A STUDY OF MIDDLE SCHOOL PROGRAMS TO
DETERMINE THE CURRENT LEVEL OF IMPLEMENTATION
OF EIGHTEEN BASIC MIDDLE SCHOOL PRINCIPLES

Thesis for the Degree of Ph. D.
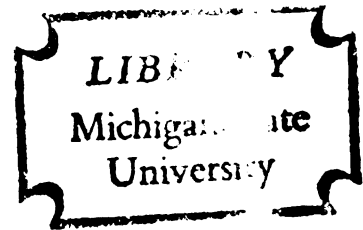MICHIGAN STATE UNIVERSITY
JACK D. RIEGLE
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ABSTRACT

A STUDY OF MIDDLE SCHOOL PROGRAMS TO DETERMINE THE
CURRENT LEVEL OF IMPLEMENTATION OF EIGHTEEN
BASIC MIDDLE SCHOOL PRINCIPLES

By

Jack D. Riegle

The middle school came into being after approxi-
mately six decades of junior high school organizational
experience. The 1960 to 1970 decade was the decade during
which the middle school concept became the middle school
movement. By the year 1968 over 1200 middle schools were
operating in this country. Coinciding with the growth in
numbers of middle schools was the growth in amounts of lit-
erature pertaining to this topic. The purpose of this study
was to identify the basic middle school principles that were
frequently expressed in the literature and to determine the
degree of application middle schools in Michigan and in a
selected national sample were making of these principles.

From a review of the literature, a list of fre-
quently mentioned principles of middle school education was
compiled. This list was sent to five authorities noted for
their expertise in the area of middle school education.
They were asked to critique the list of selected basic prin-
ciples and to suggest additions, deletions, and modifications

as they saw fit. Based upon their critiques a final vali-
dated list of 18 basic middle school principles was com-
piled. These basic middle school principles focused
attention upon the areas of: continuous progress programs,
use of multi-media, flexible scheduling, provisions for
student social experiences, provisions for student physical
experiences, intramural activities, team teaching applica-
tions, programs for planned gradualism, exploratory-
enrichment opportunities, guidance services, independent
study programs, basic learning skills extension, creative
experiences, programs to provide student security factors,
student evaluation practices, community relations, student
services, and auxiliary staffing.

A survey instrument seeking data related to the
application being made of the 18 basic middle school prin-
ciples was sent to all schools in Michigan housing grades
above four but below nine. The same survey instrument was
mailed to four arbitrarily selected schools outside the
state of Michigan that had received national recognition in
the literature as exemplary middle schools. Survey forms
were returned by 72.1 per cent of the three-grade middle
schools in Michigan, 83.3 per cent of the four-grade middle
schools in Michigan, and by all four of the schools in the
selected national sample.

Mean scores, variances, and mean percentages of the
maximum possible score yielded by the survey form were

calculated on each one of the 18 principles for each sample of schools in the study. These scores were tabled and comparisons between groups were made on the basis of mean percentage scores.

Generally, the findings and conclusions of the study were as follows: (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 principles considered by authorities in the field to be basic to middle school education; (2) An overall 46.94 per cent application by middle schools in Michigan as measured by the survey instrument used in this study and a 64.9 per cent 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 middle school principles. In general both three-grade and four-grade middle schools in Michigan have implemented the basic principles of middle school education to a minor degree; (4) While a high degree of agreement exists among authorities in the field regarding what constitutes basic middle school principles, the degree of application of these principles and the wide variation in levels of application provide evidence of a failure by the leadership of the middle schools of Michigan to implement the principles proclaimed by the authorities; (5) A few middle schools in Michigan demonstrated application of the basic middle school

principles to a degree equal to that level achieved by the four selected exemplary schools included in the study.

In general, the study revealed results indicating that middle schools in Michigan could provide improved middle school programs by increased study and application of the middle school concepts presented in the literature.

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CHAPTER I

THE PROBLEM

Introduction

During the past decade the number of middle schools
in the United States has increased rapidly. In 1969 there
were more than 125 schools in Michigan housing some or all
of the grade levels above four and below nine. These
schools provided educational programs for the children com-
monly referred to in the literature related to middle
schools.

Educational journals, books, research bulletins, and
other printed materials pertaining to the various aspects of
the middle school program have continued to increase in num-
ber.

At present little information is available that
relates to the degree of relationship that exists between
the theoretical middle school principles as presented in the
literature and the operational programs currently function-
ing in the middle schools of Michigan.

Statement of the Problem

The problem examined in this thesis is the degree
of implementation which existing middle school programs have

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made of certain basic middle school principles, as they have been identified by authorities in the field.

Need

If more deliberate and comprehensive planning is not utilized now, the middle school movement soon may duplicate the junior high school and thereby simply compound the problems of educational programming for transescent youth. The need exists for studies that analyze current middle school practice and the relationships that exist between this practice and the basic concepts that have been developed for middle school education.

Today's interest in a new middle school stems, in part, from dissatisfaction with what the junior high school has become.[1] If the middle school program, as developed in the literature, is to be an improvement over the controversial junior high school, there is a need for studies that will provide educators with information concerning current progress in the field and directions for future study.

This study seeks to provide a partial report of how much application of the basic theory relating to middle school programs exists currently in the middle schools of Michigan and in selected outstanding, national middle schools. This study will provide an indication of whether

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[1]William Alexander, The Emergent Middle School (New York: Holt, Rinehart and Winston, Inc., 1968), p. 4.

the implied concern of Alexander,[2] that middle school pro-
grams will duplicate existing junior high school programs
rather than implement middle school goals, is well founded
or without foundation in current practice.

Definition of Terms

The definitions of terms which follow are presented
to aid in the interpretation and understanding of this study
and to facilitate any future replications of this study that
may be initiated.

1. Transescent Youth: A child in the stage of
   growth and development that begins shortly prior
   to the onset of puberty and continues to early
   adolescence.

2. Planned Gradualism: A series of planned curric-
   ular and organizational changes designed steadily
   and systematically to convert a student's educa-
   tional program from the single classroom design
   to the departmentalized design.

3. Middle School: A school unit offering an edu-
   cational program for grades over four but below
   nine.

4. Multi-media Approach: The use of a broad spec-
   trum of instructional materials to present a
   particular discipline.

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[2]William Alexander, "The Middle School Movement,"
Theory Into Practice, VII (June, 1968), p. 117.

5. <u>Traditional Schedule</u>: Establishment of rigid divisions of available instructional time that repeat on a daily basis or on an alternating basis.

6. <u>Enrichment Experiences</u>: Those courses that are available to interested students on an elective basis and whose content is organized to encourage and develop the student's capacities in the creative fields of music, art, writing, speech, and others.

7. <u>Continuous Progress Program</u>: An educational program designed to facilitate academic progress by individual students according to their ability to advance regardless of grade levels, peer group readiness, or other organizational limitations. This type of program is often referred to in the literature as a nongraded program.

Assumptions of the Study

This study assumes that the questions prepared and organized into a survey form were appropriate to measure the principles of middle school education selected from the literature and validated by authorities in the field. It further assumes that the survey instrument was presented in a manner that allowed middle school principals to respond with their true perceptions in regard to the programs currently operating within their buildings.

Limitations of the Study

This study was limited to those schools in Michigan and in a small national sample that house children in grades above four and below nine. While the terms were carefully defined, a lack of consistency in responses might result due to the wide range of experiences that the respondents represent.

The intent of the survey instrument was to measure the degree of application being made of the middle school principles selected from the literature. No measure of the effectiveness of this application was made or intended.

Although the authorities as listed by the writer are considered to be leaders in their field, there could be people in the field of education who might question these authorities.

The measurement instrument was reviewed by authorities in the field prior to use, but no norms exist for the scores and field test samples were not taken on the measurement instrument. Therefore, reliability indices were not available to validate the stability of the measurement tool.

The study measures only current practice and no adjustments were made for schools operating curtailed or temporary programs.

Objectives of the Study

Objective I

To measure the degree of application of 18 validated middle school principles by middle schools in Michigan.

Objective II

To measure the degree of application of 18 validated middle school principles by four arbitrarily selected middle schools that have attained nationally recognized status as exemplary middle schools.

Objective III

To compare the degree of application of middle school principles made by the middle schools of Michigan with the results attained by the national sample.

Objective IV

To compare the mean scores of the middle schools in Michigan with the scores that the measurement would yield if all 18 middle school principles were being fully implemented.

Objective V

To compare the scores of the middle schools in the selected sample of nationally recognized exemplary schools with the scores that the measurement instrument would yield if all 18 middle school principles were being fully implemented.

<u>Objective VI</u>

To provide an indication of the current level of middle school practice as it relates to the basic principles of middle school education as espoused in the literature and validated by authorities in the field.

<u>Procedures for Analysis of Data</u>

This study is concerned with the variations in degree of application of 18 basic middle school principles as they currently exist among three samples of middle schools and a controlled score that represents complete application of the principles. The three samples of middle schools include a sample of schools from the population of middle schools in Michigan that house three grades, a sample of middle schools in Michigan that house four grades, and a sample of arbitrarily selected middle schools from a relatively small group of schools that have national credence as exemplary middle schools. The controlled score was established as the score yielded by the measurement instrument when all criteria were met at the highest level on all survey questions.

A list of middle school principles was extracted from the literature pertaining to the topic of middle schools. This list and a letter requesting a careful critique of the items on the list were sent to Dr. Marie Elie, Dr. Nicholas Georgiady, Dr. Ann Grooms, Dr. Louis Romano,

and Dr. Emmett Williams.[3] The list of middle school prin-
ciples was modified in accordance with the revisions sug-
gested by these authorities.

A survey instrument was constructed, reviewed by a
research consultant[4] at Michigan State University, and vali-
dated as valid for the purposes of this study.

A survey form, cover letter, and a stamped return
envelope were mailed to the principal of every school in
the samples. One hundred thirty-six schools listed by the
Michigan Department of Education met the criteria estab-
lished for defining a middle school, and were mailed survey
forms. The four schools in the national sample were mailed
the same survey form with an individualized cover letter
and return addressed, stamped envelope.

The data received from all forms returned were
coded and verified. A rotary calculator was used to perform
the mathematical calculations required to yield sample sta-
tistics. Mean scores and variances were calculated for
each principle and for the total scores for each school for
each sample. These 19 means were transformed to mean per-
centages of the maximum possible scores for each principle
and for the total score for each sample.

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[3]See Appendix C.

[4]Research consultation provided by the Department
of Research Services, College of Education, Michigan State
University, Dr. Andrew Porter, Chairman.

The above descriptive statistics were calculated for all sample groups. Comparisons of these statistics with the controlled scores were used to indicate the amount of application for each of the 18 principles in each of the three samples; the mean percentage scores were used for comparisons between samples.

Overview

Chapter One has provided a frame of reference for the entire study. A statement of the problem examined in this study has been presented and the need for a study of this nature outlined. Terms important to the study have been defined and the basic assumptions of the study clarified.

Several limitations of the study have been presented and the objectives of the study listed, along with the procedures used for collecting and analyzing the data.

Chapter Two presents a review of the literature directly related to middle school education and a partial review of pertinent related literature. From this review a history of the developmental stages of middle school education is outlined and the literature relating to basic middle school education is reported and compared. Characteristics of transescent youth, as presented in the writings of authorities in the field, are reviewed, as are the reports of studies related to this study.

The research design and the procedures used to develop the design are described in Chapter Three. Details relating to the samples, the instrument, the raw data, the statistical methods employed, and the administrative procedures used are outlined.

An analysis of the data is presented in Chapter Four. Appropriate descriptive statistics are presented with the objectives of the study.

A summary of the study with the significant findings outlined is presented in Chapter Five. Conclusions, implications, and suggestions for additional studies are included in this final chapter.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

The review of the literature begins with a brief
history of the stages through which formal educational pat-
terns for adolescents have passed, and a review of some of
the reactions regarding the middle school concept expressed
by professional educators.

Intellectual, physical, social, and emotional char-
acteristics of transescent youth are reviewed, followed by
the literature pertaining to theoretical principles of mid-
dle school program development and the methods used or
suggested for use to put the theory into practice.

Studies similar to this study are then reviewed, and
the significant implications of the literature as they
relate to this study are presented.

A Brief History of the American Middle School

Prior to the nineteenth century the popular span of
public school experience began with grade one and ended with
grade six. The second half of the 1800's brought legisla-
tion requiring elementary education and a growing concern
about secondary education. Charles Elliot, President of
Harvard University, advocated school plans that would

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enable students to enter high school at an earlier age. Elliot suggested a 7-12 secondary school.

