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Comparison Study of the Implementation Rate of Eighteen Middle School Characteristics in Michigan and National Blue Ribbon Schools

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COMPARISON STUDY OF THE IMPLEMENTATION RATE OF EIGHTEEN MIDDLE SCHOOL CHARACTERISTICS IN MICHIGAN AND NATIONAL BLUE RIBBON SCHOOLS

by

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COMPARISON STUDY OF THE IMPLEMENTATION RATE OF EIGHTEEN MIDDLE SCHOOL CHARACTERISTICS IN MICHIGAN AND NATIONAL BLUE RIBBON SCHOOLS

Gregg G. Mowen, Ed.D.

Western Michigan University, 1993

The purpose of this study was to determine the current amount of implementation of the 18 middle school characteristics as reported by principals from randomly selected middle level schools in the state of Michigan and in middle level schools designated as Blue Ribbon schools (U.S. Department of Education, 1991). This study used a survey questionnaire that was initially designed by Riegle (1971) to measure the rate of implementation of the middle school characteristics. The survey was mailed to Michigan and Blue Ribbon middle level school principals, selected randomly via a table of random numbers. The return rate for Michigan schools stood at 73.44%, with a sample validity of .05. The Blue Ribbon schools' response rate was 90%.

The overall percentage of implementation of the basic middle school characteristics for Michigan middle level schools stands at 56.87%, compared with the Blue Ribbon schools at 67.4%. Michigan schools designated as middle schools earned a 57.65% overall implementation rate as compared with Michigan schools designated as junior high schools earning a 53.44% implementation rate.

Significant differences in mean implementation scores between Michigan schools and Blue Ribbon schools were found at the .01 level

for 12 characteristics. Significant differences at the .01 level between mean implementation scores of middle schools and junior high schools were found regarding 8 characteristics.

The individual characteristic data suggest some unique trends when compared to data collected in 1974. Recommendations include reorganizing the basic middle school characteristics into two groupings. Group 1 consists of 8 high usage middle school characteristics and Group 2 contains 10 low usage middle school characteristics.

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Mowen, Gregg Gordon, Ed.D.

Western Michigan University, 1993

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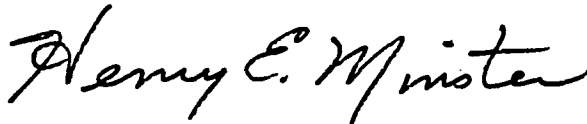Manistee, Michigan 49660
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Dr. Henry E. Minster
Asst. Superintendent

JANUARY 11, 1993

TO WHOM IT MAY CONCERN:

I am very pleased to be able to grant Gregg Mowen the
permission to use the definitions of the eighteen
basic characteristics of a middle school and the
survey instrument from my dissertation.

Sincerely,

Henry E. Minster, Ph.D.

ACKNOWLEDGMENTS

The completion of this document could not have been accomplished without the love, support, and understanding of my family. First, I wish to thank my wife, Carol, for her assistance as editor and number one support person.

Secondly, I wish to thank my sons, Gordon, Thomas, and Steven, for understanding that Dad had to be away from home a lot and locked in his room more often than any of us desired. This achievement is indeed a family affair!

Thirdly, I wish to thank my parents, Gordon and Ivalu Mowen, for their continued interest and support of my education. They were with me on my first day of school, attended all school functions in which I was involved from band concerts to football games, and helped me realize the importance of education through their diligence at being an active part in mine. "Education is something no one can take from you. It is yours forever." Thanks, Dad and Mom.

Gregg G. Mowen

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CHAPTER I

INTRODUCTION

The Nature and Purpose of the Study

The middle school student is maturing faster than in past years. Moss (1969) pointed out that "the children of today reach puberty at approximately age eleven" (p. 31). Furthermore, Blos (1967) believed puberty is beginning 4 months earlier every decade. Puberty is a confusing time for students. During the middle level years, the transescent undergoes many physical, emotional, and psychological changes according to Eichhorn (1966), who created the term "transescence" (p. 31).

Schools must provide programs and curricula geared to dealing with the needs of students. Middle level schools that mirror the high school subject-centered curriculum lose sight of the individual student at a developmental stage when he or she is reaching out to become an individual. "During these 'becoming' years, young adolescents are literally persons in search of personality" (Arth et al., 1989, p. 9). To facilitate this metamorphosis, schools must implement a student-centered curriculum which focuses on the uniqueness of the individual student and is the foundation of middle school philosophy.

Riegle (1971) identified 18 basic middle school characteristics while reviewing literature on middle schools for his study. The list of these characteristics was validated by experts in middle level education. Riegle developed the initial questionnaire using these 18 characteristics

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to complete his study. Since their creation, the 18 basic characteristics of middle schools have been used in various studies with the objective of determining their rate of implementation in schools calling themselves "middle schools."

This study sought to determine the rate of implementation of the 18 basic middle school characteristics in Michigan by examining middle level schools regardless of name. Further comparison is made between schools calling themselves middle schools and those referred to by other names. Middle level schools identified as exemplary Blue Ribbon schools (U.S. Department of Education, 1991) are examined with comparison made to Michigan middle level schools. The historical perspective is examined by comparing scores from this study with scores reported by Raymer (1974/1975).

Research Questions

In order to satisfy the purpose of this study, the following research questions have been formulated:

1. What is the Michigan implementation level of the 18 basic middle school characteristics?

2. What is the Blue Ribbon schools' implementation level of the 18 basic middle school characteristics?

3. What is the implementation level of the Michigan middle level schools compared to Blue Ribbon schools?

4. What is the implementation level of Michigan junior high schools compared to middle schools?

5. What is the current degree of implementation compared to the findings of Raymer (1974/1975)?

Significance

The data from Michigan middle level schools and national Blue Ribbon middle level schools will provide a greater understanding of the present status of the middle school movement in Michigan and the United States. This understanding is crucial if improvements in the present system are to be made. DePree (1989) illustrated this point when he stated that the first job of a leader is to define reality. Defining the reality of middle level schools can facilitate a look toward the future and help to create a vision.

The school community may take a course of action to improve their individual middle schools upon receipt of these data.

Awareness of the implementation rate of the 18 basic middle school characteristics in the state of Michigan and nationally will be increased. The insightful information gained via this research study will add to the already established knowledge about middle schools and the 18 characteristics of middle schools. This information may help to further studies related to middle level schools with the goal of creating better places for children to learn.

Limitations

This study was limited to Michigan schools housing any grade configuration, but including Grade 7 and national middle level schools designated as Blue Ribbon. Further limitations were Michigan schools

calling themselves "middle schools" by name and schools calling them-selves "junior high schools" by name.

The respondent principals in this study came from a wide variety of locations and possessed much variety in personal background and educational experiences. Lack of consistency in responses may have resulted from these differences.

The questionnaire used in this study measured the rate of imple-mentation of the 18 basic middle school characteristics. This study examined implementation rates of programs currently in use.

Delimitations

The effectiveness of implemented characteristics was beyond the scope of this study. Schools where characteristic implementation was in the planning stages or where programs consistent with the middle school characteristics have been eliminated were also outside the boundaries of this study.

This study did not investigate high schools or elementary schools, even though they may have programs reflecting the middle school char-acteristics.

Questionnaires completed by someone other than the principal were not included in the data relative to this study.

Definitions

The terms listed below are closely associated with and add mean-ing to the middle level school as both a concept and philosophy. They are defined in order to help with interpretation and understanding of this

study. These definitions may also help someone who is interested in replicating this study.

Middle level school: A school unit which includes some grade configuration including Grade 7 for purposes of planning and conducting a unique set of academic, social, emotional, and physical experiences for the early adolescent student.

Transescent youth: "That period in a person's development beginning prior to the onset of puberty and continuing through early adolescence. It is characterized by changes in physical development, social interaction, and intellectual functions" (Eichhorn, 1966, p. 31).

Planned gradualism: "An organizational plan to provide experiences designed to assist early adolescents in making the transition from childhood dependence to adult independence" (Minster, 1985/1986, p. 5).

Continuous progress program: "A nongraded program which permits students to progress at their own educational pace regardless of their chronological age" (Minster, 1985/1986, p. 5).

Enrichment experience: "A variety of elective courses designed to meet the individual interests of students" (Raymer, 1974/1975, p. 5).

Team teaching: Team teaching refers to two or more teachers teaching the same pupils and same subjects. If one team teacher teaches only science and another team teacher teaches only social studies, this is departmentalization.

Overview of the Study

Chapter I contains the nature and purpose of the study which was to determine the rate of implementation of the 18 basic middle school characteristics in Michigan middle level schools and national Blue Ribbon middle level schools. Comparison are made between Michigan schools and Blue Ribbon schools, between Michigan middle schools and Michigan junior high schools, and between the current study and the findings of Raymer (1974/1975). Terms are defined and limitations of the study are outlined.

The review of literature is presented in Chapter II. The middle school movement is reviewed and middle school and junior high school philosophies are compared. Related studies that have used the same questionnaire are identified, and methodologies that have been used to measure implementation of the middle school characteristics are identified .

The methodology used in this study is outlined in Chapter III. The source of data is described along with background on the instrument. The sampling technique, data collection method, and response rate are outlined in detail. How the data were analyzed is discussed along with the implications of the study.

The data which were collected are presented in Chapter IV. Each research question is presented along with a detailed description of the data found. Included are the descriptive statistics used to treat the data.

Chapter V includes the conclusions, implications, and recommendations for further study.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The middle school student is maturing faster than in past years. Moss (1969) pointed out that "the children of today reach puberty at approximately age eleven" (p. 31). Furthermore, Blos (1967) believed puberty is beginning 4 months earlier every decade. Puberty is a confusing time for students. During the middle level years, the transescent undergoes many physical, emotional, and psychological changes according to Eichhorn (1966), who created the term "transescence" (p. 31).

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<div align="center">Basis for Research Questions</div>

The middle school, as an educational term, is not a new one. According to Moss (1969), the middle school dates back to around 1838 in England when such schools were designed to teach general education and church principles for a modest fee. Although the current concepts associated with the middle school of today are quite different, the term middle school has been in existence for a long while.

According to Calhoun (1983), Bay City, Michigan, was the site of the first middle school in the United States. It opened its doors in 1958. During the remainder of the 1950s, little growth in the number of middle schools took place. Tremendous growth took place in the 1960s. Cuff (1967) identified 499 middle schools in his study of 446 school districts

across 29 states during the 1965-66 school year. Alexander (1968) reported his national survey results of 1968. He identified 1,100 middle schools in operation during the 1967-68 year. In a national survey conducted by Brooks (1978), it was identified that there were 4,060 middle schools in operation. This is truly astonishing, even in the history of our educational system. As put by Soares (1973), "This is the most notable educational movement of the past decade" (p. 381).

The middle school's popularity has in part come about by the decrease in confidence in the junior high school system. According to Sanders (1968), in the early 1960s, several studies attempted to compare academic achievement of groups of students from junior high schools with comparable groups from traditional 8-year elementary schools. The studies consistently showed no significant difference between these two settings. Therefore, the proponents of the junior high system were satisfied. The junior high school's original intention was noble. It attempted to bridge the gap between the elementary school and the high school, originally providing a unique organization and instructional program to meet the needs of the transescent. Over the course of the past three decades, the junior high school has become much more like the high school in structure. According to Alexander (1968), "the junior high school is better geared for the teenager than the transescent" (p. 114). In becoming more like the high school, the junior high school lost sight of the individual student. It stopped recognizing the individual uniqueness that becomes more apparent in transescence and, instead, enforced a subject-centered curriculum.

The middle school philosophy, which takes into account individual

student characteristics, interests, and objectives, began to acquire many followers in the middle to late 1960s. Calhoun (1983) put forth four major criticisms of the junior high school as rendered by the middle school advocates of the 1960s:

1. Junior high schools never achieved their original purposes.

2. Junior high schools evolved into a "cheap imitation" of the high school structure.

3. The ninth grade continued to emphasize college preparation despite being housed with the seventh and eighth grades.

4. Junior high schools tended to encourage racial segregation by delaying the departure from neighborhood schools until the seventh grade. (p. 83)

George, Stevenson, Thomason, and Beane (1992) put forth the notion that schools have failed in their attempt to become middle schools because they have been unable to let go of past practices that are not consistent with middle school philosophy. Schools should think in terms of a fresh start approach when revising their curriculum to meet the needs of early adolescents. When entering into this process, school personnel should concentrate upon preparing a curriculum that will equip the middle level student for life as an early adolescent, rather than solely for the future direction they may choose to take in later life.

Wiles and Bondi (1986) cited four important reasons for the formation of the middle school. The first reason stems from the renewed interest in academics that was born out of the successful launching of Sputnik in 1957. This launching sparked a reevaluation of the curriculum taught in American schools from top to bottom. In developing a better and stronger school education for its youth, American

education called for a 4-year high school with many specialized subjects taught by specialists of that particular discipline. This configuration then put the ninth grade in the high school rather than the junior high school and paved the way for a fifth through eighth grade configuration called the middle school.

Secondly, Wiles and Bondi (1986) pointed to the elimination of segregation at an earlier grade as a reason in support of the middle school. This idea is in agreement with the true middle school philosophy of the mid-1960s. The elimination of the local elementary schools by putting students into the middle school by Grade 5 or, at the latest, Grade 6 would move students into a more heterogeneous setting and away from the isolation of neighborhood elementary schools.

The third reason for the formation of the middle school was that of increased student populations around the country. In the late 1950s through the 1960s, enrollments were increasing at a staggering pace. This meant new buildings were necessary to house this onslaught of children. Because the older students could better cope with the over-crowded state of the schools, the ninth grade was moved to the high school to relieve the overcrowded tensions of the junior high school or emerging middle school. This same effect took place in the elementary school, forcing the fifth and sixth grades into the junior high school, which eventually forced a middle school grade configuration.

The fourth reason cited by Wiles and Bondi (1986) was the all-too-familiar band wagon effect. Schools becoming middle schools received recognition for doing so in the form of articles in periodicals or grants from various public and private foundations. This led concerned

administrators to join in and manufacture what they saw as a middle school. Whether these four reasons are good or bad is irrelevant. The point is that a grade configuration matching that of a middle level school was formed and from that came the chance to fit an educational program to the needs of the individual learner.

Coffland (1975) got to the real heart of the junior high school's problems when he criticized the academic structure of the junior high school as being too departmentalized. The departmentalized nature of the junior high school comes directly from using the senior high as a model. Using this method, the transescent is not afforded the opportunity to get to know his teachers well enough to let them act as advisors. The junior high school student is lost in the shuffle between classes. By changing teachers every class period, no one teacher is able to have an impact on the developing child that could be equaled by a self-contained classroom or block-time structured system.

Brod (1966) found 16 advantages of the middle school over the junior high school:

1. The middle school is a unit by itself, rather than a "junior" school classification.

2. It begins to facilitate team teaching and specialization in Grades 5 and 6.

3. It facilitates the reorganization of teacher education by providing specific middle school training patterns.

4. Students are grouped developmentally in grades 6-8, rather than in grades 7-9, who are generally dissimilar.

5. It fosters a shared experience of adolescence by providing unique student-centered programming.

6. Programs are transitional from elementary school to high school.

7. Facilities and specialists are available to everyone one year earlier.

8. The organization permits emphasis on the basic education program.

9. It makes guidance services available earlier.

10. The growing up process is slowed because the older are removed from each level.

11. It puts all students in the district together one year earlier, helping sociological adjustment.

12. It permits better coordination of middle school courses by physically uniting Grades 9 to 12.

13. It permits students and parents to understand the importance of the ninth grade record, particularly in terms of college admission.

14. Grade 9 no longer needs special programs because it functions as part of the high school.

15. Duplication of facilities and other expensive equipment are reduced because the ninth grade is part of the high school structure.

16. Future flexibility in building planning is provided, particularly when school population is changing.

The middle school movement can remedy the deficiencies of the junior high school structure. As Georgiady and Romano (1984) pointed out, the middle school concept logically draws its major strengths from

the very nature of the transescent individual and his or her interaction with the society in which he or she resides. This approach provides a means to meet the unique needs of the transescent.

Middle level schools using the middle school philosophy as the foundation to create programs for children are emerging all across the United States. While needs for students vary by geographic location, there seems to be a collection of common practices implemented. According to George and Lawrence (1982), the common elements include:

1. Absence of the "little high school" or "big elementary school" atmosphere.

2. Absence of the "star system," where a few special students dominate everything, in favor of an attempt to provide success experiences for greater numbers of students.

3. An attempt to use instructional methods appropriate to the age group, which includes individualized instruction, variable group sizes, multi-media approaches, beginning independent study programs, and inquiry-oriented instruction.

4. Planned opportunities for teacher-student guidance, which may include a home base or advisory group program.

5. Flexibility in scheduling and student grouping.

6. Some cooperative planning and team teaching.

7. At least some interdisciplinary or multi-disciplinary studies, in which opportunities are provided for students to see how different areas of knowledge fit together.

8. A wide range of exploratory opportunities, academic and otherwise.

9. Extensive opportunity for physical activity and movement, including more frequent physical education.

10. Early introduction to the areas of organized academic knowledge.

11. Attention to the skills of continued learning, i.e., those skills which will permit students to learn more effectively on their own or at higher levels of learning.

12. Emphasis on increasing the student's independence, responsibility, and self-discipline.

13. Flexible physical facilities.

14. Attention to the personal development of the student; values clarification, group process skills, health and family life education when appropriate, and career education.

15. Teachers who have been trained especially for, and who are committed to, the education of emerging adolescents. (p. 106)

Past research suggests there are many middle schools operating in name only. Many schools calling themselves middle schools are in reality practicing junior high schools. They do not exhibit substantial evidence of implementation of the 18 basic characteristics of middle schools. While research does not indicate the reverse to be true or false, it is possible there are junior high schools operating as middle schools. The 18 basic middle school characteristics must be fully implemented so the educational program focus is on the individual student rather than curriculum, as established by the junior high school structure.

Epstein and MacIver (1988) conducted research on a national scale involving schools that include Grade 7. The sample of 2,400 public schools was a probability sample proportional to each school's estimated enrollment per grade level. Principals responded to the survey which sought to summarize the past, present, and expected future use of 22 practices. They found that ability grouping or tracking to create homogeneous groups is common with over 40% of all schools employing the practice, therefore ignoring the ideas of planned gradualism. Over

85% of all seventh grade students are schooled in a departmentalized program, having four or more teachers in any given day. Departmentalization is the opposite of the middle school characteristic team teaching and also impacts students through the characteristic student security factor. According to Epstein and MacIver (1988), students sent from teacher to teacher every 40-50 minutes for instruction may feel that no one teacher knows them very well which negatively impacts student security factor. Report cards are used in nearly every middle grade school in the country with only half giving any written comments to students. This is in conflict with the characteristic evaluation which emphasizes personal, nonthreatening, and strictly individualized feedback on progress in the areas of social, emotional, physical, and intellectual development. This should be done in student-teacher-parent conferences, not merely on report cards. In conclusion, this study indicates that most schools housing Grade 7 have not developed educational programs in line with recommended middle level practices, indicating the need for further study.

Eighteen Basic Middle School Characteristics

Riegle (1971) identified 18 basic middle school characteristics while reviewing literature for his study. These 18 characteristics accentuate differences between the junior high school concept and middle school concept. Minster (1985/1986) continued to refine Riegle's original definitions for his study. According to Minster, the 18 basic middle school characteristics are:

1. Continuous Progress. The middle school program should feature a nongraded organization that allows students to progress at their own individual rate regardless of chronological age. Individual differences are at the most pronounced stage during the transescent years of human development. Chronological groups tend to ignore the span of individual differences.

