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A STUDY TO IDENTIFY MIDDLE SCHOOLS AND TO  
DETERMINE THE CURRENT LEVEL OF IMPLEMENTATION  
OF EIGHTEEN BASIC MIDDLE SCHOOL CHARACTERISTICS IN  
SELECTED UNITED STATES AND MICHIGAN SCHOOLS.

Michigan State University, Ph.D., 1974  
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By

Joe T. Raymer

A DISSERTATION

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## ABSTRACT

### A STUDY TO IDENTIFY MIDDLE SCHOOLS AND TO DETERMINE THE CURRENT LEVEL OF IMPLEMENTATION OF EIGHTEEN BASIC MIDDLE SCHOOL CHARACTERISTICS IN SELECTED UNITED STATES AND MICHIGAN SCHOOLS

By

Joe T. Raymer

The current popularity of the middle school movement began during the 1960s. Prior to this date various forms of grade and school organizations existed. From the historical point of view, the beginning of today's middle school took place over sixty years ago.

Its early beginning was believed justified because of the changes in the levels of maturation for adolescents, demands of a changing society, and in general, the dissatisfaction of many parents and educators with the junior high school and its similarity to the senior high school.

This study was designed to identify middle schools in the United States and to determine the current level of implementation of eighteen basic middle school characteristics. These basic characteristics focus attention on continuous progress programs, multi-media, flexible schedules, social experiences, physical experiences, intramural activities, team teaching, planned gradualism, exploratory-enrichment experiences, guidance services, independent study, basic learning skills, creative experiences, student security factors,

evaluation practices, community relations, student services, and auxiliary staffing.

A survey questionnaire related to the degree of implementation of these characteristics was mailed to a sample of grade 5-8 and 6-8 middle schools in the United States. For comparative purposes, the same questionnaire for Michigan middle schools 5-8 and 6-8 was treated separately. Survey forms were returned by 80 percent of the grade 5-8 sample and 89 percent of the grade 6-8 sample.

Prior to mailing the questionnaire, a directory of middle schools in the United States was developed. The directory included schools officially named middle school and containing either grades 5-8 or 6-8. When it was not possible to locate the necessary information to determine the official name of the school, the grades contained in the school became the sole criteria for the schools inclusion in the directory. The state departments of education and local school districts were the prime sources for this information.

The results of the survey questionnaire were programmed and processed through the Control Data Corporation (CDC) 6500 computer at Michigan State University. The PFCOUNT Program and FINN Program of the Michigan State University Stat System were used to generate descriptive statistics. Mean scores were calculated on each of the eighteen characteristics. The .05 level of confidence was established as the minimum criterion level for accepting mean differences as being significant.

Completion of the directory produced 1,906 middle schools as defined by this study. There are 421 middle schools housing grades 5-8,

1,092 middle schools housing grades 6-8, and 393 schools called "middle" housing various grade combinations from grade four to grade nine. Michigan leads the nation in numbers of middle schools housing grades 5-8 and 6-8.

Grade 6-8 middle schools in Michigan employ the implementation of the eighteen characteristics to a greater degree than do the remainder of grade 6-8 middle schools in the United States. However, grade 5-8 middle schools in the United States implement the eighteen characteristics to a greater degree than Michigan middle schools, grades 5-8. Neither of Michigan's middle school grade combinations achieved a mean score as high as similar middle schools in the United States on the intramural activity and independent study characteristics.

The total mean score for implementation of the eighteen characteristics in the United States middle schools, grades 6-8, is higher than the total mean score for United States middle schools housing grades 5-8.

The findings of this study provide evidence that Michigan has more grade 5-8 and 6-8 middle schools than any other state. Likewise significant is the conclusion that the grade 6-8 middle schools in Michigan employ the implementation of the eighteen basic middle school characteristics to a greater degree than do the remainder of grade 6-8 middle schools in the United States.

## ACKNOWLEDGMENTS

I am grateful to each person who took of their time and talents to assist me in the completion of this study. Without the help of these many people this dissertation could not have become a reality.

The chairman of my doctoral committee, Dr. Louis Romano, deserves an expression of my deepest gratitude. It was he who provided an abundance of support, scholarly advice, and encouragement. I sincerely appreciate his professional guidance and personal friendship.

Formal thanks are also extended to Dr. Alexander Kloster, Dr. Dale Alam, and Dr. Justin Kestenbaum, for serving on my committee. Their comments and encouragement were especially helpful and greatly appreciated.

A special note of thanks to my two sons, Timothy and Jeffrey. Their understanding attitude and many sacrifices will always be remembered.

This dissertation is dedicated to my wife, Marlene Sue. Her strong faith, encouragement, patience, confidence, and help have always been present. These traits were so evident during the preparation of this study that it was difficult for her to be surprised when it was completed.

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## CHAPTER I

### THE PROBLEM

#### Introduction

The middle school as an element of school organization is undergoing rapid growth and development. Even in the midst of changing social and educational conditions the concept of the middle school is emerging. It can be distinguished as one of the most recent contributions to the K-12 grade organizational continuum.

This national proliferation is supported by the significant research findings of several investigators. Pertinent growth information has been reported by the Educational Research Service of the NEA,<sup>1</sup> Judith Murphy,<sup>2</sup> Pearl Brod,<sup>3</sup> William A. Cuff,<sup>4</sup> and William M. Alexander.<sup>5</sup> The most recent of the surveys cited would be that of William M. Alexander. It was he who reported a national figure of

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<sup>1</sup>American Association of School Administrators and NEA Research Division, "Middle Schools," Educational Research Service Circular, No. 3, 1965, p. 15.

<sup>2</sup>Judith Murphy, Middle Schools (New York: Educational Facilities Laboratories, Inc., 1965).

<sup>3</sup>Pearl Brod, "The Middle School: Trends Toward Its Adoption," Clearing House, XL (February, 1966), 331-33.

<sup>4</sup>William A. Cuff, "Middle Schools on the March," National Association of Secondary School Principals Bulletin, LI (February, 1967), 82-86.

<sup>5</sup>William M. Alexander et al., The Emergent Middle School (New York: Holt, Rinehart and Winston, Inc., 1968), pp. 8-10.

1,100 middle schools operating during the 1967-68 school year. At the time of the survey, 37 of the 50 states were involved in the operation of these schools. Thomas E. Gatewood, of Central Michigan University, at the 1971 Annual Meeting of the North Central Association in Chicago, estimated the number of middle schools in the United States to be over 2,000.

Growing interest in the middle school concept creates a professional obligation to determine the educational practices of the middle school. Enlightenment in this area will provide needed information toward a continued effort to understand the status and implications of the middle school in the American educational system.

#### Statement of the Problem

The problem presented in this thesis is to identify middle schools in the United States and then determine the current level of implementation of the eighteen basic middle school characteristics in these schools. Furthermore, the degree of implementation of the eighteen basic middle school characteristics by Michigan middle schools will be compared with the degree of implementation of the eighteen basic middle school characteristics by middle schools in the remaining 49 states.

#### Need

The National Education Research Bulletin<sup>6</sup> reveals that growth and development of the middle school concept is hampered by financial

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<sup>6</sup>National Education Research Bulletin, XLVII (May, 1969), 49-52.

problems, the inflexibility of instructional facilities, lack of specialized teacher preparation and/or orientation, and size of school. This indicates difficulties in each middle school according to the particular problem encountered. Involvement with any of these reported educational problems may cause a wide variation of the middle school practices. Research concerning this fluctuation of middle school characteristics in relation to theory and practice is needed.

This additional information concerning the degree of implementation of middle school characteristics will serve to provide data for state departments of education and schools of education dealing with problems of middle school teacher certification and education. William A. Cuff indicates this lack of recognition is a noteworthy problem and issue.<sup>7</sup> More available research data will increase the chances for additional recognition of the middle school.

A continuation of the middle school depends upon the willingness of its advocates to prepare the research necessary to warrant its survival. Implementation of the middle school concept must not just exist in ideal. Rationale for the middle school is valid when it is established upon reality. Research designed to clarify the degree of employment of basic characteristics will help to validate or refute the claims of the middle school supporters.

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<sup>7</sup>Cuff, "Middle Schools on the March," op. cit., pp. 82-86.

### Definition of Terms

The presentation of the following definition of terms is intended to aid in the interpretation and understanding of this study and to assist in clarifying terms for possible replications of this study.

1. Middle school: A school unit which includes grades 5-8 or grades 6-8 for purposes of planning and conducting a unique set of academic, social, emotional and physical experiences for early adolescent students.<sup>8</sup>
2. Purpose: Something someone sets before himself as an objective to be attained; an end or an aim to be kept in view in any plan, measure, exertion, or operation.<sup>9</sup>
3. Transescent youth: That period in an individual'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.<sup>10</sup>
4. Planned gradualism: An organizational plan to provide experiences designed to assist early adolescents in making the transition from childhood dependence to adult independence.

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<sup>8</sup>Nicholas P. Georgiady and Louis G. Romano, "The Middle School--Is It a Threat to the Elementary School?" Impact, New York Association for Supervision and Curriculum Development, Winter, 1967-68, p. 1.

<sup>9</sup>Webster's Third New International Dictionary of the English Language (unabridged), 1962.

<sup>10</sup>Donald Eichhorn, The Middle School (New York: The Center for Applied Research in Education, Inc., 1966), p. 31.

5. Continuous progress program: A nongraded program which permits students to progress at their own educational pace regardless of their chronological age.

6. Team teaching: Two or more teachers administratively organized to provide opportunities for them to maximize their teaching talents and allow students to interact with teachers responsible for a broad range of subject areas.

7. Enrichment experiences: A variety of elective courses designed to meet the individual interests of students.

#### Assumptions of the Study

The study assumes that the questions prepared and organized in The Riegle study are appropriate for measuring middle school practices on a national level. It further assumes that the Riegle study instrument will be presented in a manner that permits middle school principals to reply with their true perceptions relative to the programs currently functioning within their schools.<sup>11</sup>

#### Limitations of the Study

The schools studied in this thesis are limited to those officially named "middle school." A further limitation will be that these "middle schools" house children in grades 5-8 or 6-8. Terms included

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<sup>11</sup>Jack D. Riegle, "A study of Middle School Programs to Determine the Current Level of Implementation of Eighteen Basic Middle School Principles" (Ph.D. dissertation, Michigan State University, 1971).

in this study have been carefully defined. However, a lack of consistent responses may develop as a result of the variety of experiences and backgrounds of the respondents.

The Riegler survey instrument is to be used in this thesis. It is considered valid and acceptable to the intent of this study. This survey instrument is limited to the measurement of the degree of application of middle school characteristics and does not include a measurement of the effectiveness of this application.

Middle schools referred to in this study are limited to the 50 states and include only those schools wholly supported by public monies.

#### Objectives of the Study

Objective I: To determine the number of middle schools in the United States, grades 5-8 and grades 6-8, in existence during the school year 1972-73.

Objective II: To measure the degree of implementation of the eighteen basic middle school characteristics practiced by selected middle schools in Michigan.

Objective III: To measure the degree of implementation of the eighteen basic middle school characteristics practiced by selected middle schools, not including Michigan, in the United States.

Objective IV: To compare the degree of implementation of the eighteen basic middle school characteristics reported by selected Michigan middle schools with the results reported by the remaining selected United States middle schools.

Objective V: To compare the degree of implementation of the eighteen basic middle school characteristics reported by selected middle schools in the United States, grades 5-8, with the results reported by selected middle schools in the United States, grades 6-8.

#### Procedures for Analysis of Data

The instrument used is a replication of the 62 item questionnaire developed and used in the 1971 Riegler study.

The instrument is designed to measure practices in middle schools. It was developed by Jack D. Riegler when he reviewed pertinent literature relating directly and indirectly to the middle school. From this review a list of basic principles relating to middle school programming were extracted. Riegler then reviewed these basic principles with well known middle school authorities. Based upon his findings and their critique, a list of eighteen basic middle school characteristics were compiled and agreed upon by the panel of authorities. This panel of middle school authorities included Dr. Marie Eli, Montreal, Canada; Dr. Nicholas Georgiady, Miami University, Oxford, Ohio; Dr. Ann Grooms, Educational Services Institute, Cincinnati, Ohio; Dr. Louis Romano, Michigan State University, East Lansing, Michigan; and Dr. Emmett Williams, University of Florida, Gainesville, Florida.

In 1971 the Riegler survey instrument was disseminated to all schools in Michigan housing grades above four but below grade nine. Mailings were also made to four arbitrarily selected exemplary middle schools outside Michigan. The purpose of his study was to determine the current level of implementation of the eighteen basic

characteristics. It was the general conclusion of the Riegler study that the Michigan middle schools did not rank as high in the application of the eighteen characteristics as did the middle schools included in the exemplary sample.

This current study investigates the degree of implementation of the eighteen basic middle school characteristics in selected middle schools in Michigan and the United States.

Prior to mailing the questionnaire a directory of middle schools in the United States was developed. This directory includes schools officially named middle school and containing either grades 5-8 or 6-8. In some cases it was not possible to locate the necessary information to determine the official name of the school. Therefore, the grades contained in the school became the sole criteria for the school's inclusion in the directory. The state departments of education and local school districts were the prime source of this information.

Upon completion of the directory it was determined that there were 137 middle schools containing grades 6-8 in Michigan and 47 middle schools containing grades 5-8 in Michigan. The remaining middle schools in the United States containing grades 6-8 totaled 955 and those containing grades 5-8 totaled 374. The Michigan middle schools and the remaining United States middle schools together totaled 1,092 middle schools containing grades 6-8 and 421 middle schools containing grades 5-8.