An active movement began in 1910 to develop a separate program for pupils in grades 7-8 or 7-9. This movement sought to provide educational programs which would explore the academic and vocational interests and abilities of pupils for better guiding them into college or the labor market.[1] Thorndike and Dewey had given the concept of a secondary-oriented program for the junior high school considerable credence.

The junior high school became the accepted transitional unit between childhood education and later adolescent education.[2] As late as the 1930's the junior high school composed of grades seven through nine was still a combination which departed from the traditional.[3] Following World War II, appraisal of the tendency of the senior high school to push more academics into the junior high school curriculum and school drop-out statistics led to the concern that the 7-9 grade plan had become a terminal-type

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[1]Russel Wiley, "The Middle School--A New Plan" (an address given at the National School Boards Association Annual Convention, Minneapolis, Minnesota, April 23, 1966), p. 2. (Mimeographed.)

[2]Samuel Popper, The American Middle School: An Organizational Analysis (Waltham, Mass.: Blaisdell Publishing Company, 1967), p. xii.

[3]Stanley Sanders, "Challenge of the Middle School," Educational Forum, XXXII (January, 1968), p. 197.

secondary school.[4] The junior high school was becoming to

a greater and greater degree a little senior high school.

It had ceased to care for the developmental/educational

needs of the junior high school-age pupils.[5] Junior high

schools were no longer an innovation. In fact, the junior

high was no longer a departure from the traditional; it <u>was</u>

the traditional.[6] Parents complained that the junior high

school was forcing their children to grow up too fast.[7]

Under this pressure educators began to look increasingly

toward other patterns.

Organizational patterns for the transescent student

other than the seven through nine junior high school had

existed prior to 1965 in many communities. In 1965 national

attention was focused upon these schools by Woodring's

statement that "It now appears that the 6-3-3 plan, with

its junior high school, is on the way out,"[8] and by a report

from Educational Facilities Laboratories.[9] Attention was

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[4]Wiley, <u>op. cit.</u>, p. 2.

[5]<u>Ibid</u>.

[6]Sanders, <u>op. cit.</u>, p. 197.

[7]Paul Woodring, "The New Intermediate School," in
<u>Social Foundations of Education</u>, ed. by Dorothy Westley-
Gibson (New York: The Free Press, 1967), p. 235.

[8]Paul Woodring, "The New Intermediate School,"
<u>Saturday Review</u>, XLVIII (October 16, 1965).

[9]Judith Murphy, <u>Middle Schools</u> (New York: Educational
Facilities Laboratories, 1965).

focused upon several schools using 5-8 and 6-8 patterns of organization.

In spite of the fact that middle school organizational patterns had existed since the 1950's, it was the nationally circulated writings of the 1960 decade that magnified the middle school concept into a national movement. Cuff[10] reported in his study that by the 1965-66 school year 446 school districts in 29 states were operating 499 middle schools. Michigan was reported in this study to have 15 middle schools representing five separate school districts.

By 1967-68 the middle school concept had grown to a point that over 1200 middle schools could be listed in the United States. Less than 4 per cent of these schools existed prior to 1955 and nearly 50 per cent of them were organized during 1966 and 1967.[11] Middle school growth in Michigan reached a total of 137 schools by the 1969-70 school year.

Reactions to the emergence of the middle school were many and varied. The Committee on Junior High School Education, National Association of Secondary School Principals, reacted by proclaiming that a school encompassing grades

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[10]William Cuff, "Middle Schools on the March," National Association of Secondary School Principals Bulletin, LI (February, 1967), p. 83.

[11]William Alexander, "Middle School Movement," Theory into Practice, VII (June, 1968), p. 119.

six through nine had greater merit than a school housing

grades five through eight.[12] Popper[13] described the middle

school as an "institutional corruption" that was corruptive

of both adolescent education and childhood education in the

elementary. Jennings[14] described the middle school move-

ment as "the most unproductive yet to be encountered" and

indicated it constituted an "educational hobby horse."

Positive positions were taken by many educators also.

Nickerson[15] voiced the feelings of several educators when

he suggested that after a 50-year trial the junior high

school was still faced with many vociferous complaints and

that now was the time to regroup for another try at early

adolescent education by reorganizing around the middle

school concept. Meade wrote that the middle school would

be justified if it provided a launching pad for some new

methods that would develop the natural curiosity and non-

conformity of children.[16] Eichhorn stated his view of the

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[12]"Recommended Grades or Years in Junior High or Middle Schools," National Association of Secondary School Principals Bulletin, L (February, 1967), p. 69.

[13]Samuel Popper, "What About the Middle School?" Today's Education, LVIII (November, 1969), p. 52.

[14]Wayne Jennings, "The Middle School? NO!" Minnesota Journal of Education, XLVII (January, 1966), p. 73.

[15]Neal Nickerson, "Regroup for Another Try," Minnesota Journal of Education, XLVII (November, 1966), p. 14.

[16]David Meade, "Seventeen? No, Thirteen!" Minnesota Journal of Education, XLVII (November, 1966), p. 13.

emerging middle school by describing it as an alternative to the junior high school which promises to bring the needed focus to this special period of growth and development in a child's life.[17]

While many school administrators, teachers, college professors, and professional organizations have remained ambivalent about the middle school, the quest for improved education for transescents has continued to center on the middle school in an increasing number of communities. Alexander stated the case for the middle school when he said, "The true rationale of the emergent middle school is rooted positively in the nature of the child and his development."[18]

Pertinent Characteristics of Transescent Youth

The developmental stages and the time in a child's life between childhood and adolescence are called transescence. A growth spurt takes place, sexual maturity is realized, mental processes reach toward an ability to deal in the abstract, social values and interests transfer to the peer group to a greater degree, and self-concept becomes a highly impressionable inner concern as the child seeks to mold his personality. Psychologically, adolescence is a

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[17]Donald Eichhorn, "Middle School Organization: A New Dimension," Theory Into Practice, VII (June, 1968), p. 111.

[18]William Alexander, "The New School in the Middle," Phi Delta Kappan, L (February, 1969), p. 356.

period of time during which a youth acquires an identity. He narrows and focuses his personal, occupational, sexual, and ideological commitments.[19]

Transescent youths are sequentially on the same biological pattern that children in this stage of development have always followed. There is evidence that the general pattern of development occurs at an earlier age now than in previous generations. While different changes do not follow the same sequence for all individuals, and a wide range of time variations in development may exist between individuals, it is true that in general today's adolescents are more precocious and more complex.[20] They mature earlier and grow taller than their parents did.[21]

Today's transescent youth differs from transescents of earlier generations in his rate of social development to a far greater degree than he differs from his earlier counterpart in physical development. Coleman[22] spoke of the more sophisticated adolescent in a society that seeks to promote early sophistication.

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[19]Robert Havighurst, "Lost Innocence," National Association of Secondary School Principals Bulletin, XLVII (April, 1965), p. 1.

[20]Ibid., p. 2.

[21]Margaret Mead, "Early Adolescence in the United States," National Association of Secondary School Principals Bulletin, XLVII (April, 1965), p. 9.

[22]James Coleman, "Social Change, Impact On the Adolescent," National Association of Secondary School Principals Bulletin, XLVII (April, 1965), p. 14.

Bauer[23] wrote that we must consider the adolescent
to be not essentially different from his predecessors, but
we must consider rather those changes which make him appear
different from adolescents at other times, in other set-
tings.

A child is a product of his environment and the
early social exposures that transescents have received have
influenced their actions. Young adolescents today are
bored. They have received too many slight and superficial
communications about almost everything.[24]

Transescents are pushed by parents, commercialized
by mass media, and pressured by peer group and other forces
into becoming miniature adults. Mead[25] points out that
appropriate experiences and attitudes of the early teens
are pair friendships with members of their own sex, a just-
emerging recognition that the other sex can be interesting
after all, admiration and emulation of adult heroes, an
enormous curiosity about the world, curiosity about their
own bodily responses, and a shifting sense of identity.

Today's early adolescent is slightly larger; has
better nutrition; is physically healthier; is more sophisti-
cated; and has greater mobility, more freedoms, and more

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[23]Francis Bauer, "Causes of Conflict," National
Association of Secondary School Principals Bulletin, XLVII
(April, 1965), p. 18.

[24]Mead, op. cit., p. 7.

[25]Ibid., p. 8.

money than his age group ever enjoyed prior to this time.
He also is a child under greater social pressure, with less
family-based security, bombarded by pressures from commer-
cialism, and often confused by the conflicting values of a
complex, industrialized society. He is a child who is
uncertain about his own identity, confused about his role,
and in general feels out of step with the world. Stone[26]
described the dominant feeling of the adolescent's self-
concept as a feeling of being out of step: with one's
peers, with adults, with one's ideals, and with one's own
body.

Today's adolescent has been robbed of his childhood.
He has been forced into being a young adult when his depen-
dency needs are still strong. The early adolescent needs
and seeks direction. He strives to change confusion, inde-
cisiveness, and insecurity into a plan of action that fits
his idealistic nature. Schmuck's study regarding the con-
cerns of adolescents revealed their anxiety about parents,
teachers, and peers. Adolescents complained that parents
would not listen to them, thought they were silly, didn't
trust them, allowed them no privacy, and didn't respect
them. These adolescents reacted to teachers by indicating
that they felt teachers did not know them, did not care
about them, and further that teachers were not always

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[26]L. Joseph Stone, Childhood and Adolescence (New
York: Random House, 1957), p. 302.

fair.[27] Today's early adolescent is a people-oriented person who is concerned with what people think about him and is anxious to be liked by others.

The middle school student is in the midst of finding out who he is and what he is. This is a complex time of life and the school that serves him must be concerned with his total being.

Middle School Program
Goals and Methods

The middle school program is based on principles that are remarkably similar to the basic tenets used to justify the junior high school. The methods used to obtain the middle school goals differ from those proposed for the junior high school.

A broad exploratory program is recommended by nearly all of the educators who have written materials related to middle school programs. Marshall[28] stated that a cognitive program was not enough. He indicated that social and emotional phases of schooling needed to be a part of the program. Eichhorn[29] listed three areas for a comprehensive

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[27]Richard Schmuck, "Concerns of Contemporary Adolescents," National Association of Secondary School Principals Bulletin, XLVII (April, 1965), p. 19.

[28]Doris Marshall, "A Comparative Study of Instructional Policies of Middle Schools Administered Respectively by Elementary-Oriented Principals and Secondary-Oriented Principals" (unpublished Ph.D. dissertation, Michigan State University, 1970), p. 44.

[29]Eichhorn, op. cit., p. 112.

middle school program. First was the analytical facet that
included the traditional areas of learning organized in a
logical, sequential, and cognitive manner. Learning objec-
tives should emphasize the transition from concrete opera-
tions to the more abstract and the program should allow for
individual progress. Eichhorn's second area was labeled as
the "know thyself" area and related to the physical activi-
ties, social activities, and the counseling programs. His
concluding area was the "self-expression" component, which
called for a wide range of practical and fine arts activi-
ties.

Concepts around which the middle school program
should be developed were explained by Atkins when he wrote
that the uniqueness of the middle school is not so much a
matter of organization, of courses, of grouping, of sched-
ules, or of staffing as it is a matter of attitude, of
expectation, of sensitivity, and of perception.[30] An
emphasis on utilization of knowledge rather than on mastery
of knowledge was presented by Atkins as a basic goal of the
middle school.[31] He wrote that the middle school program
should feature four learning situations: diagnostic teach-
ing, individualized instruction, self-direction, and learner-
centered evaluation.[32] Atkins called for the middle school

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[30]Neil Atkins, "Rethinking Education in the Middle,"
Theory into Practice, VII (June, 1968), p. 118.

[31]Ibid., p. 119.

[32]Ibid.

to help students with their concept of self by gradually removing institutional restraints on movement, use of materials and equipment, and prescriptive behavior. This was presented as a method to help promote recognition of power of competence, to promote inquiry, and to encourage natural curiosity.[33]

Alexander and Williams[34] listed three major middle school program phases. Phase one, the "learning skill phase," called for an expansion and continuation of the program of basic learning skill development started in the elementary school. Phase two covered the "general studies phase," which included social studies, mathematics, science, practical arts, fine arts, literature, and others. Phase three was labeled the "personal development phase" and included the social and physical growth programs, independent study areas, and other experiences that fulfill personal needs.