The curriculum built on continuous progress is typically composed of sequenced achievement levels or units of study. As a student completes a unit of study in a subject, he moves on to the next unit. This plan utilizes programed and semiprogramed instructional materials, along with teacher-made units.

2. Multi-material Approach. The middle school program should offer to students a wide range of easily accessible instructional materials, a number of explanations and a choice of approaches to a topic. Classroom activities should be planned around a multi-material approach rather than a basic textbook organization.

Maturity levels, interest areas, and student backgrounds vary greatly at this age and these variables need to be considered when materials are selected. The middle-school-age student has a range biologically and physiologically anywhere from seven years old to nineteen years old. Their cognitive development, according to Piaget, progresses through different levels too. (Limiting factors include environment, physical development, experiences, and emotions). The middle school student is in one of two stages; preparation for and organization of concrete operations or the period of formal operations. These students have short attention spans. Variation in approach and variable materials should be available in the school program to meet the needs and abilities of the youngsters and to help the teachers retain their interest.

3. Social Experiences. The program should provide experiences appropriate for the transescent youth and should not emulate the social experiences of the senior high school. Social activities that emulate the high school are not appropriate for middle school students. The stages of their social development are diverse and the question of immaturity is pertinent in the planning of activities for this age level.

The preadolescent and early adolescent undergo changes which affect self-concept. The child is in an in-between stage, separate from the family and the rest of the adult world. This is a time of sensitivity and acute

perception, a crucial time in preparation for adulthood. This is the age of sex-role identification, and the children model themselves after a same-sex peer group. The children need to be accepted by their peer group, and the attitudes of this group affect the judgment of the individual child. There is the necessity for developing many social skills, especially those regarding the opposite sex. There are dramatic changes in activity including dancing, slang, kidding, practical joking, and give. Common areas should be provided in the building for social interaction among small groups.

4. Flexible Schedule. The middle school should provide a schedule that encourages the investment of time based on educational needs rather than standardized time periods. The schedule should be employed as a teaching aid rather than a control device. The rigid block schedule provides little opportunity to develop a program to a special situation or to a particular student.

The middle school student needs the opportunity to have extra time in subjects where deficiency is identified. Teachers can use the flexible schedule to provide students with extra time in a given subject. This is especially difficult to accomplish in a highly departmentalized program. However, in a school that employs team teaching and self-contained classrooms, it can be easily accomplished. It is with emphasis on the growth of the individual child that the idea of flexible schedule becomes useful. Flexibility of the schedule will provide for more individualized education for the transescent and help a student to become capable of assuming responsibility for his/her own learning.

5-6. Physical Experience and Intramural Activities. The middle school curricular and co-curricular programs should provide physical activities based solely on the needs of the students. Involvement in the program as a participant rather than as a spectator is critical for students. A broad range of intramural experiences that provide physical activity for all students should be provided to supplement the physical education classes, which should center their activity upon helping students understand and use their bodies. The middle school should feature intramural activities rather than interscholastic activities.

Activities that emulate the high school program are inappropriate for the middle school student. The stages of their physical development are diverse and the question of immaturity is pertinent in planning activities for this age level. The wide range of physical, emotional, and social development found in youngsters of middle school age strongly suggests a diverse program. The child's body is

rapidly developing. The relationship of attitude and physical skill must be considered in planning for physical activities consistent with the concern for growth toward independence in learning. The emphasis should be upon the development of fundamental skills as well as using these skills in a variety of activities. Intramural activity involves maximum participation, whereas interscholastic activity provides minimum involvement. There is no sound educational reason for interscholastic athletics. Too often they serve merely as public entertainment and encourage an overemphasis on specialization at the expense of the majority of the student body.

7. Team Teaching. The middle school program should be organized in part around team teaching patterns that allow students to interact with a variety of teachers in a wide range of subject areas. Team teaching is intended to bring to students a variety of resource persons.

Team teaching provides an opportunity for teacher talents to reach greater numbers of students and for teacher weaknesses to be minimized. This organizational pattern requires teacher planning time and an individualized student program if it is to function most effectively.

8. Planned Gradualism. The middle school should provide experiences that assist early adolescents in making the transition from childhood dependence to adult independence, thereby helping them to bridge the gap between elementary school and high school.

The transition period is marked by new physical phenomena in boys and girls which bring about the need for learning to manage their bodies and erotic sensations without embarrassment. Awareness of new concepts of self and new problems of social behavior and the need for developing many social skills is relevant. There is a responsibility to help the rapidly developing person assert his/her right to make many more decisions about his /her own behavior, social life, management of money, choice of friends, and in general to make adult, independent decisions. The transition involves a movement away from a dependence upon what can be perceived in the immediate environment to a level of hypothesizing and dealing with abstractions. There is an establishment of a level of adult-like thought and desire to test ideas in school as well as in social situations.

9. Exploratory and Enrichment Studies. The program should be broad enough to meet the individual interest of the students for which it was designed. It should widen the

range of educational training a student experiences rather than specialize his/her training. There is a need for variety in the curriculum. Elective courses should be a part of the program of every student during his/her years in the middle school.

Levels of retention are increased when students learn by "doing" and understanding is more complete when viewed from a wide range of experiences. Time should be spent enriching the student's concept of himself and the world around him, rather than learning subject matter in the traditional form. A student should be allowed to investigate his/her interests on school time, and to progress on his/her own as he/she is ready.

10. Guidance Services. The middle school program should include both group and individual guidance services for all students. Highly individualized help of a personal nature is needed.

The middle school child needs and should receive counseling on many matters. Each teacher should counsel the child regarding his/her learning opportunities and progress in respective areas. Each child should perhaps be a member of a home-base group led by a teacher-counselor, who watches out for his/her welfare. Puberty and its many problems require expert guidance for the youngsters, so a professional counselor should be available to the individual.

11. Independent Study. The program should provide an opportunity for students to spend time studying individual interests and/or needs that do not appear in the organized curricular offerings.

A child's own intellectual curiosity motivates him/ her to carry on independently of the group, with the teacher serving as a resource person. Independent study may be used in connection with organized knowledge, or with some special interest or hobby. The student pursues his/her work, after it has been defined, and uses his/her teacher's various materials available in and out of school, and perhaps even other students as his/her sources. He/She grows in self-direction through various activities and use of materials.

12. Basic Skill Repair and Extension. The middle school program should provide opportunities for students to receive clinical help in learning basic skills. The basic education program fostered in the elementary school should be extended in the middle school.

Because of individual differences, some youngsters

have not entirely mastered the basic skills. These students should be provided organized opportunities to improve their skills. Learning must be made attractive and many opportunities to practice reading, listening, and asking questions must be planned in every classroom. Formal specialized instruction in the basic skills may be necessary and should be available.

13. Creative Experiences. The middle school program should include opportunities for students to express themselves in creative ways. Student newspapers, dramatic creations, musical programs, and other student-centered, student-directed, student-developed activities should be encouraged.

Students should be free to do some divergent thinking and explore various avenues to possible answers. There should be time allowed for thinking without pressure, and a place for unusual ideas and unusual questions to be considered with respect. Media for expressing the inner feelings should be provided. Art, music, and drama provide opportunities for expression of personal feelings.

14. Security Factor. The program should provide every student with a security group: a teacher who knows him/her well and to whom he/she relates in a positive manner; a peer group that meets regularly and represents more than administrative convenience in its use of time.

Teachers need time to give the individual student the attention he/she needs, to help in counseling and curriculum situations. The student needs someone in school that he/she can feel comfortable with.

15. Evaluation. The middle school program should provide an evaluation of a student's work that is personal, positive in nature, nonthreatening, and strictly individualized. The student should be allowed to assess his own progress and plan for future progress.

A student needs more information than a letter grade provides and he/she needs more security than the traditional evaluation system offers. Traditional systems seem to be punitive in nature. The middle school youngster needs a supportive atmosphere that helps to generate confidence and a willingness to explore new areas of learning. Student-teacher planning helps to encourage the students to seek new areas. Student-teacher evaluation sessions can help to create a mutual understanding of problems and also to provide a more meaningful report for parents. Parent-teacher-student conferences on a scheduled and

unscheduled basis should be the basic reporting method. Competitive letter grade evaluation should be replaced with open pupil-teacher-parent communications.

16. Community Relations. The middle school should develop and maintain a varied program of community relations. Programs to inform, to entertain, to educate, and to understand the community, as well as other activities, should be a part of the basic operation of the school.

The middle school houses students at a time when they are eager to be involved in activities with their parents. The school should encourage this natural attitude. The middle school has facilities that can be used to good advantage by community groups.

17. Student Services. The middle school should provide a broad spectrum of specialized services for students. Community, county, and state agencies should be utilized to expand the range of specialists to its broadest possible extent.

Health services, counseling services, testing opportunities for individual development (curricular and co-curricular) meeting the interests and needs of each child should be provided.

18. Auxiliary Staffing. The middle school should utilize highly diversified personnel such as volunteer parents, teacher aides, clerical aides, student volunteers, and other similar types of support staffing that help to facilitate the teaching staff.

Auxiliary staffing is needed to provide the individual help students require. A variety of teacher aides or paraprofessionals may be used to extend the talent of the professional staff. (pp. 21-26, adapted by permission)

Related Studies

Riegle (1971) completed a study entitled, "A Study of Middle School Programs to Determine the Current level of Implementation of Eighteen Basic Middle School Principles." This study was the first of its kind using the 18 characteristics of middle schools. Riegle actually compared Michigan middle schools with middle schools in the United

States designated as exemplary by the federal government. The two populations investigated were Michigan middle schools and national middle schools, except Michigan. Looking at the Michigan sample first, only Grades 6 through 8 were used, or any combination using three grade levels. The sample requirement stated that any school consisting of grades above 4th and below 9th would be acceptable for admission into the population under study. In 1971, Michigan had only 136 schools fitting the requirements for admission into the population. Of this number, 100 schools were randomly selected and designated as the sample population. The percentages shown represent the degree to which schools are implementing the characteristic. A 72.1% response was received in this initial study in Michigan. Results of Riegle's study can be seen in Table 1.

The national schools investigated by Riegle (1971) consisted of two schools in New York, one from Ohio, and one from Illinois. The national population consisted of all middle schools in the United States designated as "exemplary" schools by the federal government. Of this population, four schools were selected at random and constituted the national sample. All four national schools were structured Grades 6 through 8.

As is evidenced by the total score of 46.9%, Riegle (1971) pointed out that the Michigan middle schools of 1971 did not base their middle school structure on a thorough understanding of the basic concepts of the middle school movement. It is important to note that the characteristics requiring additional money to implement are implemented somewhere in the middle of the grouping. These characteristics are

Table 1

Implementation Percentages of Riegle (1971) in
Michigan and United States Schools

		Percentage of implementation	
	Characteristic	Michigan	U.S.
1.	Student services	78.7	69.4
2.	Physical experiences	69.7	87.9
3.	Multimedia	62.5	80.3
4.	Student security factor	60.4	78.1
5.	Social experiences	52.7	62.5
6.	Basic learning experiences	50.3	58.0
7.	Intramural activities	47.4	83.7
8.	Planned gradualism	46.7	33.3
9.	Creative experiences	42.9	48.8
10.	Guidance services	41.7	73.9
11.	Exploratory and enrichment programs	41.1	42.0
12.	Community relations	41.1	51.6
13.	Auxiliary staffing	37.9	78.1
14.	Evaluation practices	37.2	48.4
15.	Independent study	33.5	56.3
16.	Flexible schedule	28.9	59.7
17.	Continuous progress	24.4	37.5
18.	Team teaching	22.2	70.3
	Total implementation rate	46.9	70.3

auxiliary staffing, which ranked Number 13; guidance services at Number 10; and community relations at Number 12.

In 1971, team teaching was the least implemented middle school characteristic. Team teaching does not usurp a district's financial resources, but it does tap the personal resources of individual teachers for the good of the whole. As of 1971, it appears that teachers were being trained to be autonomous in the classrooms and, therefore, helping to eliminate the possibility of team teaching as a part of the school structure.

In comparing the national schools to the Michigan schools, it is shown that the implementation rate in Michigan schools was 23.4% lower overall. This overall score difference is not all that shocking, but if one looks at the characteristic of team teaching, there is another picture. The Michigan schools implemented team teaching at a 22.2% level, while the national schools implemented it at a 70.3% level. The difference of 48.1% is astounding. According to Riegle (1971), schools designated as exemplary use team teaching approaches 70% of the time and underscore the importance of teaming in the classrooms.

A characteristic that raises the issue of what is good for children is intramural activity, as opposed to interscholastic activity. Again, Riegle (1971) uncovered a Michigan deficit of 36.3% in contrast to the exemplary middle schools of the nation. Intramural activities are geared toward maximum involvement. Students can participate in a wide variety of activities and develop skills they will enjoy for an entire lifetime. Rules of certain games can be adapted to fit growing children, such as lowering the basketball hoop for sixth and seventh graders, which will

add to the amount of success these children experience.

Hawkins (1972/1973) replicated the research of Riegle (1971). The only difference in the population sampled was that a total of 103 middle schools, Grades 6 through 8, were found and all were assigned to the sample group. The same four national schools were sampled. The Michigan response rate stood at 64%, while the national sample incurred a 100% response.

In a matter of 1 year, the national schools' overall implementation rate dropped 13.05%. In contrast, the Michigan schools' total score dropped 6.01%. This left the overall difference of implementation at 15.36%. The Michigan schools gained a mere 1.64% from 1971 to 1972 as compared to the national sample. Refer to Table 2 for these results.

As in the Riegle (1971) study, the biggest obstacle of implementation for the Michigan schools was team teaching. The Hawkins (1972/1973) study uncovered a weakness of 60.81% with regard to Michigan middle schools. Something seems to be preventing the Michigan middle schools from implementing this characteristic. Schools designated as exemplary middle schools place a strong emphasis on teaming. It would only seem perspicacious for Michigan middle schools to take steps to implement teaming, too.

A large gap in implementation rates can be found in the characteristic independent study. The national schools scored 68.75%, while the Michigan schools showed a 29.75% implementation rate. This presents a difference of 39.00%. The characteristic independent study deals directly with matching student interest to learning. According to

Table 2

Implementation Percentages of Hawkins (1972/1973)
in Michigan and United States Schools

Characteristic	Percentage of implementation	
	Michigan	U.S.
1. Student services	76.89	77.78
2. Physical experiences	66.16	78.26
3. Multimedia	63.00	74.48
4. Social experiences	52.35	62.90
5. Planned gradualism	51.67	25.00
6. Intramural activities	42.70	77.87
7. Guidance services	41.78	55.43
8. Basic learning experiences	41.60	58.32
9. Student security factor	40.63	64.50
10. Creative experiences	40.57	30.95
11. Evaluation practices	39.38	47.88
12. Exploratory and enrichment programs	37.80	47.64
13. Auxiliary staffing	34.63	59.38
14. Community relations	33.81	52.06
15. Independent study	29.75	68.75
16. Continuous progress	23.88	29.13
17. Team teaching	20.44	81.25
18. Flexible schedule	17.06	38.89
Total implementation rate	41.89	57.25

Hawkins (1972/1973), students can pick from almost an infinite range of topics that are of interest to them and study on their own to attain knowledge in the topic area. If educators are truly interested in meeting the social, emotional, physical, and intellectual needs of the adolescent, then the use of independent study is essential.

Intramural activity was another characteristic Hawkins (1972/ 1973) found having great disparity between the national exemplary schools and the Michigan schools. The gap in implementation rates put Michigan in a 35.17% deficit to the national schools. According to Hawkins, the perceived need for competition is the largest burden to intramural activities.

Differences in implementation rates can be found in auxiliary staffing (24.75%), student security factor (23.87%), flexible schedule (21.83%), and community relations (18.25%), in all of which Michigan was on the lower end. One characteristic that found Michigan much stronger than the national schools was that of planned gradualism. Michigan scored 51.67% as opposed to the national schools receiving a 25% rate. This characteristic helps to bridge the gap between elementary and high school by providing experiences that assist children in making the transition from childhood dependence to adult independence. This discrepancy could be due to the fact that the junior high school's mission is to prepare students for the senior high school and, therefore, concentrate much effort in familiarizing the students with high school practices. The overall Michigan score of 51.67% indicates only an average score in this characteristic, which could point toward this type of junior high to high school gradualism.

Raymer (1974/1975) designed a study using the same methodology as Riegle (1971) and Hawkins (1972/1973). Raymer ascertained the number of middle schools in the entire United States in addition to those in Michigan by examining grade structure of schools. A total of 955 middle schools housing Grades 6 through 8 were found outside of Michigan. Another 137 were found in the state of Michigan. Raymer (1974/1975) randomly selected 100 middle schools out of the 1,097 in the United States to constitute his sample. He then separated the Michigan schools from the national schools to determine comparison to the Riegle (1971) study. His response rate stood at 89%.

The overall findings of Raymer (1974/1975) were indeed astounding. The Michigan schools' overall implementation rating was 53.71%, while the national average stood at 52.04%. This comparison gives us a realistic look at how Michigan fares in relation to other, more average middle schools in the United States. Results of Raymer (1974/1975) are found in Table 3.

Major discrepancies between the national and Michigan middle schools are difficult to find in this study. The Michigan middle schools scored higher implementation rates in 10 of the 18 characteristics. The largest discrepancy to be found was in the characteristic of flexible schedule. Here, the national schools outscored the Michigan schools by 16.75%. This reinforces the idea that Michigan middle schools are firmly planted in a departmentalized structure. According to Raymer (1974/1975), Michigan must focus more effort toward investing time based on educational needs rather than standardized time periods.

Table 3

Implementation Percentages of Raymer (1974/1975)
in Michigan and United States Schools

Characteristic	Percentage of implementation	
	Michigan	U.S.
1. Multimedia	75.48	72.00
2. Guidance services	73.38	67.69
3. Social experiences	72.26	57.58
4. Student services	70.90	61.40
5. Physical experiences	64.86	67.50
6. Student security factor	61.14	61.29
7. Exploratory and enrichment programs	57.65	52.22
8. Intramural activities	56.18	61.76
9. Basic learning experiences	52.73	51.80
10. Continuous progress	52.25	37.63
11. Evaluation practices	51.13	40.25
12. Independent study	51.13	59.38
13. Planned gradualism	48.33	36.00
14. Community relations	42.86	38.21
15. Creative experiences	37.60	43.60
16. Auxiliary staffing	35.40	39.10
17. Team teaching	33.33	42.28
18. Flexible schedule	30.25	47.00
Total implementation rate	53.71	52.04

Michigan significantly outscored the national schools in social experiences with a difference of 14.68%. Social experiences are implemented to a degree of 72.26%. According to Raymer (1974/1975), Michigan schools are building social experiences that are more appropriate for the transescent youth. These experiences do not emulate those of the high school. Many of these activities take place during the school day in the form of mixers and other social functions.

Raymer (1974/1975) found Michigan outscoring the national schools by 14.62% on the characteristic continuous progress, with an overall implementation rate of 52.25%. It must be noted that some effort is being put forth toward nongraded evaluation in which the student can progress at his or her own rate, regardless of age.

A more current study done by Minster (1985/1986) focused on the state of Illinois. The methodology used was quite different from previous studies. He ascertained the number of middle schools in Illinois by stipulating they must call themselves middle schools, and be either Grades 5 through 8 or 6 through 8. With regard to these stipulations, a total of 187 middle schools were found in Illinois in 1985. Of these 187, Minster found 105 schools Grades 6 through 8, and 82 schools Grades 5 through 8. He then randomly selected 56 schools Grades 6 through 8 and 45 schools Grades 5 through 8 to constitute his sample. Of the 56 schools Grades 6 through 8, he received responses from 45, which established an 80% return rate.