The 1971 Riegler survey instrument was considered appropriate for the purposes of this study. It was reorganized somewhat for the

convenience of key punching. This was all accomplished with the assistance of the Research Department at Michigan State University.<sup>12</sup>

A packet containing the survey instrument, a cover letter, and a stamped return addressed envelope were forwarded to a random sample of 100 middle schools containing grades 6-8 and 100 middle schools containing grades 5-8. Two weeks later a follow-up letter was mailed to each school from whom no return reply was received.

The data were programed and processed by the Control Data Corporation (CDC) 6500 computer at Michigan State University. The PFCOUNT Program and FINN Program of the Michigan State University Stat System were used to generate descriptive statistics.

#### Overview of the Study

A reference point for the entire study is contained in Chapter I. It includes a statement of the problem and presents the need for the study. Important terms have been identified and defined. Research methods, limitations, and objectives of the study are listed. The means of analyzing the data are also presented.

Chapter II contains a review of literature related to the middle school. The history and the current status of the middle school are presented. Research findings related to this study are included along with a review of the eighteen basic middle school characteristics.

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<sup>12</sup>Research consultation and assistance provided by the Department of Research Services, College of Education, Michigan State University, Dr. Andrew Porter, Chairman.

A description of the research design and procedures are included in Chapter III. Information relative to the samples, the instrument, the administration, the collection of data, and the analysis procedures are covered.

Chapter IV presents an analysis of the data. Descriptive statistics are presented with each of the objectives of the study.

Significant findings, conclusions, and implications are summarized in Chapter V. This final chapter includes suggestions for any future studies.

## CHAPTER II

### REVIEW OF THE RELATED LITERATURE

The review of the literature begins with a historical recount of the development of schools for students between childhood and adolescence. This early educational movement was led by educators who wanted to provide the best schooling possible for the adolescent student. Concepts and beliefs of these men regarding this period of schooling are reviewed.

Schools for the American transescents are growing in numbers yearly. The special needs and characteristics of the students of these schools and the types of schooling required for the education of these young people are discussed.

A review of previous studies having a similarity to this study receive consideration. Any relationship of these studies relative to this study are then presented.

#### A Historical Review of the Middle School in the United States

The present middle school movement began in the early years of the twentieth century. However, up to the dawn of this century the eight-grade elementary school and the four-year secondary school were responsible for the education of the public school students of America.

This eight-four plan was criticized by President Charles W. Eliot of Harvard late in the nineteenth century. His basis of dissatisfaction was the entering age of freshmen at Harvard. He and the faculty believed that entering students should not be older than eighteen years of age.<sup>1</sup>

In 1888, President Eliot proposed to the National Education Association that the period of elementary and secondary education be shortened. This and future addresses by Eliot led to the formation of various committee investigations. Thus, a reorganization of secondary education was inevitable.<sup>2</sup>

Higher education was not the only critic of the eight-four plan. In 1910, Superintendent Frank F. Bunker of Berkeley, California, said:

Of every one hundred children annually entering the first grade of our schools, practically all reach the end of the fifth grade. Between this point and the first year of high school, from 60 to 67 per cent of those reaching the fifth grade will be lost, leaving but from seventeen to twenty-five of the original one hundred pupils who will reach the second year of high school. Out of this number, only from eight to ten will finally complete the high school course.<sup>3</sup>

This high drop out rate provided additional evidence of the need for reorganization of the upper elementary and high school grades.

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<sup>1</sup>Frank F. Bunker, The Junior High School Movement: Its Beginnings (Washington, D.C.: F. W. Roberts Co., 1935).

<sup>2</sup>Charles W. Eliot, Educational Reform: Essays and Addresses (New York: The Century Co., 1898), pp. 151-76.

<sup>3</sup>Frank F. Bunker, "Reorganization of the Public School System," United States Bureau of Education Bulletin, No. 8 (Washington, D.C.: U.S. Government Printing Office, 1916), p. 101.

General dissatisfaction with the eight-four organization continued to multiply. A summary of factors giving rise to this movement are:

1. The lack of implementation of the early findings of adolescent psychology.
2. The economic and program deficiencies of isolated and small grammar schools.
3. The elimination of pupils at the end of the eighth grade.
4. Lack of the influence of male and female teachers for early adolescents.
5. Elementary teaching methods too long continued and too suddenly changed.
6. Articulation with corresponding elimination at the end or during the ninth grade.
7. The inadequate provision for personal, social, educational, and vocational guidance in the elementary school and the high school.
8. The fact that the age of college entrance was higher than thought reasonable by college administrators.<sup>4</sup>

The first known city to depart from the eight-four plan of traditional grade organization and place the seventh and eighth grades in separate buildings was Richmond, Indiana, in 1896. Other cities introducing departures from the eight-four plan were Lawrence, Kansas, in 1901, and New York City, in 1905. These schools provided some experience and background for the leaders in the junior high movement after 1910. There was a tendency for these pioneers to consider grades seven and eight as part of the secondary school; they introduced departmentalized teaching, promoted by subjects, and

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<sup>4</sup>Joseph C. DeVita, Philip Pumerantz, and Leighton B. Wilklow, The Effective Middle School (West Nyack, New York: Parker Publishing Co., 1970), p. 16.

made arrangements for the election of courses and curriculum below the ninth grade.<sup>5</sup>

The school year 1909-1910 is ordinarily considered as the beginning of the junior high school movement. During this school year Columbus, Ohio, and Berkeley, California, modified the traditional organization with the six-three-three plan of grade structure. The reorganization of these schools appeared to offer an answer to the problem that had been debated over the past several years.<sup>6</sup>

Regardless of the name or organizational pattern, there was a wide-based consensus among its early sponsors that the differentiated function of the new organizational unit was to provide a suitable educational environment for early adolescents.<sup>7</sup>

The six-three-three grade organization gained in popularity. It was generally considered a most desirable arrangement and by 1920 it was an established fact. In 1920 there were 55 junior high schools in the United States. By 1930 this number had increased to 1,842.<sup>8</sup>

Samuel H. Popper presents this school unit that has been described as junior high to be institutionally America's middle school. The intent of this early junior high school was dedicated to the psychological and social conditions facing early adolescents.<sup>9</sup>

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<sup>5</sup>William T. Gruhn and Harl R. Douglass, The Modern Junior High School (New York: The Ronald Press Company, 1947), p. 17.

<sup>6</sup>Ibid., p. 18.

<sup>7</sup>Samuel H. Popper, The American Middle School: An Organizational Analysis (Waltham, Mass.: Blaisdell Publishing Company, 1967), p. 12.

<sup>8</sup>Gruhn and Douglass, op. cit., pp. 18-19.

<sup>9</sup>Popper, op. cit., pp. xi-xii.

In 1924 at the North Central Association annual meeting, support was given for a "Standard Junior High School." The program of studies expected of a "Standard Junior High School" included the following:

The appropriate subjects to be offered by the junior high school are: English, Mathematics, Foreign Language, History and Civics, Geography and Vocational Information, and Practical Arts for boys and girls, including commercial subjects.

The program of studies shall be organized into a single curriculum with limited electives.

Electives prior to the second semester of the 8th year are considered ill advised. Prior to this semester exploration and review of subject matter should be provided by the content of the course and the administration of the curriculum, and not by electives.

Instruction shall be departmentalized.

The school shall practice flexible promotion rather than promotion by subject.

Flexible promotion means that pupils shall be promoted when the occasion arises and without restriction of subject promotion. It means pupil placement. It implies the use of opportunity classes and coaching teachers.

The school shall provide within the school day for pupil club and social activities under the direction of the faculty.

The school shall provide adequately for keeping in contact with the homes and home life of the pupils and introduce only gradually the freedom in discipline characteristics of the senior high school.<sup>10</sup>

These original goals and functions of the junior high school provide a type of historical basis for today's middle school movement. This reorganized school was intended to be a school to meet the needs of the early adolescent.

However, departure from the traditional decreased as the years increased. Grades seven through nine in the 1930s were a combination which departed from the traditional.<sup>11</sup> The post-World War II era

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<sup>10</sup>Popper, op. cit., pp. 230-31.

<sup>11</sup>Stanley Sanders, "Challenge of the Middle School," Educational Forum, XXXII (January, 1968), 197.

witnessed the practice of the senior high school to place an increased number of academics into the junior high school program. This led to a concern that the seven-nine grade arrangement was becoming a terminal-type secondary school. To a greater and greater degree the junior high school was becoming a miniature senior high school. The concern of the junior high school to care for the developmental and educational requirements of its pupils was missing.<sup>12</sup> Many educators looked at the junior high school as no longer a departure from the traditional; it was the traditional.<sup>13</sup> There were parental complaints that the junior high school was forcing their children to grow up too fast.<sup>14</sup> This caused educators to look toward other programs and grade organizations for the education of the early adolescent.

Dissatisfaction with the junior high school led to the development of the middle school concept as an educational alternative.

We in American education are witnessing a major reorganization of the middle years of our educational ladder. The middle school movement is reaching almost bandwagon proportions and it seems inevitable that the remaining junior high schools soon will be challenged to change to middle schools or at least to adopt some of the middle school concepts.<sup>15</sup>

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<sup>12</sup>Russel Wiley, "The Middle School--A New Plan," an address presented at the National School Boards Association Annual Convention, Minneapolis, Minnesota, April 23, 1966, p. 2. (Mimeographed.)

<sup>13</sup>Sanders, op. cit., p. 197.

<sup>14</sup>Paul Woodring, "The New Intermediate School," in Social Foundations of Education, ed. by Dorothy Westly-Gibson (New York: The Free Press, 1967), p. 235.

<sup>15</sup>William M. Alexander and Ronald P. Kealy, "From Junior High School to Middle School," The High School Journal (December, 1969), p. 1.

There were a few middle schools existing in the 1950s; however, the bulk of the growth took place in the 1960s. William H. Cuff conducted a survey and reported in the 1965-66 school year a total of 446 school districts in 30 states containing 499 middle schools.<sup>16</sup>

William M. Alexander provides one of the most recent surveys. In 1968 he reported a national figure of 1,100 middle schools operating during the 1967-68 school year.<sup>17</sup> Approximately 4 percent of these identified middle schools belonged to the pre-1955 era, and nearly 50 percent of these schools were organized in 1966 and 1967.<sup>18</sup>

These surveys indicate that the middle school has become increasingly popular in this country. This growth constitutes a major reorganization of the educational program and grade structure included in the school designed for the transitional period between childhood and adolescence. Georgiady and Romano identify an important argument relative to the educational promise of the middle school.

The early promise of the junior high school has failed to materialize. An acceleration of social and physical maturation on the part of children in this age group and rapid changes in our society have made necessary a re-examination of educational programs at this level. One area of promise lies in the middle school concept predicated on a knowledge of the unique characteristics of pre-teenage children.<sup>19</sup>

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<sup>16</sup>Cuff, op. cit., pp. 82-86.

<sup>17</sup>Alexander et al., op. cit.

<sup>18</sup>William M. Alexander, "Middle School Movement," Theory Into Practice, VII (June, 1968), 119.

<sup>19</sup>Georgiady and Romano, op. cit., p. 3.

### The Middle School Student

The American middle school youngster of the 1970s faces many pressures. There are the varied pressures of growing up, learning to understand adults--particularly parents and teachers, intellectual growth, and generally the greatest of all pressures, the enormous social pressures. The trials exhibited at this age create a tremendous confrontation for the youngster between childhood and adolescence.

This period of development between childhood and adolescence is called transescence. It is defined as that period in an individual's development beginning prior to the onset of puberty and continuing through early adolescence.<sup>20</sup>

Wattenberg provides a brief summary of the psychological characteristics most likely to be associated with childhood, adolescence, and preadolescence:

A child can be considered, for this purpose, as a young person who is in almost all respects dependent upon adults, whose chief sources of need gratification are grownups, and who tends to assume without struggle the status and roles accorded children in his culture.

Preadolescents are young people who, physically, are in a period of growth spurt which transforms their builds from that of children to that of young adults and which includes maturation of the reproductive system. Their attitude towards adults is often one of open ambivalence.

An adolescent is a young person whose reproductive system has matured, who is economically dependent upon adults, whose chief source of need gratification is his peers, who has open interest in the opposite sex, and for whom status and roles as defined for children and adults in his culture are confused. He tends to be moving toward adulthood.<sup>21</sup>

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<sup>20</sup>Eichhorn, op. cit., p. 31.

<sup>21</sup>William W. Wattenberg, "Preadolescents in the Junior High," Educational Leadership, XIV (May, 1957), 473-74.

Today's adolescent is on the average slightly taller and enjoys a better nutritional diet. He is physically healthier, perhaps more intelligent and certainly more sophisticated.<sup>22</sup> The transescent youth of the 1970s differs from the transescent youth of the 1920s and 1930s. There is an early desire for sophistication on the part of today's transescent that did not manifest itself in the earlier counterpart.<sup>23</sup>

This period of growth appears to have the drive of one strong definite purpose, to get it over with--school or college, or living at home--and gain real autonomy and independence that is now only spuriously theirs.<sup>24</sup> This condition has been described by Stone as a feeling of being out of step: with one's peers, with one's ideals, and with one's own body.<sup>25</sup>

Authorities state that changes in our society, coupled with the earlier maturation of the transescent physically, socially, and intellectually, have caused additional demands to be placed upon the students and the educators. This being the case, educators have the responsibility to provide opportunities for students to come to terms with themselves.