Goals for the middle school were listed by Curtiss[35] as mastery of individual learning skills in order to make better-equipped scholars, accumulation of knowledge necessary to participate in and contribute to our society, and

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[33]Ibid.

[34]William Alexander and Emmett Williams, "Schools for the Middle School Years," Educational Leadership, XXIII (December, 1965), p. 221.

[35]Thomas Curtiss, "The Middle School in Theory and Practice," National Association of Secondary School Principals Bulletin, LII (May, 1968), p. 137.

finally the exploration of areas according to individual-
ized needs and desires of students.

A sound middle school program as outlined by
Batezel[36] included gradual transition from self-contained
classroom education to departmentalized organization--an
organization that provided each student with at least one
teacher whom he knew well and who knew him well. It also
included a program organization flexible enough to meet
the needs of the students and finally a program that pro-
vided the child an environment where his needs were most
important.

The middle school program goals clearly centered
around the needs of the students for whom the program was
being developed. Alexander[37] summarized the basic motiva-
tion of the middle school when he wrote that "its program
is planned for a range of older children, preadolescents and
early adolescents and builds upon the elementary school pro-
gram for earlier childhood and in turn is built upon by the
high school's program for adolescence."

The methods outlined in the literature for obtaining
these goals included most of the innovations of the last
decade. Team teaching, nongraded programs, independent

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[36]George Batezel, "The Middle School: Philosophy
Program Organization," The Clearing House, XLII (April,
1968), p. 487.

[37]William Alexander, "The New School in the Middle,"
p. 356.

study, flexible schedules, grouping practices, instructional
materials centers, and other innovations were commonly men-
tioned in the literature. Alexander[38] suggested all of the
above methods in his writing related to the curriculum plan
for the middle school. Several innovative features common
to middle schools listed by Williams[39] were team teaching,
nongrading, flexible scheduling, programmed instruction,
laboratory facilities, and a host of newer media.

Technological developments in communicating knowledge
have frequently been suggested for implementation into the
middle school program. Williams[40] wrote that human ele-
ments must be retained and that the school must not become
impersonal. He suggested that if a middle school used a
laboratory to individualize, it must use a small group to
socialize and an individual conference to personalize the
meaning of school.

Team teaching is a concept widely endorsed by mid-
dle school proponents as a method to improve instruction,
eliminate rigid schedules, and in some cases to remove the
Carnegie Unit approach to program development. Various
forms of team teaching have appeared in nearly all middle

[38]William Alexander, The Emergent Middle School
(New York: Holt, Rinehart and Winston, Inc., 1968), p. 63.

[39]Emmett Williams, "The Middle School Movement,"
Today's Education, LVII (December, 1968), p. 42.

[40]Ibid.

schools. "It is difficult to find a middle school that isn't using some form of team teaching."[41]

Nongrading is another innovation frequently found in the middle school. Nongrading a school often has proven to be a problem when an overemphasis developed on rate of progress rather than on differentiated paths to different goals for individual learners.[42]

Methods suggested by DiVirgilio[43] for middle schools included varied and more materials, consultant service, in-service programs, lower pupil-teacher ratio, team teaching, and a co-curricular program organization that eliminated interscholastic athletics, marching bands, night activities, formal dances, honor rolls, and final exams.

While no one pattern for middle school program implementation has evolved, the following items have been substantially and frequently mentioned in the literature: individualized instruction, team teaching, nongraded curriculum, exploratory experiences for students, block time or flexible scheduling, multi-media usage, planned gradualism, basic learning skills repair clinics or courses, counseling services, and an activities program appropriate to the ages of the students involved.

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[41]Ibid.

[42]Ibid.

[43]James DiVirgilio, "Switching from Junior High School to Middle School?" Clearing House, XLIV (December, 1969), p. 225.

<u>Review of Related Studies</u>

The National Education Association conducted a study

to determine the instructional organization and practices

of middle schools.[44] The report profiled 154 middle schools

in 51 school systems. The study was limited to school dis-

tricts with student enrollments no smaller than 12,000.

Middle school concepts developed and surveyed by the

National Education Association research staff were: (1) a

span of at least three years to allow for the gradual tran-

sition from elementary to high school instructional prac-

tices (must include grades 6 and 7 and no grades below 5 or

above 8); (2) emerging departmental structure to effect

gradual transition from self-contained to departmentalized

organization; (3) flexible approaches to instruction such

as team teaching, flexible scheduling, individualized

instruction, educational television, independent study,

tutorial programs, and others aimed at stimulating children

to learn how to learn; (4) required special courses in the

arts, languages, exploratory fields, and urban living;

(5) guidance programs; (6) staffing that represents both

secondary and elementary training; and (7) limited attention

to interschool sports and social activities.[45]

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[44]National Education Association, <u>Middle Schools in
Action</u>, Educational Research Service Circular (Washington,
D. C.: National Education Association, 1969).

[45]<u>Ibid</u>., p. 2.

Summary statistics reported in the study were documentation that the seven basic essentials of a middle school listed above were being implemented in many of the 154 schools surveyed. One hundred twenty-six of the schools surveyed conformed to the prescribed grade range. Gradually increased departmentalization was apparent. Only three schools reported a totally departmentalized program in grade five and 105 schools reported such a program in grade eight. Ninety-two per cent of the respondents in the survey indicated the availability of guidance counselors, either on a full-time basis or a part-time basis.

With no state offering special certification as a middle school teacher, the survey results pertaining to secondary and elementary training were listed in general terms. Most of the schools surveyed had both elementary certificated and secondary certificated teachers. The general pattern was grades five and six were taught by elementary teachers, while grades seven and eight were taught by teachers with secondary certification.

Interschool sports were a part of the program in the majority of the middle schools reported. Grades seven and eight were most frequently listed for interschool sports, while intramural sports were most frequently listed for grades five and six.

The flexible approaches to learning listed in the study and stated above were charted in the report of the

study.[46] The percentages of schools using the flexible practices increased with each grade level for all but one of the practices. The percentage for tutorial programs decreased as the grade levels increased.

Among the reported results, the most significant finding appeared to be the use of teaching teams by more than half the schools reported. Small group instruction was listed by 44.6 per cent of the people who responded to the form, while 32.4 per cent listed individualized instruction practices in operation.[47]

Forty-three of the 154 schools reported in this study listed 1968 as the first year of operation as a middle school, and another 25 schools were listed for 1967.[48] Forty-four schools were housed in facilities that were especially built for middle school purposes, while 46 were reported to be in traditional buildings. Eighteen were in former elementary facilities and 11 were in buildings originally constructed for senior high school.[49]

Sample data reported in this study represent slightly more than a 10 per cent sample of the middle schools in the country and therefore provide a basis for the inductive inference that middle schools are implementing many of the

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[46]Ibid., p. 7.

[47]Ibid., pp. 7-8.

[48]Ibid., p. 3.

[49]Ibid., p. 10.

innovative techniques designed to make the school program highly individualized and flexible.

The results of several studies have been reported by VanTill, Vars, and Lounsbury.[50] They have been included in this report because the final survey result of the group of studies reported by these men included direct reference to the middle school, and also because their studies offer comparative information.

In the mid-1950's Lounsbury[51] submitted to two groups an opinionnaire regarding junior high school education. Over 200 randomly selected junior high school principals constituted one group, and 57 educational leaders who were members of the Association for Supervision and Curriculum Development and who had no employment relationship with junior high schools made up the second group. Each person was asked to provide a rank order for functions of the junior high school. Fifteen functions that were given the highest composite rank order were reported.

1. To make possible a program more suited to the nature of early adolescents.
2. To provide experiences in sharing, the acceptance of responsibility, and self direction.
3. To discover the aptitudes, interests and capacities of individual pupils by testing, counseling and exploratory work.
4. To provide socializing experiences through social activities, group work, and other informal situations.

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[50]VanTill, Vars, and Lounsbury, Modern Education for the Junior High School (Indianapolis, Indiana: The Bobbs-Merrill Company, 1967).

[51]Ibid., pp. 31-32.

5. To enrich the program of the seventh and eighth grades by providing shops, laboratories, and other special features.
6. To continue common education and provide better for the integration of varying educational experiences.
7. To provide more adequately for guidance and counseling.
8. To make possible a gradual transition from elementary school conditions and practices to those of the high school.
9. To improve the holding power of the schools, reduce drop-outs.
10. To provide opportunities for seventh and eighth grade pupils to participate in extracurricular activities such as clubs, teams, etc.
11. To provide prevocational training, orientation, and exploration.
12. To reduce the retardation and failure of pupils.
13. To provide for the exploration of various subject and interest areas through short-term or try-out courses.
14. To make possible a gradual introduction of the elective system.
15. To provide special classes for retarded and/or advanced pupils.[52]

Revealed in this study was the rejection of several functions that were originally put forth to justify the junior high school. The least acceptable functions were found to be:

1. To effect economy in time through earlier college preparation.
2. To provide for homogeneous or ability grouping.
3. To provide vocational training for early school leavers.
4. To promote by subjects rather than by grade level.
5. To effect financial economy.
6. To provide for departmental teaching.
7. To effect economy in time by eliminating duplication.
8. To provide for early differentiation in pupils' programs.
9. To segregate early adolescents.[53]

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[52]Ibid.

[53]Ibid., p. 32.

After conducting the above-mentioned study and several others, reviewing the literature, and examining current practice, the authors published the following conclusions in 1967:

> The authors believe the junior high school or middle school should include the following:
>
> 1. A school for the junior high school years should have a separate identity as an institution, include at least three age- or grade-levels, and embrace the years during which the vast majority of pupils reach puberty.
> 2. The plant, equipment, and supplies for the educational program of the junior high school years must be adequate for the task, and be designed in terms of the special characteristics and needs of young adolescents.
> 3. The junior high school should be staffed with dedicated and highly qualified men and women especially trained for work with young adolescents.
> 4. Scheduling and administrative routines should be adaptable and flexible.
> 5. Junior high schools should constantly strive to be on the growing edge of the profession.
> 6. Students should have opportunities to come to grips with pressing social realities of the times.
> 7. Students should receive help in meeting their personal-social needs.
> 8. Students should be helped to understand and practice democratic values, including reliance upon the method of intelligence.
> 9. Students at all levels should participate in a structured core program that deals with significant centers of experience or problem areas. Block-time scheduling and interdisciplinary team teaching represent major steps toward this goal.
> 10. Students should grow in ability to use the language arts through abundant opportunities to read, write, speak and listen.
> 11. Studenents should acquire the social understandings, competencies, and attitudes essential for democratic citizenship.
> 12. Students should acquire the mathematical understandings and competencies essential for intelligent citizenship.
> 13. Students should acquire a basic understanding of the natural world and of modern scientific technology.

14. Students should have many experiences with arts and crafts, literature, homemaking, industrial arts, and music.
15. Students should participate in a comprehensive health and physical education program.
16. Students should have access to a variety of elective courses that are appropriate to the needs of young adolescents.
17. Students should have access to a rich variety of cocurricular activities.
18. A full range of guidance services should be available to every student.
19. Individual abilities, needs, and achievement should be determined by a carefully planned and coordinated program of testing and evaluation.
20. Students should have access to remedial help in the basic skills.
21. Students should be taught through a wide variety of teaching methods and instructional materials.
22. Assignment of students to class sections should be based on careful consideration of all pertinent factors in the situation.
23. Every student should progress continuously through school. Flexible scheduling and nongraded programs are valuable means to this end.[54]

Marshall[55] reported in his study of 82 middle schools in Michigan that all of them offered a wide variety of basic skills and exploratory courses. Fifty-five per cent of the schools reported team teaching of one design or another.[56] A similar percentage reported independent study programs in operation.

Flexible scheduling was not reported by many schools, and 80 per cent listed a traditional schedule with no time variations in period length.[57]

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[54]Ibid., pp. 546-558.

[55]Marshall, op. cit.

[56]Ibid., p. 96.

[57]Ibid., p. 97.

