necessarily miss seeing each teacher in the team if they desire. Field trips can also be scheduled so that it is not a problem of missed classes whether the entire team goes at once or one or two classes at a time.

In a 1987 monograph, The Middle School, published by the University of Georgia, the following advantages of flexible scheduling were offered:

1. Daily schedules for students can differ from one day to the next.
2. Schedules can permit different time allotments for different subjects, based upon the nature and time requirements of the subjects. This will avoid the necessity of allowing "equal time to unequal subjects."
3. Schedules are guided by the amount of time needed to master certain concepts and skills, by subject area.
4. Schedules can allow flexible time arrangements to more fully meet the needs of pupils with learning difficulties.
5. Class size can be adjusted based upon the nature of the course or the type of lessons presented.
6. All subjects will not meet the same number of times per week nor the same amount of time on different days.
7. Flexible schedules can allow students to pursue subjects or activities in which they have special interests.
8. Flexible schedules accommodate large group, small group and independent study activities.

9. Interdisciplinary team teaching can be accomplished easily through the utilization of flexible scheduling.

10. Finally, the overall advantage of flexible scheduling is that teachers and students are allowed choices and freedoms in what to do and how and when to do it. The exploratory nature of transescents, their potential creativity, and their complex needs are addressed and enhanced through flexible scheduling (Weller, Brown, Short, Holmes, DeWeese, and Love, 1987, p. 64).

Several research studies also support the utilization of a flexible schedule as an essential characteristic of the middle school. Dr. Helen Fuller's (1977) survey by a panel of 23 middle school experts resulted in a listing of success indicators of which the following referred to flexible scheduling:

.Providing for flexibility in scheduling as a prerequisite to realistic team teaching,

.Scheduling daily, weekly, and even monthly blocks of time,

.Encouraging each team to develop its own schedule (p. 105).

A similar study by Moeller and Valentine involved 50 experts including teacher, parents, administrators and professors. They conducted their survey twice and accepted programmatic characteristics of middle level education if 80% of the experts selected the particular characteristic. The following characteristics as listed in the second survey instrument were selected through the above process:

#### IV. Scheduling

A. Block schedule (time blocks given to teacher to schedule classes)

B. Subjects offered for various periods of time (five weeks, 10 weeks, 20 weeks, 40 weeks)

C. Schedule allows teachers to group and regroup students.

A recent study by the Center for Research in Elementary and Middle Schools at John Hopkins University tested the general hypothesis that there is no single best way to organize a middle school to meet the variety of needs of early adolescent students. The study used a sample of 433 schools in the Pennsylvania Educational Quality Assessment. It examined the effects of self-contained classroom instruction and departmentalized instruction on positive student-teacher relations and high quality subject-matter instruction.

The findings of the study supported the hypothesis that there is no one best way to organize a middle school. It indicated that self-contained classroom instruction benefits student-teacher relations, while departmentalization improves the quality of instruction in specialized subject matter. It was suggested that middle schools should not use either scheduling pattern exclusively since they should address both areas, student-teacher relations and high quality subject matter instruction. "Thus the trade-offs of extreme school staffing practices need to be (a) balanced by some intermediate practice between the extremes, and (b) compensated for by other school practices that address the weaknesses of each particular staffing pattern" (McPartland, 1987, p. 13).

The study referenced the frequent practice of semi-departmentalized and team teaching arrangements in scheduling middle schools as being another option. The inference was made that "such practices may also offer both high quality instruction from subject matter experts and positive

teacher-student relations from teams that establish methods for addressing individual needs of students" (McPartland, 1987, p. 14). However, it was recommended that further research is needed to examine these intermediate practices to establish a framework for designing more successful practices for the middle school.

#### Characteristics of Flexible Scheduling

As was previously stated, the middle school schedule is based on educational need rather than standardized time periods. It is the vehicle for responding to the needs of the early adolescent and facilitates a student's ability to realize the full benefit of a school's program. A flexible schedule becomes a teaching aid rather than a control device. Through it teachers control the creation of a variety of class groupings and govern the length of class time. "When the scheduling process is shared by teachers and students, and when the teaching team can shuffle membership in student groups based upon intimate knowledge of student needs and interests, the tyranny of the clock and the bell is diminished" (Callahan and Clark, 1977, p. 205).

Since the timetable of a school plays such an important part in fashioning the kind of teaching/learning situation which operates within a school, it is important that teachers and principals work closely together in developing the master schedule. They need to consider various organizational arrangements that ensure that the timetable is servant to the various curricula and not its master. Other factors needing to be considered are which activities are to be taught and to which students.



To accomplish the task of developing a flexible schedule, the administrative team begins the process by scheduling all classes that meet in specialized facilities, such as physical education, art, and technology education. They also schedule the beginning and ending for school and the time for lunch. After these times are scheduled, groups of students are assigned to teams of teachers for large blocks of time. Each student then has a teacher and a room to report to at the beginning of the day.

The second phase of the scheduling process is the responsibility of the teacher teams. Since interdisciplinary teacher teaming has been stressed as an essential characteristic of the middle school, the schedule should provide for this type of organization. The key ingredient for accommodating teaming in a flexible schedule is the designation of extended blocks of uninterrupted instructional time for selected core curriculum courses. The larger the block-of-time assigned to a team, the more possibilities there are for flexible and creative uses of the time. The shorter the block-of-time the more limited the team is in its use of the time.

Several factors determine the size of the block that is assigned to a team. One is the number of teachers assigned to a team; for instance, four teachers would be assigned four periods. The size of a team, however, does not always determine the size of the block-of-time. The teaching assignments of team members also need to be taken into consideration. For example, a two teacher team may be responsible for teaching reading/ language arts, mathematics, social studies, and science. Thus the team needs a four period block-of-time similar to a four teacher team.

Other determinants of the length of the block-of-time for core teams are the time assigned for exploratory classes, physical education, and lunch. This sometimes requires the block-of-time be split into several time segments of varying lengths.

Once the block-of-time is assigned by the administrative team, the second phase of the scheduling process is the responsibility of the teacher team. The teachers on the team are then responsible for developing daily, weekly or monthly schedules that best assist students in achieving their goals. They control the scheduling of time modules for improving instruction. "That is, modules are used to construct blocks and periods of time, periods of time are combined into blocks, and are as small as a module" (Alexander and George, 1981, p. 176). All classes, in all subjects, do not necessarily meet the same number of times each week or at the same time each day. The teachers are free to experiment with creative ways of organizing for teaching. The variations or combinations are limited only by the desires or imagination of the team members. A team may decide, for example, to have a review for a reading test each morning for an hour and a half during one week. Another team may combine the language arts and social studies classes for two hours twice a week for a humanities unit. Flexible scheduling that includes a block-of-time allows these options to each subject in the curriculum assigned to a team.

As was previously stated, the block-of-time allocated to teams is scheduled around the lunch schedule and the schedule for exploratory classes. Other factors that affect a school's master schedule are special features of the school building, the amount of time required for class

change, the length of the school day, and the schedule for special classes assigned to the school. Some of these decisions are controlled in-house, while others come to the staff as givens.

These programs are scheduled to maximize the greatest flexibility for the school. By properly scheduling these areas outside the core teams, time is also provided in the daily schedule for team planning. In order to develop a flexible schedule for the middle school, provisions must be made for the following:

- .extended blocks of uninterrupted instructional time for core teachers,
- .exploratory courses which allow students to pursue special interests,
- .common planning periods for members of teaching teams,
- .equal access to all instructional programs by all students,
- .continuing evaluation of course offerings based on student program forecasts and physical facilities,
- .scheduling of student advisory programs,
- .scheduling of special programs which are minimally disruptive of assigned instructional time,
- .allowing for easy access by students and staff to school-based learning resources which include the media center, labs, studios, and special work areas,
- .varied lengths of instructional time assigned to different courses on the basis of pre-defined learning goals,
- .innovation and experimentation with varied time configurations.