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<sup>22</sup>Francis C. Bauer, M.D., "Causes of Conflict," National Association of Secondary Schools Principals Bulletin, XLIX (April, 1965), 1.

<sup>23</sup>James S. Coleman, "Social Change: Impact on the Adolescent," National Association of Secondary School Principals Bulletin, XLIX (April, 1965), 14.

<sup>24</sup>Margaret Mead, "Early Adolescence in the United States," National Association of Secondary School Principals Bulletin, XLIX (April, 1965), 7.

<sup>25</sup>L. Joseph Stone, Childhood and Adolescence (New York: Random House, 1957), p. 302.

### The Middle School Program

The institution of the junior high school has been questioned by the accelerated growth of the middle school. A new school is required to meet the needs of today's early adolescent. Therefore, more and more educators are looking with favor upon the intent and purposes of the school for the middle years. The evidence of the growth of the middle school has been established.<sup>26</sup>

A basic necessity of the middle school program is that emphasis be placed upon individualized learning. It must provide a maximized opportunity for the individual student to grow as an individual and develop as a learner. Havighurst speaks of no longer treating the child's mind as a storehouse of knowledge but rather as an instrument for learning.<sup>27</sup>

The middle school program provides an opportunity for students to discover, by self-exploration, their feelings and ideas. An individual is not considered just a student but is accepted as a person. This individual student is provided the chance to develop responsibility in an accepting atmosphere. It is in this type of atmosphere, according to Partin, that he comes to see himself as a thinker of thoughts, a doer of deeds, a maker of decisions, a fully human person.<sup>28</sup>

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<sup>26</sup>Alexander et al., op. cit.

<sup>27</sup>Robert J. Havighurst, "The Middle School Child in Contemporary Society," Theory Into Practice, VII (January, 1968), 120.

<sup>28</sup>Charles S. Partin, "To Sample--or to Explore," Educational Leadership, XXIII (December, 1965), 197.

Learning, for the most part, is done independently. The student's inherent desire to learn is accentuated when there is a non-threatening environment that is full of stimulation. Batezel promotes the concept that a middle school program, properly conceived, is not just a series of hurdles which a child must jump, but a means to a far nobler end--developing and/or increasing the self concept of each child as a valuable human being.<sup>29</sup>

Pupil success is considered a vital ingredient to the successful middle school program. Melby indicates that in American schools today perhaps a third of the children get very little in effective education. What is worse, their experience in school destroys their self confidence.<sup>30</sup> School failures can lead to a negative self-image and a loss of desire. The functional middle school program provides situations for each student to regularly find some measure of success.

Through active involvement with materials, methods, and major ideas of the disciplines, the middle school child can learn how knowledge is produced as well as how it is systematically organized. In short, the middle school strives for the intellectual development of all pupils, not just those who have been early identified as college bound. Furthermore, the goal of intellectual development is not pursued at the expense of the social, emotional, and physical development of the individual.<sup>31</sup>

The content of the previous statement by Alexander places the intellectual role of the middle school program in the correct perspective. It also implies the need for teachers and administrators

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<sup>29</sup>George W. Batezel, "The Middle School: Philosophy, Programs, Organization," Clearing House, XLII (April, 1968), 1.

<sup>30</sup>Ernest O. Melby, "Let's Abolish the Marking System," Nation's Schools (May, 1966), p. 104.

<sup>31</sup>Alexander et al., op. cit., p. 85.

who understand its significance in light of the many needs of the middle school student.

A good program for students passing from childhood to adolescence contains the opportunity for exploratory courses. These may take the form of mini-courses, leisure-time group and individual activities, and discussion type classes. DeVita and his colleagues place the accent of the exploratory program on the "Q" for quest. Each student must be able to find satisfaction and success, whatever his aspirations and opportunities may be.<sup>32</sup> Nearly all the educators who have written materials about the middle school recommend a broad exploratory program.

Atkins<sup>33</sup> writes that the middle school should emphasize a utilization of knowledge rather than a mastery of knowledge. The middle school should assist students with their self concept by gradually removing the typical school restraints on movement, use of materials and equipment, and behavior.

Certain features must be a part of a functioning middle school. The NEA Research Bulletin describes seven of these features as follows:

1. A span of at least three grades between 5 and 8 to allow for the gradual transition from elementary to high school instructional practices.
2. Emerging departmental structure in each higher grade to effect gradual transition from the self-contained classroom to the departmentalized high school.
3. Flexible approaches to instruction--team teaching, flexible scheduling, individualized instruction, independent study, tutorial programs--and other approaches aimed at stimulating children to learn how to learn.

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<sup>32</sup>Devita, Pumerantz, and Wilkow, op. cit., p. 31.

<sup>33</sup>Neil P. Atkins, "Rethinking Education in the Middle," Theory Into Practice (June, 1968), 118-19.

4. Required special courses, taught in departmentalized form and frequently with an interdisciplinary or multidisciplinary approach.
5. Guidance programs as a distinct entity to fill the special needs of this age group.
6. Faculty with both elementary and secondary certification, or some teachers with each type (until special training and certification are available for this level).
7. Limited attention to interschool sports and social activities.<sup>34</sup>

Others have defined their concept of the middle school.

Probably the most frequently referred to middle school concept is that of Alexander. The following items represent his middle school aims:

1. To serve the educational needs of the "In-between-ages" (older children, preadolescents, and early adolescents) in a school bridging the elementary school for childhood and the high school for adolescence.
2. To provide optimum individualization of curriculum and instruction for a population characterized by great variability.
3. In relation to the foregoing aims, to plan, implement, evaluate and modify, in a continuing curriculum development program, a curriculum which includes provision for: (a) a planned sequence of concepts in the general education areas, (b) major emphasis on the interests and skills for continued learning, (c) a balanced program of exploratory experiences and other activities and services for personal development, and (d) appropriate attention to the development of values.
4. To promote continuous progress through and smooth articulation between the several phases and levels of the total educational program.
5. To facilitate the optimum use of personnel and facilities available for continuing improvement of schooling.<sup>35</sup>

Pearl Brod has compiled a generalized list of advantages claimed for the middle school:

1. It gives this unit a status of its own, rather than a "junior" classification.

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<sup>34</sup> National Education Association Research Bulletin, XLVII, op. cit., 49-52.

<sup>35</sup> Alexander et al., op. cit., p. 19.

2. It facilitates the introduction in grades 5 and 6 of some specialization and team teaching in staff patterns.
3. It also facilitates the reorganization of teacher education which is sorely needed to provide teachers competent for the middle school; since existing patterns of neither the elementary nor the secondary teacher training programs would suffice, a new pattern must be developed.
4. Developmentally, children in grades 6-8 are probably more alike than children in grades 7-9.
5. Since they are undergoing the common experience of adolescence, 6th-8th grades should have special attention, special teachers, and special programs, which the middle school permits.
6. It provides an opportunity for gradual change from the self-contained classroom to complete departmentalization.
7. Additional facilities and specialists can be made available to all children one year earlier.
8. It permits the organization of a program with emphasis upon a continuation and enrichment of basic education in the fundamentals.
9. It facilitates extending guidance services into the elementary grades.
10. It helps to slow down the "growing up" process from K-8 because the oldest group is removed from each level.
11. It puts children from the entire district together one year earlier, aiding sociologically.
12. Physical unification of grades 9-12 permits better coordination of courses from the senior high school.
13. It eliminates the possibility of some students and parents not being aware of the importance of the ninth grade as part of the senior high school record, particularly in terms of college admission.
14. It eliminates the need for special programs and facilities for one grade, and eliminates the problems created by the fact that the ninth grade is functionally a part of the senior high school.
15. It reduces duplication of expensive equipment and facilities for one grade. The funds can be spent on facilities beneficial to all grades.
16. It provides both present and future flexibility in building planning, particularly when it comes to changing school population.<sup>36</sup>

Individualization and flexibility command the attention of the proponents of the middle school. A program carefully designed for this period of education will assist the child in making the difficult

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<sup>36</sup>Brod, op. cit., pp. 331-33.

transition from the self-contained elementary classroom to the departmentalized, subject-centered senior high school. Every effort must be exercised to accommodate the wide range of abilities and interests of the transescents. The middle school seems to assure the best promise for attaining this goal.

#### Review of Related Studies

In 1970-71 Jack D. Riegle conducted a study designed to identify basic middle school characteristics. His source for these basic characteristics was the middle school literature. Characteristics that were frequently mentioned in the literature were identified as significant to the study. The degree of application of these characteristics in middle schools in Michigan and in a selected national sample became the focus of the investigation.

These characteristics were extracted from the literature and sent to five noted authorities in the area of middle school education for validation. Eighteen basic middle school characteristics were compiled. They gave attention to: (1) continuous progress programs, (2) multi-media use, (3) flexible schedules, (4) social experiences, (5) physical experiences, (6) intramural activity, (7) team teaching, (8) planned gradualism, (9) exploratory-enrichment experiences, (10) guidance services, (11) independent study, (12) basic learning skills, (13) creative learning experiences, (14) student security factors, (15) evaluation practices, (16) community relations, (17) student services, and (18) auxiliary staffing.

The degree of application of these characteristics was determined by the use of a survey instrument designed to measure data

related to the incorporation of the characteristics by selected middle schools. The survey instrument was mailed to all schools in Michigan housing grades above four but below nine. It was also mailed to four middle schools arbitrarily selected on a national basis because of their exemplary middle school reputations.

The findings and conclusions of the Riegler study are:

(1) The rapid increase in the number of schools labeled as middle schools has not been accompanied by a high degree of application of those characteristics considered by authorities in the field to be basic to middle school education.

(2) There was an overall 46.94 percent application by middle schools in Michigan as measured by the survey instrument used in this study and a 64.9 percent application by the national sample when measured on the same basis.

(3) The number of grades housed in a middle school was not a significant factor in determining application of the basic middle school characteristics. It should be noted that generally both three-grade and four-grade middle schools in Michigan applied the middle school characteristics to a limited degree.

(4) While a high degree of agreement exists among authorities in the field regarding what constitutes basic middle school characteristics, the degree of application of these characteristics and the wide variation in levels of application provide evidence of a failure by the leadership of the Michigan middle schools to implement the validated characteristics.

(5) A limited number of Michigan middle schools demonstrated application of the basic middle school characteristics to a degree equal to that level achieved by the four selected exemplary middle schools included in this study.

A complete listing of these eighteen basic middle school characteristics are presented. The original development of these eighteen characteristics was by Riegler.<sup>37</sup> However, the listing contained in this study are those prepared in more detail through the combined efforts of Georgiady, Riegler, and Romano.<sup>38</sup>

### Eighteen Characteristics of the Middle School

#### Characteristics

#### What and Why

- |                        |   |
|------------------------|---|
| 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 transient years of human development. Chronological groups tend to ignore the span of individual differences. |
|------------------------|---|

#### Explanation

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

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<sup>37</sup>Riegler, op. cit., pp. 60-68.

<sup>38</sup>Louis G. Romano, Nicholas P. Georgiady, and James E. Heald, The Middle School: Selected Readings on an Emerging School Program (Chicago, Illinois: Nelson-Hall Co., 1973), pp. 73-84.

Characteristics2. Multi-material  
ApproachWhat and Why

The middle school program should offer to students a wide range of easy 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.

Explanation

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 youngster has a range biologically and physiologically anywhere from seven years old to 19 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 youngster is one of two stages: preparation for and organization of concrete operations and 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 various needs and abilities of the youngsters and to help the teachers retain the interest of the youngsters.

## 3. Flexible Schedules

What and Why

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.

Explanation

Movement should be permissive and free rather than dominated by the teacher.

CharacteristicsExplanation

Variation of classes and the length of class time as well as variety of group size will help a student become capable of assuming responsibility for his own learning.

## 4. Social Experiences

What and Why

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 high school programs are inappropriate 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.

Explanation

The preadolescent and early adolescent undergo changes which affect the self-concept. The youngster is in an in-between world, 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. The youngsters model themselves after a same-sex adult and seek support from the same-sex peer group. The attitudes of the 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; dancing, slang, kidding, practical joke give and take, etc. Common areas should be provided in the building for social interaction among small groups.

## 5 and 6. Physical Experiences and Intramural Activities

What and Why

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

CharacteristicsWhat and Why

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.

Explanation

Activities that emulate the high school program are inappropriate for the middle school. 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, 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 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

What and Why

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.

CharacteristicsExplanation

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

What and Why

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.

Explanation

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 right to make many more decisions about his own behavior, his social life, management of money, choice of friends, 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 a desire to test ideas in school as well as social situations.

9. Exploratory and  
Enrichment StudiesWhat and Why

The program should be broad enough to meet the individual interests of the students for which it was designed. It should widen the range of educational training a student experiences rather than specialize his training. There is a need for variety in

CharacteristicsWhat and Why

the curriculum. Elective courses should be a part of the program of every student during his years in the middle school.

Explanation

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 interests on school time, and to progress on his own as he is ready.

## 10. Guidance Services

What and Why

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

Explanation

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

## 11. Independent Study

What and Why

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

CharacteristicsExplanation

A child's own intellectual curiosity motivates him 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 work, after it has been defined, and uses his teachers, various materials available in the school, and perhaps even other students, as his sources. He grows in self-direction through various activities and use of materials.