Marshall reported that 80 per cent of the schools reporting had school dances. Measured by modes, the typical activity program was reported to be four hours per month in length and to involve less than one-half of the student body and less than one-fourth of the teaching staff.[58]

Intramural activities were provided in 75 per cent of the schools reporting, physical education was provided in all of the reporting schools, and interscholastic athletics were listed by a wide majority of the principals who reported.[59] Marshall summarized his findings with the following conclusions:

1. All schools in both samples offered comprehensive courses in basic skills and exploratory experiences.
2. Fifty-five per cent of the schools had team teaching programs. A school with a unidisciplinary team program generally had multidisciplinary teams, as well. Similarly, 55 per cent of the schools offered a variety of independent study programs.
3. Self-contained lower grades and departmentalized upper grades were the most common grade organization pattern for both groups. Departmentalized programs for all grades accounted for approximately 40 per cent of the combined sample.
4. No clear pattern of grouping pupils for classroom experiences emerged for either sample group.
5. Departmental class period time modules were generally fixed and of the same length for all courses in the schools of both groups of principals.
6. Programs for social facilitation generally were provided and were nearly identical in schools operated by both elementary-oriented and secondary-oriented principals.
7. While elementary-oriented principals demonstrated a statistically significant greater involvement in

[58]Ibid., p. 99.

[59]Ibid., p. 101.

both programs for incoming elementary pupils and outgoing eighth grade pupils, the policies for both groups of principals provided for only limited programs.

8. Although almost one-half of the schools offered no sex education program, significant difference between the groups existed within the programs offered. Specific units taught exclusively by the staffs of the secondary-oriented principals contrasted with the elementary-oriented principals' policy to integrate sex education with other units and to utilize both staff and specially trained lay people, such as physicians.

9. There was no evidence that any school had explicit policies for each pupil to be known well by at least one teacher.

10. Programs of interscholastic athletics were widespread throughout Michigan's middle schools, although they generally were limited only to the upper grade levels.

11. Intramural athletics programs existed in about 75 per cent of the schools and generally were available for pupils at all grade levels, although the participants were predominately boys.

12. All schools had physical education programs, offering an average of four hours of class time each week.

13. Policies for both groups of principals indicated that grades five and six reflected elementary school features in both structure and function, whereas grades seven and eight had many of the features of the secondary school. Michigan's middle schools have not emerged as a distinct educational organization.

14. That departmentalized programs, interscholastic athletics, and school dances represent lower grade level programs for a limited number of schools suggested the encroachment of secondary school concepts into middle school programs, much the same as was the case with the junior high school 40 years ago.[60]

Following an in-service program that featured such consultants as Margaret Mead and Ann Grooms, the Grosse Pointe Public Schools, Grosse Pointe, Michigan, launched an action plan to convert their junior high schools into middle

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[60]Ibid., pp. 102-103.

schools. A significant phase of this action plan was devoted to providing information to the residents of the community concerning what a middle school constituted. The principles of a middle school and their variations from junior high school principles were reported to the community in the following manner:

> A middle school program is designed to recognize the uniqueness of the growth stage spanning the transition from childhood to adolescence. The junior high has evolved into exactly what the name implies--junior high school.
> MIDDLE SCHOOL EMPHASIZES- a child-centered program, learning how to learn, creative exploration, belief in oneself, student self-direction under expert guidance, student responsibility for learning, student independence, flexible scheduling, student planning in scheduling, variable group sizes, team teaching, a self-pacing approach with students learning at different rates.
> JUNIOR HIGH SCHOOL EMPHASIZES- a subject-centered program, learning a body of information, mastery of concepts and skills, competition with others, adherence to the teacher-made lesson plan, teacher responsiblity for student learning, teacher control, the six-period day, the principal-made schedule, standard classrooms, one teacher for a class, a textbook approach, with all students on the same page at the same time.[61]

That a middle school program is designed to foster the intellectual, social, and emotional growth of children without snatching their childhood from them was the summarizing remark used in the Grosse Pointe report.[62]

For many years Emmett Williams has been recognized by educators as an authority on middle school planning and

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[61]The Middle School in Grosse Pointe (an informational brochure prepared by the Grosse Pointe, Michigan, Public School System).

[62]Ibid.

development. Recently he developed the following list of

guidelines that appear to him to be basic to middle school

education:

1. A good middle school has a cooperatively developed, agreed upon written statement of the major functions for the middle school.
2. A good middle school has a systematic plan for regular, continuous program of in-service study and in-service training in the new middle school organizational and program arrangements.
3. A good middle school has an identifiable independent study program for all middle school pupils.
4. A good middle school has a systematic plan for studying significant issues related to becoming a young adolescent.
5. A good middle school has a planned program of intramural activities including both competitive and noncompetitive activities.
6. A good middle school has an exploratory program designed especially for the middle school.
7. A good middle school employs a staff representing both elementary and junior high preparation and experience.
8. A good middle school makes provisions for cooperative teacher planning at the classroom instructional level.
9. A good middle school provides a secure home base arrangement for each pupil.
10. A good middle school has a systematic plan for recognizing, evaluating, and reporting on pupil progress toward all significant middle school goals.
11. A good middle school has a systematic plan for communicating its purposes and procedures to all interested publics.[63]

Williams emphasized in his conclusions it should be

noted that new buildings, expensive hardware, futuristic

materials, and radical staffing patterns had not been

included in the guidelines.[64] Williams concluded his

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[63]Emmett Williams, "The Emergent Middle School: Some Guidelines," University of Florida, Gainesville, Fla., September 15, 1970, pp. 1-10. (Mimeographed.)

[64]Ibid., p. 10.

writing with this final observation related to the contri-
butions made by middle schools. Perhaps the greatest ser-
vice the middle school has rendered to education for the
emerging adolescent is an impetus to redefine and reinter-
pret basic goals and functions in the light of contemporary
developments and changing conditions.[65]

The studies outlined in this section of Chapter Two
have provided the reader with a large sample of the written
middle school principles that exist and, where possible, an
indication of the degree of application of these principles
being made by middle schools.

Summary

The middle school came into being after six decades
of junior high school organizational experience. From
around 1910 until approximately 1965 the junior high school
reigned as first the innovative and then the established
educational organization for transescent youth. Following
World War II a growing number of educators and parents
became concerned about the tendency of senior high schools
to push their patterns into the junior high school struc-
ture.

Organizational patterns other than the traditional
7-9 junior high school had existed prior to the 1960 decade.
It was, however, during that decade that the middle school
concept grew to become the middle school movement. In 1965

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[65]Ibid.

nationally circulated publications brought attention to the middle school advocates. Middle schools multiplied rapidly from approximately 499 in 1966 to over 1200 in 1968.

Ambivalent feelings were expressed in the litera-ture pertaining to middle schools and the amount of litera-ture available increased sharply between 1965 and 1970. The middle school concept was defended in the literature with equal vigor and the works of these writers created a body of knowledge for others to use; the middle school movement continued to gain momentum.

Key issues used to support the middle school design were the changes in maturation levels for adolescents; social needs in a modern, complex, urbanized society that seeks to promote early sophistication in its youth; the effects of mass commercialism upon early adolescents; the need for individually tailored educational experiences for youth; the loss of security by adolescents due to a weaken-ing in the family structure in our society; the need to provide experiences for youth that help them develop posi-tive self-concepts; and the need to expose transescents to a program based upon their needs rather than upon pre-determined standards. These issues and others were the basic tenets used to justify the early American middle school of the 1960 decade.

No single pattern for middle school education has emerged, but studies have been carried out that provide guidelines and/or basic principles for middle schools.

Williams indicated it was difficult to find a middle school that did not have some form of team teaching in operation. A National Education Association study included a report that 92 per cent of the 154 schools surveyed had guidance services available for students. The research committee also reported that 34.4 per cent of the schools indicated the presence of individualized instruction programs.

A study of 82 middle schools in Michigan was carried out by Doris Marshall. He reported that all of these schools offered courses of an exploratory nature and that 75 per cent of these schools offered intramural activities.

Williams indicated that perhaps the greatest service rendered by middle schools to education for adolescents was an impetus to redefine and reinterpret basic goals and functions in the light of contemporary developments and changing conditions.

CHAPTER III

DESIGN OF THE STUDY

Introduction

The objectives of this study were to provide indications and comparisons between groups of middle schools related to the degree of application currently being made of selected middle school principles. The principles were extracted from the literature and validated by authorities in the field.

This chapter of the study is concerned with the characteristics of the sample, procedures used to select and validate the middle school principles used in the study, construction of the statistical instrument, methods used for collection of the data, and the procedures used for analysis of the data.

Source of the Data

A list of all middle, intermediate, and junior high schools was obtained from the Michigan State Department of Education. All schools housing grades above four and below nine were selected from this list. One hundred thirty-six schools met this qualification and were included in the population of middle schools in Michigan.

Four middle schools were arbitrarily selected on a
national basis to constitute a sample of middle schools
that were recognized in the literature as exemplary of the
middle school concept. The schools selected for inclusion
in the sample of exemplary middle schools were: Bedford
Middle School, Mount Kisco, New York; Pearl River Middle
School, Pearl River, New York; Hithergreen Middle School,
Centerville, Ohio; and Barrington Middle School, Barrington,
Illinois.

A questionnaire was sent to each school in the pop-
ulation of middle schools in Michigan and to the four
schools in the arbitrarily selected national sample. The
principal of each school was the designated respondent,
and the data were collected from the completed question-
naires.

Selection and Validation of
Basic Middle School Principles

A review of the available literature related to
middle schools was carried out, and a partial review of
literature indirectly related to middle schools was exe-
cuted. From this study of the literature, a list of tenta-
tive basic principles of middle school programming was
extracted. This list was reviewed by Dr. Marie Elie,
Montreal, Canada; Dr. Nicholas Georgiady, Miami University,
Oxford, Ohio; Dr. Ann Grooms, Educational Services Insti-
tute, Cincinnati, Ohio; Dr. Louis Romano, Michigan State

University, East Lansing, Michigan; and Dr. Emmett Williams, University of Florida, Gainesville, Florida.[1] From their combined critiques, a list of 18 basic principles was compiled. The 18 principles were unanimously agreed upon by this panel of authorities in the field. (see Table 3.1).

Instrument Employed

A questionnaire containing 62 questions was developed to survey the current application of the 18 middle school principles in the schools involved in this study. The questions were arranged into three sections according to the manner of response indicated for the question. Multiple choice questions with mutually exclusive and exhaustive responses that sought a single answer per question made up the first section of the questionnaire. Multiple choice questions seeking multiple responses constituted the second section of the questionnaire, and the third section contained check forms designed to compare two variables.

The questionnaire was reviewed and revised by Dr. Louis Romano and by staff consultants in the Department of Research Services, Michigan State University. Suggested revisions were incorporated into the questionnaire and a cover letter was drafted.

The questionnaire, cover letter, and an addressed, stamped return envelope were mailed on November 25, 1970, to 136 principals of middle schools in Michigan. A

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[1]See Appendix C.

Table 3.1.--A listing of the 18 middle school principles
studied in this dissertation.

Principle A

Continuous progress: The middle school program should
feature a nongraded organization that allows students to
progress at their own individual rate regardless of chron-
ological age.

Principle B

Multi-material approach: The middle school program should
offer to students a wide range of easily accessible instruc-
tional materials. Classroom activities should be planned
around a multi-material approach rather than a basic text-
book organization.

Principle C

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.

Principle D

Social experiences: The middle school program should pro-
vide social experiences appropriate for the transescent
youth and should not emulate the social experiences of the
senior high school.

Principle E

Physical experiences: The middle school curricular and co-
curricular programs should provide physical activities based
solely upon the needs of the 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 own bodies.

Principle F

Intramural activities: The middle school should feature
intramural activities rather than interscholastic
activities.

Table 3.1.--Continued

Principle G

Team teaching: The middle school program should be organ-
ized in part around team teaching patterns that allow stu-
dents to interact with a variety of teachers in a wide
range of subject areas.

Principle H

Planned gradualism: The middle school should provide exper-
iences that assist early adolescents in making the transi-
tion from childhood dependence to adult independence,
thereby helping them to bridge the gap between elementary
school and senior high school.

Principle I

Exploratory and enrichment studies: The middle school pro-
gram 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. Elective courses
should be a part of the program of every student during his
years in the middle school.

Principle J

Guidance services: The middle school program should include
both group and individual guidance services for all students.

Principle K

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

Principle L

Basic skill repair and extension: The middle school program
should provide opportunities for students to receive clin-
ical help in basic learning skills. The basic education
program fostered in the elementary school should be extended
in the middle school.

Table 3.1.--<u>Continued</u>

Principle M

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

Principle N

<u>Security factor</u>: The middle school 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.

Principle O

<u>Evaluation</u>: The middle school program should provide an evaluation of a student's work that is personal, positive in nature, nonthreatening, and strictly individualized. Parent-teacher-student conferences on a scheduled and unscheduled basis should be the basic reporting method. Competitive letter grade evaluation forms should be replaced with open and honest pupil-teacher-parent communications.