Thus the middle school schedule is characterized by a series of schedules. Each schedule is dependent on the other and results in a total program that is flexible in its structure. The schedule itself is a means

to an end, and "the more a school staff employs flexible scheduling techniques, the more likely it is that they are truly responding to the physical, social-emotional, and moral needs of the students" (Merenbloom, 1983, p. 27).

### The Master Schedule

Although the master schedule is primarily developed by the administrative team, it is important that other staff members are given the opportunity to provide input. This includes what courses are to be taught and which activities/classes are to be available to which students. This list of priorities becomes the first step in designing a schedule. It includes the determination of offerings from each grade level and the number of teachers that are needed to teach each class - core curriculum, special classes, and exploratory courses.

The next step in the process is to divide the teachers and students into teams and to make special teacher assignments. It is at this time that the size of the team and the number of teams are defined. These decisions are affected by the type of grouping employed in the school - multi-aged versus chronological, as well as the number of teachers assigned to team at each grade level or group.

The manner in which the day is organized becomes the third step - modules, block-of-time, periods, or a combination. It is imperative that the decision be based on what will provide the greatest flexibility and best meet the educational and physical needs of the students. Generally units of time are arranged for the four or five core subjects, one for physical education and one for an exploratory or elective course. The

philosophy of the school determines the labeling of these units of time as modules, blocks, or periods.

The fourth step identifies the special features that are part of the master schedule, such as remedial reading classes, advisory program, group guidance activities, and other unique programs or activities. (Some recommend that this be the second step in the scheduling process since these are frequently single section classes or activities that directly affect other decisions.)

The last step is the review process which is continuous. Although all effort has been made to accommodate staff and students, modifications may still be in order. It is also at this point that the teams take over. Each team adjusts the schedule in individual ways that will make the ultimate fit of the schedule to the programs (Alexander and George, 1981, pp. 183-4).

#### Explanation of Schedule

Since interdisciplinary team teaching is stressed as an essential characteristic for the middle school, the completed schedule provides for this type of organization. Provisions for this are represented in a sample schedule, Figure 1; the block-of-time is separated at each grade level into two blocks. These blocks vary in length from two hours-45 minutes for teams 6A & B to one hour-30 minutes for teams 7A & B. In addition to the instructional block-of-time, each interdisciplinary team has one hour-ten minutes of team planning time daily, as well as a 30 minute duty-free lunch. This common planning period provides the time for the team to plan, group/regroup, and evaluate a commonly shared group of students. Team

planning takes place while the students are in physical education and exploratory courses.

Although the team schedule revolves around the lunch, physical education, and exploratory periods, flexibility is possible in the academic block-of-time. Parallel scheduling of the block-of-time frees the interdisciplinary teams to group students according to their instructional needs. In addition, the teachers can provide for large group instruction, small group instruction or independent study as appropriate. The schedule varies each day according to the needs of the students and teachers on the team.

A home base advisory time is provided in the daily schedule. Not only does this time allow students and teachers to prepare themselves for the day, but it serves as an appropriate setting for some teacher advisor activities provided by the teachers and guidance department. It also serves as an activity period for practices, clubs, and other student organizations on a scheduled basis.

Another feature of the master schedule is the fact that the physical education and exploratory blocks are scheduled back-to-back. This facilitates an extension of either block, if appropriate. Although the teachers in these areas do not have a team planning period similar to the academic teachers, arrangements are made to extend class time or to combine or regroup students. These teachers do share three 20-minute planning periods at 8:45, 10:45, and 12:45 for team planning.

This schedule is developed for a school population of approximately 600 students. Each team accommodates 100 students with the interdisciplinary team consisting of one language arts, math, social

studies, and science teacher. Resource reading teachers, guidance counselors, and paraprofessionals are assigned to a specific team to serve in an extension center for students needing specific skill work. Exploratory arts teachers consist of at least one instructor in art, music, home economics, and technology education. The enrollment in the other elective courses at the seventh and eighth grade determine staffing needs. Four teachers provide instruction in physical education and health.

Although not represented in Figure 1, the schedule allows for a self-contained classroom or for various size teams - two or more teachers. Block time would remain the same, only the size of the instructional team need vary. Often the preadolescent necessitates a more restricted academic environment. The students remain in their block whether with one teacher or five, and go to the other blocks for physical education or exploratory. The important component is flexibility.

Figure 2 illustrates the percentage of time that could be allocated to particular subject areas. It also demonstrates the gradual changes in time provided for academic courses during the three-year period from grade six to grade eight.

This example of a rotating schedule (Figure 3) provides for classes to be offered at various times during the day. Since the classes rotate several times a year, no class has the advantage or disadvantage of having class at the beginning or ending of the school day all year. The schedule is also designed for multi-aged grouping. This schedule also has a period set aside each morning for the students to meet in their advisory groups. The remainder of the day is divided into three large blocks of time. Two are for basic academic courses and physical education and the third for

Figure 1

MIDDLE SCHOOL SCHEDULE

Team 6A	8:45 (20) Home Base	9:05 Lang. Arts/Soc. St./Math/Science	(2:40)	11:45 Lunch	12:15 Lang. Arts/Soc. St./Math/Science	(1:20)	1:35 (50) Phys. Ed.	2:25 (50) Exploratory	3:15
Team 6B	8:45 Home Base	9:05 Lang. Arts/Soc. St./Math/Science		11:45 Lunch	12:15 Lang. Arts/Soc. St./Math/Science		1:35 Exploratory	2:25 Phys. Ed.	3:15
Team 7A	8:45 Home Base	9:05 (50) Phys. Ed.	9:55 (50) Exploratory	10:45 Lang. Arts/Soc. St./Math/Science	(1:30)	12:15 Lunch	12:45 Lang. Arts/Soc. St./Math/Science	(2:30)	3:15
Team 7B	8:45 Home Base	9:05 Exploratory	9:55 Phys. Ed.	10:45 Lang. Arts/Soc. St./Math/Science		12:15 Lunch	12:45 Lang. Arts/Soc. St./Math/Science		3:15
Team 8A	8:45 Home Base	9:05 Lang. Arts/Soc. St./Math/Science	(2:00)	11:05 (50) Phys. Ed.	11:55 (50) Exploratory	12:45 Lunch	1:15 Lang. Arts/Soc. St./Math/Science	(2:00)	3:15
Team 8B	8:45 Home Base	9:05 Lang. Arts/Soc. St./Math/Science		11:05 Exploratory	11:55 Phys. Ed.	12:45 Lunch	1:15 Lang. Arts/Soc. St./Math/Science		3:15



Figure 2  
Block Schedule

Sixth Grade	Seventh Grade	Eighth Grade
Advisory Period	Advisory Period	Advisory Period
Academics	Academics	Group Guidance
Reading/Language Arts	Reading/Language Arts	Independent Projects
Mathematics	Social Studies	Academics
Science/Health	(37.5%*)	Social Studies
Social Studies	Unified Arts	Reading/Language
(80%*)	Exploratory Courses	Health/Phys.Ed.
Lunch	Physical Education	Lunch
Unified Arts	(25%*)	Academics
Physical Education	Lunch	Science
Exploratory Courses	Academics	Mathematics
(20%*)	Science/Health	Exploratory Courses
	Mathematics	Unified Arts
	(37.5%*)	(The percent of time spent on basic skills varies with exploratory/elective courses chosen. A minimum of 50-60 percent of daily instruction is in basic studies.)

School day: 6 1/2 hours, including lunch.

\*Indicates percentage of school day allotted to that area.