## 12. Basic Skill Repair and Extension

What and Why

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.

Explanation

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, asking questions, etc., must be planned in every classroom. Formal specialized instruction in the basic skills may be necessary and should be available.

## 13. Creative Experiences

What and Why

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.

CharacteristicsExplanation

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

What and Why

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

Explanation

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

## 15. Evaluation

What and Why

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

Explanation

A student needs more information than a letter grade provides and he needs more security than the traditional evaluation system offers. Traditional systems seem to be punitive. 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

CharacteristicsExplanation

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

What and Why

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.

Explanation

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

What and Why

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.

Explanation

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

CharacteristicsWhat and Why

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.

Explanation

Auxiliary staffing is needed to provide the individual help students require. A variety of teacher aides or paraprofessionals may be used to extend the talents of the professional staff.

An extension of the Riegle study was completed in 1972 by Hawkins. His purpose was to investigate the relationship between principals and teachers in selected Michigan middle schools and four nationally prominent middle schools regarding their perceptions of their school practices.

Riegle had previously identified and validated the eighteen basic middle school characteristics. Survey questionnaires seeking data related to the current practices of middle schools were mailed to the principal of each school in Michigan identified as a "middle school" with a 6-8 grade organization. The survey questionnaires were also mailed to four arbitrarily selected exemplary middle schools in the United States.

After an analysis of the data, it was apparent the exemplary middle schools in the national sample were applying the eighteen basic middle school characteristics to a greater degree than were the middle schools in Michigan.<sup>39</sup>

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<sup>39</sup>James Hawkins, "A Study to Ascertain Actual Middle School Practices as Compared to Reported Middle School Practices in Selected Michigan Schools and Nationally Prominent Schools as Perceived by

In 1972, B. M. Gross attempted to identify and analyze the present and perceived purposes functions, and characteristics of the middle school. Some of the findings are:

1. Both the middle school principals and informed educators surveyed in this study have perceived the 6-8 age-grade organizational pattern as the most desirable unit.
2. The findings have revealed that the number of middle schools has increased; the fact that 15.5 per cent of the schools surveyed were organized as 7-9 junior high schools prior to the 1958 to 1959 school year would suggest that the number of junior high schools is decreasing.
3. Expediency was a prime factor in the establishment of 80 per cent of the middle school programs.
4. In nearly every instance where the middle school principals and informed educators did not agree on a purpose or function of the middle school, it was the informed educator who demurred or gave the most comprehensive response; i.e., perceived the purpose as being more doubtful or not valid.
5. The middle schools surveyed for the most part, have taken advantage of team teaching; however, special services and special personnel were sparsely used.
6. There was agreement that the middle school program should be increased in complexity or sophistication over that of the elementary school.<sup>40</sup>

The research of Gross in the identification of expediency as a prime factor in the establishment of the middle school is supported by the findings of Walker and Gatewood in their Michigan survey.<sup>41</sup>

The 138 Michigan middle schools reporting in the Walker and Gatewood study were identified as schools housing grades 5-8, 6-8, and

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Teachers and Principals" (Ph.D. dissertation, Michigan State University, 1972), pp. 73-86.

<sup>40</sup> Bernard M. Gross, "An Analysis of the Present and Perceived Purposes, Functions, and Characteristics of the Middle School" (Ph.D. dissertation, Temple University, 1972), pp. 168-86.

<sup>41</sup> George H. Walker, Jr., and Thomas E. Gatewood, "The Status of Middle Schools in Michigan," Michigan Journal of Secondary Education (Summer, 1972), pp. 11-15.

6-9. Of the 94 percent of reporting Michigan middle schools, 76 percent were organized on a grade 6-8 basis, 18 percent on a 5-8 basis, and the remaining 6 percent were organized as grades 6-9.

They reported that the primary reason for the reorganization was "to reduce overcrowded conditions in other schools." In contrast, they found the primary reason for the retention of the grade and age-level organization of the junior high school to be "to provide a better educational program for the age group served."

From the research of Gross, and along with that of Gatewood and Walker, it seems quite conclusive that middle schools in general are organized for reasons more administrative than for educational reform. In any case, according to the Riegler and Hawkins studies, the Gross study, and the Gatewood and Walker study, the middle schools in Michigan indicate a desire to provide schools for the transescent, but seem to fall short in the area of the basic reason for the establishment of these schools.

#### Summary

Higher education, under the leadership of Harvard's Charles Eliot, and public school education, through the efforts of Frank Bunker of Berkeley, California, began the 1888-1910 push to transform the eight-four plan of public school organization.

The large number of secondary students leaving public school before graduating caused a general dissatisfaction with the eight-four pattern of organization. The other primary point of concern was voiced by college faculty over the entering age of students. It was desired entering students not be older than eighteen years of age.

However, the school year 1909-1910 brought about the six-three-three plan of grade structure in the cities of Columbus, Ohio, and Berkeley, California. By this time of organizational development there was a wide-based consensus that the function of the new organizational unit was to provide a suitable educational environment for early adolescents. Samuel Popper is so convinced of this early intent that he calls it institutionally America's middle school.

By 1930 the number of junior high schools, grades 7-9, increased to 1,842. From 1910-1930 there was a gradual departure from the traditional goals of the early pioneers. The post-World War II era saw the 7-9 grade arrangement become considered a terminal-type secondary school. The original 1910 purpose of organization was missing.

This led to the redevelopment of the middle school concept in 1950. It is the intent of the advocates of this current middle school that programs be designed specifically for the student in that period of development between childhood and adolescence called transescence. The latest survey by William M. Alexander places the number of middle schools in the United States in 1968 at 1,100.

This transescent youth of the 1970s differs from his counterpart of the 1920s and 30s. Today he is taller, better fed, physically healthier, probably more intelligent, and more sophisticated. These changes make the middle school concept even more meaningful. It is in the accepting surroundings of the middle school that the transescent youth receives an opportunity for social, emotional, physical, and intellectual development.

Riegle's development of the eighteen basic characteristics of the middle school from a review of the literature exemplify the growth and status of today's middle school concept. These characteristics include: (1) continuous progress, (2) multi-material, (3) flexible schedules, (4) social experiences, (5) physical experiences, (6) intramural activities, (7) team teaching, (8) planned gradualism, (9) exploratory and enrichment studies, (10) guidance services, (11) independent study, (12) basic skill repair and extension, (13) creative experiences, (14) security factor, (15) evaluation, (16) community relations, (17) student services, and (18) auxiliary services.

The literature supports the growth factor of the numbers of middle schools. It also provides enough basic information to guide educators toward that ultimate middle school purpose--the education of transescent youth. Numbers alone will not help to achieve this goal. There must be an understanding and incorporation of the available knowledge of the transescent into the middle school programs.

## CHAPTER III

### DESIGN OF THE STUDY

#### Introduction

The basic objective of this study was to identify the middle schools in the United States and then determine the level of implementation of the eighteen basic middle school characteristics. The eighteen characteristics were previously developed by Jack Riegler.<sup>1</sup> He extracted them from the literature and had them validated by middle school authorities in the field.

It is the primary concern of this chapter to look at the composition of the sample, the selection of the appropriate statistical programs, the methods used to collect the data, and the procedures used for analysis of the data.

#### Source of the Data

A list of middle schools in the United States was compiled. This was accomplished by contacting each state department of education. The individual departments were asked for the names of middle schools in their state, the grades housed in these middle schools, the mailing address of each middle school, and the name of the principal of each middle school.

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<sup>1</sup>Riegler, op. cit.

In many cases, the requested information was easily known by the departments and was supplied rather quickly. When information was not known or complete, a state directory of schools was usually forwarded. An effort was made to include only those schools officially named "middle school." A further requirement for inclusion was that these "middle schools" house children in grades 5-8 or 6-8. There were a few instances when it was not possible to determine the official name of the school. In situations of this nature the grades contained in the school became the sole criteria for the determination of whether or not the school would be classified as a middle school.

Upon completion of the listing of middle schools in the United States, it was determined that there were 137 middle schools containing grades 6-8 in Michigan and 47 middle schools containing grades 5-8 in Michigan. The remaining middle schools in the United States containing grades 6-8 totaled 955 and those containing grades 5-8 totaled 374. The middle schools in the United States totaled 1,092 middle schools containing grades 6-8 and 421 middle schools containing grades 5-8.

A packet containing the survey instrument, a cover letter, and a stamped return addressed envelope was forwarded to a random sample of 100 middle schools containing grades 6-8 and 100 middle schools containing grades 5-8.

#### Instrument Employed

Riegler, in his 1971 study, developed eighteen basic middle school characteristics by reviewing the literature directly and

indirectly related to the middle school. From this review a list of basic characteristics related to the middle school was extracted. Riegler reviewed the list with acknowledged authorities on the middle school. Based upon their critique, a list of eighteen basic characteristics were compiled and agreed upon by the panel of authorities in the field (see Table 3.1). A questionnaire was developed by Riegler to serve as a survey instrument to measure the degree of application of these eighteen basic middle school characteristics.

The 1971 Riegler survey instrument was used in this study to measure the current level of implementation of the eighteen basic middle school characteristics. The original survey instrument was reviewed and revised with the guidance of Dr. Louis G. Romano and research consultants in the Department of Research Services, Michigan State University.

The revised questionnaire employed in this study contains 62 questions and is divided into two sections according to the manner of response indicated for the question. The first section of the questionnaire contains multiple choice questions with mutually exclusive and exhaustive responses that seek a single answer per question. In the second section of the questionnaire multiple choice questions seeking multiple responses are presented. Preceding the questionnaire sections was a title page including the directions for completion of the questionnaire and a page devoted to obtaining general information from the respondents.

A cover letter was prepared and mailed with the questionnaire and stamped return envelope on April 24, 1974. It was mailed to middle

TABLE 3.1.--A listing of the eighteen middle school characteristics used in this study to measure practices of middle schools (by Louis G. Romano, Jack Riegler, and Nicholas P. Georgiady).

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Characteristic I

Continuous progress: The middle school program should feature a non-graded 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.

Characteristic II

Multi-material approach: The middle school program should offer to students a wide range of easy 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.

Characteristic III

Flexible schedules: 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.

Characteristic IV

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 high school programs are inappropriate 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.

Characteristics V and VI

Physical experiences 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.

Table 3.1.--Continued.

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Characteristic VII

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.

Characteristic VIII

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.

Characteristic IX

Exploratory and enrichment studies: The program should be broad enough to meet the individual interests of the students for which it was designed. It should widen the range of educational training a student experiences rather than specialize his training. There is a need for variety in the curriculum. Elective courses should be a part of the program of every student during his years in the middle school.

Characteristic X

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

Characteristic XI

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

Characteristic XII

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.

Table 3.1.--Continued.

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Characteristic XIII

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

Characteristic XIV

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

Characteristic XV

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.

Characteristic XVI

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.

Characteristic XVII

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.

Characteristic XVIII

Auxiliary staffing: The middle school should utilize a highly diversified array of 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.

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schools throughout the United States and included 100 middle schools containing grades 6-8 and 100 middle schools containing grades 5-8.

Answers to each question contained in the questionnaire were assigned a numerical value. These assigned values were weighted to provide a positive correlation between large scores and a high degree of application of the principle being measured.

### Procedures

By May 3, 1974, a total of 67 questionnaires had been returned. On May 6, 1974, a letter was sent to all middle school principals from whom there was no response. The final number of questionnaires by May 22, 1974, were 89 for grades 6-8 and 80 for grades 5-8.

As the questionnaires were returned from the various schools the responses were coded and the coding was verified for each response. The coding forms were divided into two sample groups.

The data for this research project were programmed for computer analysis. The raw scores from the questionnaires were keypunched. Each set of keypunched questionnaire cards were coded for individual

TABLE 3.2.--The number of middle schools contacted, the grades and the number of affirmative responses, and percentage of questionnaire returns.

Grade	Number of Schools Contacted	Number of Responses Received	Percentage of Schools Responding to Questionnaire
6-8	100	89	89%
5-8	100	80	80%

questionnaire number, area, grade, and questions. The data were then processed by the Control Data Corporation (CDC) 6500 computer at Michigan State University. The PFCOUNT Program and FINN Program of the Michigan State University Stat System were used to generate descriptive statistics.

#### Objectives to Be Measured

The first objective of this study was designed to determine the number of middle schools in the United States, grades 6-8 and grades 5-8, in existence during the 1972-73 school year.

The second objective of this study was designed to provide a measurement relative to the degree of implementation of the eighteen basic middle school characteristics in Michigan as reported by the Riegle survey instrument.

The third objective of the study was designed to provide a measurement relative to the degree of implementation of the eighteen basic middle school characteristics in the United States, not including Michigan, as reported by the Riegle survey instrument.

Conditions of objective four were met in a similar fashion as objectives two and three. This objective was devoted to making a comparison study of the degree of implementation of the eighteen basic middle school characteristics reported by the Michigan middle schools sample with the results reported by the remaining United States middle schools sample.

It was the purpose of objective five to compare the degree of implementation of the eighteen basic middle school characteristics reported by the middle schools in the United States sample, grades 5-8,

with the results reported by the middle school in the United States sample, grades 6-8.

The Riegler survey instrument was employed to measure the degree of implementation for the comparisons called for in these stated objectives.

#### Summary

The Riegler study of 1972 produced eighteen basic middle school characteristics. From these characteristics he developed a survey instrument. The instrument was validated by five experts in the middle school field.