From each school selected, three questionnaires were received; one from the superintendent, one from the principal, and one from a teacher that was to be randomly selected by the principal. This made for

comparison between these three school employees as well as providing a more total picture of the implementation rates. Implementation rates can be found in Table 4.

The findings of Minster (1985/1986) show there is a lack of agreement between superintendents, teachers, and principals with regard to the implementation rate of the 18 basic middle school characteristics. Superintendents gave the highest overall implementation rate of 54.6%, followed by principals at 53.5%. The teachers gave the lowest overall implementation rate of 51.3%. Minster suggested that superintendents are removed from the educational scene and this could be a contributing factor as to why they scored higher than people in the field. This could also be the reason why principals scored higher than teachers. Minster concluded that there is a lack of communication between the three parties that must be resolved in order for further improvements in the implementation rate to take place.

With regard to the composite score of this study, team teaching and auxiliary staffing remain at the low end of the spectrum with implementation rates of 38.8% and 37.0%, respectively. The need for competition is again emphasized in the weak showing of intramural activities at 40%. Flexible schedule received a 47.1% implementation rate, which indicates a reliance on the departmentalized structure.

According to Minster (1985/1986), guidance services stands at a respectful 65.1%. This indicates some effort given toward getting to know students; however, more progress needs to be made in this area. An individual, personal climate is conducive to the education of adolescents. As Minster (1985/1986) stated, "each teacher should 'counsel'

Table 4

Implementation Percentages of Minster (1985/1986)
in Illinois Schools

Characteristic	Percentage of implementation
1. Student services	65.7
2. Physical experiences	76.8
3. Multimedia	68.3
4. Student security factor	62.3
5. Social experiences	49.5
6. Basic learning experiences	66.5
7. Intramural activities	40.0
8. Planned gradualism	56.0
9. Creative experiences	47.8
10. Guidance services	65.1
11. Exploratory and enrichment programs	44.7
12. Community relations	49.4
13. Auxiliary staffing	37.0
14. Evaluation practices	39.8
15. Independent study	59.0
16. Flexible schedule	47.1
17. Continuous progress	42.7
18. Team teaching	38.8
Total implementation rate	53.1

the child regarding his learning opportunities and progress in respective subject areas" (p. 25).

Methodology in Measuring Implementation
of School Programs

Of the studies described in this document, methodology has been quite consistent. All have used the survey questionnaire approach at identifying rates of implementation. Each study will be examined individually with regard to study methodology.

Riegle (1971) began his study by identifying the number of schools in Michigan housing grades above 4 and below 9. This was done through the Michigan Department of Education. He then selected four middle schools, arbitrarily, outside of Michigan, to constitute his national sample. The original middle school characteristics questionnaire was sent to each school, designating the school principal as the respondent.

Riegle (1971) recorded raw scores and then calculated the mean and percentage of implementation. Eighteen mean scores, variance scores, and percentages were calculated, one for each characteristic. Percentages were used to compare groups, with more than 50% being high implementation and below 50% indicating low implementation.

Hawkins (1972/1973) used the Michigan State Department of Education information to identify schools classified as middle schools. This group constituted his population. He limited his study to all middle schools with grade configurations of 6-8. Because this study was a follow-up to the Riegle (1971) study, the same four national schools

used by Riegle were used by Hawkins.

Three questionnaires were mailed to each school identified as the sample. One questionnaire was to be completed by the principals and the remaining two were to be completed by teachers having 2 or more years of service in that school. All three surveys were to be returned by the principal.

Hawkins (1972/1973) computed the raw scores and means for each of the 18 characteristics. The mean scores were used to compare the responses of the principals and teachers. Further, he used a Scheffé analysis of variance between groups and t tests to identify significance. Hawkins found significant difference between Michigan principals' and teachers' scores and principals' and teachers' scores from the national sample.

Raymer (1974/1975) identified his source of data by compiling a directory of middle schools in the United States through contacting each state department of education. This number was identified as 1,092 schools Grades 6-8 and 421 Grades 5-8. In Michigan there were 137 middle schools Grades 6-8 and 47 middle schools Grades 5-8. A random sample of 100 schools was drawn from the national population of Grade 5-8 schools and another 100 schools was drawn from the national population of Grade 6-8 schools.

The instrument used was the one used by Hawkins (1972/1973). School principals were designated as the respondent group. A mailing of the questionnaire, cover letter, and stamped return envelope was the method for collecting data.

Descriptive statistics were generated through the use of the PFCOUNT and FINN programs (cited in Raymer, 1974/1975) at Michigan State University. The mean and standard deviation were used for comparison and an overall percentage of implementation was identified.

Minster (1985/1986) conducted his study in Illinois. A directory of schools named middle school was obtained from the Illinois State Board of Education. A total population of 187 schools was identified and a random sample was drawn consisting of 100 schools. Three respondents were designated from each school. They were the superintendent, principal, and one teacher selected at random by the principal.

The questionnaire used was that of Riegle (1971) and was reviewed and revised by Dr. Louis Romano and research consultants from Michigan State University. The questionnaires were sent by mail, along with a cover letter and a stamped return envelope.

The data were treated by calculating the mean and percentage of implementation for each responding group by characteristic. High implementation was above 50% and low implementation was below 50%.

Summary

The middle school philosophy and the junior high school philosophy have historically been in conflict. The middle school philosophy emphasizes a student-centered program with focus on the individual, and the junior high school philosophy built around a subject-centered curriculum emulates the high school program.

Riegle (1971) conducted a study investigating implementation rates of the 18 middle school characteristics he identified while reviewing literature for his study. His study compared Michigan scores to national scores. His Michigan implementation rate stood at 46.9%.

Hawkins (1972/1973) conducted research on the implementation rates of the 18 basic middle school characteristics. In a matter of one year, the national schools dropped 13.05% and the Michigan school dropped 6.01% in implementation rates. The Michigan implementation rate stood at 41.89%, while the national schools' implementation rate stood at 57.25%.

Raymer (1974/1975) conducted research to establish implementation rates of the 18 basic middle school characteristics in Michigan and national schools. He found an overall implementation rate of 53.71% in Michigan. His findings suggest an increase of 11.82% in implementation rates established by Hawkins (1972/1973).

Minster (1985/1986) conducted research pertaining to the 18 basic middle school characteristics and their implementation rates in the state of Illinois. He found an overall implementation rating of 53.1%. This identifies a decrease of 0.61% when compared to the findings of Raymer (1974/1975) in Michigan.

Methods for measuring the current usage of programs and change in these programs have been accomplished through the use of survey research and questionnaires. The questionnaire developed and used by Riegle (1971) has been used to measure the implementation rate of the 18 basic middle school characteristics by Hawkins (1972/1973), Raymer (1974/1975), and Minster (1985/1986).

CHAPTER III

STUDY DESIGN

Introduction

The middle school student is maturing faster than in past years. Moss (1969) pointed out that "the children of today reach puberty at approximately age eleven" (p. 31). Furthermore, Blos (1967) believed puberty is beginning 4 months earlier every decade. Puberty is a confusing time for students. During the middle level years, the transescent undergoes many physical, emotional, and psychological changes according to Eichhorn (1966), who created the term "transescence" (p. 31).

Schools must provide programs and curricula geared to deal with the needs of students. Middle level schools that mirror the high school subject-centered curriculum lose sight of the individual student at a developmental stage when he or she is reaching out to become an individual. "During these 'becoming' years, young adolescents are literally persons in search of personality" (Arth et al., 1989, p. 9). To facilitate this metamorphosis, schools must implement a student-centered curriculum which focuses on the uniqueness of the individual student and is the foundation of middle school philosophy.

Riegle (1971) identified 18 basic middle school characteristics while reviewing literature on middle schools for his study. The list of these characteristics was validated by experts in middle level education. Riegle developed the initial questionnaire using these 18 characteristics

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to complete his study. Since their creation, the 18 basic characteristics of middle schools have been used in various studies with the objective of determining their rate of implementation in schools calling themselves middle schools.

This study sought to determine the rate of implementation of the 18 basic middle school characteristics in Michigan by examining middle level schools regardless of name. Further comparison is made between schools calling themselves middle schools and those referred to by other names. Middle level schools identified as exemplary Blue Ribbon schools (U.S. Department of Education, 1991) were examined with comparison made to Michigan middle level schools. The historical perspective was examined by comparing scores from this study with scores reported by Raymer (1974/1975).

Overview of Methods

The total population of Michigan middle level schools was identified at 683. The random sample was drawn to satisfy a sample validity of .05, or 241 schools. Oversampling was used to increase the response rate by identifying an additional 24 schools, bringing the total sample to 265 schools.

The questionnaire used in this study was the one used by Minster (1985/1986). Educational terminology was revised where appropriate to create more current language and reduce ambiguity.

The sample population was sent the questionnaire, stamped return envelope, and personalized cover letter. Principals were identified as the school respondent. As an incentive, respondents could elect to receive

an executive summary of the findings or an individual school summary, with comparison figures against state and Blue Ribbon schools.

Two mailings were sent. The first mailing was sent on September 11, 1992. The follow-up mailing was sent 14 days later to nonrespondents.

The raw data were treated by calculating the mean, variance, and percentage. When comparisons were made, t tests were calculated with the significance set at the .01 level.

Source of the Data

The sampling frame was obtained from the 1992 edition of the Michigan Educational Directory (Michigan Educational Directory, Inc., 1992). Names of building principals are listed with complete addresses and building names. The latest list of Blue Ribbon middle level schools was obtained from the National Association of Secondary School Principals, complete with names of building principals.

The total number of middle level schools in the state of Michigan is 683. A random sample of 265 schools was selected via a table of random numbers. While only 241 schools were needed to satisfy a sample validity of .05, a 10% oversampling was used to help insure a sufficient response.

The sample of Blue Ribbon middle level schools was selected by random method. This sample consisted of 10 middle level schools.

A packet containing the survey instrument, cover letter, and stamped return envelope was sent to all building principals in the sample population (see Appendices A and C).

Instrumentation

Minster (1985/1986), with the guidance of Dr. Louis Romano and consultants from the Department of Research Services at Michigan State University, reviewed and revised the original questionnaire developed by Riegle (1971). The questionnaire was further revised for this study by inserting definitions into questions where ambiguity or lack of knowledge of terminology may influence results. These questions are Numbers 1, 2, 3, 25, and 39. See Appendix A for complete questionnaire.

The revised questionnaire consists of 62 questions and the format contains two sections. Section 1 contains 45 multiple choice questions in which only one answer is requested. The second section contains questions which solicit as many answers as apply to the respondent's situation. Items are of equal weight and each response is associated with a numerical value. The numerical amounts are then tabulated to arrive at a percentage rate of implementation for each characteristic. See Appendix B for the 18 characteristics as they correspond to survey items.

Sampling Technique

Straight random sampling was used in this study. Sample members were selected through the use of a table of random numbers until 265 different members were identified.

A database was established for each sample member. Cover letters were merged with the database to enable each correspondence to be sent directly to the individual principal by name.

Data Collection Procedures

The survey, personal cover letter, and stamped return envelope, were sent to building principals of middle level schools in the Michigan and national samples. See Appendix C for cover letters.

An incentive was offered to all respondents. Respondents could elect to receive an executive summary of the findings or an individual school summary with comparison figures against state and Blue Ribbon school averages. This information could prove useful to a local school as baseline data against which implementation strategies could be measured. It is also important additional information that could be presented to the public in report form. This information could help schools create awareness to stimulate improvement of implementation scores. See Appendix D for the incentives.

Fourteen days following the initial mailing, a follow-up packet containing a new personal cover letter, the survey, and a stamped return envelope was mailed to all nonrespondents.

Data Analysis Procedures

The total measurement of implementation was established through identifying the percentage of implementation of each characteristic and finding an overall percentage of implementation for all 18 characteristics. Each questionnaire was hand scored, producing an overall score for each characteristic. This score was converted to a percentage. See the scoring sheet in Appendix E.

Two comparisons were made. The first comparison was made

between Michigan middle level schools and Blue Ribbon schools. The second comparison was made between the Michigan middle schools and junior high schools. In both cases, percentages per characteristic and the overall percentage of implementation was calculated. Also, $\underline{t}$ tests were used to compare individual characteristic implementation scores to identify significance. Significance was set at the .01 level.

The mean, variance, and standard deviation were calculated for each characteristic in the comparison groups. The standard error of the mean ($\underline{seM}$) was calculated per characteristic for each grouping. The formula used is stated below and published by Charles (1988, p. 170).

$$\underline{seM} = \frac{SD}{\sqrt{\underline{n} - 1}}$$

Once the seM was calculated, the standard error of the difference between means ($\underline{sedM}$) was calculated per characteristic. The formula used is printed below and published by Charles (1988, p. 171).

$$\underline{sedM} = \sqrt{(\underline{seM}_x)^2 + (\underline{seM}_y)^2}$$

The $\underline{t}$ scores were computed for each characteristic. The formula as published by Charles (1988, p. 175) is listed below.

$$\underline{t} = \frac{\underline{M}_x - \underline{M}_y}{\underline{sedM}}$$

The $\underline{t}$ scores were compared to the $\underline{t}$-distribution chart to identify if significant difference existed (Hinkle, 1988, p. 650).

An historical comparison was made by comparing percentages of implementation using the current study of Michigan schools and the study by Raymer (1974/1975).

Summary

A random sample of 265 Michigan middle level schools was drawn from a population of 683 schools for use in this study. The survey questionnaire was mailed to each principal of sample schools, complete with a personalized cover letter and stamped return envelope. The incentive of receiving an executive summary or individual school summary was used to raise the response rate. A follow-up mailing consisting of an additional questionnaire, personalized letter, and stamped return envelope was sent to all nonrespondents 14 days following the initial mailing.

The data were treated by computing percentages of implementation per characteristic and overall. The t tests were calculated to identify significance between Michigan middle level schools and Blue Ribbon schools, and between Michigan middle schools and junior high schools. Percentages were used to compare the results found in the current study with results from Raymer (1974/1975).

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

The middle school student is maturing faster than in past years. Moss (1969) pointed out that "the children of today reach puberty at approximately age eleven" (p. 31). Furthermore, Blos (1967) believed puberty is beginning 4 months earlier every decade. Puberty is a confusing time for students. During the middle level years, the transescent undergoes many physical, emotional, and psychological changes according to Eichhorn (1966), who created the term "transescence" (p. 31).

Schools must provide programs and curricula geared to deal with the needs of students. Middle level schools that mirror the high school subject-centered curriculum lose sight of the individual student at a developmental stage when he or she is reaching out to become an individual. "During these 'becoming' years, young adolescents are literally persons in search of personality" (Arth et al., 1989, p. 9). To facilitate this metamorphosis, schools must implement a student-centered curriculum which focuses on the uniqueness of the individual student and is the foundation of middle school philosophy.

Riegle (1971) identified 18 basic middle school characteristics while reviewing literature on middle schools for his study. The list of these characteristics was validated by experts in middle level education. Riegle developed the initial questionnaire using these 18 characteristics

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to complete his study. Since their creation, the 18 basic characteristics of middle schools have been used in various studies with the objective of determining their rate of implementation in schools calling themselves middle schools.

This study sought to determine the rate of implementation of the 18 basic middle school characteristics in Michigan by examining middle level schools regardless of name. Further comparison is made between schools calling themselves middle schools and those referred to by other names. Middle level schools identified as exemplary Blue Ribbon schools (U.S. Department of Education, 1991) are examined with comparison made to Michigan middle level schools. The historical perspective is examined by comparing scores from this study with scores reported by Raymer (1974/1975).

Characteristics of the Responding
Sample and Response Rate

Respondents in this study were principals from randomly selected middle level schools in Michigan and those designated as Blue Ribbon. Of the Michigan respondents, 81 were principals of junior high schools, while 96 were principals of middle schools. Of the 9 Blue Ribbon school respondents, 7 were principals of middle schools, while 2 were principals of junior high schools.

This study used a survey questionnaire that was designed to measure the rate of implementation of the middle school characteristics identified by Riegle (1971). The survey was mailed to middle level school principals, selected randomly via a table of random numbers.

The total population of middle level schools in Michigan stands at 683. To satisfy a sample validity of .05, 241 schools were required to be in the sample. To help raise the response rate, 265 schools were drawn into the sample by random method. Each selected school received a cover letter addressed to the principal by name, a questionnaire, and a return envelope which was stamped and addressed. Ten Blue Ribbon middle level schools were identified randomly and received the same mailed materials. Table 5 shows complete response.

Table 5

Response Rate for Michigan and Blue Ribbon
Middle Level Schools

	Michigan middle level responses		National middle level responses	
	n	%	n	%
First mailing	147	61.00	8	80
Second mailing	30	12.44	1	10
Total number of responses	177	73.44	9	90
Total sample size needed for .05 validity	241		10	

On September 11, 1992, the first mailing to Michigan and Blue Ribbon middle level schools was sent consisting of 265 in the Michigan sample and 10 in the national sample. By September 25, the Michigan response rate stood at 61%, with 147 questionnaires completed and returned of the 241 needed. The national sample response rate stood at

80% with 8 questionnaires returned out of 10 possible.

The second mailing was sent to nonrespondents on Friday, September 25, 1992. The follow-up mailing consisted of a cover letter personally addressed to the principal, a questionnaire, and a stamped addressed return envelope. By October 9, 1992, the Michigan response rate stood at 73.44%, with 177 questionnaires returned and the national response rate at 90% with 9 questionnaires returned.

Findings for Research Questions

Each of the five research questions is stated separately with presentation and analysis of the related data.

What Is the Michigan Implementation Level?

Michigan middle level schools are implementing the basic middle school characteristics at the 56.87% level. Twelve middle school characteristics are identified by Michigan middle level principals as being above the 50% level of implementation. They are guidance services (82.83%), multimaterial (71.00%), physical experiences (67.53%), student security factor (65.04%), social experiences (64.75%), student services (63.40%), planned gradualism (63.10%), basic learning experiences (59.93%), community relations (59.86%), creative experiences (55.36%), exploratory and enrichment programs (53.04%), and evaluation practices (50.96%). The percentages shown represent the degree to which schools are implementing the characteristic. A complete listing of implementation scores can be found in Table 6.

Table 6

Implementation Percentages for Michigan
Middle Level Schools

Characteristic	Implementation percentage
1. Guidance services	82.83
2. Multimaterial	71.00
3. Physical experiences	67.53
4. Student security factor	65.04
5. Social experiences	64.75
6. Student services	63.40
7. Planned gradualism	63.10
8. Basic learning experiences	59.93
9. Community relations	59.86
10. Creative experiences	55.36
11. Exploratory and enrichment programs	53.04
12. Evaluation practices	50.96
13. Flexible schedule	46.52
14. Independent study	44.28
15. Intramural activities	41.55
16. Team teaching	40.78
17. Continuous progress	34.66
18. Auxiliary staffing	20.89
Total implementation rate	56.87

Of these 12 highly implemented characteristics, 2 concentrate on individual needs. They are guidance services and student security factor. Much has been written about the increase in dysfunctional families and the increase in single parent families. Both of these situations can give rise to less parenting in the home, due to many different variables. Guidance services and student security factor become more important as student needs are not being met in the home environment. The onset of puberty brings with it many challenges as the student experiences changes in physical, social, emotional, and intellectual development. The two characteristics of guidance services and student security factor address these changes through recognizing the individual uniqueness of each student.

In Michigan, Public Act 25 (State School Aid Act of 1990, 1990) has mandated school improvement and with it accreditation of middle level schools. Both accrediting agencies recognized by the Michigan Board of Education, Michigan Accreditation Program and North Central Association, require guidance counselors to be employed by the schools. Because of Public Act 25, the characteristic guidance services should continue to grow as schools come into compliance.