Figure 3

**Middle School One**

	G Team & T Team	W Team & S Team	C Team & B Team
8:40—9:10	----- <i>Advisor-Advisee Time</i> -----		
9:10—9:55 9:57—10:42	SKILLS	EXPLORATORY	CORE & P. E.
10:44—11:29 11:31—12:16	CORE & P. E.	SKILLS	EXPLORATORY
12:16—1:10	----- <i>Lunch</i> -----		
1:12—1:57 2:00—2:45	EXPLORATORY	CORE & P. E.	SKILLS

On Dec. 1 — G & T take W & S schedule  
 W & S take C & B schedule  
 C & B take G & T schedule  
 On Mar. 15 rotate ahead one block to complete cycle

Figure 4

**Middle School Two**

TEAM	1	2	3	4	5	6	7
6A (4)	[				]	Plan	SGG
6B (4)	[				ACADEMIC BLOCK	]	Plan SGG
6C (2)	[				]	Plan	SGG
7A (4)	[	B	]	SGG	Plan	[	
7B (4)	[	L	]	Plan	SGG	[	
7C (2)	[	O	]	SGG	Plan	[	
	[	C	]			[	
	[	K	]			[	
8A (4)	[			Plan	SGG	[	
8B (4)	[			ACADEMIC BLOCK	SGG	Plan	[
8C (2)	[			SGG	Plan	[	
Physical Education (5)	Plan	7	7	8	8	6	6
Exploratory (7)	Plan	7	7	8	8	6	6
Reading (3)	6-7-8	6-Plan-8	6-Plan-8	6-7-Plan	6-7-Plan	Plan-7-8	Plan-7-8
Art and Music (4)	6-7-8-8	6-8-8-Plan	6/Plan/8/6	6/7/6/7	6/7/6/7	Plan/7/Plan/8	7/Plan/7/8
Special Education (6)	Planning Varies Depending upon Exploratory and P. E.						

school day for students: 7:30 a.m. — 1:55 p.m.  
 periods: approximately 45 minutes long  
 student body: 1,100

exploratory courses. The schedule listed at the bottom of the schedule indicates the dates for the schedule to be rotated. Besides providing for the rotation of the schedule three times a year, this schedule also supports the interdisciplinary team concept. One limitation of this schedule is that it requires the staff to be assigned to the school all year, since it would be difficult for resources or part-time staff to rotate in and out of the school.

This schedule (Figure 4) provides for nine interdisciplinary grade level teams and 11 exploratory teachers. It also provides for three special reading teachers who are assigned to teach remedial reading at each grade level. Included are both periods and block-of-time which allows for intrateam flexibility while providing for whole school stability. The SGG (small group guidance) time included daily in the schedule is used for academic teachers to meet with small groups of students in an advisory period while the remaining students go to physical education.

Although the schedule accommodates the interdisciplinary team concept with a common planning period and exploratory experiences for students, the students do not have physical education daily. Physical education is generally recommended daily for the early adolescent.

These schedules illustrate the flexibility recommended for the middle school. It is important to understand that they do not represent the effort of teachers on a team to implement a modular schedule within each block-of-time, as well as the fact that the scheduling process is almost never finished. Alexander and George (1981) summarize the importance of each team's schedule, "if you designed it (the schedule) to accommodate the

interdisciplinary team organization, each team will be able to adjust the schedule in individual ways that will make the ultimate fit of the schedule to the program seem a bit more acceptable" (p. 184).

#### Conclusion

Although much of the literature concerning middle school scheduling strongly suggests the need for a flexible schedule using a combination of block-of-time and modules, the recurring statement suggests that there is no one right way to schedule a middle school. Schools are encouraged to identify those practices that best meet the academic and affective needs of their students. Paramount in their deliberation is the need for the schedule to provide a smooth transition from the elementary program to the high school program. If teacher teams are the primary organizational pattern for the school, the master schedule only serves as an outline for the teams to establish methods of addressing the individual needs of students. The schedule only creates the environment for flexibility, the teams are instrumental in taking advantage of the opportunity. The important factor is for teaching and learning to be more interesting and effective and not be restricted by artificial separation of subjects or designation of specified time limits on a daily basis. "When the scheduling process is shared by teachers and students, and when the teaching teams can shuffle membership in student groups based upon intimate knowledge of student needs and interests, the tyranny of the clock and bell is diminished" (Callahan and Clark, 1977, p. 205).

## CHAPTER V

### CURRICULUM

#### Assumptions

The previous two sections relate to curriculum by stating how a middle school organizes for instruction through teacher teaming and implements instruction through flexible scheduling. This section presents the central focus for school - the curriculum.

Just as the procedure for organizing for instruction and implementing the instructional program is unique to the middle school, so is the curriculum. The middle school calls for a different curriculum, an undoing of many of the current practices. The curriculum is also required to focus on the characteristics of early adolescents and support their growth - both physically, socially/emotionally, and intellectually. "Needed is a program that gives adequate and balanced attention to the learner, society, and organized knowledge" (Lounsbury and Vars, 1978, p. 40). The middle school needs to assist students to begin identifying their interests for a later specialized focus in secondary school.

Other assumptions or beliefs on which the middle school curriculum are based are that the magnitude and nature of a classroom activity determine the allocation of time. It is also important for all persons involved to be part of the evaluation process. Although true at all levels of education, the middle school through design is committed to the belief that learning experiences are enhanced when the learner is encouraged and

assisted in drawing upon all appropriate sources of information. Paramount to this is the need for the curriculum to be based on the interests, concerns, and needs of the early adolescent.

The format of the curriculum requires that skills and concepts in basic content be developed in relationship to those learned in elementary school and those to be learned in high school. Thus a continuous progress component of carefully sequenced learning experiences is essential. Other learning experiences which are not highly sequential, such as art, music or technology education, are offered through other classes and activities. The curriculum should also deal with a direct and continuing opportunity for students to examine in-depth both personal and social problems that have meaning to them. This core component frequently overlaps with the other two areas.

#### Definitions

Although many factors affecting the design of the middle school curriculum are generally the same as those influencing curriculum design at other levels, there are several differences derived from the particular population served. This is particularly true of the middle school curriculum which is formulated with regard to the educational needs and characteristics of transescent students. The curriculum is a balance of academic goals and other human development needs and does not ignore noncognitive objectives. In fact, its success comes from its recognition of the interrelated affective goals. The curriculum deals directly with the basics, as well as with aesthetics and attitudes. The middle school curriculum, therefore, is selected by the teacher and the student to

enable the student to grow socially, emotionally, intellectually, and physically. "It must seek to increase the fund of knowledge students possess, but also recognize that continued development of basic skills needed to acquire that knowledge is essential" (Lounsbury, eds. 1982, p. 11).

The middle school curriculum should be designed to provide a balanced program to assist students who are moving from concrete operations to formal operations. The majority are unable to handle material presented at the level of formal reasoning. These students are basically concrete learners and require learning situations that are essentially a problem-solving process, "an active process with the learner reaching out and manipulating his environment" (Lounsbury and Vars, 1978, p. 36). Thus, the middle school curriculum is generally composed of three areas - academic, exploratory, and guidance. Although the guidance function is a distinct program within the middle school, it is also integrated in the academic and exploratory curriculum.

The academic area is generally defined as including the core courses, the traditional content area provided for in the general education of all students. It provides continuity in instruction from the elementary school to the high school. John Goodlad (1987) provides the following explanation of core curriculum:

The English word CORE is derived from a Latin word meaning heart. Today, in many school systems, the term Core is used in reference to a block of time. That is, it refers to that period of the curriculum which uses two or three class periods with the same teachers and students for two or more subject areas (pp. 10 & 11).

It is the common core of knowledge which all students should possess and is concerned with the general or liberal education in contrast with the special or technical education. The skills and concepts in the core are generally organized in a sequential or continuous progress manner. Although the core includes the study of literature, history, science, mathematics, and the arts, it is more than that. The content of the core curriculum also emphasizes the discussion of personal and social concerns of the students. It includes the teaching of problem-solving skills and guidance activities.

The exploratory area of the curriculum consists of both required and elective courses. The curriculum includes a variety of courses and activities, fine and performing arts, technology education, the practical arts, high interest mini-courses, and physical education. The courses vary in length from a few weeks to a year and generally do not have predefined requirements for enrollment. These courses are vehicles for incorporating all the major characteristics of an effective middle school. An exploratory program is an essential curriculum component for it "helps young people know themselves, their interests, aptitudes, and capabilities, and to satisfy their natural curiosity and questing" (Lounsbury and Vars, 1978, p. 83).