Riegler's questionnaire type survey instrument was replicated for use in this study and sent to a random sample of middle schools throughout the United States. Out of 200 mailings there were 169 responses. A description of the instrument and the data gained from this survey is summarized in this study.

The PFCOUNT Program and FINN Program of the Michigan State University Stat System were used to generate descriptive statistics.

## CHAPTER IV

### ANALYSIS OF THE DATA

An analysis of the data, and the findings resulting from this analysis, are presented in this chapter. Each objective is stated. Following each statement of the objective is a presentation of the statistical findings.

The data presented in Chapter IV were collected from the results of survey questionnaires returned by 169 middle schools in the United States. The PFCOUNT Program and FINN Program of the Michigan State University Stat System were used to generate descriptive statistics.

#### Objective I

To determine the number of middle schools in the United States, grades 5-8 and grades 6-8, in existence during the school year 1972-73.

Each state department of education was contacted. Information was supplied to meet the requirements of this first objective of the study. Only those schools officially named "middle school" and containing a combination of grades 5-8 or 6-8 were considered. In some cases the official name was not available. If this was the case, the combination of grades housed in the school became the determining factor for inclusion or exclusion.

A lack of available grade combination information necessitated an estimation of the grades included in the schools in the states of Maryland and Oregon. Information relative to the number of schools was available. However, the reported figures regarding grade combinations was not available and is an estimation arrived at through the perusal of other studies.

The category of "other combinations" was included if the state officially called this combination "middle school." Combinations included in this category are varied and range anywhere from grade four to grade nine.

There were ten states that had a notable number of schools housing grades 5-8 or 6-8 but officially labeled these schools junior high, elementary, graded intermediate, upper school, or grammar school. These schools were not included in this study because of the criteria stated in the initial objective. However, it is not intended to imply that these schools are not middle schools because of their school names. Schools of this description were excluded from this study only because of the objective of the study to identify and survey schools officially named "middle" or including grades 5-8 and 6-8 if the official name was not readily available.

States and the numbers of grade 5-8 and 6-8 schools experiencing this exclusion are: Alabama, 29; California, 146; Connecticut, 42; Illinois, 88; Missouri, 29; New Jersey, 75; New York, 70; Ohio, 70; Texas, 283; and Wisconsin, 154. These states and the numbers of schools listed are not included in the table of middle schools found in this study.

Table 4.1 reports the findings of this study concerning the existence of middle schools in the United States during the 1972-73 school year.

### Objective II

To measure the degree of implementation of the eighteen basic middle school characteristics practiced by selected middle schools in Michigan.

Before measuring the degree of implementation of the eighteen basic characteristics it is necessary to review a listing of the characteristics included in the survey instrument and the corresponding numbers of questions used to collect data on each characteristic. See Table 4.2 on page 55 for a listing of these characteristics and the related question number.

In satisfying Objective I, the selected middle schools in Michigan were divided into two samples. One sample contained middle schools housing grades 5-8 and the other contained middle schools housing grades 6-8. Table 4.3 (on page 56) and Table 4.4 (on page 57) represent the mean scores achieved by each of these middle school grade combinations.

### Objective III

To measure the degree of implementation of the eighteen basic middle school characteristics practiced by selected middle schools, not including Michigan, in the United States.

As in Objective II, the selected middle schools in the United States, except Michigan middle schools, were divided into two samples. One sample contained middle schools housing grades 5-8 and the other

TABLE 4.1.--The total number of middle schools in the United States according to grades included, the state, and the respective percentages of the total schools in each state.

State	6-8	%	5-8	%	Other Combi- nations	%	Total	%
Alabama	17	1.55	7	1.66	17	4.32	41	2.15
Alaska	--	--	--	--	3	.76	3	.15
Arizona	2	.18	2	.47	--	--	4	.20
Arkansas	19	1.7	11	2.61	11	2.79	41	2.15
California	23	2.1	3	.71	3	.76	29	1.52
Colorado	6	.5	10	2.37	1	.25	17	.89
Connecticut	22	2.0	5	1.18	11	2.79	38	1.99
Delaware	1	.09	20	4.75	--	--	21	1.10
Florida	93	8.5	12	2.85	18	4.58	123	6.45
Georgia	32	2.9	4	.95	13	3.3	49	2.57
Hawaii	1	.09	--	--	--	--	1	.05
Idaho	5	.45	1	.23	1	.25	7	.36
Illinois	24	2.0	7	1.66	17	4.32	48	2.51
Indiana	48	4.3	6	1.42	7	1.78	61	3.20
Iowa	13	1.1	2	.47	1	.25	16	.83
Kansas	3	.27	6	1.42	5	1.27	14	.73
Kentucky	25	2.2	6	1.42	35	8.9	66	3.46
Louisiana	26	2.38	8	1.9	31	7.8	65	3.41
Maine	3	2.7	4	.95	7	1.7	14	.73
Maryland	36*	3.2	18*	4.27	--*	--	54	2.83
Massachusetts	18	1.6	13	3.08	9	2.29	40	2.09
Michigan	137	12.54	47	11.16	22	5.59	206	10.80
Minnesota	8	.73	10	2.37	3	.76	21	1.10
Mississippi	4	.36	7	1.66	6	1.52	17	.89
Missouri	--	--	--	--	--	--	--	--
Montana	2	.18	--	--	--	--	2	.10

TABLE 4.1.--Continued.

State	6-8	%	5-8	%	Other Combi- nations	%	Total	%
Nebraska	4	.36	2	.47	6	1.52	12	.62
Nevada	--	--	--	--	--	--	--	--
New Hampshire	4	.36	7	1.66	--	--	11	.57
New Jersey	38	3.47	14	3.32	3	.76	55	2.88
New Mexico	6	.54	1	.23	--	--	7	.36
New York	40	3.66	21	4.98	11	2.79	72	3.77
North Carolina	19	1.73	19	4.51	15	3.81	53	2.78
North Dakota	--	--	1	.23	--	--	1	.05
Ohio	63	5.76	35	8.3	18	4.58	116	6.08
Oklahoma	32	2.93	--	--	--	--	32	1.67
Oregon	10*	.91	2*	.47	--*	--	12	.62
Pennsylvania	64	5.86	33	7.83	7	1.78	104	5.45
Rhode Island	7	.64	3	.71	9	2.29	19	.99
South Carolina	49	4.48	18	4.27	40	10.17	107	5.60
South Dakota	8	.73	5	1.18	--	--	13	.68
Tennessee	--	--	8	1.9	2	.5	10	.52
Texas	67	6.13	11	2.61	28	7.12	106	5.56
Utah	3	.27	--	--	--	--	3	.15
Vermont	1	.09	4	.95	2	.5	7	.36
Virginia	12	1.09	--	--	10	2.54	22	1.15
Washington	32	2.93	3	.71	2	.5	37	1.94
Washington, D.C.	--	--	--	--	--	--	--	--
West Virginia	5	.45	7	1.66	--	--	12	.62
Wisconsin	57	5.21	18	4.27	19	4.83	94	4.93
Wyoming	3	.27	--	--	--	--	3	.15
Total	1,092	57.30	421	22.08	393	20.61	1,096	100.

\*Estimate.

TABLE 4.2.--The characteristics within the survey instrument and the numbers of questions included to collect data on each characteristic.

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

\*Characteristics are designated by numbers. A complete questionnaire may be found in the appendix materials.

TABLE 4.3.--The mean and standard deviation scores for selected Michigan middle schools, grades 5-8.

Characteristic	Maximum Possible Score	Mean	Standard Deviation
1. Continuous progress	8	2.27	2.82
2. Multi-material	33	20.81	6.41
3. Flexible schedule	12	4.54	3.65
4. Social experiences	22	12.55	6.10
5. Physical experiences	15	11.99	3.02
6. Intramural activity	19	6.18	7.35
7. Team teaching	18	4.09	6.38
8. Planned gradualism	3	1.82	1.25
9. Exploratory and enrichment programs	24	12.63	7.65
10. Guidance services	13	8.54	5.06
11. Independent study	8	2.91	2.84
12. Basic learning experiences	15	8.45	4.40
13. Creative experiences	15	5.55	4.96
14. Student security factor	7	4.09	2.31
15. Evaluation practices	8	4.09	1.81
16. Community relations	14	4.10	3.09
17. Student services	10	7.18	1.54
18. Auxiliary staffing	10	3.18	2.16
Total Scores	254	124.97 (49%)	72.80

TABLE 4.4.--The mean and standard deviation scores for selected Michigan middle schools, grades 6-8.

Characteristic	Maximum Possible Score	Mean	Standard Deviation
1. Continuous progress	8	4.18	3.08
2. Multi-material	33	24.91	4.89
3. Flexible schedule	12	3.63	3.70
4. Social experiences	19	13.73	5.02
5. Physical experiences	14	9.08	2.78
6. Intramural activity	17	9.55	7.36
7. Team teaching	18	6.00	6.81
8. Planned gradualism	3	1.45	.93
9. Exploratory and enrichment programs	23	13.26	7.12
10. Guidance services	13	9.54	4.82
11. Independent study	8	4.09	2.54
12. Basic learning experiences	15	7.91	4.95
13. Creative experiences	15	5.64	5.47
14. Student security factor	7	4.28	2.20
15. Evaluation practices	8	4.09	1.55
16. Community relations	14	6.00	3.03
17. Student services	10	7.09	1.97
18. Auxiliary staffing	10	3.54	2.51
Total scores	247	137.97 (55%)	70.73

contained middle schools housing grades 6-8. Table 4.5 (on page 59) and Table 4.6 (on page 60) represent the mean scores achieved by each of these middle school grade combinations.

#### Objective IV

To compare the degree of implementation of the eighteen basic middle school characteristics reported by selected Michigan middle schools with the results reported by selected United States middle schools.

A comparison to satisfy the requirements of this objective was achieved by performing the F-Ratio for multivariate test of equality of mean. The FINN Program of the Michigan State University State System was used to generate the comparative statistics. A comparison of the area was accomplished by programming the results of selected Michigan middle schools and the results of the remaining selected middle schools in the United States. A comparison of the grade was accomplished by programming the results of the selected Michigan middle schools, grades 5-8 and 6-8, and the results of the remaining selected middle schools in the United States, grades 5-8 and 6-8. Through the computer services of the FINN Program the test of significance was calculated and the findings reported in Table 4.7 on page 61.

TABLE 4.5.--The mean and standard deviation scores for selected middle schools in the United States, grades 5-8, but not including Michigan middle schools, grades 5-8.

Characteristic	Maximum Possible Score	Mean	Standard Deviation
1. Continuous progress	8	3.73	3.03
2. Multi-material	33	24.51	6.79
3. Flexible schedule	12	5.92	3.94
4. Social experiences	22	13.50	7.38
5. Physical experiences	15	10.87	3.80
6. Intramural activity	19	10.73	7.81
7. Team teaching	18	7.03	6.88
8. Planned gradualism	3	1.10	.90
9. Exploratory and enrichment programs	24	10.90	8.11
10. Guidance services	13	8.26	5.39
11. Independent study	8	4.61	3.00
12. Basic learning experiences	15	8.61	4.61
13. Creative experiences	15	6.39	5.53
14. Student security factor	7	4.64	2.71
15. Evaluation practices	8	3.76	2.48
16. Community relations	14	5.78	3.37
17. Student services	10	6.06	2.04
18. Auxiliary staffing	10	4.19	2.57
Total scores	254	140.59 (55%)	80.34

TABLE 4.6.--The mean and standard deviation scores for selected middle schools in the United States, grades 6-8, but not including Michigan middle schools, grades 6-8.

Characteristic	Maximum Possible Score	Mean	Standard Deviation
1. Continuous progress	8	3.01	2.88
2. Multi-material	33	23.76	7.27
3. Flexible schedule	12	5.64	3.63
4. Social experiences	19	10.94	7.04
5. Physical experiences	14	9.45	3.63
6. Intramural activity	17	10.50	6.84
7. Team teaching	18	7.61	6.90
8. Planned gradualism	3	1.08	.77
9. Exploratory and enrichment programs	23	12.47	7.58
10. Guidance services	13	8.80	4.72
11. Independent study	8	4.75	3.09
12. Basic learning experiences	15	7.77	4.81
13. Creative experiences	15	6.54	5.90
14. Student security factor	7	4.29	2.45
15. Evaluation practices	8	3.22	2.16
16. Community relations	14	5.35	3.33
17. Student services	10	6.14	1.86
18. Auxiliary staffing	10	3.91	2.27
Total scores	247	135.23 (55%)	77.13

TABLE 4.7.--F-Ratio for multivariate test of equality of mean.