The characteristic physical experiences falls within the core curriculum also mandated by Public Act 25. Curriculum outcomes have been drafted consistent with this characteristic which fosters fundamental skill development. As schools come into compliance with the core curriculum, physical experiences should undergo growth.

There are six characteristics implemented to a low degree, or below 50%. These characteristics are flexible schedule (46.52%),

independent study (44.28%), intramural activities (41.55%), team teaching (40.78%), continuous progress (34.66%), and auxiliary staffing (20.89%). Of these six characteristics, three are concerned with flexibility within the educational program to meet the individual needs of students. These characteristics are flexible schedule, independent study, and continuous progress.

Flexible schedule deals with the idea of adapting the hourly schedule in order to match students needing additional instruction in a particular area of study with the opportunity to receive such instruction. Schools using a flexible schedule invest time based upon educational needs rather than standardized time periods. Independent study offers students the opportunity to pursue work in a specific area of interest which does not appear in the organized curricular offerings. Independent study, like flexible schedule, deviates from the traditional daily routine in order to meet student need. Continuous progress allows students to progress at their own individual rate, regardless of chronological age. It is usually accompanied by a nongraded structure and is based upon the fact that students in the middle years grow and develop at different times and therefore should be allowed to move ahead at the first opportunity, rather than being held back by traditional group instruction.

It appears that Michigan middle level schools are not allowing for individual instructional needs. Traditional hourly schedules which emulate the high school program are prevalent as evidenced by the weak implementation of flexible schedule. Independent study is insufficiently implemented. It also appears that Michigan middle level schools are concerned with control as evidenced by weak implementation scores of

the characteristics continuous progress programs and flexible schedule. These three characteristics, flexible schedule, independent study, and continuous progress, allow student freedom within the confines of the educational day to match learning needs with appropriate instruction and guidance.

What Is the Blue Ribbon Implementation Level?

Blue Ribbon schools are implementing the 18 basic middle school characteristics at the 67.40% level. The principals identified 14 middle school characteristics implemented above the 50% level. Those characteristics reported to be above the 50% level of implementation are guidance services (92.06%), planned gradualism (81.48%), student services (81.48%), multimaterial (80.56%), student security (80.25%), basic learning experiences (78.07%), physical experiences (76.98%), community relations (75.40%), creative experiences (70.99%), exploratory and enrichment activity (70.39%), social experiences (68.82%), flexible schedule (65.93%), independent study (61.90%), and intramural activity (50.69%). Table 7 shows the implementation percentages for Blue Ribbon schools.

The Blue Ribbon schools appear to be well focused upon addressing the individual needs of students as evidenced by the characteristics guidances services, planned gradualism, student services, and student security factor being implemented above the 80% level. Guidance services consists of highly individualized help being offered by counselors and teachers. This can include such programs as home-based programming where teachers meet with small groups of students to discuss

Table 7

Implementation Percentages for Blue Ribbon
Middle Level Schools

Characteristic	Implementation percentage
1. Guidance services	92.06
2. Planned gradualism	81.48
3. Student services	81.48
4. Multimaterial	80.56
5. Student security factor	80.25
6. Basic learning experiences	78.07
7. Physical experiences	76.98
8. Community relations	75.40
9. Creative experiences	70.99
10. Exploratory and enrichment programs	70.39
11. Social experiences	68.82
12. Flexible schedule	65.93
13. Independent study	61.90
14. Intramural activities	50.69
15. Team teaching	47.92
16. Evaluation practices	38.27
17. Auxiliary staffing	33.33
18. Continuous progress	24.44
Total implementation rate	67.40

nonacademic issues. The premise of student security factor is that each student should have a security group which consists of a teacher who knows the student well and a peer group that meets regularly to discuss issues meaningful to the student. Student services is built upon the premise that the middle school should provide specialized services for students. These services include health screening and treatment, counseling services in cooperation with outside agencies, and testing services which foster individual development. Planned gradualism provides experiences that assist early adolescents in making the transition from childhood dependence to adult independence.

The Blue Ribbon middle level schools implemented four characteristics below the 50% level of implementation. These characteristics were team teaching (47.92%), evaluation practices (38.27%), auxiliary staffing (33.33%), and continuous progress (24.44%). The Blue Ribbon schools must take action to increase the implementation of these characteristics to further growth of the 18 middle school characteristics.

Evaluation practices of these schools appear to be built upon letter grades with little conference time for parents and students to discuss progress with teachers. The middle level student needs to be provided with an evaluation system that is personal, positive in nature, nonthreatening, and strictly individualized. Student evaluation based upon letter grades alone does not provide for individualized feedback.

Continuous progress programs is ranked last in implementation by Blue Ribbon schools at 24.44% overall. It appears that Blue Ribbon schools tend toward full group instruction rather than allowing students to progress at their own individual rates. Because individual differences

are at the most pronounced stage during the transescent years, continuous progress programs present a great opportunity to meet the educational needs of these students. Work must be focused in this area to increase the implementation rate of continuous progress.

What Is the Implementation Level of Michigan and Blue Ribbon Schools Compared?

The average implementation scores, as reported by principals, were computed for Michigan schools and Blue Ribbon schools. This yielded the average rate of implementation via percentage. For statistical analysis, the t test was used to identify significant difference for each characteristic.

The overall Blue Ribbon middle level schools' rate of implementation was 67.40%, while the Michigan middle level schools scored 56.87%, a difference of 10.53%. Blue Ribbon middle level schools scored 16 of the 18 basic middle school characteristics higher with regard to implementation rate, than did the Michigan middle level schools. These characteristics are flexible schedule (+19.41%), community relations (+18.54%), planned gradualism (+18.38%), basic learning experiences (+18.14%), student services (+18.08%), independent study (+17.62%), exploratory and enrichment programs (+17.35%), creative experiences (+15.63%), student security factor (+15.21%), auxiliary staffing (+12.44%), multimaterial (+9.56%), physical experiences (+9.45%), guidance services (+9.23%), intramural activities (+9.14%), team teaching (+7.14%), and social experiences (+4.07%). The two characteristics scored higher by Michigan middle

level principals are evaluation practices (+12.69%) and continuous progress (+10.22%).

Both Blue Ribbon school principals and Michigan middle level school principals rated 11 characteristics as being above the 50% level of implementation. They were guidance services, planned gradualism, student services, multimaterial, student security factor, basic learning experiences, physical experiences, community relations, creative experiences, exploratory and enrichment programs, and social experiences.

Both exemplary school principals and Michigan middle level school principals rated three characteristics as being below the 50% level of implementation. They were team teaching, continuous progress, and auxiliary staffing.

Discrepancy exists with the remaining four characteristics. Three of these four were rated above the 50% level of implementation by the Blue Ribbon school principals and below the 50% level of implementation by Michigan middle level school principals. They are flexible schedule (65.93%, 46.52%), independent study (61.90%, 44.28%), and intramural activities (50.69%, 41.55%). The remaining characteristic, evaluation practices (38.27%, 50.96%), was rated above the 50% level of implementation by Michigan middle level school principals, but below this mark by the Blue Ribbon school principals. Table 8 lists in detail implementation percentages and differences.

In comparing Blue Ribbon middle level schools with Michigan middle level schools, it is apparent that large percentage differences exist in 12 of the characteristics. In the cases where the difference has been identified as 10% or more between Blue Ribbon and Michigan schools,

Table 8

Comparison of Implementation Percentages and Differences
for Blue Ribbon Schools and Michigan Schools

Characteristic	Percentage of implementation		
	Blue Ribbon	Michigan	Difference
1. Flexible schedule	65.93	46.52	+19.41
2. Community relations	75.40	59.86	+18.54
3. Planned gradualism	81.48	63.10	+18.38
4. Basic learning experiences	78.07	59.93	+18.14
5. Student services	81.48	63.40	+18.08
6. Independent study	61.90	44.28	+17.62
7. Exploratory and enrichment programs	70.39	53.04	+17.35
8. Creative experiences	70.99	55.36	+15.63
9. Student security factor	80.25	65.04	+15.21
10. Auxiliary staffing	33.33	20.89	+12.44
11. Multimaterial	80.56	71.00	+9.56
12. Physical experiences	76.98	67.53	+9.45
13. Guidance services	92.06	82.83	+9.23
14. Intramural activities	50.69	41.55	+9.14
15. Team teaching	47.92	40.78	+7.14
16. Social experiences	68.82	64.75	+4.07
17. Continuous progress	24.44	34.66	-10.22
18. Evaluation practices	38.27	50.96	-12.69
Total implementation rate	67.40	56.87	+10.53

Blue Ribbon schools scored higher on 10 characteristics, while Michigan schools scored higher on 2 characteristics. The characteristics where Blue Ribbon schools scored 10% or more higher were flexible schedule (+19.41%), community relations (+18.54%), planned gradualism (+18.38%), basic learning experiences (+18.14%), student services (+18.08%), independent study (+17.62%), exploratory and enrichment programs (+17.35%), creative experiences (+15.63%), student security factor (+15.21%), and auxiliary staffing (+12.44%). The 2 characteristics where Michigan middle level schools scored higher by at least 10% are evaluation practices (+12.69%) and continuous progress (+10.22%). Six characteristics showed differences of less than 10%. These characteristics were multimaterial, physical experiences, guidance services, intramural activities, team teaching, and social experiences.

Further comparison between the Blue Ribbon middle level schools and the Michigan middle level schools included the computation of t tests on the individual characteristic level. It was found that significant difference between implementation scores does exist on 12 characteristics at the .01 level. These characteristics were exploratory and enrichment programs, flexible schedule, multimaterial, creative experiences, community relations, basic learning experiences, student services, student security factor, guidance services, evaluation practices, team teaching, and intramural activities. In only one case, evaluation practices, the Michigan implementation score was higher than Blue Ribbon middle level schools. Table 9 lists in detail mean implementation scores, t values, and significance.

Table 9

Mean Implementation Scores and t Values for Michigan
Middle Level Schools Compared to
Blue Ribbon Schools

Characteristic	Michigan mean	Blue Ribbon mean	t value
1. Exploratory and enrichment programs	13.62	18.22	8.44*
2. Flexible schedule	6.92	9.89	6.09*
3. Multimaterial	27.90	32.22	5.61*
4. Creative experiences	9.92	12.78	4.91*
5. Community relations	8.33	10.56	4.52*
6. Basic learning experiences	7.74	9.89	4.48*
7. Student services	5.71	7.33	4.26*
8. Student security factor	5.85	7.22	3.46*
9. Guidance services	11.56	12.89	3.33*
10. Evaluation practices	4.58	3.44	3.00*
11. Team teaching	8.24	10.22	2.63*
12. Intramural activities	6.35	8.11	2.59*
13. Independent study	3.09	4.33	2.53
14. Auxiliary staffing	1.67	2.67	2.13
15. Continuous progress	4.44	3.47	2.05
16. Social experiences	12.98	14.22	1.98
17. Planned gradualism	1.89	2.44	1.94
18. Physical experiences	9.88	10.78	1.77

*Significant at the .01 level.

It is interesting to note that of the 12 characteristics having 10% or more implementation difference, 8 have been identified as having significant differences at the .01 level. These 8 characteristics were exploratory and enrichment programs, flexible schedule, creative experiences, community relations, basic learning experiences, student services, student security factor, and evaluation practices. These eight characteristics are identified as having high divergence because a large amount of implementation percentage difference exists and significance at the .01 level was found. Each of these characteristics will be focused upon individually.

Blue Ribbon schools implement exploratory and enrichment programs at significantly higher levels than Michigan middle level schools. These programs include art instruction, music instruction, and other classes that can be elected by students. Blue Ribbon schools, more than Michigan schools, offer elective courses at all grade levels in their building. In general, Blue Ribbon schools offer students more opportunities to explore interest areas on school time. More focus upon widening the range of educational training a student experiences, rather than specializing training, is done by Blue Ribbon schools over Michigan schools. There also appears to be more curriculum variety in Blue Ribbon schools.

Flexible schedule received 19.41% more implementation by Blue Ribbon schools, with significant difference found at the .01 level. Blue Ribbon schools have more variation in their basic time module than do Michigan schools. Periods of 10 minutes through 44 minutes are more prevalent as are combinations of time so diverse that a basic time module cannot be defined. Blue Ribbon schools also use block time and

revolving periods at higher rates than do Michigan schools, and teachers in Blue Ribbon schools have more control over the master schedule than do Michigan teachers. The premise of flexible schedule is that students should be able to use learning time where they need it the most. A school built upon a flexible schedule is constantly assessing student needs and matching instruction to meet this need. A flexible schedule school does not force students through an hourly schedule, but allows students and teachers to decide where the students needs can be best met and provides the opportunity for students to receive this needed instruction.

Creative experience programs are implemented at significantly higher levels by Blue Ribbon schools than by Michigan schools. These experiences include such activities as publishing school newspapers by students, organized dramatics experiences, arranged oratorical activities such as debate, and performances by students in talent shows. In general, Blue Ribbon schools offer students more opportunities to express themselves in creative ways. These types of programs are student-developed, student-centered, and often times student-directed.

Blue Ribbon schools differ from Michigan schools with regard to the characteristic community relations. Students in Blue Ribbon schools are more apt to be involved in community service projects and this participation is often times part of the planned experience for all students. Active parent organizations are more apt to be an important part of the Blue Ribbon schools' overall educational program than in Michigan middle level schools. Blue Ribbon schools implement such public communications as parent newsletters and district newsletters more often than

Michigan schools. Blue Ribbon schools also implement more informational programs related to school functions than do Michigan schools. These programs happen at regularly scheduled meetings, open houses, and as special needs arise.

Basic learning experiences are offered at a higher rate by Blue Ribbon schools over Michigan schools, with significant difference found at the .01 level. These experiences include offering special classes to address the needs of low functioning students in mathematics, reading, and writing. Blue Ribbon schools also are more apt to present these programs consistently throughout the middle level years or even increase their frequency as the student progresses through school, whereas Michigan schools appear to decrease these offerings with each successive grade. Blue Ribbon schools are also more apt to provide developmental reading instruction for all students, whereas Michigan schools are more apt to offer this type of instruction to poor readers only, if at all. Blue Ribbon schools appear to offer basic instruction in more areas of the curriculum than do Michigan schools. Help in spelling, physical education, and grammar is offered more frequently by Blue Ribbon schools over Michigan schools.

Significant difference was found with regard to student services, which were offered more frequently in the buildings of Blue Ribbon schools. Services including a guidance counselor, nurse, psychologist, diagnostician, and speech therapist, in addition to special education services were implemented at a higher rate by Blue Ribbon schools over Michigan schools. In general, Blue Ribbon schools provided a more broad spectrum of specialized services for students.

Blue Ribbon schools implemented student security factor at significantly higher rates than did Michigan schools. Blue Ribbon schools were more apt to emphasize the role of the teacher as a guidance person for students and make provisions in the daily schedule to allow teachers to perform this function. Blue Ribbon schools appeared to report student academic progress to the home on a more frequent basis than Michigan schools. In general, Blue Ribbon schools more frequently provided every student with a security group consisting of a teacher who knew the student well and to whom he or she related in a positive manner. The security group also included a peer group that meets regularly.

Michigan middle level schools implemented evaluation practices at a higher level than did Blue Ribbon schools with significant difference found at the .01 level. Michigan schools were more apt to hold conferences with parents and students more often during the school year than Blue Ribbon schools. Formal evaluation in Michigan schools was more frequently accomplished through parent-teacher-student conferences than in Blue Ribbon schools. Michigan schools were also less apt to simply use letter grades to communicate academic progress. In general, Michigan middle level schools, more than Blue Ribbon schools, provided student evaluation that was personal and positive in nature.

Four characteristics having less than 10% difference in implementation rate have been found to be significantly different at the .01 level. The four characteristics are multimaterial, guidance services, team teaching, and intramural activities. While significant score differences have been found, these four characteristics are identified as having medium divergence overall because they have percentage differences under 10%.

Significant difference in implementation scores have been found with multimaterial. Blue Ribbon schools offer a more wide range of easily accessible instructional materials, a number of explanations, and a choice of approaches to a topic. Classroom activities are planned more around a multimaterial approach, rather than a basic textbook approach. This approach is educationally sound because students at the middle level vary greatly with regard to maturity levels, interest areas, and backgrounds. Because of the great differences in biological and physiological development, courses taught using a multimaterial approach are better suited to meet individual needs and differences of students over the traditional one-text approach. Blue Ribbon schools over Michigan schools more frequently planned classroom activities around the multimaterial approach. The media centers of Blue Ribbon schools housed a larger quantity of books and a wider variety of material types than did Michigan middle level school media centers.

Guidance services were implemented at significantly higher rates by Blue Ribbon schools. Blue Ribbon schools tended to have guidance services available to students more of the time than Michigan schools. Guidance staff worked with teachers more often in Blue Ribbon schools and helped teachers develop guidance skills. Group counseling sessions tended to be offered more frequently by Blue Ribbon over Michigan schools. In general, Blue Ribbon schools offered students more opportunities for group and individual counseling and encouraged teachers to counsel students regarding learning opportunities and progress in respective areas.

Team teaching was used more often by Blue Ribbon schools than Michigan schools as shown by a significantly higher implementation score by Blue Ribbon schools. Team teaching refers to two or more teachers teaching the same students and same subjects. Team teaching helps facilitate student interaction with a variety of teachers in a wide range of subject areas. Blue Ribbon schools have a higher percentage of students and teachers involved in team teaching situations than do Michigan schools.

Intramural activities received higher implementation scores, significant at the .01 level, from Blue Ribbon middle level schools. More than Michigan schools, Blue Ribbon schools appeared to promote a program where students are involved as participants rather than as spectators. Blue Ribbon schools de-emphasized interscholastic sports more often than Michigan schools, which focus upon competition and fielding the very best players. Intramural activities concentrate upon skill introduction and building in order to involve as many students as are interested. In general, Blue Ribbon schools offered a more broad range of intramural experiences that provided physical activity for all students and supplemented physical education classes.

Four characteristics having 10% differences in implementation rates were not found to have significant differences in implementation scores at the .01 level. Even though they do not have significant differences in mean scores, they had a 10% or more difference in implementation rate. These characteristics are referred to as low divergence characteristics. These characteristics were independent study, auxiliary staffing, continuous progress, and planned gradualism.

Independent study received a 17.62% higher percentage score for implementation from Blue Ribbon schools. Independent study opportunities in this study are more prevalent in Blue Ribbon schools over Michigan schools. In these programs, students select topics of interest and direct their work with assistance from the teacher and community resource personnel. These topics are usually not offered in, but can be extensions of the existing curriculum. Blue Ribbon schools were more apt to offer independent study programs and provided them for all students, rather than only an advanced subpopulation.

This study found auxiliary staffing being used more by Blue Ribbon schools than Michigan schools. Overall implementation scores suggested that Blue Ribbon schools implemented auxiliary staffing more than did Michigan schools. However, auxiliary staffing is implemented at very low rates, making differences difficult to determine.

Continuous progress programs were implemented over 10% higher by Michigan schools than Blue Ribbon schools. Programs where students progress through school at their own individual rate, regardless of chronological age appeared to be more prevalent in Michigan schools. These programs also appeared to be presented throughout the middle level years as opposed to a single year.

Blue Ribbon schools used planned gradualism programs more frequently than Michigan schools. These programs began in the lower grades of the middle level school, where the educational program was largely self-contained, and moved through the upper grades of the middle level school where the program became partially departmentalized or fully departmentalized. This presents a true bridge between the

self-contained atmosphere of the elementary schools and the departmentalized structure of the high school.