According to Lounsbury and Vars (1978) middle school curriculum consists of three major components - core, continuous progress, and variable. They are similar in purpose, but differ in structure and organization. The core component allows students to examine both personal and social problems and is generally described as a problem-centered block



time program. It is through this component that the advisory program functions where teachers provide counseling to an identified group of students. Some of the basic content and fine arts courses may be taught in core where they become tools to be utilized in the process of inquiry.

Another component of the curriculum is continuous progress. This part of the middle school curriculum includes the academic skills and concepts that have a genuine sequential organization. This type of curriculum organization permits the student to move through the curriculum regardless of the course or grade level designation. "A nongraded or continuous progress curriculum allows for individual differences and variable rates of growth in students and is responsive to the demands for specialization of knowledge" (Lounsbury and Vars, 1978, p. 47).

The third component is labeled variable. The curriculum offerings in this area are the other courses and programs that are part of the middle school program, but do not fit in the core or continuous progress components. The curriculum is neither problem centered or sequential, but is exploratory and of high interest to the students. The elective courses, physical education and the activity program are included in this component. Some of the courses may be nongraded; whereas, others may be organized by grade levels. Although all of these programs are not necessarily required for all students, they are of no less importance than the programs offered in the other two components. Lounsbury and Vars (1978) state, "Experiences in these areas may be the most meaningful of all for many middle school students" (p. 48).

## Research and Evaluation

The curriculum is the central focus for the middle school program and is implemented by teacher teams through a flexible block-of-time schedule. Its most critical feature is the interrelationship of each topic within a discipline of topics within other disciplines. Inherent in the development of the curriculum is the recognition that it reflect the uniqueness of the transescent for whom it is designed. An effective middle school curriculum is based largely on the educational needs and characteristics of the early adolescent and "gives adequate and balanced attention to the learner, to society, and organized knowledge" (Lounsbury and Vars, 1978, p. 40). Noncognitive objectives are not ignored, but are recognized as an essential component in the curriculum. The middle school curriculum needs to provide students with the opportunity to experience the rich potential underlying the interrelationships of all disciplines (Lounsbury, 1984, p. 72). As John Lounsbury (1982) stated in the National Middle School publication, This We Believe:

It (the curriculum) must seek to increase the fund of knowledge students possess, but also recognize that continued development of the basic skills needed to acquire that knowledge is essential. The balance of humane and academic factions, both of which are of equal value to the success of the program, make the middle school curriculum distinctly different from either elementary or secondary programs (p. 11).

In an effort to meet the needs of the middle school student, an emphasis is placed on self-understanding. Thus, the curriculum contains special instructional units or courses that deal with specific concerns or

special interests of the early adolescent. Teachers, as well as the students, are frequently involved in identifying the topics of these units/courses. A 1985 study of 130 exemplary middle schools found that 99% of the respondents reported a continuing effort to focus the curriculum on student personal development, as well as academic achievement.

Similar findings were also found in an earlier study conducted by Helen Fuller. In her study members of the National Middle School Leadership staff participated in a survey to identify success indicators of interdisciplinary teaming at the middle school level. Several indicators identified by the panel of middle school experts relate directly to curriculum and its place in the total program:

.Developing healthy self-concepts in students through focusing on children's needs in a learning situation that helps them obtain a higher self-perception.

.Focusing on individual progress, with many curriculum options and with individualized instruction in appropriate areas.

.Offering exploratory activities for socialization, interest-development, and leisure-enriching purposes.

.Balancing attention to personal development, to the skills of continual learning, and to an effective use of appropriate organized knowledge.

.Teachers who can initiate programs to fit the students rather than conforming to an unrelated, established curriculum.

.Continually exploring communication links (Fuller, 1977, p. 105).

The work of several developmental theorists have also impacted on the development of the middle school curriculum. Havighurst's developmental

task theory of growth stresses the importance of the middle school's curriculum providing a rich environment for exploration. He stated that students need to be provided the opportunity to develop an interest in ordering, organizing, and systematizing knowledge.

The application of Bruner's work at the middle school level suggests the need for emphasizing visual learning. His concept of the spiraling curriculum also proposes that the middle school students should be able to return to a topic learned at a simplified level in the elementary school but at higher levels of complexity and in greater depth in the middle school (Reihartz and Beach, 1983, pps. 11 & 12).

Recent research on young adolescent thinking and problem-solving suggests the need for middle schools to implement an active, inquiry-based curriculum. The study of 11-14 year old students showed that students use different strategies for solving problems with varying degrees of sophistication and comfort. Thus, it was suggested that students be given opportunities to engage in discussions about the kinds of thinking strategies they employ on any given problem (Lounsbury, 1984, p. 137).

Another study was conducted from 1980 to 1981 by Joan Lipsitz. On assignment to the National Institute of Education as a research associate, she identified and examined middle schools that succeeded in responding to the developmental needs of the early adolescent. She observed that the strongest area of responsiveness was the schools' efforts to provide diverse experiences for the students. These experiences grew out of articulation efforts between the elementary and high school. She noted that the schools' curricula stressed the transmission of facts and cautioned that this is a failure to provide for the various developmental

levels of students. She advised schools to develop curricula and strategies that move those students who are ready from the concrete to the abstract. "Teachers, as curriculum builders, need to become sensitive to 'facts' that are actually prior concepts. They do not, therefore, need to excise concepts from their classrooms" (Lipsitz, 1984, p. 190).

A study in 1978 emphasized the need for the middle school to provide a strong program in the basic skills: mathematics, science, social studies, English, reading and spelling. It stated that these subjects be required of nearly all students. The study also showed that nine out of ten students are required to take physical education. (Kindred, Wolotkiewicz, Mickelson, and Coplein, 1981, p. 80). A more recent study by the National Association of Secondary Principals confirmed these earlier findings, except deemphasized reading as a required subject from grade six to grade eight. Music courses and art were generally identified as required courses in grade six and offered as electives in grades seven and eight, as well as other exploratory courses (Keefe, Clark, Nickerson, and Valentine, 1983, p. 31).

William Alexander also stated that middle schools need strong programs in the basics; however, he stressed the importance of integrating basic skills in all areas of the curriculum. He emphasized the teaching of the basic skills through the exploratory courses instead of increasing the time for reading and writing instruction. He stated that "we should not have dull, isolated teaching of skills; we should have first class teaching of skills with more careful attention to all situations in which the skills are used" (National Middle School Journal, February 1982, p. 5).

These research studies support the concept that an effective middle school curriculum relates to the physical, social, emotional, and intellectual needs of the transescent. They also emphasize the need for the curriculum to serve as a transitional program by building on skills previously learned in the elementary school and preparing students for their future academic career in high school.

#### Characteristics

The central focus for the development of the middle school curriculum is the transescent. Successful middle school programs seek to match the needs of the early adolescent and program components. The curriculum reflects knowledge of the students and "accommodates the variety of types of abilities - cognitive, affective, and psychomotor" (Lounsbury, 1984, p. 72). Since the early adolescent is unable to put together the content from various classes, the different curricula need to be developed as an integrated program. The content of the curriculum needs to relate to the world of the transescent and prepare the student for making decisions in the future. It needs to include activities and the concept of exploration through inquiry should permeate all course content. As students are provided opportunities for socialization, they are challenged by various activities such as history fairs, simulations and theatrical productions. These and similar programs blend the physical, social and emotional attributes that often encourage effective education at the middle level.

Alexander and Williams recommend a curriculum plan consisting of planned programs in three phases: Learning Skills, General Studies, and Personal Development. The Learning Skills phase consists of skills that

are a continuation of those initiated in elementary school. However, there is an increasing emphasis on the reference skills and skills of independent study. These skills are incorporated in with content goals in each unit of work in all General Studies areas. The second phase, General Studies, focuses on the concepts drawn from the basic content areas of literature, social studies, mathematics, science, and the fine arts. This gives the student increased awareness of cultural heritage and learnings essential to civic and economic literacy. The Personal Development phase includes those areas generally classified as exploratory, personal interest, and physical education. During their middle school years, students scheduled in this phase are able to explore personal interests, fulfill personal needs, and promote physical and social growth. Various school and community projects are also included in this third phase (Leeper, ed., 1974, p. 34).