Characteristic Area/Grade	d. f.	Multivariate		
		F	P	
1. Continuous progress				
Area	2,164	.09	.916	NS
Grade	2,164	1.86	.159	NS
2. Multi-material				
Area	5,161	2.66	.024	S*
Grade	5,161	2.90	.016	S*
3. Flexible schedule				
Area	3,163	2.36	.074	NS
Grade	3,163	.36	.781	NS
4. Social experiences				
Area	5,161	5.75	.0001	S*
Grade	5,161	7.04	.0001	S*
5. Physical experiences				
Area	4,162	2.50	.0444	S*
Grade	4,162	34.48	.0001	S*
6. Intramural activity				
Area	4,162	1.67	.160	NS
Grade	4,162	3.30	.013	S*
7. Team teacher				
Area	4,162	.88	.477	NS
Grade	4,162	.35	.843	NS
8. Planned gradualism				
Area	1,165	7.51	.006	S*
Grade	1,165	.25	.622	NS
9. Exploratory and enrichment				
Area	5,161	.67	.649	NS
Grade	5,161	2.98	.014	S*
10. Guidance services				
Area	4,162	.80	.529	NS
Grade	4,162	.88	.480	NS
11. Independent study				
Area	3,163	2.99	.0327	S*
Grade	3,163	1.39	.249	NS
12. Basic learning experiences				
Area	4,162	1.66	.162	NS
Grade	4,162	1.77	.138	NS
13. Creative experiences				
Area	6,160	1.06	.386	NS
Grade	6,160	.93	.475	NS
14. Student security factor				
Area	3,163	.55	.650	NS
Grade	3,163	.72	.543	NS
15. Evaluation practices				
Area	2,164	1.82	.165	NS
Grade	2,164	4.52	.012	S*
16. Community relations				
Area	4,162	2.31	.060	NS
Grade	4,162	1.30	.273	NS
17. Student services				
Area	1,165	5.50	.020	S*
Grade	1,165	.05	.833	NS
18. Auxiliary staffing				
Area	2,164	1.88	.156	NS
Grade	2,164	.188	.829	NS

\*Significant at the .05 level.

### Objective V

To compare the degree of implementation of the eighteen basic middle school characteristics reported by selected middle schools in the United States, grades 5-8, with the results reported by selected middle schools in the United States, grades 6-8.

This objective was accomplished by averaging together the findings of Tables 4.3 and 4.5 to arrive at a mean for United States middle schools, grades 5-8. An averaging together of the findings reported in Tables 4.4 and 4.6 produced a mean for United States middle schools, grades 6-8. The results of this procedure are reported in Tables 4.8 and 4.9.

Tables 4.10 and 4.11 (on pages 65 and 66) represent a comparison of the mean scores of selected Michigan middle schools housing grades 5-8 and 6-8, and the mean scores of the remaining selected United States middle schools housing grades 5-8 and 6-8. Characteristics significant at the .05 level are noted. A further discussion of this significance is part of Chapter V.

The contents of Table 4.12 (on page 67) represent a comparison of the mean scores of the middle schools in the United States housing grades 5-8 and grades 6-8. Characteristics significant at the .05 level are noted. A further interpretation of this significance is part of Chapter V.

### Summary

There were several significant differences registered in the categories of area and grade. Area has two divisions: (1) Michigan, and (2) the United States, but not including Michigan. There are

TABLE 4.8.--The mean and standard deviation scores for selected middle schools in the United States, grades 5-8.

Characteristic	Maximum Possible Score	Mean	Standard Deviation
1. Continuous progress	8	3.00	2.92
2. Multi-material	33	22.66	6.60
3. Flexible schedule	12	5.23	3.79
4. Social experiences	22	13.02	6.74
5. Physical experiences	15	11.43	3.41
6. Intramural activity	19	8.45	7.58
7. Team teaching	18	5.56	6.63
8. Planned gradualism	3	1.46	1.07
9. Exploratory and enrichment programs	24	11.76	7.88
10. Guidance services	13	8.40	5.22
11. Independent study	8	3.76	2.92
12. Basic learning experiences	15	8.53	4.50
13. Creative experiences	15	5.97	5.24
14. Student security factor	7	4.36	2.51
15. Evaluation practices	8	3.92	2.14
16. Community relations	14	4.94	3.23
17. Student services	10	6.62	1.79
18. Auxiliary staffing	10	3.68	2.36
Total scores	254	132.75 (52%)	76.57

TABLE 4.9.--The mean and standard deviation scores for selected middle schools in the United States, grades 6-8.

Characteristic	Maximum Possible Score	Mean	Standard Deviation
1. Continuous progress	8	3.59	2.98
2. Multi-material	33	24.33	6.08
3. Flexible schedule	12	4.63	3.66
4. Social experiences	19	12.33	6.03
5. Physical experiences	14	9.26	3.20
6. Intramural activity	17	10.02	7.10
7. Team teaching	18	6.80	6.85
8. Planned gradualism	3	1.26	.85
9. Exploratory and enrichment programs	23	12.86	7.35
10. Guidance services	13	9.17	4.77
11. Independent study	8	4.42	2.81
12. Basic learning experiences	15	7.84	4.88
13. Creative experiences	15	6.09	5.68
14. Student security factor	7	4.28	2.32
15. Evaluation practices	8	3.65	1.85
16. Community relations	14	5.67	3.18
17. Student services	10	6.61	1.91
18. Auxiliary staffing	10	3.72	2.39
Total scores	247	136.53 (55%)	73.89

TABLE 4.10.--A comparison of the mean scores of selected Michigan middle schools, grades 5-8, and the remaining selected middle schools in the United States, grades 5-8.

Characteristic	Michigan Mean	Remaining U.S. Mean	Difference
1. Continuous progress	2.27	3.73	1.46
2. Multi-material	20.81	24.51 S*	3.70
3. Flexible schedule	4.54	5.92	1.38
4. Social experiences	12.55	13.50 S*	.95
5. Physical experiences	11.99 S*	10.87	1.12
6. Intramural activity	6.18	10.73 S*	4.55
7. Team teaching	4.09	7.03	2.94
8. Planned gradualism	1.82 S*	1.10	.72
9. Exploratory and enrichment programs	12.63 S*	10.90	1.73
10. Guidance services	8.54	8.26	.28
11. Independent study	2.91	4.61 S*	1.70
12. Basic learning experience	8.45	8.61	.16
13. Creative experiences	5.55	6.39	.84
14. Student security factor	4.09	4.64	.55
15. Evaluation practices	4.09 S*	3.76	.33
16. Community relations	4.10	5.78	1.68
17. Student services	7.18 S*	6.06	1.12
18. Auxiliary staffing	3.18	4.19	1.01
Total scores	124.97(49%)	140.59(55%)	15.62

S\* = Significant at the .05 level.

TABLE 4.11.--A comparison of the mean scores of selected Michigan middle schools, grades 6-8, and the remaining selected middle schools in the United States, grades 6-8.

Characteristic	Michigan Mean	Remaining U.S. Mean	Difference
1. Continuous progress	4.18	3.01	1.17
2. Multi-material	24.91 S*	23.76	1.15
3. Flexible schedule	3.63	5.64	2.01
4. Social experiences	13.73 S*	10.94	2.79
5. Physical experiences	9.08	9.45 S*	.37
6. Intramural activity	9.55	10.50 S*	.95
7. Team teaching	6.00	7.61	1.61
8. Planned gradualism	1.45 S*	1.08	.37
9. Exploratory and enrichment programs	13.26 S*	12.47	.79
10. Guidance services	9.54	8.80	.74
11. Independent study	4.09	4.75 S*	.66
12. Basic learning experiences	7.91	7.77	.14
13. Creative experiences	5.64	6.54	.90
14. Student security factor	4.28	4.29	.01
15. Evaluation practices	4.09 S*	3.22	.87
16. Community relations	6.00	5.35	.65
17. Student services	7.09 S*	6.14	.95
18. Auxiliary staffing	3.54	3.91	.37
Total scores	137.97(56%)	135.23(55%)	2.74

S\* = Significant at the .05 level.

TABLE 4.12.--A comparison of the mean scores of selected middle schools in the United States housing grades 5-8 and grades 6-8.

Characteristic	5-8 Mean	6-8 Mean	Difference
1. Continuous progress	3.00	3.59	.59
2. Multi-material	22.66	24.33 S*	1.67
3. Flexible schedule	5.23	4.63	.60
4. Social experiences	13.02 S*	12.33	.69
5. Physical experiences	11.43 S*	9.26	2.17
6. Intramural activity	8.45	10.02 S*	1.57
7. Team teaching	5.56	6.80	1.24
8. Planned gradualism	1.46 S*	1.26	.20
9. Exploratory and enrichment programs	11.76	12.86 S*	1.10
10. Guidance services	8.40	9.17	.77
11. Independent study	3.76	4.42 S*	.66
12. Basic learning experiences	8.53	7.84	.69
13. Creative experiences	5.97	6.09	.12
14. Student security factor	4.36	4.28	.08
15. Evaluation practices	3.92 S*	3.65	.27
16. Community relations	4.94	5.67	.73
17. Student services	6.62 S*	6.61	.01
18. Auxiliary staffing	3.68	3.72	.04
Total scores	132.75(52%)	136.53(55%)	3.78

S\* = Significant at the .05 level.

also two classifications for grade: (1) middle schools housing grades 5-8, and (2) middle schools housing grades 6-8.

Fifty percent of the characteristics represent a significant difference at the .05 level. In relation to this fifty percent figure there are three characteristics that indicate a significance in area and grade, namely: multi-material, social experiences, and physical experiences; three characteristics that indicate a significance in grade only, namely: intramural activity, exploratory and enrichment programs, and evaluation practices; and three characteristics that indicate a significance in area only, namely: planned gradualism, independent study, and student services.

In the United States, grade 5-8 middle schools achieved a higher mean score on the implementation of the following characteristics than did grade 6-8: social experiences, physical experiences, planned gradualism, evaluation practices, and student services. The grade 6-8 middle schools in the United States achieved a higher mean score on the implementation of the following characteristics than did grade 5-8: multi-material, intramural activity, exploratory and enrichment programs, and independent study.

The grade 6-8 middle schools in the United States achieved a mean score of 136.53, or 55 percent of a possible 247 points. The grade 5-8 middle schools in the United States achieved a mean score of 132.75, or 52 percent of a possible 254 points. These findings indicate that the grade 6-8 middle school combination in the United States is implementing the eighteen characteristics to a greater degree than the grade 5-8 United States middle school.

The degree of implementation of the eighteen characteristics was higher for Michigan grade 6-8 middle schools than it was for the remainder of 6-8 middle schools in the country. Michigan grade 6-8 middle schools achieved a mean score of 137.97 out of a possible 247 points. This represents 56 percent of the possible score. The remainder of the schools scored a mean of 135.23 out of the possible 247 and represents 56 percent of the possible score. Therefore, the grade 6-8 middle school in Michigan is implementing the eighteen characteristics to a higher degree than other 6-8 grade middle schools in the United States.

The grade 5-8 Michigan middle schools are not implementing the eighteen characteristics to the degree that other grade 5-8 middle schools in the United States indicated. The United States grade 5-8 middle schools achieved a mean score of 140.59 out of a possible 254 points. This represents 55 percent of the possible score. The Michigan 5-8 middle schools had a mean score of 124.97 out of the possible 254 points and this represents 49 percent of the possible score. Therefore, the grade 5-8 middle schools in the United States are implementing the eighteen characteristics to a higher degree than the Michigan 5-8 grade middle school.

## CHAPTER V

### CONCLUSIONS

#### Summary

The current popularity of the middle school movement began during the 1960s. Prior to this date various forms of grade and school organization existed. From the historical point of view, the beginning of today's middle school took place over 60 years ago.

Its early beginning was believed justified because of the changes in the levels of maturation for adolescents, demands of a changing society, and in general, the dissatisfaction of many parents and educators with the junior high school and its similarity to the senior high school.

This study was designed to identify middle schools in the United States and determine the current level of implementation of eighteen basic middle school characteristics.

Jack D. Riegler, from a review of the literature, had previously extracted from the literature a list of eighteen characteristics. Noted authorities in the area of middle school education validated these eighteen characteristics. These eighteen characteristics focused attention on continuous progress programs, multi-media, flexible schedules, social experiences, physical experiences, intramural activities, team teaching, planned gradualism, exploratory-enrichment experiences, guidance services, independent study, basic learning skills, creative

experiences, student security factors, evaluation practices, community relations, student services, and auxiliary staffing.<sup>1</sup>

A survey questionnaire related to the degree of implementation of these characteristics was mailed to a sample of grade 5-8 and 6-8 middle schools in the United States. For comparative purposes, the same questionnaire for Michigan middle schools 5-8 and 6-8 was treated separately. Survey forms were returned by 80 percent of the grade 5-8 sample and 89 percent of the grade 6-8 sample.

Prior to mailing the questionnaire a directory of middle schools in the United States was developed. The directory included schools officially named middle school and containing either grades 5-8 or 6-8. When it was not possible to locate the necessary information to determine the official name of the school the grades contained in the school became the sole criteria for the school's inclusion in the directory. The state departments of education and local school districts were the prime sources for this information.

The results of the survey questionnaire were programed and processed through the Control Data Corporation (CDC) 6500 computer at Michigan State University. The PFCOUNT Program and FINN Program of the Michigan State University Stat System were used to generate descriptive statistics. Mean scores were calculated on each of the eighteen characteristics. The .05 level of confidence was established as the minimum criterion level for accepting mean differences as being significant.

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<sup>1</sup>Riegle, op. cit.

Completion of the directory produced 1,906 middle schools as defined by this study. There are 421 middle schools housing grades 5-8; 1,092 middle schools housing grades 6-8; and 393 schools called "middle" housing various grade combinations from grade four to grade nine. Michigan leads the nation in numbers of middle schools housing grades 5-8 and 6-8.

Grade 6-8 middle schools in Michigan employ the implementation of the eighteen characteristics to a greater degree than do the remainder of grade 6-8 middle schools in the United States. However, grade 5-8 middle schools in the United States implement the eighteen characteristics to a greater degree than Michigan middle schools, grades 5-8.

The total mean score for implementation of the eighteen characteristics in the United States middle schools, grades 6-8, is higher than the total mean score for United States middle schools housing grades 5-8.