Principle P

<u>Community relations</u>: 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.

Principle Q

<u>Student services</u>: 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.

Principle R

<u>Auxiliary staffing</u>: 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.

questionnaire, a modified cover letter, and an addressed, stamped return envelope were mailed to the principals of the four selected national sample schools.

All choices for each question on the questionnaire were given a numerical value. These values were weighted to provide a positive correlation between large scores and a high degree of application of the principle being measured. The numerical values were reviewed by Dr. Louis Romano and by a research consultant. Modifications in the weighting of responses were made and the values were judged by both advisors to be suitable for the purposes of this study. No information regarding the numerical values of any responses was provided in the materials mailed to the school principals.

Procedures

By January 4, 1971, a total of 83 questionnaires had been returned. Two questionnaires were discarded because they came from schools that had been erroneously included in the list provided by the Michigan Department of Education.

On January 20, 1971, a letter was sent to all principals from whom no questionnaire had been received. The letter requested their cooperation in returning the completed questionnaire within a period of one week. The net total number of questionnaires received by February 1, 1971, increased to 104.

As the questionnaires were returned the responses were coded and the coding was verified for each response. The coding forms were separated into three sample groups (see Table 3.2). Questionnaires received from middle schools in Michigan were divided into a sample containing only those schools housing four grade levels and a sample containing only those schools housing three grade levels. The third sample included only the four middle schools selected on a national basis. All four of these schools were found to be three-grade middle schools.

Table 3.2.—Data relating to the number of schools contacted in each sample, number of responses received for each sample, and the percentage of total represented by responses received.

Name of Sample Group	No. of Schools Contacted	No. of Responses Received	Percentage of Total Returned
National sample	4	4	100.0%
Three-grade Michigan	104	75	72.1%
Four-grade Michigan	30	25	83.3%

The raw scores were recorded and a mean score on each principle for each group was calculated. This mean score was converted to a mean percentage of maximum possible score yielded by the survey instrument for each principle and for the grand total possible for each sample. Eighteen mean scores, variance scores, and mean percentage scores were calculated for each sample. A nineteenth mean,

variance, and mean percentage were calculated for each sample using grand total scores for each sample. The conversion of mean scores to mean percentages was necessitated by the varying maximum scores that were possible between four-grade schools and three-grade schools. Converting to percentage scores made comparisons between sample groups possible.

A rotary calculator was used to perform the mathematical manipulations required to provide the treatments of the data.

Objectives to Be Measured

The first two objectives of this study were designed to provide comparable measures of the degree of application currently made of basic middle school principles by middle schools in Michigan and in a small arbitrarily selected national sample that represented purported middle school excellence.

Conditions of objective three were met by a comparison between groups of the results compiled by middle schools in Michigan and the selected national sample. Incorporated into objectives four and five were comparisons of sample scores and maximum possible scores provided by the measurement instrument. These objectives were met by implementation of percentage scores reporting percentages of maximum possible scores achieved on each variable by each sample.

The requirements outlined in objective six were met by providing a mean percentage report of implementation on the 18 independent variables. This percentage report provides an indication of the current application of the 18 middle school principles included in this study.

Summary

Eighteen basic middle school principles were extracted from the literature and validated by five experts in the field. A questionnaire was developed and sent to four arbitrarily selected schools with national recognition as examples of middle school program excellence. The same questionnaire was sent to 136 schools in Michigan housing grades above four but below nine. A total of 104 returns was received and the data summarized in the study.

The raw scores were summed across schools in each sample, and a mean score on each principle was calculated for each sample. A total score for each school was calculated; these scores were summed for each sample to provide a grand total score for each sample. This total was converted to a mean total for each sample. All means for each sample were converted to mean percentages of possible maximum scores yielded by the measurement instrument. These mean percentages were used to make comparisons between samples.

CHAPTER IV

ANALYSIS OF THE DATA

The findings of the analysis of data are presented
in this chapter. Each objective of the study is stated and
the statistics related to that objective are reported imme-
diately following the statement of the objective.

The data presented in this chapter were collected
from survey questionnaire results returned by 104 schools.
The questionnaire was designed to provide data for each of
the 18 variables listed in Chapter III.

Objective I

To measure the degree of application made by
middle schools in Michigan of 18 validated
middle school principles.

The middle schools in Michigan were divided into two
samples. One sample contained only three-grade middle
schools and the other contained the four-grade middle
schools. The results were tabulated for each sample and
a weighted mean percentage was calculated. The weighted
mean percentage represents the percentage of possible scores
attained on each of the 18 variables and a nineteenth mean
percentage that represents the mean percentage of the total
possible score achieved by the middle schools in Michigan.

The weighted mean percentage was used to account for the variation in sample size. Mean percentage scores were used because of the differences in maximum possible scores yielded by the survey instrument, due to varying numbers of grades housed in the schools. Percentage conversions allowed comparisons between groups, as well as consolidation of samples into larger groups of interest. See Table 4.1 for a listing of the questions included in the survey for each of the 18 variables.

Table 4.1.--Report of the numbers of questions included in the questionnaire to collect data on each of the 18 validated middle school principles.

Principle*	Survey Question Numbers
A-Continuous progress	1, 2
B-Multi-media	3, 4, 5, 6, 38, 39
C-Flexible schedule	7, 8 , 40
D-Social experiences	9, 10, (40), 41, 42, 56
E-Physical experiences	11, 57, 58
F-Intramural activity	12, 13, 43, 59
G-Team teaching	14, 15, 16, 17
H-Planned gradualism	18
I-Exploratory and enrichment programs	19, 20, 21, 44, 45
J-Guidance services	22, 23, 24, 60
K-Independent study	46, 47, 61
L-Basic learning skills	25, 26, 48, 62
M-Creative experiences	27, 28, 29, 30, 31, 49
N-Student security factors	32, 33
O-Evaluation practices	34, 35, 50
P-Community relations	36, 37, 51, 52
Q-Student services	53
R-Auxiliary staffing	54, 55

*Principles are designated by letter and key words. Complete reports of the principles and the questionnaire may be found in the appendix materials.

See Table 4.2, page 53, for the statistics relating to the first objective of the study.

Formulas used to calculate the statistics reported in Table 4.2 and other tables in this chapter are:

$$\text{Mean} = \frac{\Sigma X}{n}$$ where X= the scores for the variable being reported

n= number of scores summed

$$\text{Variance} = \frac{n \Sigma X^2 - (\Sigma X)^2}{n \ (n-1)}$$

where X= scores for the variable being reported

n= number of scores summed

$$\text{Mean percentage} = \frac{\frac{\Sigma \overline{X}.}{n}}{/X/}$$

where $\Sigma \overline{X}.$= the sum of the means for the variable being reported

n = the number of means being summed

/X/= absolute maximum score possible for the variable being reported

$$\begin{matrix}\text{Composite mean} \\ \text{percentage}\end{matrix} = \frac{n_1 \overline{X}\%_1 + n_2 \overline{X}\%_2}{n_1 + n_2}$$

where n_1= number of schools in sample one

$\overline{X}\%_1$= mean percentage score for the variable being reported in sample one

n_2= number of schools in sample two

$\overline{X}\%_2$= mean percentage score for the variable being reported in sample two

Table 4.2.—Report of the mean, variance, and mean percentage for samples of middle schools in Michigan.

Principle	Michigan Four-Grade Middle Schools			Michigan Three-Grade Middle Schools			Comp. Mean %*
	Mean	Var.	Mean %	Mean	Var.	Mean %	
A-Continuous progress	2.04	8.040	25.5	1.92	6.831	24.0	24.4
B-Multi-materials	20.52	20.926	62.2	20.66	25.981	62.6	62.5
C-Flexible schedule	5.80	16.666	32.2	5.00	13.216	27.8	28.9
D-Social experiences	12.36	17.406	51.5	10.62	13.399	53.1	52.7
E-Physical experiences	24.44	72.840	69.8	21.59	35.813	69.6	69.7
F-Intramural activity	10.56	73.423	39.1	11.52	46.698	50.1	47.4
G-Team teaching	4.12	24.026	25.8	3.36	17.855	21.0	22.2
H-Planned gradualism	1.64	.573	54.7	1.32	.950	44.0	46.7
I-Exploratory and enrichment exper.	9.92	30.993	38.3	10.50	25.525	42.0	41.1
J-Guidance services	8.64	49.823	32.0	10.32	29.680	44.9	41.7
K-Independent study	6.94	15.076	40.8	4.96	15.606	31.0	33.5
L-Basic learning exper.	15.40	33.585	53.1	12.35	23.121	49.4	50.3
M-Creative experiences	8.76	19.106	41.7	9.09	24.572	43.3	42.9
N-Student security fac.	4.72	6.210	59.0	4.87	4.738	60.9	60.4
O-Evaluation practices	6.48	8.010	40.5	5.77	9.233	36.1	37.2
P-Community relations	5.00	4.000	31.3	7.09	5.366	44.3	41.1
Q-Student services	7.04	5.915	78.2	7.09	2.788	78.8	78.7
R-Auxiliary staffing	3.04	1.873	38.0	3.03	2.891	37.9	37.9
Total scores	157.40	1195.166	46.2	150.63	1257.912	47.2	46.94

*The last column reports the weighted mean percentage score, which represents the average achievement for all middle schools in Michigan.

Objective II

To measure the degree of application of 18
validated middle school principles by four
arbitrarily selected middle schools that have
attained nationally recognized status as
exemplary middle schools.

The four-member sample of exemplary middle schools
was surveyed with the same survey instrument used for sur-
veying the middle schools of Michigan. Conditions of the
survey were identical to those used for the other samples.
The content of Table 4.1 provides the numbers of the ques-
tions used to measure the application of the 18 variables.
Table 4.3 provides the statistical results for the national
sample.

Table 4.3.--Report of the mean, variance, and mean percentage
for the four-member national sample.

Principle	Mean	Var.	Mean %
A-Continuous progress	3.00	12.666	37.5
B-Multi-material	26.50	23.000	80.3
C-Flexible schedule	10.75	6.250	59.7
D-Social experiences	12.50	27.583	62.5
E-Physical experiences	27.25	7.583	87.9
F-Intramural experiences	19.25	38.250	83.7
G-Team teaching	11.25	10.916	70.3
H-Planned gradualism	1.00	.666	33.3
I-Exploratory and enrichment	10.50	21.666	42.0
J-Guidance services	17.00	44.666	73.9
K-Independent study	9.00	28.000	56.3
L-Basic learning experiences	14.50	30.333	58.0
M-Creative experiences	10.25	14.250	48.5
N-Student security factors	6.25	4.250	78.1
O-Evaluation practices	7.75	4.250	48.4
P-Community relations	8.25	2.250	51.6
Q-Student services	6.25	1.583	69.4
R-Auxiliary staffing	6.25	.916	78.1
Total	207.25	450.250	64.9

Objective III

To compare the degree of application of middle
school principles made by the middle schools of
Michigan with the results attained by the
national sample of exemplary schools.

Basic data related to the mean achievement of middle

schools in Michigan are reported in Table 4.2. Basic data

related to the mean achievement of the national sample of

exemplary middle schools are reported in Table 4.3. Compar-

isons between the two samples listed in objective three are

made on the basis of mean percentage scores on the 18 vari-

ables and on the grand total mean percentage for each sample.

This comparison is reported in Table 4.4.

Table 4.4.--A comparison of mean percentage scores achieved
by middle schools in Michigan and those achieved by a se-
lected national sample of exemplary middle schools.

Principle	Composite Mean % Mich. Middle Sch.	Mean % National Sample
A-Continuous progress	24.4	37.5
B-Multi-material	62.5	80.3
C-Flexible schedule	28.9	59.7
D-Social experiences	52.7	62.5
E-Physical experiences	69.7	87.9
F-Intramural experiences	47.4	83.7
G-Team teaching	22.2	70.3
H-Planned gradualism	46.7	33.3
I-Exploratory & enrichment	41.1	42.0
J-Guidance services	41.7	73.9
K-Independent study	33.5	56.3
L-Basic learning exper.	50.3	58.0
M-Creative experiences	42.9	48.8
N-Student security factors	60.4	78.1
O-Evaluation practices	37.2	48.4
P-Community relations	41.1	51.6
Q-Student services	78.7	69.4
R-Auxiliary staffing	37.9	78.1
Total	46.9	64.9

<u>Objective IV</u>

To compare the mean scores of the middle schools
in Michigan with the scores that the measurement
instrument would yield if all 18 middle school
principles were fully implemented.