In an address delivered to the 1978 conference of the North Carolina League of Middle/Junior High Schools, Donald Eichhorn advocated three essential components of the middle school curriculum. The first was an emphasis on essential skills and processes. He stated that there is a need for a wide diversity of learning levels in the middle school and that the program needs a well designed curricular sequence. Emphasis on acquisition and use of knowledge was the second component. He explained that the student needs to acquire specific content in a manner which emphasizes the relationship of one subject with another. The third component emphasizes the importance of the student developing both personally and as a learner. He emphasized this is the key to student learning and stressed the need for time to be devoted to this (Eichhorn, 1979, p. 6).

The flexible middle school curriculum encourages teachers with other members of the teaching team to exercise professional judgment in the selection of specific content. However, there are general guidelines for teachers to consider in their planning. Teachers need to ensure that their students acquire proficiency in specific skill areas. This includes a continuation of the basic skills of reading, writing, spelling, speaking and computation. These skills, however, are expanded in a context that has meaning and importance to the middle school student so that they are motivated to gain proficiency in them. This expansion occurs as students are exposed to concepts or ideas that go beyond subject matter boundaries and allow them the opportunity to explore areas of the curriculum with which they are not familiar. Teacher teaming also provides students an opportunity to begin to group the important processes that are interdisciplinary and universal in nature.

The balanced, comprehensive, and success-oriented curricula in the middle school helps the creation of a sensitive, caring, learning environment. The Middle School Handbook of Nassau County provides the following suggestions for developing a good middle school curriculum:

1. Learning experiences for transescents at their own intellectual levels, relating to immediate rather than remote academic goals.
2. A wide variety of cognitive learning experiences to account for the full range of students who are at many different levels of concrete and formal operations. Learning objectives should be sequenced to allow for the transition from concrete to formal operations.



3. A diversified curriculum of exploratory and/or fundamental activities resulting in daily successful experiences that will stimulate and nurture intellectual development.

4. Opportunities for the development of problem-solving skills, reflective thinking processes, and awareness for the order of the student's environment.

5. Cognitive learning experiences so structured that students can progress in an individualized manner. However, within the structure of an individualized learning program, students can interact with one another.

6. A curriculum in which all areas are taught to reveal opportunities for further study, to help students learn how to study, and to help them appraise their own interests and talents. In addition, the middle school should continue the developmental program of basic skills instruction started in the elementary school, with emphasis upon both developmental and remedial reading.

7. A planned sequence of concepts in the general education areas, major emphasis on the interest and skills for continued learning, a balanced program of exploratory experiences and other activities and services for personal development, and appropriate attention to the development of values.

8. A common program in which areas of learning are combined and integrated to break down artificial and irrelevant divisions of curriculum content.

9. Encouragement of personal curiosity, with one learning experience inspiring subsequent activities (Middle Schools in Nassau County, 1986, pp. 2-3).

Throughout the discussion of the middle school curriculum, the concept of core curriculum is referenced. Although not a new concept, the core curriculum, which is an alternative to the subject-centered curriculum, reached its peak during the 1930's and 1940's. Many aspects continued in the junior high school over the years (Klinge, 1979, p. 87). Today the middle school provides an ideal setting for core programs because it emphasizes the learning of fundamental concepts and skills needed by all students as does the core curriculum. Both the middle school and core curriculum place an emphasis on the classroom teacher as an advisor to a designated group of students. Another similarity shared by the two is the use of block-of-time scheduling rather than a conventional six period day, which facilitates the utilization of interdisciplinary instruction. The concepts of teaming and flexible scheduling also assists teachers in personalizing instruction by utilizing student problems and concerns as tools for instruction. In this environment, the teacher encourages students to express their ideas and concerns about problems and topics they want to study and assists them in developing criteria for selecting the topic. This is more easily accomplished in a core curriculum because it draws on many disciplines and a wide range of informational sources. Students are provided many opportunities for solving problems by using the skills and processes of critical thinking. These factors facilitate closer relationships between teachers and students and enable teachers to better meet the unique needs of the early adolescent.

Lounsbury and Vars (1978) classify core curriculum into two types - structured or unstructured - depending upon the limits of planning set in advance by the staff (p. 61). The school staff decides in advance which problems or experiences the students will explore in a structured core program. The areas identified for study are those of immediate and personal concern to the early adolescent. Frequently these problems vary from grade level or team and are chosen cooperatively by the students and teachers. The unstructured core programs deal with problems that the teachers and students identify in each class. They are free to identify any problem they consider worthwhile.

The concept of a common, comprehensive, academically oriented core curriculum evolves directly from the need for middle school students to possess an informed perspective about themselves and society. Most of the middle school literature broadens the original core concept to include the study of basic skills. The expanded concept does, however, link academic content to the heightened curiosity that young adolescents have about themselves and assist the transescent in making informed decisions about their place in society. One of the goals of these courses is to help students identify their own interests, appreciate fine and applied arts, and develop some basic concepts and skills in the areas studied. The length of the exploratory courses varies from several weeks to a year. Frequently they are initiated in grade six as a required course and are available as an elective at the higher grade level. The subjects generally offered in this area are art, music, home economics, and industrial arts. Other options available in some schools are drama, business courses, and foreign languages.

Since these courses are exploratory, the art class is an area for providing creative expression and developing appreciation. The music class is also primarily concerned with appreciation rather than performing. Thus, additional classes are frequently offered for students with a special interest or talent in instrumental or vocal music. Both home economics and industrial arts are more practical arts than exploratory, but many students develop interests in these courses that are pursued later. These courses and the others listed are frequently part of a progressive program whereby longer periods of time are provided by higher grade levels for those students who select them. These elective courses above the sixth grade are also a means of meeting individual interests and providing for exploration. Some middle school elective courses are offered for credit toward graduation while others provide remedial work as part of the elective block.

Other areas of exploration are special interest courses. Frequently referred to as mini-courses, they are of short duration and have a limited focus with an emphasis on hands-on experiences. The courses offered are initiated by the students and limited by the competences of the school staff or community. The students' participation is voluntary and no grades are given by teachers.

Independent study is another form of exploration recommended as part of the middle school curriculum. It takes many forms and is made available through any type of group instructional organization. Teacher teams frequently utilize this type of activity as part of their curriculum. Teachers in other classes may assign projects to be pursued independently.

"Properly conducted it will help pupils grow in self-correction, self-analysis, and self-direction" (Alexander and George, 1981, p. 66).

The next area of exploration is a comprehensive activity program. These activities, unlike the other exploratory activities, are normally run by the students with the teachers serving as advisors or facilitators. Caution needs to be taken in ensure that the activities do not imitate those offered in the high school. Some of the recommended programs are intramural activities, student government, interest clubs, service clubs, and socials. These activities provide different learning opportunities for the students such as leadership, self-management, responsibility and socialization. It is recommended that many of the activities take place within the regular school day. This is done through a regularly scheduled activity period several days a week or by having the core classes schedule time for the various activities. Other activities requiring additional time are scheduled after hours, such as some intramurals, socials, and music/drama productions. However, participation in the activity programs should generally not be restricted to selected students.

The other areas of the exploration curriculum are health and physical education. These courses are generally required of all students and have a firm place in any middle school curriculum. The physical education program is characterized by physical movement and exercise with accompanying instruction in body building exercises, team games, and related small and large group instruction. "Middle school youngsters need physical activities that help them develop skills and coordination rather than those that reveal and emphasize their lack of skill and poor coordination" (Lounsbury and Vars, 1978, p. 84). Physical activities that are

appropriate for both sexes are emphasized, as well as those that have clear carryover value, such as bowling, ping-pong, folk dancing and fitness.