## Findings

### Objective I

To determine the number of middle schools in the United States, grades 5-8 and grades 6-8, in existence during the school year 1972-73.

According to the definition stated in this study, there are 421 middle schools in the United States housing grades 5-8 and 1,092 middle schools in the United States housing grades 6-8. Also, there are 393 schools called "middle" that house various grade combinations from grade four to grade nine.

The middle school movement in Michigan is growing in numbers. There are 137 grade 6-8 middle schools in Michigan. This number constitutes 12.54 percent of the grade 6-8 middle schools in the United States. The grade 5-8 combination in Michigan is not as popular. There are 47 grade 5-8 middle schools in Michigan. This figure represents 11.16 percent of the grade 5-8 middle schools in the United States. These are impressive findings and place Michigan as the leader in the United States for both middle school grade combinations.

However, Michigan is also one of the top contenders for first place in the "other combinations" category with 5.59 percent of the total schools listed. Only Ohio, with 8.3 percent, and Pennsylvania, with 7.83 percent, rank higher.

The United States has 1,906 schools called middle or containing grades 5-8 or grades 6-8. There are 1,092, or 57.30 percent, housing grades 6-8 and 421, or 22.08 percent, housing grades 5-8. In the other combinations category there are 393, or 20.61 percent of the 1,906.

### Objective II

To measure the degree of implementation of the eighteen basic middle school characteristics practiced by selected middle schools in Michigan.

The grade 6-8 middle schools in Michigan apply the following characteristics to a high degree: multi-material, social experiences, planned gradualism, exploratory and enrichment programs, evaluation practices, and student services. These same schools apply the following characteristics to a lesser degree: physical experiences, intramural activity, and independent study.

The grade 5-8 middle schools in Michigan apply the following characteristics to a high degree: physical experiences, planned gradualism, exploratory enrichment programs, evaluation practices, and student services. These same schools apply the following characteristics to a lesser degree: multi-material, social experiences, intramural activity, and independent study.

The Michigan mean score for grade 5-8 on the degree of implementation of the eighteen characteristics is 124.97 out of a possible 254 points. This represents 49 percent of the possible score. The mean score for Michigan middle schools grade 6-8 on the degree of implementation of the eighteen characteristics is 137.97 out of a possible 247 points. This represents 56 percent of the possible score.

The Michigan middle schools grade 6-8 apply the eighteen characteristics to a high degree. The 5-8 middle schools in Michigan apply the eighteen characteristics to a lesser degree.

### Objective III

To measure the degree of implementation of the eighteen basic middle school characteristics practiced by selected middle schools, not including Michigan, in the United States.

The grade 6-8 middle schools in the United States, not including Michigan, apply the following characteristics to a high degree: physical experiences, intramural activity, and independent study. These same schools apply the following characteristics to a lesser degree: multi-material, social experiences, planned gradualism,

exploratory and enrichment programs, evaluation practices, and student services.

The grade 5-8 middle schools in the United States, not including Michigan, apply the following characteristics to a high degree: multi-material, social experiences, intramural activity, and independent study. These same schools apply the following characteristics to a lesser degree: physical experiences, planned gradualism, exploratory and enrichment programs, evaluation practices, and student services.

The mean score for the United States 5-8 grade middle schools, not including Michigan, on the degree of implementation of the eighteen characteristics is 140.59 out of a possible 254 points. This represents 55 percent of the possible score. The mean score for the United States grade 6-8 middle schools, not including Michigan, on the degree of implementation of the eighteen characteristics is 135.23 out of a possible 247 points. This represents 55 percent of the possible score.

The United States middle schools grades 5-8, not including Michigan, apply the eighteen characteristics to a high degree. The 6-8 middle schools in the United States, not including Michigan, apply the eighteen characteristics to a lesser degree.

#### Objective IV

To compare the degree of implementation of the eighteen basic middle school characteristics reported by selected Michigan middle schools with the results reported by selected United States middle schools.

The Michigan grade 5-8 middle schools achieved a mean score of 124.97, or 49 percent, of 254 possible points, on the implementation

of the eighteen characteristics. The 5-8 middle schools in the United States achieved a mean score of 140.59, or 55 percent of 254 possible points, on the implementation of these characteristics.

In a comparison with the middle schools, grades 5-8, in the United States, Michigan middle schools, grades 5-8, do not apply the eighteen characteristics to the degree established by other 5-8 grade middle schools.

The Michigan grades 6-8 middle schools achieved a mean score of 137.97, or 56 percent, of 247 possible points, on the implementation of the eighteen characteristics. The 6-8 middle schools in the United States achieved a mean score of 135.23, or 55 percent of 247 possible points, on the implementation of these characteristics.

In a comparison with the middle schools, grades 6-8, in the United States, Michigan middle schools, grades 6-8, apply the eighteen characteristics to a greater degree than similar middle schools.

#### Objective V

To compare the degree of implementation of the eighteen basic middle school characteristics reported by selected middle schools in the United States, grades 5-8, with the results reported by selected middle schools in the United States, grades 6-8.

The total mean score for implementation of the eighteen characteristics in grade 6-8 middle schools is 136.53, or 55 percent, of the total 247 possible points. The total mean score for implementation of the eighteen characteristics in grade 5-8 middle schools is 132.75, or 52 percent, of the total 254 possible points.

Grade 5-8 middle schools in the United States implement the following of the eighteen characteristics to a high degree: social experiences, physical experiences, planned gradualism, evaluation practices, and student services. These same schools implemented to a lesser degree the following characteristics: multi-material, intramural activity, exploratory and enrichment programs, and independent study.

Grade 6-8 middle schools in the United States implement the following of the eighteen characteristics to a high degree: multi-material, intramural activity, exploratory and enrichment programs, and independent study. These same schools implement to a lesser degree the following characteristics: social experiences, physical experiences, planned gradualism, evaluation practices, and student services.

The grade 6-8 middle schools in the United States apply the eighteen characteristics to a higher degree than do the 5-8 middle schools.

### Conclusions

1. There are 1,906 middle schools in the United States as defined in this study. There are 421 middle schools housing grades 5-8; 1,092 middle schools housing grades 6-8; and 393 schools called "middle" housing various grade combinations from grade four to grade nine.

2. Michigan leads the nation in numbers of middle schools housing grades 5-8 and 6-8 as defined in this study.

3. The grade 6-8 middle schools in Michigan apply the following characteristics to a high degree: multi-material, social experiences, planned gradualism, exploratory and enrichment programs, evaluation practices, and student services.

4. The grade 5-8 middle schools in Michigan apply the following characteristics to a high degree: physical experiences, planned gradualism, exploratory enrichment programs, evaluation practices, and student services.

5. The grade 6-8 middle schools in the United States, not including Michigan, apply the following characteristics to a high degree: physical experiences, intramural activity, and independent study.

6. The grade 5-8 middle schools in the United States, not including Michigan, apply the following characteristics to a high degree: multi-material, social experiences, intramural activity, and independent study.

7. Michigan middle schools, grades 6-8, apply the eighteen characteristics to a higher degree than similar middle schools in the United States.

8. Grade 5-8 middle schools in the United States implement the following characteristics to a high degree: social experiences, physical experiences, planned gradualism, evaluation practices, and student services.

9. Grade 6-8 middle schools in the United States implement the following characteristics to a high degree: multi-material,

intramural activity, exploratory and enrichment programs, and independent study.

10. The total mean score for implementation of the eighteen basic middle school characteristics in the United States middle schools, grades 6-8, is higher than the total mean score for United States middle schools housing grades 5-8.

11. Middle schools in the United States housing grades 5-8 implement the eighteen basic middle school characteristics to a greater degree than Michigan middle schools, grades 5-8.

12. Neither of Michigan's middle school grade combinations achieved a mean score as high as similar middle schools in the United States on the intramural activity and independent study characteristics.

#### Recommendations for Further Study

The middle schools in the United States, grade 5-8, achieved a mean score much higher than the Michigan middle schools, grades 5-8. A similar project is needed to determine if this is a trend that indicates a weakness in Michigan's middle schools, grades 5-8, or if the middle schools in Michigan are concentrating more on the concept of grade 6-8 combinations for the middle school. In conjunction with such a project it would be of interest to determine the status of the 5-8 grade middle schools in the United States and compare the findings with the information found in this study.

A future study including a revised directory of middle schools in the United States would be of significant importance. Such a study would serve to determine the growth factor of middle schools in this country. It would be of interest to determine the degree of

implementation of the eighteen basic middle school characteristics in these middle schools and do a similar comparative study as reported here.

Michigan middle schools, grades 5-8 and grades 6-8, did not achieve a mean score as high as similar middle schools in the United States on the intramural activity and independent study characteristics. A study designed to analyze this apparent weakness could be of value to the many children enrolled in Michigan's middle schools.

### Reflections

This writer believes the middle school concept in the United States is growing in popularity and meaningfulness to America's educators. Such a statement is particularly significant in Michigan. It is not the intent of this writer to imply that we have "arrived." However, movement is taking place and deserves the attention of the middle school critics.

The reader is cautioned not to conclude that Michigan middle schools, in particular grade 6-8 middle schools, are far ahead of the rest of the schools in the country. While this is true to a degree in numbers and achieved mean scores, it does not imply superiority. On the contrary, it is believed that the United States must be looked at as a whole. The country is filled with capable educators who are dedicated to the best educational program possible for the middle school child. It is believed that more and more of these educators are yearly, even possibly daily, contributing to the present day significance of the middle school movement. Time alone will see if these educators are right and determine the destiny of the middle school in these United States.

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APPENDIX

THE QUESTIONNAIRE

**MICHIGAN STATE UNIVERSITY** EAST LANSING • MICHIGAN 48823

COLLEGE OF EDUCATION • DEPARTMENT OF ADMINISTRATION AND HIGHER EDUCATION  
ERICKSON HALL

April 21, 1974

Dear Administrator,

As you know, the middle school as an element of school organization is undergoing rapid growth and development. It can certainly be distinguished as one of the most recent contributions to the K-12 grade organizational continuum.

My personal interest in the middle school creates a professional responsibility to explore the theoretical middle school and its relationship to the practicing middle school. It is believed that enlightenment in this area will provide needed information toward understanding the status and implications of the middle school in the American educational system.

Your help is sincerely sought. Knowledgeable administrators such as you must be consulted to obtain this important middle school information. Therefore, the enclosed questionnaire has been developed. By responding to this questionnaire you will supply information that is necessary for a better understanding of the status and implications of the Middle School in the United States.

Results from individual respondents will be used to compile grand totals. There will be no other use of the requested information. COMPLETE ANONYMITY is assured.

Please return the questionnaire in the stamped self-addressed envelope WITHIN THE NEXT WEEK.

Being a selected administrator you will receive a summary of the results. A prompt return will be most helpful toward the completion of the final report.

I would like to thank you in advance for your interest and cooperation. Together, we may be able to give just a little more insight into the education of transescent youth.

Sincerely yours,



Joe T. Raymer  
Michigan State University  
Erickson Hall, 406  
East Lansing, Michigan 48823

JTR:smk  
enc.

MICHIGAN STATE UNIVERSITY EAST LANSING • MICHIGAN 48823

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COLLEGE OF EDUCATION • DEPARTMENT OF ADMINISTRATION AND HIGHER EDUCATION  
ERICKSON HALL

April 29, 1974

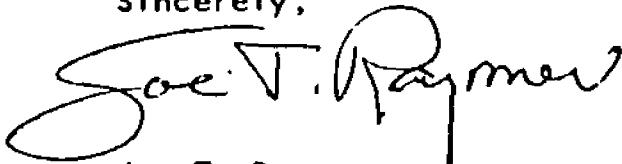
Dear Administrator,

Once again your help is sincerely sought. During the week of April 21st you received a questionnaire designed for principals of selected middle schools in the United States.

Your reply to this survey is considered very important to the proper completion of the study. Therefore, please take a moment to complete and return the questionnaire in the self-addressed envelope. Kindly disregard this reminder if you have already fulfilled the request.

In either case, your consideration and prompt attention are greatly appreciated.

Sincerely,



Joe T. Raymer  
Michigan State University  
Erickson Hall, 406  
East Lansing, Michigan 48823

JTR:smk

A STUDY TO IDENTIFY MIDDLE SCHOOLS AND TO DETERMINE  
THE CURRENT LEVEL OF IMPLEMENTATION OF  
EIGHTEEN BASIC MIDDLE SCHOOL CHARACTERISTICS

A QUESTIONNAIRE FOR PRINCIPALS OF SELECTED MIDDLE SCHOOLS

PLEASE RETURN IN THE ENVELOPE PROVIDED TO:

JOE T. RAYMER  
MICHIGAN STATE UNIVERSITY  
ERICKSON HALL, 406  
EAST LANSING, MICHIGAN 48823

Your response to questions will be greatly appreciated.  
All respondents can be assured of COMPLETE ANONYMITY.  
Please feel free to make additional comments when believed necessary.

## General information: (confidential)

Name of Respondent \_\_\_\_\_  
(optional)

Name of School \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Place a check mark before the grades served by your school:

\_\_\_\_\_ 4

\_\_\_\_\_ 5

\_\_\_\_\_ 6

\_\_\_\_\_ 7

\_\_\_\_\_ 8

\_\_\_\_\_ 9

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

1-A. Continuous progress programs are:

- (0) not used at this time.  
 (1) used with special groups.  
 (2) used for the first two years  
 (3) used by selected students.  
 (4) used by all students.