Two characteristics have been identified as having less than 10% differences in implementation scores between Blue Ribbon and Michigan schools, and significant score differences were not found. These two characteristics, social experiences and physical experiences, were identified as having no divergence.

Regarding social experiences, both groups of schools provided programs for students appropriate for transescent students. These programs do not emulate the high school program by offering such activities as night dances. Club activities were offered to students who are encouraged by school personnel to participate. In general, both Blue Ribbon and Michigan middle level schools offered social experiences that help foster growth and development of social skills.

Physical experiences was the second characteristic where no divergence between groups was found. Both Blue Ribbon and Michigan schools offered individualized physical education classes and devoted the larger portion of the class hour to developmental activities over competitive activities.

In general, Blue Ribbon middle level schools implemented the 18 basic middle school characteristics at higher levels than did Michigan schools. Differences of 10% or more in implementation were found in 12 characteristics. Of these 12, Blue Ribbon schools implemented 10 at higher levels, while Michigan schools implemented the remaining 2 at higher levels. Six characteristics showed differences of less than 10% with each being implemented more by Blue Ribbon schools.

What Is the Implementation Level of Michigan Junior High Schools and Middle Schools Compared?

Average scores were computed for the middle school group and junior high school group. In total, there were 96 middle school principals responding and 81 junior high school principals responding. The average scores were then converted into the percentage of implementation of each characteristic. A t test was calculated for each characteristic to identify significant differences in means with the level of significance set at .01.

The overall implementation score of the middle schools exceeded that of the junior high schools by 4.21%. Michigan middle schools scored 57.65% in overall implementation of the 18 basic middle school characteristics, while junior high schools scored 53.44%. With regard to all characteristics, middle schools scored higher implementation rates than did junior high schools. These differences by characteristic are team teaching (+12.60%), intramural activity (+12.58%), flexible schedule (+11.15%), community relations (+9.06%), creative experiences (+7.10%), planned gradualism (+7.06%), student security factor (+6.65%), auxiliary staffing (+6.38%), exploratory and enrichment programs (+6.28%), independent study (+5.48%), continuous progress (+5.33%), multimaterial (+5.19%), physical experiences (+5.15%), guidance services (+4.20%), social experiences (+4.14%), basic learning experiences (+3.18%), evaluation practices (+2.70%), and student services (+1.06%). Table 10 shows a complete listing of implementation rates and differences.

Table 10

Comparison of Implementation Percentages for Michigan
Middle Schools and Junior High Schools

Characteristic	Middle schools	Junior high schools	Difference
1. Guidance services	84.96	80.34	4.20
2. Multimaterial	73.39	68.20	5.19
3. Physical experiences	69.85	64.70	5.15
4. Student security factor	68.10	61.45	6.65
5. Social experiences	66.58	62.44	4.14
6. Planned gradualism	66.32	59.26	7.06
7. Community relations	64.02	54.96	9.06
8. Student services	63.89	62.83	1.06
9. Basic learning experiences	61.38	58.20	3.18
10. Creative experiences	58.61	51.51	7.10
11. Exploratory and enrichment programs	55.87	49.59	6.28
12. Evaluation practices	52.21	49.51	2.70
13. Flexible schedule	51.65	40.50	11.15
14. Intramural activity	47.11	34.53	12.58
15. Independent study	46.79	41.31	5.48
16. Team teaching	46.20	33.60	12.60
17. Continuous progress	37.08	31.75	5.33
18. Auxiliary staffing	23.82	17.44	6.38
Total implementation rate	57.65	53.44	4.21

Both the reporting middle school and junior high school principals rated 10 characteristics as being above the 50% level of implementation. They are multimaterial, social experiences, physical experiences, planned gradualism, guidance services, basic learning experiences, creative experiences, student security factor, community relations, and student services.

There is agreement that five characteristics are implemented below the 50% level. They are continuous progress, intramural activity, team teaching, independent study, and auxiliary staffing.

A discrepancy exists in 3 of the 18 characteristics. In each case, the principals of schools calling themselves middle schools scored the characteristics above the 50% level of implementation. These characteristics are flexible schedule (51.65%, 40.50%), exploratory and enrichment programs (55.87%, 49.59%), and evaluation practices (52.21%, 49.51%).

All 18 characteristics received higher scores from middle school principals over junior high principals.

While an overall difference in implementation scores of 4.21% does not appear to be great, closer inspection of individual characteristics reveals middle schools to be different from junior high schools. Mean scores from eight characteristics were identified as significantly different through computation of t tests. These differences were significant at the .01 level. In each case, the middle schools scored higher implementation rates than junior high schools. These characteristics are physical experiences, social experiences, community relations, creative experiences, exploratory and enrichment programs, team

teaching, intramural activity, and flexible schedule. The difference in mean scores for these characteristics is 1.03 (physical experiences), 1.82 (social experiences), 1.23 (community relations), 1.27 (creative experiences), 1.96 (exploratory and enrichment programs), 3.51 (team teaching), 2.3 (intramural activity), and 1.63 (flexible schedule). Table 11 lists in detail mean scores, t values, and significance.

Physical experiences was implemented at levels significantly higher by middle schools than by junior high schools. Middle school programs appeared to be built upon individualizing physical education programs. This type of program accepts that differences do exist in physical development, and student growth is encouraged through a less competitive atmosphere than junior high schools. More class time was devoted to developmental-type activities in the middle school program and these experiences were emphasized more throughout the middle-level years than in the junior high setting.

Social experiences were implemented more by middle schools than by junior high schools and this difference is significant at the .01 level. The preadolescent and early adolescent undergo changes which affect self-concept. Because this is a time of sensitivity and acute perception, students need a variety of social experiences in order to develop social skills which will shape their later development. Michigan middle school programs appeared to offer more club activities for students than did junior high schools, and a larger percentage of students attending middle schools participated in club activities than did students attending junior high schools. Dances were held less often for middle school students than junior high

Table 11

Mean Implementation Scores and t Values for Middle
Schools Compared to Junior High Schools

	Characteristic	Middle school mean	Junior high mean	t value
1.	Guidance services	11.82	11.25	1.66
2.	Multimaterial	28.75	26.90	2.27
3.	Physical experiences	10.35	9.32	3.02*
4.	Student security factor	6.13	5.53	2.51
5.	Social experiences	13.81	11.99	3.84*
6.	Planned gradualism	1.99	1.77	1.79
7.	Community relations	8.90	7.67	3.86*
8.	Student services	5.75	5.65	0.39
9.	Basic learning experiences	7.95	7.49	1.23
10.	Creative experiences	10.50	9.23	3.06*
11.	Exploratory and enrichment programs	14.52	12.56	2.71*
12.	Evaluation practices	4.68	4.46	1.00
13.	Flexible schedule	7.67	6.02	4.40*
14.	Intramural activities	7.40	5.10	3.99*
15.	Independent study	3.26	2.88	1.70
16.	Team teaching	9.86	6.35	5.29*
17.	Continuous progress	3.71	3.18	2.25
18.	Auxiliary staffing	1.90	1.40	1.89

*Significant at the .01 level.

students. Middle level students are not developmentally ready to be thrust into adult roles which are promoted at dances. Instead, middle school programs appeared to offer social functions more in the afternoon, with a variety of activities, than did junior high schools.

The characteristic community relations was implemented at a significantly higher rate in middle schools than junior high schools. Middle school programs tend to emphasize community services projects as part of the total educational program. Parent organizations were more frequent in middle schools than in junior high schools and appeared to be more actively involved in the overall school program. Middle schools tended to communicate with their communities more often and through more varieties of media than did junior high schools. The school staff of middle schools presented informational programs with more frequency than did junior high school staffs.

Creative experiences was implemented significantly more by middle schools than by junior high schools. Middle level students are growing intellectually through the adolescent years and must be allowed time to think without pressure and encouraged to ask questions which are considered with respect. The program should also provide for expression of personal feelings which are magnified during this stage of development. Middle schools tended to provide more opportunities for creative outlets for students than did junior high schools. Student newspapers, dramatic productions, oratorical activities, and talent shows were more often a part of the middle school program than the junior high school program.

Exploratory and enrichment programs were offered significantly more by middle schools than by junior high schools. Middle school programs tended to offer art and music instruction to all students. Elective courses were offered to students in middle schools more often at all grade levels than in junior high schools. In general, middle schools had more elective offerings than did junior high schools.

Team teaching was implemented significantly more in middle schools than in junior high schools. This characteristic refers to two or more teachers teaching the same pupils and same subjects. This type of instructional structure should be organized in part around teaming patterns that allow students to interact with a variety of teachers in a wide range of subject areas. Team teaching is intended to bring to students a variety of resource persons and provides for teacher talents to reach greater numbers of students.

Speculation as to why middle schools scored higher levels of implementation for team teaching and why team teaching is implemented below the 50% level in both schools centers on two elements. First, team teaching is not traditional. A renewal of emphasis on the traditional, basic education would hinder implementation of this characteristic. This could add credence to the idea that junior high schools are traditional in nature and mirror the high school program structure, therefore, scoring lower than middle schools. The low implementation scores for this characteristic overall could be attributed to the renewal of emphasis on basic education, which tends to remove innovation in favor of traditional basic education. Second, teachers who team teach must be able to work effectively and cooperatively together. In situations where

teamed teachers do not receive common planning periods so that co-operative planning can occur, they may lack the cohesiveness necessary to make team teaching a positive experience. Unfortunately, teachers, like other professionals, often subscribe to the rule that if you want it done well you do it yourself. This attitude severely blocks implementation possibilities for team teaching.

The idea that the junior high school program is simply a high school structured program adapted for younger students gains strength when looking at the remaining two characteristics with larger degrees of implementation in the middle school. Intramural activity scored an overall increase of 12.58% and flexible schedule showed an overall increase of 11.15% at the middle school. High school athletic programs tend to be more focused upon competition and the findings of this study indicate that the junior high school activities programs were more focused upon competition than middle school activity programs. Middle schools appeared to be promoting more participation in skill development activities through intramural programs. Junior high schools were offering more interscholastic competition and these activities take precedence over intramural offerings in the scheduling of the facility. Also, middle schools were fostering more team games, individual sports, and other varieties of activities than did junior high schools.

Flexible schedule is a characteristic that was implemented more by middle schools than junior high schools. Junior high schools were operating from a more fixed time period per class than middle schools. Middle schools were more apt to use combinations of time rather than distinct class periods. Schedules incorporating daily revolving periods,

block time, and teacher manipulation was more prevalent in the middle schools. The inflexible schedule used by high schools where time periods are defined in segments of 50 to 60 minutes is more closely aligned with the junior high school than middle school.

What Is the Current Degree of Implementation Compared to the Findings of Raymer (1974/1975)?

In comparing percentage rates of implementation of the two studies, the time span from 1974 through 1992 has produced an overall strengthening of the middle school concept as evidenced by an overall higher rate of implementation reported. The overall implementation rate of the 18 basic middle school characteristics in the 1974 Raymer study stands at 53.71%. Comparing this score to the overall implementation rate percentage found in this study (56.87%) produces a 3.16% difference in favor of the scores identified in this study.

Both the Raymer study of 1974 and the current study agreed on nine characteristics implemented above the 50% level. They are guidance services, multimaterial, physical experiences, student security factor, social experiences, student services, basic learning experiences, exploratory and enrichment activities, and evaluation practices.

Both studies agreed with regard to three characteristics implemented below the 50% level. They are flexible schedule, team teaching, and auxiliary staffing.

Discrepancy is found with six characteristics. Within this grouping, the Raymer (1974/1975) study found three characteristics to be implemented above the 50% level, while the current study found these

characteristics to be implemented below the 50% level. They are independent study (51.13%, 44.28%), intramural activities (56.18%, 41.55%), and continuous progress (52.25%, 34.66%). The three characteristics identified in the current study to be implemented above the 50% level, which were not identified in the Raymer study are planned gradualism (63.10%, 48.33%), community relations (59.86%, 42.86%), and creative experiences (55.36%, 37.60%).

In general, the overall implementation rates of the 18 basic middle school characteristics have increased from 1974 through 1992. The largest increase is identified as being in the area of creative experiences, where a 17.76% increase was obtained. The largest decrease in implementation comes with the characteristic continuous progress, which posted an overall decline of 17.59%.

Nine middle school characteristics received increasing amounts of implementation over the 18-year period. They were creative experiences (+17.76%), community relations (+17.00%), flexible schedule (+16.27%), planned gradualism (+14.77%), guidance services (+9.45%), team teaching (+7.45%), basic learning experiences (+7.20%), student security factor (+3.90%), and physical experiences (+2.67%). The 18-year trend with these nine characteristics is toward further implementation. The past 18 years have yielded numerous reports and even direct attacks upon the effectiveness and credibility of our nation's educational system. Since the educational trend toward further implementation of the 18 basic middle school characteristics has survived and even grown during this tumultuous time period, there is no reason to suspect that it will reverse in the near future. Therefore,

continued implementation of these nine characteristics should be expected.

While all nine characteristics show growth from 1974 through 1992, seven of them are implemented over the 50% level. They are guidance, services, physical experiences, student security factor, planned gradualism, basic learning experiences, community relations, and creative experiences. Schools are implementing these characteristics at high rates. Because of their growth and high implementation rate, these characteristics appear to be the most used characteristics of Michigan middle level schools. Also in this category is multimaterial. Even though multimaterial received an overall decrease in implementation during the 18-year time span, it was a small decrease (-4.48%) and continues to be implemented at the high rate of 71.00%. Therefore, eight characteristics appear to be the most used middle school characteristics.

Creative experiences posted the largest increase during the 18-year period at 17.76%. It is evident that middle schools are placing a higher regard on the medium where students can express their inner feelings. The areas of art, music, and drama are included in this area; and therefore, marked increase in these curriculum offerings is shown.

The characteristic community relations shows an overall strengthening of 17.00%. This indicates emphasis is being placed on student-parent activities, and community involvement in middle level activities is being fostered. This helps to promote cohesiveness of the family unit and acquaint the community with the programs and goals of the middle school curriculum. By making the community aware of school programs and seeking involvement in those programs, community perceptions of

the school improve. An ever increasing number of community members no longer have children in school. The severing of ties with the school can lead to less support of school programs. With the majority of funding of Michigan schools solidly vested with the community electorate, it is imperative to work toward a school/community partnership. Public Act 25 (State School Aid Act of 1990, 1990) requires an annual report to be presented to the community from each school. This law is 3 years old making it too early to interpret the impact.

The characteristic flexible schedule, while continuing to be implemented below the 50% level, received a large increase totaling 16.27%. This characteristic is nontraditional in nature as it deals with regrouping the learning periods to best fit the individual needs of students. In the traditional school setting, the daily schedule is established and inflexible. The bell sounds to begin and end each class session. If work cannot be completed within the confines of the class period, other provision for completion must be made by the student. Flexible schedule would permit students and teachers to deviate from the class period, allowing students to move more freely about the building, using instructional time in the areas needed most. While this characteristic is still implemented under the 50% level, it is encouraging to see large growth.

Planned gradualism shows a steady increase throughout the 18-year period. The overall increase stands at 14.77%. This shows that middle level schools are becoming more aware of the need for students to become independent. Responsibility to make social choices are increased gradually throughout the middle level years. This increase is planned so that students will grow gradually and not become

overburdened with adult roles, but learn to accept and use them with caution.

Guidance services shows a 9.45% increase during the 18-year period. This increase points to an overall concern for individual student problems. Special education services have become much more important during the 18-year time span, which can account for some of this increase. An emphasis has been placed on teachers being more sensitive to the needs and problems of students. Emphasis is also placed on creating a home unit for each student to participate and create a sense of belonging. Guidance services also include the availability of a professional counselor to meet with students. Students need this type of counseling to provide comfort and direction during the transescent years. Counseling services are now required by law under the accreditation section of Public Act 25. This would suggest that guidance services will continue to grow.

Team teaching shows a +7.45% increase during the 18-year period between studies. This is a small increase and the characteristic is still implemented below the 50% level, but reflects overall improvement in implementation rate in Michigan middle level schools. The slow improvement in implementation scores of team teaching could be due to the return of large scale emphasis on traditional education or a return to the basics. Team teaching is not within the confines of traditional education, which links 25 to 30 students with one teacher for a duration of 50 to 60 minutes per subject area, often resulting in a different teacher for each learning segment. Also, the current prevailing philosophy contends that all educational vehicles be written in student outcome

form. This takes the emphasis away from teacher inputs (team teaching) and puts it upon student outcomes (mastery performance). This shift in emphasis will continue to diminish practices such as team teaching.

Basic learning experiences posted an overall increase of 7.20% during the 18-year period between studies and is now implemented at the 59.93% level. More opportunities are being made available to students to improve upon their basic skills. By the middle level years, students should have a good grasp of the basic skills, which include the three fundamental areas of reading, writing, and mathematics, as well as spelling, physical education, and grammar. However, this is not happening in all cases. The need for remediation in the basic skill areas do exist. It is very positive to see an increase in implementation of basic learning experiences because it shows that the needs of the population that is not eligible for special education services and not ready for grade level educational experiences are being addressed. These students are typically the ones who disappear during the high school years by disengaging from the educational setting by dropping out.

The remaining two characteristics that showed increases are student security factor (+3.90%) and physical experiences (+2.67%). Student security factor is implemented at a high rate of 65.04% overall. It places high priority on teachers giving students individual time. Teachers counseling students on curriculum matters and allowing students to become comfortable talking with them about such matters are also part of this characteristic's importance. It appears that progress, however slight, is being made toward facilitating this type of student-teacher relationship. Physical experiences is implemented at a high

degree, scoring an overall implementation rate of 67.53% and also gained slightly in implementation rate during the 18-year period between studies. Physical experiences focuses upon developmental activities at the middle level school and away from competitive activities. Students are developing physically at the most rapid pace since birth to the age of one year. A program that fosters participation for all students and acceptance of differences should be a mainstay of the middle level curriculum.

Nine characteristics received decreases in implementation during the 18-year time span between studies. These characteristics are continuous progress (-17.59%), intramural activities (-14.63%), auxiliary staffing (-14.51%), student services (-7.58%), social experiences (-7.51%), independent study (-6.85%), exploratory and enrichment programs (-4.61%), multimaterial (-4.48%), and evaluation practices (-0.17%).

Continuous progress programs received the largest decline in implementation scores during the 18-year period between 1974 and 1992. Students in a continuous progress classroom advance at their own individual pace. As one unit of study is completed, the next unit begins. Students are at various levels of learning in the classroom. This plan utilizes programmed and semiprogrammed instructional materials, in conjunction with teacher made units. This type of instructional program is designed to meet the educational need of students by permitting students to spend their learning time at points they need the most. In full group instruction, students learn together. Although all students are not at the same point educationally, instruction is geared to keep

students together, learning the same material. Michigan middle level schools appear to be headed back toward the traditional basic instructional structure where teachers teach full groups and students take the same test on the same day for the same number of points. This drastic drop in implementation rate points toward a shift in focus from individual learning needs to group learning.

The characteristic ranked Number 16 in 1974 and now ranked last in implementation, receiving a large decrease in implementation during the 18-year time period between studies is auxiliary staffing. During the 18-year time span, auxiliary staffing has decreased 14.51% in implementation in Michigan schools. It is evident that middle level schools in Michigan do not use auxiliary staffing in their middle level programs. This could be due to the fact that guidance services has been implemented at such a high degree. Guidance services, when implemented, maintains that each teacher ought to become involved with students on an individual basis, counseling each on matters pertaining to academics and other aspects of home and school. Auxiliary staffing brings together aides and paraprofessionals, both paid and volunteer, into the classroom to help teachers extend and develop their teachings. Very possibly, teachers are acting as their own auxiliary staff through the guise of guidance services. Budget cuts, eliminating all possibility for employing auxiliary staff, may also contribute to the lack of implementation rate. On the reverse, support personnel unions may prohibit unpaid volunteers from serving in the recognized role of auxiliary staff. Whatever the case, auxiliary staffing appears to be used very little by Michigan middle level schools.