Table 4.5 reports the maximum possible scores

yielded by the survey questionnaire. Maximum possible scores

are reported for both three-grade and four-grade middle

schools. The mean scores for three-grade and four-grade

middle schools in Michigan are reported in Table 4.5, with

the respective maximum score for each of the 18 independent

variables and for the total scores.

Table 4.5.--Maximum scores yielded by the survey instrument
for three-grade and four-grade middle schools. Mean scores
achieved by three-grade and four-grade middle schools in
Michigan.

Principle	Three-Grade Schools Maximum	Mean	Four-Grade Schools Maximum	Mean
A-Continuous progress	8	1.92	8	2.04
B-Multi-material	33	20.66	33	20.52
C-Flexible schedule	18	5.00	18	5.80
D-Social experiences	20	10.62	24	12.36
E-Physical experiences	31	21.59	35	24.44
F-Intramural exper.	23	11.52	27	10.56
G-Team teaching	16	3.36	16	4.12
H-Planned gradualism	3	1.32	3	1.64
I-Exploratory & enrich.	25	10.50	26	9.92
J-Guidance services	23	10.32	27	8.64
K-Independent study	16	4.96	17	6.94
L-Basic learning exp.	25	12.35	29	15.40
M-Creative experiences	21	9.09	21	8.76
N-Student security fac.	8	4.87	8	4.72
O-Evaluation practices	16	5.77	16	6.48
P-Community relations	16	7.09	16	5.00
Q-Student services	9	7.09	9	7.04
R-Auxiliary staffing	8	3.03	8	3.04
Total	319	150.63	341	157.40

The mean total score achieved by three-grade middle schools in Michigan (150.63) represents 47.2 per cent of the maximum total possible for a three-grade school (319), and the mean total score achieved by four-grade middle schools in Michigan (157.40) represents 46.2 per cent of the maximum total possible for middle schools housing four grades (341).

Objective V

To compare the scores of the middle schools in the selected sample of exemplary schools with the scores that the measurement instrument would yield if all 18 middle school principles were fully implemented.

All of the schools in the sample of exemplary schools were found to be three-grade schools. The total possible score yielded by the questionnaire for a three-grade middle school was 319. The mean total achieved by the exemplary schools was 207.25, which represented 65 per cent of the maximum possible score.

Table 4.6 reports the maximum scores yielded by the questionnaire and the scores achieved by the exemplary schools for each of the 18 variables, as well as for the totals.

Table 4.6.—Maximum scores yielded by the survey instrument for three-grade middle schools and the achieved mean scores of the sample of exemplary middle schools.

Principle	Maximum Score Possible	Mean Score Achieved by National Sample
A-Continuous progress	8	3.00
B-Multi-media	33	26.50
C-Flexible schedule	18	10.75
D-Social experiences	20	12.50
E-Physical experiences	31	27.25
F-Intramural experiences	23	19.25
G-Team teaching	16	11.25
H-Planned gradualism	3	1.00
I-Exploratory and enrichment	25	10.50
J-Guidance services	23	17.00
K-Independent study	16	9.00
L-Basic learning experiences	25	14.50
M-Creative experiences	21	10.25
N-Student security factors	8	6.25
O-Evaluation practices	16	7.75
P-Community relations	16	8.25
Q-Student services	9	6.25
R-Auxiliary staffing	8	6.25
Total	319	207.25

Objective VI

To provide an indication of the current level of middle school practice as it relates to the basic principles of middle school education as espoused in the literature and validated by authorities in the field.

The 18 variables listed in this study were extracted from the literature pertaining to middle school education.

The information presented in Table 4.2 and Table 4.3 provides mean and mean percentage of maximum possible score results as they were achieved by 104 schools that were measured with a common survey instrument. Within the limitations of this study (listed in Chapter One), the tables results provide an indication of the current level of middle school educational practice. Further interpretation of the data is presented in Chapter Five.

<div align="center">Summary</div>

Generally, the data collected revealed that the exemplary schools achieved a higher degree of application of the middle school principles studied in this dissertation than did the middle schools in Michigan, when considered as a group. A close similarity existed between the results achieved by both samples of middle schools in Michigan.

CHAPTER V

CONCLUSIONS

Summary

The middle school came into being after six decades
of junior high school organizational experience. Organi-
zational patterns other than the 7-9 junior high school had
existed prior to 1960 but during the decade of the "sixties"
the middle school concept grew to become the middle school
movement. By the year 1968 over 1200 middle schools were
operating in this country.

Key issues used to justify the middle school were
the changes in maturation levels for adolescents, demands
of a modern urbanized society, the effects of technology,
weakening of the basic family structure, and in general the
dissatisfaction many parents and educators expressed con-
cerning the junior high school and its secondary orienta-
tion.

Coinciding with the growth in numbers of middle
schools was a growth in the literature pertaining to this
topic and in the increased agreement as to the basic princi-
ples of a middle school program. The purpose of this study
was to identify these basic principles as they were

expressed in the literature and to determine the degree of application middle schools in Michigan and in a small national sample were making of these principles.

From a review of the literature, a list of principles was extracted and sent to five noted authorities in the area of middle school education. Based upon their critiques a final validated list of 18 basic middle school principles was compiled. These principles focused attention upon continuous progress programs, multi-media use, 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 instrument seeking data related to the application being made of the above-mentioned principles was mailed to all schools in Michigan housing grades above four but below nine and to four schools arbitrarily selected on a national basis because of their reputations in the field as exemplary middle schools.

Survey forms were returned by 72.1 per cent of the three-grade middle schools in Michigan, 83.3 per cent of the four-grade middle schools in Michigan, and by all four of the schools included in the national sample.

Mean scores, variances, and mean percentages of the maximum possible score yielded by the survey form were

calculated on each basic principle for each sample of
schools in the study.

Generally, the schools included in the national
sample of exemplary middle schools were found to be apply-
ing the basic middle school principles to a greater degree
than were the middle schools of Michigan, when considered
as a group. The results listed for the three-grade middle
schools in Michigan and for the four-grade middle schools
in Michigan revealed no pattern of superior application
for either group. The results in general indicated a close
similarity between these two samples.

Findings

Objective I

To measure the degree of application made by
middle schools in Michigan of 18 validated
middle school principles.

A wide variation in the degree of application of the
principles exists in the middle schools of Michigan. Areas
of highest degree of application were: student services,
physical experiences provided, and use of varied materials.
Continuous progress programs were not found to be opera-
tional beyond an experimental stage in the middle schools of
Michigan. Team teaching results indicated that only a mean
of 22.2 per cent of the possible score yielded by the sur-
vey form was actually attained by the schools in the two
samples of middle schools in Michigan. This indicated a

low degree of application and a review of the individual
survey forms revealed many team teaching programs that
functioned for only a small number of students and often
for only a very limited part of the day.

In general, the application of those principles not
listed in the preceding paragraph was around half of what
the survey form demanded for a measure of full application.
Of special significance, due to the high emphasis authori-
ties in the field place upon it, was the area of social
experiences. A mean percentage of 52.7 per cent was
recorded, which indicated only slightly more than half of
the maximum score possible. An examination of the survey
returns revealed a pattern of social experiences in most
middle schools very similar to the social pattern existing
in the secondary schools.

<div align="center">Objective II</div>

To measure the degree of application of 18
validated middle school principles by four
arbitrarily selected middle schools that have
attained nationally recognized status as
exemplary middle schools.

The four exemplary middle schools were found to have
a high percentage of application in the areas of physical
experiences (87.9 per cent), intramural experiences (83.7
per cent), multi-materials (80.3 per cent), auxiliary staff-
ing (78.1 per cent), and student security factors (78.1 per
cent). Based on the scores yielded by the survey instrument
the national sample was found to have low percentages of

application in the areas of continuous progress programs (37.5 per cent) and planned gradualism (33.3 per cent). The four schools in this sample compiled a pattern of application that demonstrated an attempt to implement many of the concepts expressed in the literature pertaining to middle school education.

Objective III

To compare the degree of application of middle school principles made by the middle schools of Michigan with the results attained by the national sample of exemplary schools.

A comparison of the results recorded by middle schools in Michigan and the national sample revealed a higher degree of application being made by the national sample on every principle except two. In the areas of planned gradualism and student services the national sample was found to be doing less than were the middle schools of Michigan.

The overall percentage of application computed for the middle schools in Michigan was 46.9 per cent, while the schools in the national sample compiled a total percentage of application statistic of 64.9 per cent.

Objective IV

To compare the mean scores of the middle schools in Michigan with the scores that the measurement instrument would yield if all 18 middle school principles were fully implemented.

The middle schools of Michigan compiled a mean total score of 150.63 for schools housing three grades, and 157.40 for schools housing four grades. The survey instrument yielded a maximum of 319 for three-grade schools, and 341 for schools with four grades. A review of the mean scores for each principle listed indicates that a wide area for increased application exists on every principle. In general, less than half of the implementation measures listed in the survey instrument were met by middle schools in Michigan.

A slightly higher total mean score was scored by the four-grade sample, but this represented a smaller percentage of the maximum score possible than was recorded by the three-grade middle schools. The difference was very slight and an examination of the 18 component scores revealed no significant superiority in middle school practice by either sample of middle schools in Michigan over the other.

Objective V

> To compare the scores of the middle schools in the selected sample of exemplary schools with the scores that the measurement instrument would yield if all 18 middle school principles were fully implemented.

All of the schools in the national sample were three-grade middle schools, and therefore the maximum score possible was 319. The mean total compiled by the sample

was 207.25. This total was compiled with a consistent
degree of application on all but two of the principles.

The areas of planned gradualism and continuous
progress were the areas of least application. Mean scores
compiled in the other 16 areas were consistently repre-
sentative of planned programs of implementation of basic
middle school principles.

<div align="center">Objective VI</div>

> To provide an indication of the current
> level of middle school practice as it
> relates to the basic principles of middle
> school education as espoused in the liter-
> ature and validated by authorities in the
> field.

Based upon the data recorded in this study it seems
apparent that the current level of middle school practice
in the 18 basic areas listed in this study is less than that
level called for in the literature pertaining to middle
school education.

The survey instrument used in this study provided
data that indicated less than a 50 per cent application
by middle schools in Michigan (46.9 per cent) of those
principles listed in the literature as basic middle school
principles and validated as basic principles by recognized
authorities in the field.

The same survey instrument provided data on four
exemplary middle schools that indicated a degree of

application (64.9 per cent), much higher than the general degree of application achieved by middle schools in Michigan.

None of the scores listed for the three samples indicated full implementation of any of the basic principles.

Conclusions

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 principles considered by authorities in the field to be basic to middle school education.

2. While several middle schools in Michigan scored as well as the schools in the national sample of exemplary schools, the middle schools in Michigan as a group were making less application of the 18 basic principles included in this study than were the exemplary schools, when considered as a group.

3. The number of grades housed in a middle school is not significantly related to the degree of application of the basic principles made by the schools of Michigan.

4. In general the middle schools of Michigan have implemented the basic middle school principles listed in this study to a minor degree.

5. While a high degree of agreement exists among authorities in the field regarding what constitutes the basic principles of middle school education, the degree of application of these principles by school systems in

Michigan in general fails to provide evidence of implementation of the principles proclaimed by this leadership.

6. With few exceptions the middle schools of Michigan have a long way to go to become middle schools as defined in the literature currently available.

Recommendations for Further Study

The wide discrepancy between basic middle school concepts and current middle school practice should be cause for concern about the future direction of the middle school movement in Michigan. A critical area for research exists in the need to determine the reasons for the failures of many schools to implement the basic principles of middle school education.

As this study reports only one point on the spectrum of time, it would appear that a replication of this study at some point in the future might provide a measure of progress being made toward full implementation of a middle school program.

This study was designed to measure degree of application of basic principles and a need exists to determine the quality of the applications made of these basic middle school principles. Some application of all 18 principles was being made by the schools in this study when considered as a group. When considered individually, some schools were making no application of some principles. It would be interesting to

study the reasons for these voids and to ascertain the intentions of the schools concerning those same areas.

This study included all schools in Michigan housing those grades normally associated with the middle school. The study was designed to consider them as middle schools on that basis and did not seek to differentiate between those labeled as middle schools and those still maintaining the junior high school designation. It would be of interest to determine if those schools labeled as middle schools made significantly higher degrees of application on basic middle school principles than those schools maintaining a junior high school identification.