2-A. Continuous progress programs are planned for a student over a CALENDAR year span of:

- (0) not used.  
 (1) one year.  
 (2) two years.  
 (3) three years.  
 (4) more than three years.

3-B. The multi-textbook approach to learning is currently:

- (0) not used.  
 (1) used in a FEW courses.  
 (2) used in MOST courses.  
 (3) used in NEARLY all courses.

4-B. The instructional materials center in this building houses:

- (0) 1000 books or less  
 (1) 3000 books or less  
 (2) 4000 books or less  
 (3) 5000 books or less  
 (4) 5001 books or more.

5-B. The materials center has a paid certified librarian:

- (0) no.  
 (1) part-time only.  
 (2) one full-time.  
 (3) more than one full-time.

6-B. For classroom instruction, AUDIO VISUAL MATERIALS other than motion pictures are:

- (0) not used.  
 (1) rarely used.  
 (2) occasionally used.  
 (3) frequently used.  
 (4) very frequently used.

7-C. The basic time module used to build the schedule is:

- (0) 60 minutes.  
 (1) 45 to 59 minutes.  
 (2) 30 to 44 minutes.  
 (3) 10 to 29 minutes.  
 (4) a combination of time so diversified that no basic module is defined.

## PART I, Page 2

8-C. Which of the below best describes your schedule at present:

- (0) traditional.
- (1) traditional, modified by "block-time," "revolving period," or other such regularly occurring modifications.
- (2) flexible to the degree that all periods are scheduled but are not identical in length.
- (3) flexible to the degree that changes occur within defined general time limits.
- (4) 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?

- (0) staff members DO NOT work with club activities.
- (1) staff members are ASSIGNED WITHOUT PAY.
- (2) staff members are ASSIGNED WITH PAY.
- (3) staff members VOLUNTEER WITHOUT PAY.
- (4) staff members VOLUNTEER AND ARE PAID.

10-D. What percent of your student body regularly participates in at least one club activity?

- (0) we have no club program.
- (1) 25% or less.
- (2) 50% or less.
- (3) 75% or less.
- (4) 100% or less.

11-E. How is the physical education program individualized?

- (0) not at all.
- (1) slightly.
- (2) moderately.
- (3) highly.

12-F. Inter-scholastic competition is:

- (0) offered in two or more sports.
- (1) offered in one sport only.
- (4) not offered.

13-F. Intramural activities often use the same facilities as interscholastic activities. When this causes a time conflict how do you schedule?

- (0) we have no INTRAMURAL program
- (0) interscholastic activities take first priority and others must schedule around their needs.
- (4) we have no INTERSCHOLASTIC program.
- (4) intramural activities take first priority and others schedule around their needs.

## PART I, Page 3

14-G. How many students participate in team teaching programs?

- (0) none.  
 (1) 25% or less.  
 (2) 50% or less.  
 (3) 75% or less.  
 (4) 100% or less.

15-G. What percentage of your teaching staff is involved in team teaching programs?

- (0) none.  
 (1) 25% or less.  
 (2) 50% or less.  
 (3) 75% or less.  
 (4) 100% or less.

16-G. How many minutes per day does a student in grades FIVE or SIX average in a team teaching program?

- (0) none.  
 (1) 40 minutes or less.  
 (2) 80 minutes or less.  
 (3) 120 minutes or less.  
 (4) 160 minutes or less.  
 (5) 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?

- (0) none.  
 (1) 40 minutes or less.  
 (2) 80 minutes or less.  
 (3) 120 minutes or less.  
 (4) 160 minutes or less.  
 (5) 161 minutes or MORE.

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 thru EIGHT)

- (0) completely self contained and/or completely departmentalized.  
 (1) modified departmentalized (block-time, core, etc.)  
 (2) program moves from largely self contained to partially departmentalized.  
 other. \_\_\_\_\_  
 \_\_\_\_\_

19-I. How many years is ART instruction required for all students?

- (0) none.  
 (1) one year.  
 (2) two or more years.

## PART I, Page 4

20-I. How many years is MUSIC instruction required for all students?

- (0) none.  
 (1) one year.  
 (2) two or more years.

21-I. The amount of student schedule time set aside for elective courses:

- (0) decreases with each successive grade or, is the same for all grades or, does not exist at any grade level.  
 (1) varies by grade level but not in any systematic manner.

22-J. For what percent of students are guidance services normally available.

- (0) not available.  
 (1) 25% or less.  
 (2) 50% or less.  
 (3) 75% or less.  
 (4) 100% or less.

23-J. Guidance staff members:

- (0) never work with teachers.  
 (1) SELDOM work with teachers.  
 (2) OFTEN work with teachers.  
 (3) ALWAYS work with teachers.

24-J. Guidance counselors are:

- (0) not expected to help teachers build their guidance skills.  
 (1) EXPECTED to help teachers build their guidance skills.  
 (2) EXPECTED and REGULARLY encouraged to help teachers build their guidance skills.

25-L. Clinics or special classes to treat the problems of students with poor basic learning skills are:

- (0) not available.  
 (2) available only to the most critically handicapped learners.  
 (3) available to all students needing such help.

26-L. The amount of time provided in the classroom for instruction in basic learning skills:

- (0) remains constant or increases with each successive grade.  
 (1) decreases with each successive grade  
 (2) varies greatly due to individualization of program by teachers.

27-M. Does your school have an official newspaper?

- (0) no.  
 (1) yes, and publishes four or less issues per year.  
 (2) yes, and publishes five or more issues per year.

## PART I, Page 5

28-M. Do students get experiences in creative dramatics?

- (0) no.  
 (1) yes.

29-M. Dramatic productions at this school are produced from:

- (0) does not apply.  
 (1) purchased scripts only.  
 (2) materials written by students only.  
 (3) materials written by students and purchased scripts.

30-M. This school has oratorical activities such as debate, public address, etc.:

- (0) no.  
 (1) yes, as a part of its enrichment program.  
 (2) yes, as a part of its planned program of instruction.

31-M. Talent shows are:

- (0) not a part of our program.  
 (1) produced on an all school basis.  
 (2) produced at each grade level.  
 (3) 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:

- (0) left strictly to the individual teacher's personal motivation.

(1) mentioned to the teacher BUT NOT emphasized.

(2) emphasized

(3) strongly emphasized.

33-N. As a general policy, provisions are made for the teacher to provide guidance services:

(0) no.

(1) yes, to a limited number of students.

(2) yes, to all their students.

34-N. How many times per year is a student's academic progress formally reported to parents?

(1) two times, or less.

(2) four times, or less.

(1) six times, or less.

other. \_\_\_\_\_

35-0. How many times per year are parent-teacher or parent-teacher-student conferences held on a school wide basis?

(0) not at all.

(1) once

(2) three times

(4) four or more times.

36-P. Community service projects by students in this school are:

(0) not a part of our program.

(1) carried out occasionally for a special purpose.

(2) an important part of the planned experiences for all students.

## PART I, Page 6

37-P. What is the status of the parents' organization in your school?

- (0) none.  
 (1) relatively inactive.  
 (2) active.  
 (3) very active.

38-C. The master class time schedule can be changed by teachers when need arises by:

- (0) requesting a change for next year.  
 (1) requesting a change for next semester.  
 (2) requesting administrative approval.  
 (3) planning with other teachers on a WEEKLY BASIS.  
 (4) planning with other teachers on a DAILY BASIS.

39-K. Students working in independent study situations work on topics that are:

- (0) we have no independent study program.  
 (1) assigned to them by the teacher.  
 (2) of personal interest and approved by the teacher.

40-O. Formal evaluation of student work is reported by use of:

- (1) letter or number grades.  
 (2) teacher comments written on a reporting form.  
 (3) parent-teacher conferences.  
 (4) parent-teacher-student conferences.  
 other \_\_\_\_\_

41-E. What percentage of physical education class time is devoted toward COMPETITIVE TYPE ACTIVITIES:

- (4) 25% or less.  
 (3) 50% or less.  
 (2) 75% or less.  
 (1) 100% or less.

42-E. What percentage of physical education class time is devoted toward DEVELOPMENTAL TYPE ACTIVITIES?

- (1) 25% or less.  
 (2) 50% or less.  
 (3) 75% or less.  
 (4) 100% or less.

43-J. Do your guidance counselors offer regular group guidance sessions?

- (4) yes.  
 no.

44-K. Independent study opportunities are provided for:

- (2) some students.  
 (4) all students.  
 not provided.

45-L. Daily instruction in a developmental reading program is provided for:

- (2) poor readers only.  
 (4) all students.  
 not provided.

## PART II, Page 7

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?

- (1) general library books.  
 (1) current newspapers.  
 (1) below grade level reading materials.  
 (1) current magazines.  
 (1) files of past issues of newspapers.  
 (1) above grade level reading materials.  
 (1) card catalogue of materials housed.  
 (1) student publications.  
 (1) files of past issues of magazines.  
 (1) filmstrips.  
 (1) collections (coins, insects, art, etc.).  
 (1) motion pictures (include if you are a member of a central service).  
 (1) micro-films.  
 (1) overhead transparencies.  
 (1) phonograph records.  
 (1) ditto and/or mimeo machines.  
 (1) photo or thermal copy machines.  
 (1) maps, globes and charts.  
 (1) display cases or areas.

47-D. School dances ARE NOT held for:

- (1) grade five.  
 (1) grade six.  
 (1) grade seven.  
 (1) grade eight.

48-D. A club program for students is offered in:

- (1) grade five.  
 (1) grade six.  
 (1) grade seven.  
 (1) grade eight.

49-F. The intramural program includes:

- (1) team games.  
 (1) individual sports.  
 (1) various activities.

50-I. Students are allowed to elect course of interest from a range of elective offerings:

- (0) no.  
 (1) in grade five.  
 (1) in grade six.  
 (1) in grade seven.  
 (1) in grade eight.

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51-I. Electives offered in this building are:

- (1) art  
 (1) band  
 (1) vocal music  
 (1) drawing  
 (1) drama  
 (1) journalism  
 (1) foreign language  
 (1) family living  
 (1) unified arts  
 (1) orchestra  
 (1) wood shop  
 (1) speech  
 (1) typing  
 (1) natural resources  
 (1) creative writing

52-K. How much time would you estimate the average student spends in independent study?

- (1) 20 minutes or MORE per day in grades five or six.  
 (1) 30 minutes or MORE per day in grades seven or eight.  
 (0) less than the above.

53-L. Students with poor basic skills can receive special help on an individual basis from a special staff member trained to treat such situations in the following areas:

- |   |  |
|---|--|
| <input type="checkbox"/> (1) reading            | <input type="checkbox"/> (1) mathematics |
| <input type="checkbox"/> (1) spelling           | <input type="checkbox"/> (1) grammar     |
| <input type="checkbox"/> (1) physical education | <input type="checkbox"/> (1) other _____ |

54-M. Dramatic presentations by students are:

- (0) not a part of the school program.  
 (1) a part of the activities program.  
 (1) a part of certain class activities planned by the teachers.  
 (1) other \_\_\_\_\_

55-P. In regard to community relations this school:

- (0) does not send out a parents newsletter.  
 (1) sends out a parent newsletter.  
 (1) uses the commercial newspaper.  
 (1) uses a district wide newsletter to send out information related to this school.  
 other \_\_\_\_\_

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56-P. The staff presents informational programs related to the school's functions:

\_\_\_(1) when requested by parents.

\_\_\_(1) once or twice a year at regular parent meetings.

\_\_\_(1) at open house programs.

\_\_\_(1) 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.

\_\_\_(1) guidance counselors.

\_\_\_(1) school nurse.

\_\_\_(1) school psychologist.

\_\_\_(1) diagnostician.

\_\_\_(1) speech therapist.

\_\_\_(1) visiting teacher.

\_\_\_(1) clinic services for the emotionally disturbed.

\_\_\_(1) special education programs for the mentally handicapped.

\_\_\_(1) special reading teacher.

\_\_\_ other \_\_\_\_\_

58-R. Teaching teams are organized to include:

\_\_\_(1) fully certified teachers.

\_\_\_(1) para-professionals.

\_\_\_(1) clerical helpers.

\_\_\_(1) student teachers.

\_\_\_ others \_\_\_\_\_

59-R. From the following list check those types of auxiliary helpers available in your building:

\_\_\_(1) paid para-professionals.

\_\_\_(1) volunteer helpers from the community.

\_\_\_(1) student teachers and interns.

\_\_\_(1) high school "future teachers" students

\_\_\_ other \_\_\_\_\_

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

During the afternoon	During the evening
___(1) Grade 5	___(0) Grade 5
___(1) Grade 6	___(0) Grade 6
___(1) Grade 7	___(1) Grade 7
___(1) Grade 8	___(1) Grade 8

61-E. The physical education program serves all students in:

\_\_\_(1) Grade 5

\_\_\_(1) Grade 6

\_\_\_(1) Grade 7

\_\_\_(1) Grade 8

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62-F. Intramural activities are  
scheduled for:

BOYS ONLY

GIRLS ONLY

\_\_\_(1) Grade 5      \_\_\_(1) Grade 5

\_\_\_(1) Grade 6      \_\_\_(1) Grade 6

\_\_\_(1) Grade 7      \_\_\_(1) Grade 7

\_\_\_(1) Grade 8      \_\_\_(1) Grade 8

\_\_\_ not scheduled

Thank you sincerely for your  
assistance.

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