Intramural activities received a drop in implementation rate of 14.63%, and is now implemented overall below the 50% level. It appears that Michigan middle level schools are doing one of two things. First, schools are participating in competitive athletics at the middle level. The Michigan High School Athletic Association has fostered participation of middle level schools in their organization. Many leagues in Michigan now include middle schools and junior highs with competitive schedules being played throughout the year in both girls and boys sports. Schools are electing to move away from intramural activity in favor of interscholastic activity. Schools are offering more interscholastic competition at the middle school level and these events take facility space to provide, thereby edging out intramural activities.

Intramural programs are designed to maximize participation to provide the opportunity for students to explore different activities. Knowing that students are at the widest range of physical development during the middle level years, competitive athletics may prevent some students from developing skills and desire to play specific sports, because they are not good enough to make the team. This is a dangerous practice since students who are not developed enough to make a team could ultimately be a star player in high school. Conversely, students who are super players during the middle level years may find themselves severely underdeveloped as high school players, thereby providing them with false hopes during the middle level years. Second, schools may be eliminating all athletic and activity programs at the middle level due to financial constraints. Districts tend to eliminate middle level programs and save high school programs during times of financial duress.

Michigan schools are undergoing severe funding problems presently which have forced districts to make cuts in programs. Athletic activity seems to always be on the cut list in some way. Programs such as pay-for-play have been becoming more prominent during the past 18-year period. These types of programs continue to offer activities, but charge students a fee for participation, thereby taking them out of the funda-mental school offerings. Whichever is the case, Michigan middle level schools must take another look at intramural athletics and implement this characteristic more fully.

Student services shows a 7.58% decrease in implementation be-tween studies and is currently implemented at the 63.40% level overall. This decrease points to diminishing cooperation between school and community services for the betterment of students. When implemented, a student services program provides a broad spectrum of specialized services for students. Community, county, and state agencies should be utilized to expand the range of specialists to address student needs. Specific examples of these services would include health services, counseling services, and testing services to foster individual develop-ment. Schools must take the initiative to work in cooperation with outside agencies to present the best, most comprehensive student serv-ices program possible.

The characteristic social experiences decreased in implementation rate by 7.51% from 1974 through 1992 and is currently implemented at the overall rate of 64.75%. This decrease indicates that during the 18-year period, middle level school social experiences programs became more like high school programs. School functions are now being held

more in the evening. Dances are being held more often for the younger grades of the middle level schools in lieu of activities events and students are overall participating less in club activities. Even though social experiences is implemented at an overall high level, middle level schools must work to turn this decrease around. Middle level students deserve and need club programs and activities events over adult-like dances.

Independent study programs decreased in overall implementation by 6.85% between studies. The concept of independent study is one that revolves around students using resources outside the traditional one-teacher classroom in completing their work. These resources can include community members, public librarian, and other area professionals. Students direct their work and develop their own pace. Independent study can help inspire intrinsic motivation, helping to produce students who learn for the sake of learning. Speculation about this decrease in implementation rate must center around the renewal of emphasis on the basics of education. The foundation behind independent study, students working in a self-directed manner away from the traditional classroom and lecture format, is not traditional or basic in nature. The desire for control over students, tight classroom management expectations by administration, and inflexible teaching personnel who are grounded in traditional methods all contribute to the decline of independent study in Michigan middle schools.

Exploratory and enrichment programs show a decline in implementation scores of 4.61%, having an overall implementation rate of 53.04%. This decrease, however slight, shows movement away from doing activities related to course work, such as hands-on activities.

When fully employed, a middle level school would provide a broad range of activities, including elective courses during the day, where students could experience rather than read about the activity under study. Levels of retention are increased when students learn by doing, and understanding is more complete when viewed from a wide range of experiences. Students must be allowed to investigate their interests on school time and to progress on their own as they are ready.

While receiving a decline in implementation rate of 4.48%, multi-material is implemented at 71.00% overall and is ranked second to guidance services. The overall rating of 71.00% is high and means that Michigan middle level schools are using multimaterial programs to benefit students. Schools implementing the multimaterial approach contend that maturity levels, interest areas, and student backgrounds vary greatly at this age and these variables need to be considered when materials are selected. The middle-school-age student has a range biologically and physiologically anywhere from 7 years old to 19 years old. Their cognitive development progresses through different levels, too. Using the Piaget model of cognitive development, middle level students are either preparing for concrete operations, into concrete operations, or into the period of formal operations. These students have short attention spans. Therefore, variation in approach and variations in materials should be available in the school program to meet the needs and abilities of the students and help teachers retain student interest. Care must be taken to make certain that the use of multimaterial incurs no further decrease in implementation rate.

Evaluation services showed a decrease of 0.17% in implementation rate during the 18-year time span between studies and is implemented at the 50.96% level overall. The difference of 0.17% does not represent a large level of decrease and is deemed insignificant. Table 12 lists differences between Raymer (1974/1975) and the current study.

Summary of Findings

Implementation rates of the 18 basic middle school characteristics for Michigan middle level schools has been identified to be 56.87% overall. The strongest characteristic is guidance services, implemented at 82.83% and the weakest is auxiliary staffing implemented at 20.89%.

National Blue Ribbon middle level schools have an overall implementation level of 67.40% with regard to the 18 basic middle school characteristics. Guidance services is the highest implemented characteristic with a level of 92.06% and continuous progress is the lowest implemented characteristic with a 24.44% rating.

Comparison has been made between the national Blue Ribbon schools and Michigan middle level schools. The overall implementation level of the 18 middle school characteristics for the Blue Ribbon schools stands at 67.40%, while the Michigan schools implement these same characteristics at the 56.87% level. The difference in implementation levels is 10.53% in favor of the Blue Ribbon schools. Significant difference was found at the .01 level on 12 characteristics. The 12 characteristics are exploratory and enrichment programs, flexible schedule, multimaterial, creative experiences, community relations, basic learning experiences, student services, student security factor, guidance services,

Table 12

Comparison of Middle Level Characteristics Implementation
Percentages for Mowen (1992) and Raymer (1974/1975)
in Michigan Schools

	Characteristic	Percentage of implementation		
		Mowen	Raymer	Difference
1.	Guidance services	82.83	73.38	+9.45
2.	Multimaterial	71.00	75.48	-4.48
3.	Physical experiences	67.53	64.86	+2.67
4.	Student security factor	65.04	61.14	+3.90
5.	Social experiences	64.75	72.26	-7.51
6.	Student services	63.40	70.98	-7.58
7.	Planned gradualism	63.10	48.33	+14.77
8.	Basic learning experiences	59.93	52.73	+7.20
9.	Community relations	59.86	42.86	+17.00
10.	Creative experiences	55.36	37.60	+17.76
11.	Exploratory and enrichment programs	53.04	57.65	-4.61
12.	Evaluation practices	50.96	51.13	-0.17
13.	Flexible schedule	46.52	30.25	+16.27
14.	Independent study	44.28	51.13	-6.85
15.	Intramural activities	41.55	56.18	-14.63
16.	Team teaching	40.78	33.33	+7.45
17.	Continuous progress	34.66	52.25	-17.59
18.	Auxiliary staffing	20.89	35.40	-14.51
	Total implementation rate	56.87	53.71	+3.16

evaluations practices, team teaching, and intramural activities. The characteristic evaluation practices was scored significantly higher by Michigan principals, while the remaining 11 characteristics were scored significantly higher by Blue Ribbon principals.

Within this study, scores have been separated into two categories: schools calling themselves middle schools and schools calling themselves junior high schools. Comparison between the two sets of scores shows the middle schools implementing the 18 basic middle school characteristics at the 57.65% level and the junior high schools at the 53.44% level, producing a difference of 4.21% in favor of the schools calling themselves middle schools. Inspecting the difference between middle schools and junior high schools at the individual characteristic level, it was found that eight characteristics were significantly different at the .01 level of significance. These characteristics are physical experiences, social experiences, community relations, creative experiences, exploratory and enrichment programs, flexible schedule, intramural activities, and team teaching. In all eight cases, middle school principals scored higher rates of implementation than did junior high principals.

Scores from this study are compared to scores obtained in 1974 by Raymer. Overall implementation scores for Raymer (1974/1975) stand at 53.71%, while the overall scores for this study stand at 56.87%, creating a difference of 3.16% in favor of the current study. Agreement was found in nine characteristics which were scored above the 50% level of implementation in both studies. Further agreement is found with regard to three characteristics which are implemented below the 50% mark. Discrepancy is found in the remaining six characteristics

with the current study showing implementation of three characteristics above the 50% level, while the Raymer study found them below the 50% level. Contrariwise, the Raymer study found three characteristics implemented above the 50% level, while the current study found these same characteristics implemented below the 50% level.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

Introduction

The middle school student is maturing faster than in past years. Moss (1969) pointed out that "the children of today reach puberty at approximately age eleven" (p. 31). Furthermore, Blos (1967) believed puberty is beginning 4 months earlier every decade. Puberty is a confusing time for students. During the middle level years, the transescent undergoes many physical, emotional, and psychological changes according to Eichhorn (1966), who created the term "transescence" (p. 31).

Schools must provide programs and curricula geared to deal with the needs of students. Middle level schools that mirror the high school subject-centered curriculum lose sight of the individual student at a developmental stage when he or she is reaching out to become an individual. "During these 'becoming' years, young adolescents are literally persons in search of personality" (Arth et al., 1989, p. 9). To facilitate this metamorphosis, schools must implement a student-centered curriculum which focuses on the uniqueness of the individual student and is the foundation of middle school philosophy.

Riegle (1971) identified 18 basic middle school characteristics while reviewing literature on middle schools for his study. The list of these characteristics was validated by known experts in middle level education. Riegle developed the initial questionnaire using these 18

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characteristics to complete his study. Since their creation, the 18 basic characteristics of middle schools have been used in various studies with the objective of determining their rate of implementation in schools calling themselves middle schools.

This study sought to determine the rate of implementation of the 18 basic middle school characteristics in Michigan by examining middle level schools regardless of name. Further comparison was made between schools calling themselves middle schools and those referred to as junior high schools. Middle level schools identified as exemplary Blue Ribbon schools (U.S. Department of Education, 1991) were examined with comparison made to Michigan middle level schools. The historical perspective was examined by comparing scores from this study with scores reported by Raymer (1974/1975).

Summary of Findings

Implementation rates of the 18 basic middle school characteristics for Michigan middle level schools have been identified to be 56.87% overall. The highest implemented characteristic is guidance services, implemented at 82.83% and the lowest implemented characteristic is auxiliary staffing implemented at 20.89%.

National Blue Ribbon middle level schools have an overall implementation level of 67.40% with regard to the 18 basic middle school characteristics. Guidance services is the highest implemented characteristic with a level of 92.06% and continuous progress is the lowest implemented characteristic with a 24.44% rating.

Comparison has been made between the national Blue Ribbon schools and Michigan middle level schools. The overall implementation level of the 18 basic middle school characteristics for the Blue Ribbon schools stands at 67.40%, while the Michigan schools implement these same characteristics at the 56.87% level. The difference in implementation levels is 10.53% in favor of the Blue Ribbon schools. Significant difference was found at the .01 level on 12 characteristics. The 12 characteristics are exploratory and enrichment programs, flexible schedule, multimaterial, creative experiences, community relations, basic learning experiences, student services, student security factor, guidance services, evaluation practices, team teaching, and intramural activities. The characteristic evaluation practices was scored significantly higher by Michigan principals, while the remaining 11 characteristics were scored significantly higher by Blue Ribbon principals.

Within this study, scores have been separated into two categories: schools calling themselves middle schools and schools calling themselves junior high schools. Comparison between the two sets of scores shows the middle schools implementing the 18 basic middle school characteristics at the 57.65% level and the junior high schools at the 53.44% level, producing a difference of 4.21% in favor of the schools calling themselves middle schools. Inspecting the difference between middle schools and junior high schools at the individual characteristic level, it was found that eight characteristics were significantly different at the .01 level of significance. These characteristics are physical experiences, social experiences, community relations, creative experiences, exploratory and enrichment programs, flexible schedule, intramural activities, and team

teaching. In all eight cases, middle school principals scored higher rates of implementation than did junior high principals.

Scores from this study are compared to scores obtained by Raymer (1974/1975). Overall implementation scores for Raymer stand at 53.71%, while the overall scores for this study stand at 56.87%, creating a difference of 3.16% in favor of the current study. Agreement was found in nine characteristics which were scored above the 50% level of implementation in both studies. Further agreement is found with regard to three characteristics which are implemented below the 50% mark. Discrepancy is found in the remaining six characteristics with the current study showing implementation of three characteristics above the 50% level, while the Raymer study finds them below the 50% level. Contrariwise, the Raymer study found three characteristics implemented above the 50% level, while the current study found these same characteristics implemented below the 50% level.

In summation, the Michigan middle level schools are different from the national Blue Ribbon schools in that they implement the 18 basic middle schools characteristics to a lesser degree overall. The Michigan middle schools and junior high schools are different, with the middle schools implementing more thoroughly the 18 basic middle school characteristics. The current study findings are different from the Raymer (1974/1975) findings in that this study has shown an overall increase in the implementation rate of the 18 basic middle school characteristics during the 18-year time span between studies in Michigan.

Conclusions Regarding Middle School
Characteristic Implementation

Conclusions drawn from this study are divided into three major categories. First is the grouping of the characteristics by current levels of use and the reasons why this exists. Second is the overall lack of implementation of the characteristics and why this exists. And third are the ways in which schools can foster more complete implementation of the characteristics.

Grouping of Characteristics by Current Use

The findings of the current study compared to the findings of Raymer (1974/1975) suggest a refashioning of the 18 basic middle school characteristics into two groupings. The seven characteristics that receive increases in implementation over the 18-year time period and are implemented to a high degree, above 50%, and the one characteristic receiving a small decrease in implementation, but implemented to a very high degree (71%), become the "high usage" middle school characteristics. These characteristics are being used by middle level schools with continuing interest. The high usage characteristics are guidance services, multimaterial, physical experiences, student security factor, planned gradualism, basic learning experiences, community relations, and creative experiences. The remaining 10 characteristics received either (a) decreases in implementation scores since the findings of Raymer (1974/1975) or (b) increases but still remain implemented below the 50% level and are identified as the "low usage" middle school characteristics. The low usage characteristics are flexible schedule, independent

study, intramural activities, team teaching, continuous progress, social experiences, student services, exploratory and enrichment programs, evaluation practices, and auxiliary staffing.

The characteristic auxiliary staffing was identified as a low usage characteristic and received a large reduction in implementation level; it ranks last on the implementation listing with 13.77% separating it from the next characteristic. This represents the largest separation of implementation percentage between any two characteristics. This characteristic ranked 16th in implementation in the Raymer (1974/1975) study and was ranked last, or 18th, in implementation in this study. During the 18-year time span, auxiliary staffing has decreased 14.51% in implementation in Michigan schools. It is evident that middle level schools in Michigan are not using auxiliary staffing and have not focused upon increasing its use over the 18-year time span.

There are three probable reasons for the lack of emphasis on auxiliary staffing. First, guidance services have been implemented at such a high degree that they may be prohibiting auxiliary staffing from gaining implementation. Guidance services maintains that each teacher ought to become involved with students on an individual basis, counseling each on matters pertaining to academics and other aspects of home and school. Auxiliary staffing brings together aides and paraprofessionals, both paid and volunteer, into the classroom to help teachers extend and develop their teachings. Because teachers are becoming more involved with each child, counseling on academic issues, it is possible that teachers are acting as their own auxiliary staff through implementing guidance services. Secondly, budget cuts have reduced the possibility of

employing paid auxiliary staff, which contributes to the lack of imple-
mentation rate. This creates a situation where a school must rely solely
upon volunteers to fill the auxiliary staffing role. Parents become disen-
gaged from school parent organizations as students get older. By the
middle level years, students are seeking independence from their parents
and often begin to put pressure on them not to be involved because they
find this embarrassing. Because parents are becoming less interested in
physically being a part of their student's education, a school will have
difficulty relying on volunteer auxiliary staffing to raise implementation
rates. Thirdly, support personnel unions may prohibit unpaid volunteers
from serving in the recognized role of auxiliary staff. Support personnel
contracts continue to emphasize a closed shop atmosphere and this may
prevent volunteers from performing auxiliary staffing duties. It is clear
that auxiliary staffing is being used little in Michigan middle level schools
and is now used less than 18 years ago. A complete listing of the re-
vised middle school characteristics can be found in Table 13.

Lack of Implementation

There are at least five likely reasons for the current lack of imple-
mentation of the 18 basic middle school characteristics. Adequate
financial support, PA 25, philosophical differences, school leadership,
and staff motivation are all contributing factors for the identified lack of
implementation of the characteristics.

An ongoing turmoil regarding school funding is consuming Michi-
gan educators. Local residents are defeating millage proposals for
schools and local municipalities claiming taxes are already too high. This

Table 13

Revised Listing of 18 Middle School
Characteristics by Usage

High usage middle school characteristics	Low usage middle school characteristics
Guidance services	Flexible schedule
Multimaterial	Independent study
Physical experiences	Intramural activities
Student security factor	Team teaching
Planned gradualism	Continuous progress
Basic learning experiences	Social experiences
Community relations	Student services
Creative experiences	Exploratory and enrichment programs
	Evaluation practices
	Auxiliary staffing

financial panacea has blossomed with guidance from the Michigan Legislature and lobbying parities as they work toward changing the laws regarding school funding and thereby giving local residents hope that taxes will decrease. Many different school funding proposals have come and gone through the legislature with two such proposals being soundly defeated in the recent November general election. Residents seem to have forgotten that the costs of educating our young are increasing at least at the pace of inflation. The idea that costs can increase while taxes, which fund schools, can decrease is not rational. What is clear

regarding school funding is that everyone understands there is a problem, but no clear direction has been set pertaining to solutions.

Because of the lack of financial support, school districts are faced with difficult choices including the elimination of programs for students. This research indicates that the implementation rates of the middle school characteristics are not high. Programs must be implemented consistent with the characteristics in order to improve the implementation rate. These additional programs for students seem unrealistic, given that concurrently, programs for students are being eliminated under financial stress.

Public Act 25 was enacted into law by the Michigan Legislature requiring districts to comply with curriculum standards, accreditation, and school improvement. Concurrently with PA 25 was the call to restructure K-12 education using an outcomes-based model. This model was also used by the Michigan State Board of Education in its Core Curriculum. This edict to change and restructure public education was issued without adequate consideration as to how this would be accomplished. Educational leaders have scrambled to understand the mandates of PA 25 and learn the concepts of outcome-based education in order to lead their districts and buildings in compliant directions.

It would seem that PA 25 would offer a perfect opportunity for schools to implement more fully, the basic middle school characteristics. Currently, however, this is not happening. There are reasons why schools working toward compliance with PA 25 are not addressing the low implementation of middle school characteristics. Schools do not have the financial support necessary to build programs which develop

the middle school characteristics. As pointed out in the preceding section, school finance is in a state of turmoil, with the state legislature using the problem as a political scapegoat to bait voters into believing that taxes can be reduced through some miracle school finance reform, in turn, making them heroes. This issue is far from resolved and unfortunately, so much is unknown pertaining to school finance that educators are left with working hard to maintain programs they now offer, rather than working to implement middle school programs that will increase the implementation rate of the 18 middle school characteristics.