In keeping with the needs of the early adolescent, health instruction also has a major role in the curriculum. Some instruction is co-ed and deals with first aid, personal hygiene, and substance abuse. Other topics of a more sensitive nature require the separation of sexes. The study of human sexuality and the need for the early adolescent to understand their changing bodies is critical. The objective of the health curriculum is to give continuing attention to the students' physical, social, and emotional needs during the middle school years.

#### Curriculum Content

The content and design of the middle school curriculum needs to reflect the uniqueness of early adolescence. Curriculum planners need to be aware that "the middle school student is sensitive, restless, and in transition, which causes his/her attention span, activity range, and overall motivation to fluctuate markedly (Bartkowski and Morse, 1977, p. 5). Thus, a curriculum that shows the interrelationships of the various content and is filled with activities is most appropriate for the transescent. As the transitional program between elementary and high school, the focus in reading shifts from learning to read to reading to learn. The interdependence of instruction in the language arts and thinking permeates all courses and emphasizes reading, writing, and thinking.

Since the interdisciplinary team is one of the common characteristics of the middle school, it serves as the vehicle for designing an

interdisciplinary curriculum. The team organizes the curriculum by intergrating subject areas in such a way that learners work on problems through application of content and resources from various disciplines of knowledge.

A model developed by Beane (1976) illustrates curriculum options that are appropriate for interdisciplinary teams to consider in developing instructional units. Teams are encouraged to use more than one option during the school year, or by subdividing the team, use more than one concurrently.

Type 1 - separate subjects required of all students, but taught by a team of teachers common to a particular group of learners.

Type 2 - correlation of subjects in such a way that, while still teaching their subjects, all teachers utilize a common theme such as mass media, etc. This type might well fall under "multi-disciplinary."

Type 3 - fusion of subjects into units dealing with either cultural or historical themes (e.g., the colonial period, westward movement, the industrial revolution, etc.) or major social problems (e.g., alcoholism, the energy crisis, world terrorism, etc.) in such a way that teachers approach the unit without regard for their subject specialities and subject matter is drawn from any appropriate source of discipline.

Type 4 - units are organized around youth needs drawn from real life situations (e.g., developing personal values, living in the school or home, getting along with others, etc.) in an effort to deal directly with the developmental needs, problems, interests or concerns of an age group. Such units are preplanned using general or typical types of youth needs.

Type 5 - units are not preplanned, but rather constructed on a basis of interests of a particular group identified through cooperative teacher-student planning (p.12).

These options present numerous opportunities for teachers to integrate their curriculum. In its simplest form two teachers provide for a natural overlap between subject areas so that students see the relevance and inter-relatedness of their disciplines. At a more sophisticated level, themes are identified as a springboard for instruction in the various content areas. At times the focus for the study is a separately selected theme or unit that is not necessarily related to any one subject area's regular curriculum. These interdisciplinary units provide students with an indepth focus on a particular topic and generate strong student/staff motivation and interest. This method for developing and organizing curriculum at the middle school level is not only based on the goals and objectives of the content areas, but also applies to the distinct needs of the age of the students as they fit into the major component of the middle school concept.

In keeping with the middle school philosophy and program goals, the curriculum stresses basic skills and provides a variety of exploratory and elective courses. All sixth, seventh and eighth graders spend from 57 to 80% of their school day receiving reading/language arts, mathematics, science/health and social studies instruction. The major portion of instructional time in language arts and mathematics, as well as smaller portions of instructional time in science and social studies, are focused on the student becoming more competent in communication and in continued learning. Interdisciplinary instruction through block of time scheduling



arrangements facilitate combinations and instructional units that draw knowledge from various disciplines. The exploratory courses compose the other 20 to 50% of the transescent's school day. These instructional opportunities play a big role in the total middle school curriculum design and provide first time learning situations for many students.

The following is a description of the various curriculum areas:

1. Interdisciplinary Block

- A. Reading/Language Arts

A middle school instructional program includes a strong, integrated block of reading/language arts. (Language arts encompasses those areas often labeled English, such as grammar, literature, composition, spelling and handwriting.) Students experience the consistent continuation of their elementary reading/language arts program through a continuous progress organization.

Time allocations for students below grade level vary with the amount of remediation necessary. On the other hand, students achieving above grade level benefit from an enriched reading/language arts program. Specific areas of instructional enrichment emphasis include advanced composition skills, advanced research skills, leadership skills and interdisciplinary studies.

In addition to basic studies in reading/language arts, students are offered related exploratory/elective course in creative writing, drama, speech and journalism.

To ensure transfer of basic reading/language arts skills, instruction emphasizes the application of these skills through written and oral expression in all subject areas; for example, correct spelling should be a concern of teachers in all content areas.

B. Mathematics

Another curriculum area receiving strong emphasis in the middle school is mathematics skills. Student placement in the mathematics curriculum determines instructional level. It too is a continuation of the elementary program study. Mathematics instruction varies to meet the needs of individual students. Those achieving below grade level receive more basic skills instruction time. Those above grade level benefit from accelerated mathematics courses, such as Pre-Algebra and Algebra I for eighth graders.

C. Science

Middle school science is a transition from elementary to secondary programs in content as well as approach. Problem-solving methods introduced in science process skills are expanded into more sophisticated experimentation in life science, earth science, and physical science. Student participation in laboratory experiences is emphasized and opportunities are provided for students to identify, investigate, and hypothesize scientific problems to man's survival. This content area serves as a natural vehicle for inquiry.

D. Social Studies

The social studies program continues and expands the elementary curriculum. Instruction provides an awareness of other societies and cultures, understanding of contemporary United States, further development of geographic and map skills, and everyday skills of the individual in society. It provides consideration of many ethical and moral questions and provides topics for many interdisciplinary and core units.

2. Exploratory/Elective

A. Art

The art program in the middle school is relevant to the interests and needs of the student and is planned to increase sensitivity to self, other people, and the environment. Developmental and constructive in nature, the program exposes students to a wide variety of materials and procedures. In addition to exploratory courses, the art program provides for the needs and interests of students desiring to go beyond the exploratory phase.

B. Industrial Arts

Industrial arts or technology education is open to students throughout the middle school years. It introduces students to the world of industry and technology and guides them in discovering occupational or vocational interests. The curriculum provides practical experiences in the use of many tools, materials and processes, as well as those of the

skilled trades and crafts and home life. Courses are planned to satisfy the needs of boys and girls preparing for higher education, vocational education, or continuing in general education.

C. Home Economics

Home economics is planned to further the exploratory experiences of students and to fill their specialized needs. The courses are designed for both boys and girls since skills necessary for managing finances, life, and a home are valid to both sexes. The program includes objectives on careers in home economics, sewing and crafts, food preparation, as well as family relationships, personal development, clothing and food management and child care.

D. Music

A viable middle school music program is designed to foster students' existing musical experiences and to provide expansion for students who have the need and the interest. Band, chorus and orchestra are available for students who show an aptitude and interest, as well as exploratory courses with emphasis on music appreciation available for students who qualify.

E. Foreign Languages

Exploration is an important part of the middle school program, and the foreign language program is planned with this in mind. Introductory courses in French, German, Spanish and/or Latin enable students to make informed

decisions as to which language to pursue in future studies. Full-year foreign language courses in some language are taught at the eighth grade level.

F. Business Education

Vocational preparation is an important part of the exploratory/elective program. Business exploration offers students an opportunity to explore the world of charge accounts, installment buying, finance and saving accounts on a personal level. Business-related occupations and the skills, abilities and attitudes necessary to obtain such jobs also are presented. Other courses in computers or keyboarding are also frequently offered.

3. Physical Education

Physical activity programs include all the knowledge and experiences that can be provided to enhance the motor, social and physical development of students through body movement. Physical education's unique contribution to the development of youth calls for systematic instruction in a wide variety of activities. Offerings include team sports, lifetime sports, outdoor recreational activities, self-testing activities, creative movement experiences, aquatic activities and physical fitness activities.

4. Health Education

All students receive health education instruction. The science teacher incorporates specific units in health in their

curriculum. However, it is recommended that the health program be taught by a certified health teacher. Additional emphasis on health education is placed in all instructional areas.