A study similar to this study, conducted on a national basis might provide a comprehensive report of where the entire middle school movement currently stands in the implementation of the basic principles of middle school education.

In the literature pertaining to middle schools, a strong emphasis is accorded to the social aspects and growth aspects of transescent youth. A study designed to provide an indication of the level of knowledge middle school teachers, counselors, and administrators have in these areas would be of significance.

A study that could be of value to the children enrolled in our schools would be an analysis of the justifications offered by school superintendents and principals for inclusion of interscholastic athletics in the middle school

programs rather than intramural activities, in spite of the preponderance of expert opinion condemning this practice.

Reflections

This writer believes that a complete understanding of why change is to be instituted must precede any attempt to operationalize the change. The problem centers on the need to state clearly that the implementation of any or all of the 18 principles included in this study would not in itself constitute a guarantee of middle school education. The entire question of what motivates the implementation of change must be considered. This dissertation does not focus upon the topic of why these 18 principles are important, nor on the topic of how they benefit children. The reader should not conclude that the question of why middle schools should implement these principles is unimportant.

While working with the 18 principles listed in this paper it became apparent that the need to insure staff understanding of why these principles have merit is critical. I would strongly urge that any replication of this study or any listing of these principles include a format similar to the example in Table 5.1. This table is not intended to represent a complete report. It is intended to provide the reader with a sample format that, in the writer's opinion, has value as a guide for further development and study.

Table 5.1.--A sample format for presenting the 18 middle school principles and the implications for their adoption.

Principles	What and Why	Explanation
Continuous Progress, Basic Skill Repair and Extension	A program organized to provide for student progress on an individual basis rather than on the traditional chronological group basis. To allow for individual differences that exist in the student population.	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.
Multi-material Approach	The use of the widest possible variety of instructional materials. To provide students with a variety of materials, a number of explanations, and a choice of approaches to a topic.	Maturity levels, interest areas, and student background varies greatly at this age and these variables need to be considered when materials are selected. Middle school students have short attention spans and variety tends to help teachers retain the interests of the students.
Flexible Schedules, Planned Gradualism, Security Factors, Student Services, Auxiliary Staffing	These constitute organizational factors that facilitate the plan to provide for individual differences and needs. These elements tend to provide working conditions conducive to individualization of the program.	The rigid block schedule provides little opportunity to tailor a program to a special situation or to a particular student. Security factors such as teachers who have time to provide individual help, counselors, etc. are a part of the entire plan to help children adjust to the school and to their problems. The overall program is a planned gradualism that leads to student independence. Auxiliary staffing is needed to provide the individual help students require.

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Table 5.1.--Continued

Principles	What and Why	Explanation
Social and Physical Experiences, Intramural Activities	A program of social experiences and physical experiences that is expressly designed to meet the current needs and capacities of the students. Involvement in the program as a participant rather than as a spectator is critical for students.	Social and physical activities that emulate high school programs are inappropriate for middle school students. The stages of their social and physical development are diverse and the question of immaturity is pertinent in the planning of activities for this age level. Intramural activity provides maximum involvement, whereas interscholastic activity provides minimum involvement. Interscholastic competition encourages an overemphasis on specialization at the expense of the majority of the student body.
Team Teaching	An organizational factor that is intended to bring to students a variety of resource persons. Students will benefit from the various instructors working in the team, rather than from a single assigned instructor.	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.
Exploratory and Enrichment Studies, Independent Study, Creative Experiences	These curricular factors focus upon the need for variety in the curriculum. The middle school curriculum should be broad and exploratory in nature. The curriculum should provide opportunities for students to pursue individual interests and many opportunities for students to participate actively in curricular experiences.	Levels of retention are increased when students learn by "doing" and understanding is more complete when learnings are viewed from a wide range of experiences. A middle school program should provide opportunities for students to assume creative roles and to explore a variety of creative experiences.

Table 5.1.--Continued

Principles	What and Why	Explanation
Guidance Services	Highly individualized help that is of a personal nature for each and every student. Transescent youth need opportunities to speak to an advisor about personal concerns.	Guidance services for the middle school should focus on the individual student more than on the group of students. Puberty and its many problems require expert guidance for students.
Evaluation	A program that helps a student assess his progress and plan for future progress. A student needs more information than a letter grade provides and he needs more security than the traditional evaluation system offers.	Traditional grading systems tend to be punitive in nature. Middle school students need a supportive atmosphere that helps to generate confidence and a willingness to explore new areas of learning. Student-teacher planning helps to encourage the student 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.
Community Relations	A program to keep the community informed about the school and involved in the programs of the school. The school has an obligation to inform and involve the community it serves.	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.

On the basis of what I have read and experienced in the area of middle school education it has become increasingly apparent to me that the middle school movement in the state of Michigan is in general not based upon a thorough understanding of the basic concepts of the middle school as expressed in the literature by the pioneers of the middle school movement. This writer believes that apparent in all the middle school literature is the basic requirement that the true middle school must place a higher priority on the needs of the children it serves. A clear need for the implementation of the teachings of the human growth and development specialists is expressed in the literature.

While lack of operating funds can seriously hamper a school program, it is possible to have a middle school program with limited funds. The key factor in the implementation of change seems to be staff leadership directed toward the reasons for change rather than amounts of money available.

The degrees of application reported in this study have limited value, due to the changes in school programs that are constantly occurring. They will, of course, retain some value over a period of time as reference points for other studies.

If this study were to be replicated it would seem wise to eliminate some of the limitations of the study by field testing the survey instrument, designing the study to

facilitate the use of ANOVA techniques, and reorganization of the survey instrument to provide more uniform score ranges in the responses. Finally, it would be wise to increase the size of the national sample by use of random selection of schools identified in the literature as exemplary.

This study has been a meaningful experience in research, as well as a valuable experience in middle school education.

APPENDIX A

MIDDLE SCHOOL PRINCIPLES

MIDDLE SCHOOL PRINCIPLES

Principle A

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.

Principle B

Multi-material approach: The middle school program should offer to students a wide range of easily accessible instructional materials. Classroom activities should be planned around a multi-material approach rather than a basic textbook organization.

Principle C

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.

Principle D

Social experiences: The middle school program should provide social experiences appropriate for the transescent youth and should not emulate the social experiences of the senior high school.

Principle E

Physical experiences: The middle school curricular and co-curricular programs should provide physical activities based solely upon the needs of the 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 own bodies.

Principle F

Intramural activities: The middle school should feature
intramural activities rather than interscholastic activi-
ties.

Principle G

Team teaching: The middle school program should be organ-
ized in part around team teaching patterns that allow
students to interact with a variety of teachers in a wide
range of subject areas.

Principle H

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 senior high school.

Principle I

Exploratory and enrichment studies: The middle school pro-
gram 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. Elective courses
should be a part of the program of every student during his
years in the middle school.

Principle J

Guidance services: The middle school program should include
both group and individual guidance services for all students.

Principle K

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

Principle L

Basic skill repair and extension: The middle school program
should provide opportunities for students to receive clinical
help in basic learning skills. The basic education program
fostered in the elementary school should be extended in the
middle school.

Principle M

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

Principle N

Security factor: The middle school 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.

Principle O

Evaluation: The middle school program should provide an
evaluation of a student's work that is personal, positive
in nature, nonthreatening and strictly individualized.
Parent-teacher-student conferences on a scheduled and un-
scheduled basis should be the basic reporting method.
Competetive letter grade evaluation forms should be replaced
with open and honest pupil-teacher-parent communications.

Principle P

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.

Principle Q

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.

Principle R

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.

APPENDIX B

THE QUESTIONNAIRE

(The numerical values assigned
   to responses are listed.)

COLLEGE OF EDUCATION · DEPARTMENT OF ADMINISTRATION AND HIGHER EDUCATION

ERICKSON HALL

November 25, 1970

Dear Fellow Administrator,

Attached to this letter is another one of those cursed survey forms
from a person seeking to get his doctorate. I cannot change that
fact, but I do need your help on a project of personal and professional
importance.
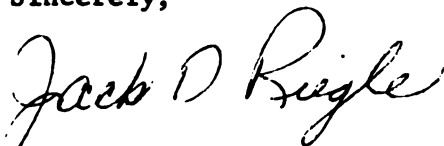
For twelve years I, like you was a principal and during that time I
became involved to a great degree with the middle school concept. I
am now writing my doctoral dissertation on that topic. I need to
have information from you and your fellow principals if I am to
obtain an accurate picture of what is being done for children in
grades five through eight. I am not concerned with the name of your
school nor with the community you serve. I am interested in the program
only and I will protect the confidence of all replies.

Individual school reports will not be used except to compile the grand
totals for Michigan and I can assure you that no other use of the
materials will be allowed.

For several weeks I have worked to make this survey as easy to answer
as possible and, believe it or not as short as possible. Now I need
your help in getting it back quickly due to the limited computer time
available to me. If you can get this form into the mail yet this week
I will be very appreciative.

The enclosed stamped envelope is addressed and ready to go into the
mail with your reply. The great computer is waiting to grind out the
results and so with your help I may be able to give just a little
more light to the education of transescent youth.

Sincerely,

Jack D. Riegle

JDR/lh

PART I: Place a check mark before the answer that seems best to explain your current program as it relates to the question.

1-A. Continuous progress programs are:

__0__ not used at this time.

__1__ used only with special groups.

__2__ used only for the first two years.

__3__ used only by some students for all their years at this school.

__4__ used by all of the students for their entire program.

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

__1__ one calendar year.

__2__ two calendar years.

__3__ three calendar years.

__4__ more than three calendar years.

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

__3__ used in all or nearly all courses.

__2__ used in most courses.

__1__ used in a few courses.

__0__ not used in any courses.

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

__4__ more than 5000 books.

__3__ between 4000 and 5000 books.

__2__ between 3000 and 4000 books.

__1__ between 2000 and 3000 books.

__1__ between 1000 and 2000 books.

__0__ less than 1000 books.

5-B. The materials center has a paid staff of:

__3__ more than one certified librarian.

__2__ one certified librarian.

__1__ a part-time librarian.

__0__ no certified librarian help.

6-B. For classroom instruction, audio visual materials other than motion pictures are used:

__4__ very frequently by most of the staff.

__3__ very frequently by a few of the staff and occasionally by the others.

__2__ occasionally by all of the staff.

__1__ very rarely by most of the staff.

__0__ very rarely by any staff member.

Part I, Page 2

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

__3__ a ten to twenty minute module.

__2__ a thirty minute module.

__1__ a forty-five minute module.

__0__ a sixty minute module.

__4__ a combination of time so
       diversified that no basic
       module is defined.

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_____

ATTACH A COPY OF THE MASTER
SCHEDULE IF POSSIBLE.

9-D. Sponsorships for club activities
      are handled by staff members who:

__1__ are assigned sponsorships
       without additional pay.

__2__ are paid to assume club
       sponsorships that are assigned.

__3__ volunteer to sponsor club
       activities without pay.

__4__ are paid for sponsorship that
       they volunteer to assume.

__0__ staff members do not work
       with club activities.

10-D. At present approximately what
       percent of your student body
       regularly participates in at
       least one club activity?

__0__ none as we have no club program.

__1__ 25 percent or less.

__2__ 25 to 50 percent.

__3__ 50 to 75 percent.

__4__ 75 to 100 percent.

11-E. The physical education program is:

__3__ highly individualized.

__3__ moderately individualized.

__1__ slightly individualized.

__0__ not individualized at all.

Part I, Page 3

12-F. Inter-scholastic competition is currently:

4 not offered at this school.

1 offered in one sport only.

0 offered in two sports.

0 offered in several sports.

14-G. Team teaching programs operate for:

4 all students.

3 nearly all students.

2 about half of the students.

1 only a few of the students.

0 none of the students.

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

4 over 90%.

3 between 60% and 90%.

2 between 30% and 60%.

1 less than 30%.

0 none.

17-G. A student in grades seven or eight averages about how many minutes per day in a team taught situation?

4 180 minutes or more.

4 130 to 180 minutes.

3 90 to 130 minutes.

2 40 to 90 minutes.

0 less than 40 minutes.

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

0 this does not happen because we have no intramural program.

4 this does not happen because we have no interscholastic program.

4 intramural activities take first priority and others schedule around their needs.

0 interscholastic activities take first priority and others must schedule around their needs.

___ other_____

16-G. A student in grades five or six averages about how many minutes per day in a team teaching program?

4 180 minutes or more.