Further implementation is not occurring because of the manner in which school curriculum is being restructured to meet the mandates of PA 25. According to George et al. (1992), there are two ways in which a middle level school can enter into curriculum change. First, and almost exclusively used, is the adaption method. Using this method, schools implement programs on top of the existing curriculum and adapt the new program to fit the existing curriculum. The second method is one referred to as a fresh start. The total curriculum changes to better fit the new and different philosophical orientation of middle level education. The small increase in implementation of the 18 basic middle school characteristics over the 18 year time span between the Raymer (1974/1975) study and the current study suggests that the adaption method of selecting individual programs to implement into the existing curriculum structure is popular. This adds support for the notion that the adaption method is the most common method of curriculum revision (George et al., 1992). This would also explain why some characteristics are implemented more highly than others. In their effort to become a

middle school, schools select individual programs associated with middle school philosophy and implement them in addition to existing programs which may not be consistent with middle school philosophy. At the individual school level, the 18 basic characteristics of middle schools become unequally implemented. Schools must commit to the fresh start approach in order to give equal consideration to the 18 basic middle school characteristics. Unfortunately, few schools are willing to commit to a total change in curriculum. Until this commitment is cultivated, the unequal implementation of the 18 basic middle school characteristics will continue.

Philosophical differences exist regarding the utility and usefulness of the 18 basic middle school characteristics. As found in this study, the middle level school subgroups of middle schools and junior high schools are different with regard to implementation rates of individual character-istics. In all comparisons, the junior high schools scored lower rates of implementation, and significant differences at the .01 level were found in eight characteristics. These findings reinforce the original intention of the middle school movement, which according to Calhoun (1983) was to overcome the shortfalls of the junior high school structure which into a cheap imitation of the high school program. Therefore, philosophical differences caused the middle school movement to form originally and differences continue to exist today between junior high schools and middle schools. These differences are articulated through the school leadership to the personnel in much the same way as parents transfer values to their children. With this lack of agreement pertaining to the usefulness of the 18 basic middle school characteristics, increased

implementation is impeded and complete implementation is an unrealistic goal until this lack of agreement are resolved.

The role that leadership must play in the call for further implementation of the 18 basic middle school characteristics is crucial to success. The type of leadership best suited to accomplish the task of moving middle level school organizations toward more characteristic implementation is transformational leadership. According to Bennis and Nanus (1985):

> [Transformative leaders are] leaders who can shape and elevate the motives and goals of followers. Transformative leadership achieves significant change that reflects the community of interests of both leaders and followers; indeed, it frees up and pools the collective energies in pursuit of a common goal. (p. 217)

School leadership which attempts to improve the implementation rate of the 18 basic middle school characteristics must shape and elevate the goals of teachers. In this shaping process, they must direct energies toward the common goal of further implementation. This common goal which Bennis and Nanus (1985) identified is also called vision. It sounds easy to identify the vision of a true middle school, where the 18 basic characteristics are implemented at 100%, and simply help focus teachers, parents, and community energies toward working in this direction. So why has this not been accomplished? Transformational leadership in our schools is lacking, especially at the building principal level where it is crucial. The type of leadership being practiced at the building level is transactional in nature, not transformational. Burns (1978) described transactional leadership as tuned in to the day-to-day activities of running the organization. Little time is spent on long-range planning. If the

school leader does not concentrate on long-range planning, it is difficult, if not impossible to perfect a vision. Without vision, transformation of middle level schools toward 100% implementation of the 18 basic middle school characteristics will fail.

It is important to note that the day-to-day activities of the school are very important as is the need to transform our schools into better places for students. Transformational and transactional leadership are not mutually exclusive leadership styles. One can learn to function in both roles. According to Bass (1985), there is a continuum, with transformational leadership at one end and transactional leadership at the other. Leaders function along this continuum to best meet the needs of the organization. Therefore, principals can learn to manage their schools and lead their school communities toward higher rates of implementation of the 18 basic middle school characteristics.

Our professional classroom teachers, as a whole, should be encouraging further implementation of the middle school characteristics, but they are not. This is because they are not motivated in the direction of further implementation. There are reasons for this lack of motivation. Maslow (1970) created the hierarchy of needs which can be divided into two major groupings. One must progress through the deficiency needs consisting of physiological, safety and security, love and belonging, and self-esteem needs before one can enter the growth needs. The growth needs consist of self-actualization and creative needs. Educators have not moved middle level staff members past the deficiency needs. Schools are concerned with safety and security issues as evidenced by hired guards supervising school hallways. If the primary concern is

safety and security of staff and students, motivation to improve the implementation rate of the 18 basic middle school characteristics is far from becoming reality. In Michigan, local communities are turning down requests for millage increases at a time when state school funding is in a state of confusion and being reduced in some local districts. This lack of local support is injurious to the self-esteem of school employees. Without positive self-esteem, moving into the growth needs, which would enable schools to expand implementation of the basic middle school characteristics, is far from happening.

Ways to Implement

DePree (1989) stated: "The first responsibility of a leader is to define reality. The last is to say thank you. In between the two, the leader must become a servant and a debtor" (p. 9). This statement contains the essentials for effective implementation of the 18 basic middle school characteristics and any other restructuring plan that may be needed. The idea of defining reality is essential in order to understand the magnitude of the transformation needed. In this study, reality for Michigan middle level schools is 56.87% implementation of the 18 basic middle school characteristics. With the perfect level of implementation being 100%, the current level of implementation must be raised 43.13%. Therefore, the magnitude of the transformation needed is large.

In defining reality, the leader also develops a vision. The idea that the leader becomes a servant and a debtor has to do with communicating the vision to the followers. Because the magnitude of the

transformation necessary to implement the 18 basic middle school characteristics is large, the school leader needs to be a servant to the staff by making certain they get the information and professional development needed to understand the circumstances and direction needed to overcome their current situation. The idea of being a servant also carries to releasing the decision making power to be shared among the workers. Covey (1991) stated that when employees are involved in decision making they take ownership for the decision and chances for success are increased. The idea that the last job of the leader is to say thank you is the act that will energize the commitment to the vision for the future. Herzberg (1968) identified recognition as a motivator in his two-factor theory of motivation. The act of recognition of saying thank you for a job well done can have an enormous motivating effect upon the people of an organization.

If in defining reality, a school leader finds there is a lack of understanding about the 18 basic middle school characteristics, the leader must pursue staff development activities that will increase understanding. In pursuing the staff development programs, the leader is a servant. Bringing in faculty and administrators from schools where the basic middle school characteristics are being implemented at a high rate is a good way to begin to address the issue of understanding. A good follow-up activity to this type of presentation is a visitation by the leadership team to the school where the presenters work. The visitation will act as a validation exercise which will increase the credibility of the presentation because staff can see first hand what they were told about.

In pursuing further implementation of the basic middle school

characteristics, it is important that the first attempts be successful. This study has divided the 18 basic middle school characteristics into two groupings by usage. The high usage characteristics are those that have withstood the test of time and remained implemented at high levels or increased in implementation over the 18-year time span from the findings of Raymer (1974/1975). The low usage characteristics are those where implementation has decreased or remained implemented at low levels over the same 18-year time span. These groupings have been created to help school leadership select the characteristics for implementation that have proven to be successful over time. By choosing characteristics from the high usage grouping, schools are selecting from those characteristics with proven successful implementation rates in other schools. These other schools can provide assistance during the implementation process to help raise the possibility of success. Furthermore, the high usage characteristics have remained successfully implemented for at least 18 years, giving school personnel comfort that once implemented these characteristics should be useful for years to come. By selecting characteristics from the high usage grouping, schools are more likely to be successful in working toward increased implementation.

Another view of characteristic implementation is the fresh start method espoused by George et al. (1992). School districts using this method would look at complete refashioning of their total program at one time. For example, this would provide an opportunity to make a complete shift of philosophy away from the traditional subject-centered curriculum to a student-centered interdisciplinary curriculum based upon themes. To take this approach would mean a strong commitment to

implementing the basic middle school characteristics and a thorough understanding of the need to divorce oneself from traditional practice.

Implications for Curriculum

Curriculum review and revision is an opportune time to address the implementation rates of the basic middle school characteristics. Curriculum revision which provides for continuous progress, team teaching, basic learning experiences, flexible schedule, multimaterial, physical experiences, creative experiences, evaluation practices, social experiences, student security factor, independent study, exploratory and enrichment programs, and planned gradualism will increase the possibility for the characteristics to be more fully implemented. A curriculum modeled after the high school years, which is tracked and specifically structured with little student choice, will impair attempts to increase the implementation of the 18 basic middle school characteristics.

It must be noted that implementing 13 of the 18 characteristics can be best accomplished through the curriculum review and revision process. For example, to increase the implementation rate of the high usage characteristic multimaterial approach, a school must look for a variety of ways to deliver the curriculum and use a variety of learning levels within the same classroom. The materials selection is best accomplished after the curriculum has been reviewed and revised. Therefore, increasing the implementation of multimaterial approach can be best facilitated during the curriculum process rather than adding it on as a separate activity. The 13 characteristics associated with curriculum are, continuous progress, team teaching, basic learning experiences,

flexible schedule, multimaterial, physical experiences, creative experiences, evaluation practices, social experiences, student security factor, independent study, exploratory and enrichment programs, and planned gradualism.

Seven of the 13 curriculum related characteristics are identified as low usage characteristics. These low usage characteristics are flexible schedule, independent study, team teaching, continuous progress, social experiences, exploratory and enrichment programs, and evaluation practices. The general conclusion drawn from this phenomenon is that these seven characteristics are not associated with the traditional high school program and the middle level school's curriculum is still modeled after the high school curriculum. For example, the idea of flexible schedule is foreign to high schools because the traditional day is made up of a prescribed amount of minutes per class session. Like the high school, flexibility in the schedule is still not common in middle level school programs. Independent study does not commonly appear in high school curriculum until all requirements have been met. Therefore, when offered, only older high school students typically benefit from independent study. Like the high school independent study is not common in middle level schools. Team teaching is not an ordinary part of the traditional high school. High school teachers are subject specialists who teach singularly in classrooms of 25 to 30 students for a set amount of minutes per session. Like the high school, team teaching is still not common in the middle level schools. Continuous progress programs are not a regular part of the traditional high school program. That is, once the students are placed in a class, they learn in full groups. Continuous

progress programs are not implemented highly in middle level schools either. Social experiences are limited mostly to dances in the evenings and other events that emulate the adult world. The middle level schools have overlooked the importance of implementing social experiences appropriate for the developing adolescent in favor of activities that largely emulate the high school program. This accounts for social experiences implemented as a low usage characteristic. Exploratory and enrichment programs are built upon the premise that time must be spent enriching students self concept and how they fit in with the world, rather than learning subject matter in the traditional form. High school programs focus upon students learning subject matter in traditional forms. Unfortunately, middle level programs are still hanging on to the high school practices and not implementing exploratory and enrichment programs to their fullest. Evaluation practices which consist of more than merely letter grades are not part of the traditional high school program. In the middle level school, competitive letter grade evaluation should be replaced with open pupil-teacher-parent communications. However, middle level schools are choosing to use the letter grade system commonly associated with the traditional high school program. The lack of implementation of the 13 curriculum related characteristics is largely because, as illustrated in the above examples, the middle school still aligns with high school practices regarding curriculum.

The Carnegie Council on Adolescent Development (1989) underscored the need to treat middle level education as a separate entity from both elementary and high school education. Middle level curriculum focus should move away from concentration on preparing students for

high school and move toward preparing them for life during adolescence and connect adolescent life to society in general. By equipping students with the cognitive and affective skills necessary to live life as functioning human beings during adolescence, the potential for intellectual and social adjustment needed during this stage of life have been maximized. If the idea that middle level students will grow out of their intellectual and social awkwardness is accepted, then the path of doing very little with them except to keep them in tow has been taken. According to the Carnegie Council on Adolescent Development (1989), middle level students have the ability to use higher order thinking skills, making extended learning realistic. However, by continuing to concentrate on early adolescence as a stage of constant transition, where nothing educationally meaningful happens, the middle level students have been deprived of educational opportunities they need and deserve.

The middle school movement is still trying to break away from the little high school stigma to establish its own identity and until these characteristics become high usage characteristics, it will remain in the shadow of the high school program for which it still concentrates on preparing students.

Implications for School Leadership

Now that the implementation rate of the 18 basic middle school characteristics has been identified in Michigan and Blue Ribbon middle level schools and conclusions made, it is important to look at the position of school leadership. To increase the implementation rate of the 18 basic middle school characteristics will present a sizable challenge to

school leadership. The implications are many.

First, school leadership must perfect and practice transformational leadership. Bennis and Nanus (1985) referred to the transformative leader as "one who commits people to action, who converts followers into leaders, and who may convert leaders into agents of change" (p. 3). It is the idea of changing or transforming middle level educational practice that schools must concentrate upon in order to increase implementation rates of the 18 basic middle school characteristics. This metamorphosis will be best accomplished by a leader who uses transformational leadership. A necessary component of transformational leadership is the creation of a vision which includes the 18 basic middle school characteristics being fully implemented. This vision must be communicated to all personnel with activities geared to creating shared commitment toward the vision.

Second, school leadership must continue to define the middle level years as a separate entity from the high school and elementary school. Puberty is a confusing time for students. The middle level student is undergoing many physical, emotional, and psychological changes and is literally in search of personality (Arth et al., 1989). They are truly in an in-between stage where they are not like elementary students and not like high school students. Therefore, a program designed especially for the middle level student is most appropriate.

Third, the curriculum of the middle level schools must be independent of the high school curriculum, while stressing a smooth articulation of content throughout all grades. School leadership must recognize that middle level schools are still in alignment with high schools

regarding curriculum issues. By working to implement the 13 curriculum related issues, middle level schools will break away from the high school structure to become a distinct entity. Six of the curriculum related characteristics are identified as high usage characteristics. These characteristics are multimaterial, physical experiences, student security factor, planned gradualism, basic learning experiences, and creative experiences. School leadership should select characteristics from this grouping for further implementation because they have shown sustained or increased implementation rates during the past 18 years. Therefore, because they have been used, there are schools which implement these characteristics to a high degree and can assist schools in increasing implementation rates. Until these curriculum characteristics are highly implemented, middle level school curriculum will continue to emulate the high school curriculum.

Fourth, Michigan junior high schools must become more like middle schools. School leaders operating junior high schools in their districts must recognize they are more closely associated with high school programs. As pointed out in the second implication, middle level students need a separate program with a separate identity. The philosophical intention of the middle school is to create a unique educational program for transescent youth, apart from the programs of the high school and elementary school. Junior high schools are philosophically structured as a pre-high school program, using high school programming such as subject-centered curriculum, to prepare students for high school. Junior high schools must become more like middle schools and create a unique program designed specifically for transescent youth.

Fifth, school leadership must select characteristics from the high usage grouping in order to cultivate success. The high usage characteristics are ones that have shown sustained or increased implementation rates over the past 18 years. Selecting one of these characteristics for further implementation will enable a school to work in collaboration with other schools that currently implement the characteristic.

Sixth, school leadership must become politically active in order to increase chances for adequate funding for schools. Without adequate funding, full implementation of the 18 basic middle school characteristics becomes more impossible.

Recommendations for Further Study

Now that the level of implementation of the 18 basic middle school characteristics has been established in the state of Michigan at 56.87% and comparisons made, further points of exploration can be identified to include the following:

1. How do financial constraints restrict school districts from implementing the characteristics in Michigan? In other states?

2. Are the findings from this study in Michigan different from findings that could be identified in the other 49 states? In what ways are they the same? In what ways are they different?

3. Are the majority of middle level educators elementary or secondary trained? Of those hired during the last 5 years, what percentage are elementary? Secondary trained personnel traditionally do not have the background conducive to implementing the basic middle school characteristics because these characteristics do not mirror the high

school programs.

4. Which of the low usage characteristics would have the best chance of being implemented first? Which one would have the greatest impact upon the day-to-day operation of the school for the betterment of the students?

5. By visiting the schools with the highest and lowest implementation rates, what further information could be revealed regarding program implementation?

6. Is there a "perfect" middle school in operation anywhere in the world? What does the most perfect middle school look like today?

7. Are other states ahead or behind Michigan in middle level educational programming? How do these differences impact elementary programming? How do these differences impact high school programming? How are university programs impacted?

8. Are other countries ahead or behind the United States in middle level educational programming? In what ways are they ahead or behind?

APPENDICES

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Appendix A

The Questionnaire

117

COMPARISON STUDY OF THE IMPLEMENTATION RATE OF EIGHTEEN MIDDLE SCHOOL CHARACTERISTICS IN MICHIGAN AND NATIONAL EXEMPLARY SCHOOLS

by

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General Information: **(confidential)**

Name of Respondent_____
                                   (optional)

Title of Respondent_____

Address_____

City_____

Please place a check mark before the grades served by your school.

_____ 4

_____ 5

_____ 6

_____ 7

_____ 8

_____ 9

_____ Please send me an executive summary of this research.

_____ Please send me an individual report for my school.

Please place a check mark in the blank indicating the name used by your school.

_____ Middle School
_____ Junior High School
_____ Intermediate School
_____ Other_____

PART I: Place a check mark before the SINGLE BEST answer that
explains your current program as it relates to the question.

1-A. Students can progress through school
at their own individual rate, regardless of
chronological age:
___ not used at this time
___ used with special groups
___ used for the first two years
___ used by selected students
___ used by all students

2-A. Programs for students who progress
through school at their own individual
rate, regardless of chronological age are
planned over a calendar year span of:
___ not used
___ one year
___ two years
___ three years
___ more than three years

3-B. Classroom activities are planned around
a multi-material approach, rather than a
basic textbook approach.
___ not used
___ used in a few courses
___ used in most courses
___ used in nearly all courses

4-B. The instructional materials center
in this building houses:
___ 1000 books or less
___ 3000 books or less
___ 4000 books or less
___ 5000 books or less
___ 5001 books or more

5-B The materials center has a paid
certified librarian:
___ no
___ part-time only
___ one full-time
___ more than one full-time

6-B For classroom instruction
audio visual materials are:
___ not used
___ rarely used
___ occasionally used
___ frequently used
___ very frequently used

7-C. The basic time module used to
build the schedule is:
___ 60 minutes
___ 45 to 59 minutes
___ 30 to 44 minutes
___ 10 to 29 minutes
___ a combination of time
so diversified that no
basic module is defined

8-C. Which of the below best describes
your schedule at present?
___ traditional
___ traditional, modified by "blocktime"
___ "revolving period", or other such
regularly occuring modifications
___ flexible to the degree
that all periods are
scheduled but are not
identical in length
___ flexible to the degree
that changes occur
within defined general
timelimits
___ flexible to the degree
that students and
teachers control the
daily time usage and
changes occur regularly
___ other_____

_____

9-D. How are sponsorships for club
activities handled?
___ staff members do not work
with club activities
___ staff members are assigned
without pay
___ staff members are assigned
with pay
___ staff members are volunteer
without pay
___ staff members volunteer and
are paid

10-D. What percent of your student
body regularly participates
in at least one club activity?
___ we have no club program
___ 25% or less
___ 50% or less
___ 75% or less
___ 100% or less

11-E. How is the physical education
program individualized?
___ not at all
___ slightly
___ moderately
___ highly

12-F Inter-scholastic competition is:
___ offered in two or more sports
___ offered in one sport only
___ not offered

13-F Intramural activities often use
the same facilities as interscho-
lastic activities. When this causes
a time conflict, how do you schedule?
___ we have no intramural program
___ interscholastic activities take
first priority and others must
schedule around their needs
___ we have no interscholastic
program
___ intramural activities take first
priority and others schedule
around their needs

14-G. How many students participate
in team teaching*
programs?
___ none
___ 25% or less
___ 50% or less
___ 75% or less
___ 100% or less

15-G. What percentage of your teaching
staff is involved in team teaching
programs?
___ none
___ 25% or less
___ 50% or less
___ 75% or less
___ 100% or less

16-G How many minutes per day does
a student in grades five or six
average in a team teaching program?
___ none
___ 40 minutes
___ 80 minutes or less
___ 120 minutes or less
___ 160 minutes or less
___ 161 minutes or more

17-G How many minutes per day does a
student in grades seven or eight
average in a team teaching program?
___ none
___ 40 minutes or less
___ 80 minutes or less
___ 120 minutes or less
___ 160 minutes or less
___ 161 minutes or more

*Team teaching refers to 2 or more
teachers teaching the same pupils
and same subjects. If one team
teacher teaches ONLY science,
another team teacher teaches ONLY
social studies, etc., then this is
departmentalization.