## CHAPTER VI

### SUMMARY AND CONCLUSIONS

This chapter will summarize the main research question and the instrumental questions which served as the focus for this study. Also, it will include recommendations for further research.

#### The Questions

The main question is: That in light of the available body of knowledge is the middle school a reasonable innovation to sustain and implement?

Instrumental question: The following instrumental question is presented as focus for framing the main question: Does the history of the middle school movement provide an interpretation and explanation which helps us understand the middle school innovation?

According to Presseisen and others, the middle school dates back to 1893 and the work of the Committee of Ten. The committee and subsequent committees over the next two decades initiated the secondary reform movement that is still impacting on middle level education today. The eighty years have brought with them much discussion, debate and experimentation concerning what is the best educational environment for the early adolescent. Although numerous successes and failures have been recorded in the last eight decades, the enduring result has been the firm place that middle level education has achieved in the scheme of American education.

As was presented in Chapter II, the junior high school was the first initiative to facilitate transition from elementary into secondary education. Although a separate junior high school was advocated, the proposed division was intended as part of the secondary level. The deliberative committees of the early 1900's at first supported the new division in keeping with Eliot's proposal of teaching college preparatory subjects earlier; however, as more educators and the public became involved, the reorganization was supported for different reasons.

Although the junior high school was conceptually organized by educators, the social, political, and economic issues of that period impacted on the implementation of this new program for the early adolescent. The country was changing from a rural, agricultural nation to an urban, industrial one. As Van Til expressed it, "the need was for a school between elementary and secondary that would have characteristics of vocational education, citizenship education, and concern for social problems" (McGlasson, 1973, p. 11). Society was becoming increasingly concerned with the number of students dropping out of school during the seventh, eighth, and ninth grade years. Educators also saw the need for greater emphasis on practical studies and various forms of vocational education as an incentive to hold students in school. The extension of extracurricular activities into the lower grades was also gaining support as offering great potential as learning experiences in grades seven and eight. In addition, the end of World War I caused an increased enrollment in the schools and necessitated the movement of two grades into the new junior high school organization.



For the reasons stated, as well as the contributions made in the field of psychology, the junior high school flourished. Enrollment figures in the nation's schools had increased as a result of a rising birth rate and the enactment of laws relating to compulsory attendance and child labor. "Happily for advocates of reorganization, whether they espoused earlier college preparation, more relevant studies for this age, or any other preference, the times in which all of these developments occurred were times of change" (Lounsbury and Vars, 1978, p. 17). These changes in the social, political, and economic issues of the time created the environment for this new school organization.

As the review of literature on middle level education documented, the growth of the junior high school followed a steady pattern of development from the first decade of the 1900's to the 1940's when a separate senior high school, preceded by a junior high school, was the predominant school organization. However, as the number of junior high schools increased, so did its critics. While some were concerned with the downward extension of the senior high school programs and activities, others felt the junior high school had lost sight of its transitional purpose.

With the more progressive decade of the 1960's and the mounting criticism of the junior high school, the middle school emerged. Once again social, political, and economic issues were major factors in the rise of the middle school. As a response to Sputnik, some people called for a more rigorous academic program for ninth grade. They insisted that this could best be achieved in a four-year high school where advanced math and science courses could be taught by subject area specialists. Some communities used the movement of grade six into the middle school as the vehicle for

achieving racial integration at an earlier grade level. Some school boards capitalized on the new middle school grade level configuration of 6 - 3 - 4 to better utilize existing physical facilities. "Physical facilities have also been a major factor in many school systems, particularly in smaller ones which changes in organizational patterns are easier to effect than in larger systems" (McGlasson, 1973, p. 13).

Further support for the middle school came from social psychologists and anthropologists who stated that young people were maturing earlier. The studies of Tanner indicated that boys and girls were reaching the onset of puberty at least a year or more sooner than 50 years ago (Lounsbury, 1984, p. 32). Margaret Mead stated that the grade span for junior high school students was inappropriate and grouped students who had more diverse needs (Lounsbury, 1984, p. 18). Their findings also supported the fact that the differences were not only physical but social.

Another major source of strength for the middle school movement was the dissatisfaction of educators with the junior high school program, particularly its replication of the programs and practices of the senior high school. Concern was also expressed that the junior high school had lost its innovative spirit and the concept of exploration. Thus the middle school movement, like the junior high school movement before it, was affected by circumstances unrelated to educational philosophy. In each case social, political, and economic issues played significant roles in their development.

The number of middle schools increased rapidly in the 1960's and 1970's. Many observers saw the new middle school concept as a return to programs and purposes originally included as part of the junior high.

Although there was some initial confusion in the 1960's of some junior high schools simply adopting the newer middle school label for their schools, the 1970's saw more of the existing intermediate institutions converting to middle schools, not only in label but in programs. The decade of the 1980's has seen an even greater increase in the number of middle schools and their implementation of exemplary goals and programs. Recent data from the U.S. Department of Education showed that there has been a 129% increase in the number of schools with a grade organization of 6 - 8 from 1970-71 to 1984-85.

Even though there has been increased support for the middle school in several states - California, Virginia, North Carolina - as referenced in Chapter II, there is still general lack of knowledge by the general public. "One of the more remarkable evidence of this neglect is the failure of the several national reports to examine the unique needs of middle schools" (Levy, 1988, p. 105). Some reference this omission because the middle school is still perceived by many as a part of secondary education and should be dealt with at that level. "Thus, middle level education faces a double problem of not only justifying those educational practices which have been proven to be educationally sound for this age group, but at the same time helping the general public understand the purpose of middle school education" (Swain, Needham and Associates, 1984, p. 45). The significance of middle level education is only slowly being acknowledged. This is evidenced by the increase in the number of colleges and universities that are offering a program for middle school teacher certification. The number of state departments requiring special middle school teacher certification is also on the increase.

Another factor referenced in Chapter II that acknowledged the recognition of the middle school is the rapid growth of the National Middle School Association. The middle school, unlike its predecessor the junior high school, now has a voice for the middle school concept which links together teachers, administrators, university educators, parents, and others by a common bond. "The emergence of the grades 5 - or 6 - 8 middle school cannot be attributed to the recommendations of national committees as in the case of the junior high school; rather it has usually developed as an innovation planned either wholly locally or aided by knowledge from other districts and state and national proponents" (Alexander, 1988, p. 108).

Another instrumental question relates to certain curriculum and instructional practices implemented in the middle school: Are there identifiable characteristics agreed upon for an exemplary middle school? A subquestion relates to teacher teaming and asks is it reasonable to include teacher teaming in the middle school on the basis of educational research? Not only has the number of middle schools increased over the last 28 years; but as the introduction of Chapter III stated, general consensus has been reached by many middle level educators that organizing the staff into teams, providing for flexibility in scheduling, offering a core and exploratory curriculum are three of the essential characteristics for the middle school. Although the research is limited and at times conflicting, a review of middle school literature supports the implementation of these three characteristics for the middle school. They are recommended as the vehicles for establishing a more intimate and flexible school community that better meets the needs of the early adolescent. Teachers organized in

teams utilizing a flexible schedule can offer an exploratory curriculum that creates an environment that enables students to better make the transition from elementary to high school.

As Alexander and George stated, the interdisciplinary organization of teachers is the 'keystone' of the middle school. Lipsitz's studies also supported teaming. Her work emphasized how interdisciplinary teaming minimized the size of a school, personalized the environment, and increased communication among students and teachers. Other studies found that teachers organized in teams were provided opportunities to interact with each other as professionals and to support and assist each other.

Students also benefit from this type of organization as indicated by the literature. Teaming lessens the confusion and anxiety students face when confronted by teachers who possess different standards. It was also reported that when students do experience difficulty in school, the teachers in their team meeting can generate solutions to assist students to overcome road blocks (Alexander and George, 1981, p. 312). Although some studies indicated that middle schools organized in teams resulted in greater academic achievement by the students, others reported that this was not the case. The studies, however, generally showed students' attitude toward school and attendance improved.

Another distinct advantage of the interdisciplinary team was the ability of the teachers to plan and evaluate their instructional program. Teaming lessens the tendency for a single subject to be emphasized at the expense of the total curriculum. The students, not the various curricula, are the focus of decision-making and program planning. The teams are

provided an opportunity to coordinate and integrate the various curricula. As Kerfut's study reported, teachers stated that the advantage of a school's interdisciplinary team teaching model centered on increased communication among team members leading to a more integrated approach to a coordinated curriculum and more consistent approach in implementing the school's policies and practices (Kerfut, 1977, p. 134).

A second part of the same instrumental question relates to flexible scheduling and asks is it reasonable to include flexible scheduling on the basis of educational research? Kerfut's study also emphasized the need for a middle school to have a flexible schedule to better meet the student and/or program needs (Kerfut, 1977, p. 121). Just as teachers are organized differently in the middle school, the literature also recommended that the method of organizing the daily schedule be different. The dominant word used to describe the middle school schedule is flexibility. There was no one right way identified to develop a middle school schedule, however, the use of extended blocks of uninterrupted instructional time for selected core curriculum is a predominant practice. This organization of block time, according to the research, permits the teams of teachers to modify their program by extending periods of time for selected courses/activities or shortening time for other instructional strategies. As the research indicated, the block-of-time scheduling has been around for 60 years; but its use in the middle school facilitated transition from the self-contained elementary school to the departmentalized high school. According to Callahan and Clark, the tyranny of the clock is diminished when teaching teams can shuffle groups of students based upon their needs and interests (Callahan and Clark, 1977, p. 16).

The findings supported that there is no one way to organize a middle school. It was suggested that middle schools should use a variety of organizational patterns - both block-of-time and modules. Middle schools were encouraged to identify those practices that best meet both the academic and affective needs of their students. The important factor to be considered is for the schedule to provide a smooth transition from the elementary program to the high school program. "An interdisciplinary team with a large block of time at its disposal should be in a better position to make a schedule for its students within that block than is the central administration. The staff should be free to experiment with creative ways of organizing for teaching" (National Middle School Association, 1982, p. 11).

The last area cited in the instrumental question asks if it is reasonable to include an integrated curriculum on the basis of educational research? Just as the procedure for organizing for instruction through teaming and implementing the instructional program through a flexible schedule is unique in the middle school, so is the curriculum. As the central focus of a middle school, the curriculum is implemented by the interdisciplinary teams through a flexible block schedule.

A review of middle school literature indicated that the curriculum be developed with regard to the educational needs and characteristics of the early adolescent (Lounsbury and Vars, 1978, p. 40). The curriculum must balance academic goals and other developmental needs. According to the research, non-cognitive objectives are an essential component in the middle school curriculum. Both content and the student are valued. The curriculum should not only include continued development of the basic

skills, but seek to increase the fund of knowledge students possess. This balance of cognitive and non-cognitive skills makes the middle school curriculum distinctly different from elementary or secondary programs.

Several studies cited the need for instructional courses or units that dealt with specific concerns or special interests of the early adolescent to be included in the curriculum. Others indicated the need for offering exploratory activities for socialization, interest-development, and leisure-enriching purposes. Research studies by Lipsitz emphasized the need for schools to develop curricula and strategies that move those students who are ready from the concrete to the abstract (Lipsitz, 1984, p. 7). Strahan suggested the need for middle schools to implement an active inquiry-based curriculum (Hoose and Strahan, 1988, p. 17).

As stated previously, the middle school should continue to provide a strong program in the basic skills of mathematics, science, social studies, and the language arts, as well as exploratory electives. Alexander, however, stressed the importance of integrating basic skills in all areas of the curriculum. He emphasized the teaching of basic skills through all exploratory courses. The literature recommends that these exploratory/elective courses vary in length from several weeks to a year. The subjects generally offered in this area are art, music, home economics, and industrial arts. Other areas of exploration are special interest courses/activities or mini-courses that are of short duration and have a limited focus with an emphasis on hands on experiences.

Another essential component of the middle school curriculum found in the research is physical education. It is generally required of all students and has a firm place in any middle school curriculum. Physical



activities that are appropriate for both sexes are emphasized, as well as skills that lead to later leisure or fitness activities. The physical education curriculum, like the other curriculum areas, is geared to meeting the needs of the early adolescent both in skills and content.

#### Conclusions

In conclusion, the middle school is a reasonable innovation to sustain and implement in light of the available body of knowledge. The initiation of middle level education reform is traced back to 1893 and progresses from a grade level reorganization to the current middle school program. The recurring theme throughout the literature on middle schools from its history to a description of its program characteristics is that effective schools for early adolescents are organized so that the people within them are not lost in the complexity of the process. The middle school itself is now being presented as a distinct unit in the educational system that provides a transitional program between the elementary school and high school. Although it has some components of both levels, the middle school program must provide for the immature learner, who needs close guidance of a single teacher, and for the mature learner, who needs the challenge of many specialists; thus the learning opportunities, organization, and scheduling must be flexible.

The literature and research of middle level education also indicated that highly successful middle schools have very similar programs. These schools have programs that are uniquely different from the elementary and high school. One characteristic of successful middle school programs is teacher teaming. It is recommended as the vehicle for establishing a

school-within-a-school environment that enables students to better make the transition from elementary to high school. Another program characteristic is the need for the middle school to utilize a flexible schedule that is not restricted by artificial separation of subjects or designation of specified time limits on a daily basis. A third characteristic is the need for the curriculum in the middle school to focus on the characteristics of the early adolescents and support their growth - both physically, socially/emotionally, and intellectually, and for the curriculum to be developed as an integrated program. Although there are still many references in the literature stating that there is a definite need for more pertinent research related to all facets of the middle school program, it is generally agreed that "the middle school movement could not have been as successful and widespread as it is today if it were not based on sound educational principles. There can be no stronger philosophical base than that of striving to create an educational environment that will meet the needs of the student it serves" (Swain, Needham, and Associates, 1984, p. 45).

#### Recommendations for Further Study

Although there appears to be a reasonable amount of research and a substantial body of knowledge on the middle school, this study suggests that there are questions that need to be answered through further research.

1. What types of teaming arrangements are most appropriate for the various middle school grades?
2. What are the strengths and weaknesses of various middle school daily schedules?

3. What are the effects of the interdisciplinary approach used in the middle school?

4. What types of staff development activities are needed to ensure effective middle school programs?

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## ABSTRACT

### ASSESSMENT OF RATIONAL BASIS FOR MIDDLE SCHOOL INNOVATION

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The College of William and Mary in Virginia, May 1989

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The purposes of this study were to present a historical interpretation and explanation of the middle school innovation and to examine the characteristics of model middle schools. In light of the available body of knowledge is the middle school a reasonable innovation to sustain and implement? A subsidiary purpose was to determine if there were any consensually agreed upon characteristics. The main research question is:

A comprehensive review of the literature was completed to provide the history of middle level education. Beginning with an explanation of the work of the Committee of Ten in 1893, the study provided a report on the current status of the middle school movement and established the rationality and reasonableness of the program in meeting the intent established by the Committee of Ten. The educational, social, and political issues that affected the development of the middle school movement were also examined.

The second part of the study included an examination of the literature on middle level education for the past quarter of a century to determine the essential characteristics of good middle schools. The rationale for implementing teacher teaming, flexible scheduling, and a core and exploratory curriculum was also examined as they relate to the middle school program.

It was concluded that the middle school is a reasonable innovation to sustain and implement in light of the available body of knowledge. The middle school itself is now being presented as a distinct unit in the educational system that provides a transitional program between the elementary school and high school. The literature and research of middle level education also indicated that highly successful middle schools have very similar programs.

Further study is needed to determine what types of teaming arrangements are most appropriate for the various middle grades, the strengths and weaknesses of various middle school daily schedules, and the effects of the interdisciplinary approach used in the middle school.