18-H Which of the following best describes your school program as it evolves from enrollment to completion of the last grade?.(i.e., grades FIVE through EIGHT).
___ completely self-contained and/or completely departmentalized
___ Modified departmentalized (block-time, core, etc.)
___ program moves from largely self contained to partially depart-mentalized
___ other_____

19-I How many years is ART instruction required for all students?
___ none
___ one year
___ two or more years

20- How many years is music instruction required for all students?
___ none
___ one year
___ two or more years

21-I The amount of student schedule time set aside for elective courses:
___ decreases with each successive grade or, is the same for all grades or, does not exist at any grade level
___ varies by grade level but not in any systematic manner

22-J For what percent of students are guidance services normally available?
___ not available
___ 25% or less
___ 50% or less
___ 75% or less
___ 100% or less

23-J Guidance staff members:
___ never work with teachers
___ seldom work with teachers
___ often work with teachers
___ always work with teachers

24-J. Guidance counselors are:
___ not expected to help teachers build their guidance skills
___ expected to help teachers build their guidance skills
___ expected and regularly encouraged to help teachers build their guidance skills

25-L. Clinics or special classes to treat the problems of students who are behind in reading, writing, or mathematics are:
___ not available
___ available only to the most critically handicapped learners
___ available to all students needing such help

26-L. The amount of time provided in the classroom for instruction in basic reading, writing and math:
___ remains constant or increases with each successive grade
___ decreases with each successive grade
___ varies greatly due to individ-ulization of program by teachers

27-M Does your school have an official newspaper put out by the students?
___ no
___ yes, and publishes four or less issues per year
___ yes, and publishes five or more issues per year

28-M Do students get experience in creative dramatics?
___ no
___ yes

29-M Dramatic productions at this school are produced from:
___ does not apply
___ purchased scripts only
___ materials written by students only
___ materials written by students and purchased scripts

30-M. This school has oratorical activities such as debate, public address, etc.:
___ no
___ yes, as a part of its enrichment program
___ yes, as a part of its planned program of instruction

31-M Talent shows are:
___ not a part of our program
___ produced on an all school basis
___ produced at each grade level
___ produced at each grade level with some of the acts entering an all school talent show

32-N In the operational design of this school, the role of the teacher as a guidance person is:
___ left strictly to the individual teacher's personal motivation.
___ mentioned to the teacher but not emphasized
___ emphasized
___ strongly emphasized

33-N As a general policy, provisions are made for the teacher to provide guidance services:
___ no
___ yes, to a limited number
___ yes, to all their students

34-N How many times per year is a student's academic progress formally reported to the parents?
___ two times or less

___ four times or less
___ six times or less
___ other_____
_____

35-O. How many times per year are parent-teacher or parent-teacher-studnet conferences held on a school-wide basis?
___ not at all
___ once
___ two times
___ three times
___ four or more times

36-P. Community service projects by students in this school are:
___ not a part of our program
___ carried out occasionally for a special purpose
___ an important part of the planned experience for all students

37-P What is the status of the parent organization in your school?
___ none
___ relatively inactive
___ active
___ very active

38-C. The master class time schedule can be changed by teachers when need arises by:
___ requesting a change for next year
___ requesting a change for next semester
___ requesting administrative approval
___ planning with other teachers on a weekly basis
___ planning with other teachers on a daily basis

39-K Students studying individual interest areas that do not appear in the curriculum are said to be working on "independent study projects." Students at this school working in independent study situations work on topics that are:
___ we have no independent study programs
___ assigned to them by the teacher
___ of personal interest and approved by the teacher

40-O Formal evaluation of student work is reported by use of:
___ letter or number grades
___ teacher comments written on a reporting form
___ parent-teacher conferences
___ parent-teacher-student conferences
other_____
_____

41-E. What percentage of physical education class time is devoted toward comptetitive type activities?
___ 25% or less
___ 50% or less
___ 75% or less
___ 100% or less

42-E What percentage of physical education class time is devoted toward developmental type activities?
___ 25 % or less
___ 50% or less
___ 75% or less
___ 100% or less

43-J. Do your guidance counselors offer regular group guidance sessions?
___ yes
___ no

44-K Independent study opportunities are provided for:
___ some students
___ all students
___ not provided

45-L. Daily instruction in a developmental reading program is provided for:
___ poor readers only
___ All students
___ not provided

PART II: For each question in this section check ALL THE ANSWERS that apply to your school.

46-B. Which of the following types of materials are housed in your instructional materials center?
___ general library books
___ current newspapers
___ below grade level reading materials
___ current magazines
___ files of past issues of newspapers
___ above grade level reading materials
___ card catalogue of materials housed
___ student publications
___ files of past issues of magazines
___ computerized retrieval system
___ filmstrips
___ collections (coins, insects, art, etc)
___ motion pictures or VCR tapes or laser discs (include if you are a member of central service)
___ micro-films
___ overhead transparencies
___ cassette tapes
___ ditto and/or mimeo machines
___ photo or copy machines
___ maps, globes and charts
___ display cases or areas
___ computers
___ software that supports the curriculum

47-D. School dances are not held for:
___ grade five
___ grade six
___ grade seven
___ grade eight

48-D A club program for students is
offered in:
___ grade five
___ grade six
___ grade seven
___ grade eight

49-F The intramural program
includes:
___ team games
___ individual sports
___ various activities

50-I. Students are allowed to elect
courses of interest from a range
of elective offerings:
___ no
___ in grade five
___ in grade six
___ in grade seven
___ in grade eight

51-I. Electives offered in this
building are:
___ art
___ band
___ vocal music
___ drawing
___ drama
___ journalism
___ foreign language
___ family living
___ unified arts
___ orchestra
___ wood shop
___ speech
___ typing
___ natural resources
___ creative writing
___ other_____

52-K. How much time would you estimate
the average student spends in
independent study?
___ 20 minutes or more per day in
grades five or six
___ 30 minutes or more per day in
grades seven or eight
___ less than the above

53-L Students with poor basic skills can
receive special help on an individ-
ual basis from a special staff
member trained to treat such situa-
tions in the following areas:
___ reading
___ spelling
___ physical education
___ mathematics
___ grammar
___ other_____

54-M. Dramatic presentations by students
are:
___ not a part of the school program
___ a part of the activities program
___ a part of certain class activities
planned by the teachers
___ other_____

55-P. In regard to community relations
this school:
___ does not send out a parent
newsletter
___ sends out a parent newsletter
___ uses the commercial newspaper
___ uses a district wide newsletter
to send out information related
to this school
___ other_____

56-P. The staff presents informational
programs related to the school's
functions:
___ when requested by parents
___ once or twice a year at regular
parent meetings

56. continued....
___ at open house programs
___ at regularly scheduled "seminar type' meetings planned for interested parents
___ other _____

57-Q. From the specialized areas listed below, check each service which is available to students in your building.
___ guidance counselors
___ school nurse
___ school psychologist
___ diagnostician
___ speech therapist
___ visiting teacher
___ clinic services for the emotionally disturbed
___ special education programs mentally handicapped
___ special reading teacher
___ other_____

58-R. Teaching teams are organized to include:
___ fully certified teachers
___ para-professionals
___ clerical helpers
___ student teachers
___ others_____

59-R. Teaching teams are organized to include:
___ paid para-professionals
___ volunteer helpers from the community
___ student teaches and interns
___ high school "future teachers" students
___ others_____

60-D School social functions are held at this school:

During the afternoon	During the evening
___ grade 5	___ grade 5
___ grade 6	___ grade 6
___ grade 7	___ grade 7
___ grade 8	___ grade 8

61-E. The physical education program serves all students in:
___ grade 5
___ grade 6
___ grade 7
___ grade 8

62.F. Intramural activities are scheduled for:

Boys only	Girls only
___ grade 5	___ grade 5
___ grade 6	___ grade 6
___ grade 7	___ grade 7
___ grade 8	___ grade 8
___ not schedule for boys	___ not scheduled for girls

THANK YOU SINCERELY FOR YOUR ASSISTANCE!
Please return to:

GREGG G. MOWEN
1003 Kenowa Dr.
Ludington, MI 49431

Appendix B

The 18 Basic Middle School Characteristics
and Corresponding Survey Items

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The 18 Basic Middle School Characteristics
and Corresponding Survey Items

Characteristic	Survey question numbers
1. Continuous progress	1, 2
2. Multimaterial	3, 4, 5, 6, 46
3. Flexible schedule	7, 8, 38
4. Social experiences	9, 10, 47, 48, 60
5. Planned gradualism	18
6. Creative experiences	27, 28, 29, 30, 31, 54
7. Physical experiences	11, 41, 42, 61
8. Intramural activity	12, 13, 49, 62
9. Auxiliary staffing	58, 59
10. Team teaching	14, 15, 16, 17
11. Independent study	39, 44, 52
12. Basic learning experiences	25, 26, 45, 53
13. Exploratory and enrichment programs	19, 20, 21, 50, 51
14. Guidance services	22, 23, 24, 43
15. Student security factor	32, 33, 34
16. Evaluation practices	35, 40
17. Community relations	36, 37, 55, 56
18. Student services	57

Appendix C

Cover Letters

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LUDINGTON AREA SCHOOLS
SECONDARY SCHOOL COMPLEX
LUDINGTON HIGH SCHOOL
O. J. DeJONGE JUNIOR HIGH SCHOOL

DR. JAMES E. FORD
Superintendent
AXEL A. JOHNSON III, Ph.D.
Assistant Superintendent
GREGG G. MOWEN
Complex Principal

THOMAS P. BEATTY
Assistant Principal 9 - 12
GERALD R. MORAWSKI
Assistant Principal 7 - 8
RAYMOND GALINSKI
Director of Athletics

September 11, 1992

«NAME»
«TITLE»
«SCHOOL»
«ADDRESS»
«CITY»

Dear «NAMES»,

Attached to this letter is a questionnaire regarding middle level schools from a person seeking his doctorate in education. I need your help and knowledge to obtain this important information. I am asking principals from selected middle level schools to complete the enclosed questionnaire. In return for your time and expertise, I am offering you two options. First, should you request, I will send you an individual school summary for «SCHOOL», with comparison figures against national averages. This type of information could prove to be very useful in school improvement and accreditation efforts. Or second, I will send you an executive summary of the entire project. Just indicate which option you prefer on the inside front of the questionnaire.

Enclosed you will find the questionnaire and a self-addressed stamped envelope for its return. Please complete the questionnaire and return it in the envelope provided.

PLEASE RETURN THE QUESTIONNAIRE WITHIN THE NEXT WEEK.

Your responses are confidential. The number «NU», placed on the cover of the questionnaire is to identify those schools responding in order to complete the individual school summary and assess the response rate for possible follow-up contacts. Should you not wish an individual school summary, the cover will be removed when received so that complete anonymity can be assured.

I thank you in advance for your interest and cooperation!

Sincerely,

Gregg G. Mowen, Ed.D. Candidate
Principal
Secondary School Complex

508 N. WASHINGTON AVENUE / LUDINGTON, MICHIGAN 49431 / TELEPHONE: (616) 845-7303

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LUDINGTON AREA SCHOOLS
SECONDARY SCHOOL COMPLEX
LUDINGTON HIGH SCHOOL
O. J. DeJONGE JUNIOR HIGH SCHOOL

DR. JAMES E. FORD
Superintendent
AXEL A. JOHNSON III, Ph.D.
Assistant Superintendent
GREGG G. MOWEN
Complex Principal

THOMAS P. BEATTY
Assistant Principal 9 - 12
GERALD R. MORAWSKI
Assistant Principal 7 - 8
RAYMOND GALINSKI
Director of Athletics

September 25, 1992

«NAME»
«TITLE»
«SCHOOL»
«ADDRESS»
«CITY»

Dear «NAMES»,

Earlier this month I sent you a questionnaire to complete regarding your middle level school. This questionnaire is related to my dissertation research being conducted through Western Michigan University. I have not received the completed survey from you. If you have not yet completed the survey, I hope you will do so within the next two days so that I may tabulate the final results to include your important information.

I know how busy you are these days because I am a school principal too. The survey does look long, but it is all multiple choice and should take no more than 10 minutes to complete. I have included another survey instrument and a self-addressed stamped envelope for the questionnaire's return to me at minimal hassle for you.

I can assure you complete confidentiality, and if you wish «NAMES», I will send to you a copy of the state and national scores as compared to «SCHOOL». This information could prove to save you time in the future with your P.A. 25 Report.

I thank you in advance for your help and cooperation!

Professionally yours,

Gregg G. Mowen
Principal
Secondary School Complex

508 N. WASHINGTON AVENUE / LUDINGTON, MICHIGAN 49431 / TELEPHONE: (616) 845-7303

Appendix D

Incentives: Individual School Summary
and Executive Summary

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Gregg G. Mowen
1003 Kenowa Drive
Ludington, Michigan
49431

December, 1992

Dear Principal,

Thank you for returning the completed questionnaire I sent you in September regarding your middle level school. As you requested, I have enclosed your Individual School Summary which indicates your percentage of implementation of eighteen middle school characteristics, along with state and national totals. Should you need further information, please feel free to contact me. These scores should prove useful for future planning and school improvement efforts.

Sincerely,

Gregg G. Mowen, Ed.D. Candidate
Western Michigan University

Your School	State Average	Blue Ribbon Average	
_____	34.66	24.44	Continuous Progress Programs
_____	71	80.56	Multi-material Approach
_____	46.52	65.93	Flexible Schedule
_____	64.75	68.82	Social Experiences
_____	67.53	76.98	Physical Experiences
_____	41.55	50.69	Intramural Activities
_____	40.78	47.92	Team Teaching
_____	63.1	81.48	Planned Gradualism
_____	53.04	70.39	Exploratory and Enrichment Programs
_____	82.83	92.06	Guidance Services
_____	44.28	61.9	Independent Study
_____	59.93	78.07	Basic Learning Experiences
_____	55.36	70.99	Creative Experiences
_____	65.04	80.25	Student Security Factor
_____	50.96	38.27	Evaluation Practices
_____	59.86	75.4	Community Relations
_____	63.4	81.48	Student Services
_____	20.89	33.33	Auxiliary Services
_____	56.87	67.4	**OVERALL IMPLEMENTATION RATE**

RESPONSE RATE: MICHIGAN -73.44% WITH 241 SCHOOL RANDOMLY SELECTED.
BLUE RIBBON - 90% WITH 10 SCHOOLS RANDOMLY SELECTED.

Gregg G. Mowen
1003 Kenowa Drive
Ludington, Michigan
49431

December, 1992

Dear Principal,

Thank you for returning the completed questionnaire I sent you in September regarding your middle level school. As you requested, I have enclosed an Executive Summary of this research indicating the percentage of implementation of eighteen middle school characteristics in Michigan and national schools. Should you need further information, please feel free to contact me. These scores should prove useful for future planning and school improvement efforts.

Sincerely,

Gregg G. Mowen, Ed.D. Candidate
Western Michigan University

Michigan Middle School Ave	Mich. Junior High Ave	Overall State Ave	Blue Ribbon Ave	
37.08	31.75	34.66	24.44	Continuous Progress Programs
73.39	68.2	71	80.56	Multi-material Approach
51.65	40.5	46.52	65.93	Flexible Schedule
66.58	62.44	64.75	68.82	Social Experiences
69.85	64.7	67.53	76.98	Physical Experiences
47.11	34.53	41.55	50.69	Intramural Activities
46.2	33.6	40.78	47.92	Team Teaching
66.32	59.26	63.1	81.48	Planned Gradualism
55.87	49.59	53.04	70.39	Exploratory and Enrichment Programs
84.96	80.34	82.83	92.06	Guidance Services
46.79	41.31	44.28	61.9	Independent Study
61.38	58.2	59.93	78.07	Basic Learning Experiences
58.61	51.51	55.36	70.99	Creative Experiences
68.1	61.45	65.04	80.25	Student Security Factor
52.21	49.51	50.96	38.27	Evaluation Practices
64.02	54.96	59.86	75.4	Community Relations
63.89	62.83	63.4	81.48	Student Services
23.82	17.44	20.89	33.33	Auxiliary Services
57.65	53.44	56.87	67.4	OVERALL IMPLEMENTATION RATE

RESPONSE RATE: MICHIGAN -73.44% WITH 241 SCHOOL RANDOMLY SELECTED.
BLUE RIBBON - 90% WITH 10 SCHOOLS RANDOMLY SELECTED.

Appendix E

The Scoring Sheet

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____EXEC SUM. ____ ISS   GRADES 5-6-7-8-9   JH MS O
Score   Question numbers   Circle   Char.   %

____/10   1)___ + 2)___   A - C P____

____/40   3)___ + 4)___ + 5)___ + 6)___ + 46)___   B - M M____

____/15   7)___ + 8)___ + 38)___   C - F S____

____/24   9)___ + 10)___ + 47)___ + 48)___ + 60)___   D - S E____

____/16   11)___ + 41)___ + 42)___ + 61)___   E - P E____

____/18   12)___ + 13)___ + 49)___ + 62)___   F - I A____

____/22   14)___ + 15)___ + 16)___ + 17)___   G - T T____

____/3   18)___   H - P G____

____/27   19)___ + 20)___ + 21)___ + 50)___ + 51)___   I - E&E____

____/14   22)___ + 23)___ + 24)___ + 43)___   J - G S____

____/7   39)___ + 44)___ + 52)___   K - I S____

____/13   25)___ + 26)___ + 45)___ + 53)___   L - BLE____

____/18   27)___ + 28)___ + 29)___ + 30)___ + 31)___ + 54)___   M - C E____

____/9   32)___ + 33)___ + 34)___   N - S S____

____/9   35)___ + 40)___   O - E P____

____/14   36)___ + 37)___ + 55)___ + 56)___   P - C R____

____/9   57)___   Q - S S____

____/8   58)___ + 59)___   R - A S____

_____/276 TOTAL SCORE   _____% TOTAL IMPLEMENTATION

Appendix F

Approval Letter From the Human Subjects
Institutional Review Board

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Human Subjects Institutional Review Board

Kalamazoo, Michigan 49008-3899

WESTERN MICHIGAN UNIVERSITY

Date: August 21, 1992

To: Gregg G. Mowen

From: Mary Anne Bunda, Chair *Mary Anne Bunda*

Re: HSIRB Project Number: 92-08-03

This letter will serve as confirmation that your research protocol, "Comparison Study of the Implementation Rate of Eighteen Middle School haracteristics in Michigan and Exemplary Schools" has been approved under the exempt category of review by the HSIRB. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the approval application.

You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date.

The Board wishes you success in the pursuit of your research goals.

xc: Brinkerhoff, Ed Leadership

Approval Termination: August 21, 1993

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