4 between 130 and 180 minutes.

3 between 90 and 130 minutes.

2 between 40 and 90 minutes.

0 less than 40 minutes.

Part I, Page 4

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 program
for the entire grade span.

__0__ completely departmentalized
for the entire grade span.

__1__ modified departmentalized program.
(block-time, core programs, etc.)

__2__ program moves from largely self-
contained to departmentalized.

__3__ program moves from largely self-
contained to partially
departmentalized.

_____ other_____

_____

20-I. Instruction in music is required:

__1__ for one year.

__2__ for two years.

__2__ for three years.

__2__ for four years.

__0__ not at all.

22-J. Guidance services are available
upon request for:

__4__ all students every day.

__3__ all students nearly every day.

__2__ most of the students on
a regular basis.

__1__ a limited number of students
on a limited basis.

_____ other_____

_____

19-I. Instruction in art is required
for all students for:

__1__ one year

__2__ two years

__2__ three years

__2__ four years

__0__ not at all

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

__0__ decreases with each successive
grade.

__0__ is the same for all grades.

__3__ increases with each successive
grade.

__2__ varies by grade level but not
in any systematic manner.

__0__ does not exist at any grade level.

23-J. Guidance staff members:

__4__ always work closely with the
teachers concerning a student.

__3__ often work closely with the
teachers concerning a student.

__1__ seldom involve the teachers in
their work with the students.

__0__ always work independently of
the teachers.

Part I, Page 5

24-J. Guidance counselors are:

__0__ not expected to help teachers build their guidance skills.

__1__ expected to help teachers build their guidance skills.

__3__ expected to help teachers build their guidance skills and they are regularly encouraged to work in this area.

_____ other_____

_____

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

__0__ not available at this time.

__4__ available to all students needing such help.

__2__ available only to the most critically handicapped learners.

_____ other_____

_____

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

__0__ increases with each successive grade.

__0__ remains constant with each successive grade.

__2__ decreases with each successive grade.

__4__ varies greatly due to the individualized program teachers operate.

27-M. Concerning a school newspaper, our school has:

__0__ no official student school paper.

__1__ an official student school paper that publishes no more than four issues per year.

__3__ an official school paper that publishes five or more issues per year.

_____ other_____

_____

28-M. Concerning school dramatical activities, most students:

__0__ do not get experiences in creative dramatics while enrolled in this building.

__4__ get at least one or two opportunities to use their acting skills while enrolled in the building.

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

__1__ purchased scripts only.

__3__ materials written by students only.

__4__ materials written by students and purchased scripts.

_____ other_____

_____

Part I, Page 6

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

__4__ as a part of its planned program of instruction.

__3__ as a part of its enrichment program.

__0__ not included in school activities.

_____ other_____

_____

31-M. Talent shows are:

__0__ not a part of our program.

__3__ produced by students at each grade level.

__2__ produced once a year on an all-school basis.

__4__ produced at each grade level with some of the acts entering an all-school talent show.

_____ other_____

_____

32-M. In the operational design of this school the role of the teacher as a guidance person is:

__4__ given a very strong emphasis.

__3__ encouraged.

__2__ mentioned to the staff but not emphasized.

__0__ left strictly to the individual teacher's personal motivation.

__0__ not important in our guidance operational plan and therefore not encouraged at all.

_____ other_____

_____

33-M. As a general policy, in the teacher-pupil relationship:

__0__ no formal provisions are made for the teacher to provide specified guidance services.

__4__ teachers are expected to provide guidance services for all of their pupils.

__2__ teachers are expected to provide guidance services to only a limited number of pupils.

_____ other_____

_____

34-O. A student's academic progress is formally reported to parents:

__1__ two times per year.

__2__ four times per year.

__1__ six times per year.

_____ other_____

_____

35-O. Parent-teacher or parent-teacher-student conferences are held on a school-wide basis.

__0__ not at all.

__1__ once per year.

__2__ twice per year.

__3__ three times per year.

__4__ four times per year.

__4__ five or more times per year.

Part I, Page 7

36-P. Community service projects
by the students are:

___0___ not a part of our program.

___2___ carried out occasionally
for a special purpose.

___4___ an important part of the
planned experiences for all
students while enrolled in
this building.

37-P. This school currently has:

___0___ no parent's organization.

___1___ a parent's organization that
is relatively inactive.

___2___ a parent's organization that
is active.

___3___ a parent's organization that
is very active.

PART II: FOR EACH QUESTION IN THIS SECTION CHECK ALL THE ANSWERS THAT APPLY.

38-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.

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

_4_   planning with other teachers on a daily basis.

_3_   planning with other teachers on a weekly basis.

_2_   seeking administrative approval for a special change.

_1_   requesting a change for next semester.

_0_   requesting a change for next year.

____   other_____

43-F. The intramural program includes:

_1_   team games.

_1_   individual sports.

_1_   various club activities.

____   other_____

39-B. Which of the following types of materials are housed in your instructional materials center?

_1_   filmstrips.

_1_   collections (coins, insects, art, etc.)

_1_   motion pictures (include this if you are a member of a central service).

_1_   microfilms.

_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.

41-D. School dances are held for:

_*_   grade five.

_*_   grade six.

_*_   grade seven.
              *One point for each item not checked.

_*_   grade eight.

42-D. A club program for students is offered for:

_1_   grade five.

_1_   grade six.

_1_   grade seven.

_1_   grade eight.

Part II, Page 2

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

__1__ in grade five.

__1__ in grade six.

__1__ in grade seven.

__1__ in grade eight.

__0__ not at all.

46-K. How much time would you
estimate the average student
spends in independent study
for each grade listed below?*

____ minutes per day in grade five.

____ minutes per day in grade six.

____ minutes per day in grade seven.

____ minutes per day in grade eight.

48-L. Students with poor basic skills
can get special help in the
following areas. (Check only
those areas where special help
on an individual basis is
provided by special staff
members trained to treat such
situations.)

__1__ reading   __1__ mathematics

__1__ spelling   __1__ grammar

__1__ physical   ____ other_____
     education   _____

*One point for each of the first
two if over 20 minutes. One
point for each of the last two
if over 30 minutes.

45-I. Electives currently offered in
this building are: (check those
you offer from this list and add
any not listed that you offer.)

__1__ art   __1__ orchestra

__1__ band   __1__ wood shop

__1__ vocal music   __1__ speech

__1__ drawing   __1__ typing

__1__ drama   __1__ natural
                             resources
__1__ journalism   __1__ creative
                             writing
__1__ foreign language ____ other_____

__1__ family living   ____ other_____

__1__ unified arts   ____ other_____

47-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.

__2__ of personal interest and
      unrelated to classroom work.

____ other_____
     _____

49-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.

____ other_____
     _____

Part II, Page 3

50-O. Formal evaluation of students' work is reported by use of:

__1__   a standard report card with letter grades.

__2__   teacher comments, written on a reporting form.

__3__   parent-teacher conferences.

__1__   standard report card with number grades.

__4__   parent-teacher-student conferences.

_____   other_____

_____

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

__1__   when requested by the parents.

__1__   once or twice a year at regular parents' meetings.

__1__   at open house programs.

__1__   at regularly scheduled "seminar type" meetings planned for interested parents.

_____   other_____

_____

51-P. In regard to community relations this school currently:

__0__   does not send out a parents' newsletter.

__1__   sends out a parents' newsletter when need arises.

__2__   sends out a parents' newsletter on a scheduled basis.

__1__   uses a district-wide newsletter to send out information related to this school.

__1__   uses the commercial newspaper.

_____   other_____

_____

53-Q. From the specialized areas listed below, check each service which is available to students in your building. (Note that a service need not be housed within the school building to be available to your students.)

__1__   guidance counselors.

__1__   school nurse.

__1__   school psychologist.

__1__   visiting teacher.

__1__   speech therapist.

__1__   diagnostician.

__1__   clinic services for the emotionally disturbed.

__1__   special education programs for the mentally handicapped.

__1__   special reading teacher.

_____   others:_____

_____

Part II, Page 4

54-R. Teaching teams are organized   55-R. From the following list check
       to include: those types of auxiliary helpers
                                                    available in your building:
__1__ fully certified teachers.
                                            __1__ paid para-professionals.
__1__ para-professionals.
                                            __1__ volunteer helpers from the
__1__ clerical helpers.   community.

__0__ student teachers.   __1__ volunteer helpers from the
                                                    student body.
_____ others_____
       _____   __1__ student teachers and interns.

                                            __1__ high school "future teachers"
                                                   students.

                                            _____ other_____
                                                   _____

PART III: FOR EACH QUESTION IN THIS SECTION PLEASE CHECK THE BOX OR BOXES
THAT BEST DESCRIBE YOUR PROGRAM.

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

	During the afternoon	During the evening
Grade five	2	0
Grade six	2	0
Grade seven	2	1
Grade eight	2	1

57-E. The physical education program serves:

	All Students	Some Students	No Students
Grade five	4	1	0
Grade six	4	1	0
Grade seven	4	1	0
Grade eight	4	1	0

58-E. What degree of emphasis does the physical education program
give to the competitive and developmental aspects of the
program for boys and girls?

	Boys	Girls
Competitive Aspects	0 High 2 Medium 4 Low	0 High 2 Medium 4 Low
Developmental Aspects	4 High 3 Medium 0 Low	4 High 3 Medium 0 Low

Part III, Page 2

59-F. Intramural activities are scheduled for:

	All Students	Boys Only	Girls Only	No Students
Grade five	4	1	1	0
Grade six	4	1	1	0
Grade seven	4	1	1	0
Grade eight	4	1	1	0

60-J. How do your guidance counselors handle group guidance sessions?

	Regular Sessions Several Times Per Year	Special Sessions Only	None
Grade five	4	1	0
Grade six	4	1	0
Grade seven	4	1	0
Grade eight	4	1	0

Part III, Page 3

61-K. Independent study opportunities are provided for:

	All Students	Some Students	No Students
Regular Class Time	4	2	0
Time Scheduled For Independent Study	4	2	0

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

	All Students	Poor Readers Only	Not At All
Grade five	4	2	0
Grade six	4	2	0
Grade seven	4	2	0
Grade eight	4	2	0

APPENDIX C

MIDDLE SCHOOL AND RELATED EXPERIENCES OF VALIDATORS

Dr. Marie Elie:

Author of a dissertation related to middle school education entitled: A Comparative Study of Middle School and Junior High School Students in Terms of Socio-Emotional Problems, Self-Concept of Ability to Learn, Creative Thinking Ability, and Physical Fitness and Health, Michigan State University, 1970.
Participant in middle school conferences and frequent observer of numerous middle school programs.

Dr. Nicholas Georgiady:

Experienced junior high school principal and curriculum director.
Past Executive Director of the Michigan Educational Research Council and of the Michigan Cooperative Curriculum Program.
Associate Professor and Assistant Chairman of the Department of Curriculum and Instruction, Miami University, Oxford, Ohio.
Author of "The Middle School--Is It a Threat to the Elementary School?" which appeared in the Journal of The New York State Association for Supervision and Curriculum Development, Winter, 1967-68, Vol. 3, No. 2, Albany, New York.
Author of numerous articles related to curricular areas that have appeared in such journals as: Educational Leadership, Audio-Visual Instruction, Michigan Educational Journal, Illinois Journal of Education, The Elementary School Journal, Theory Into Practice, Childhood Education, Wisconsin Journal of Education, and many others.
Consultant to middle school workshops.

Dr. Ann Grooms:

Principal of Indian Hills Middle School, Marriemott, Ohio.
Author of Perspectives on the Middle School. Columbus, Ohio: Merrill E Books, Inc., 1964.
Middle school consultant for the Kettering Foundation's I.D.E.A. Institute.
Director of the middle school workshop sponsored by the University of Cincinnati.
President of Educational Services Institute, which provides consultive services to numerous middle schools.
Featured speaker at national meetings of educational organizations, on the topic of middle school education.

Dr. Louis Romano:

Coordinator and supervisor of curricular services for the
Shorewood Public Schools, Shorewood, Wisconsin.
President, Wisconsin Association for Supervision and
Curriculum Development.
Author of The Middle School (In Preparation), MacMillan
Company.
Coauthor of Guides to Curriculum Building -- Intermediate
Grades, Department of Public Instruction, Madison,
Wisconsin, 1961.
Author of numerous articles that have appeared in such
publications as: Michigan Journal of Secondary Education,
Ohio Journal of Education, Illinois Journal of Education,
Journal of Experimental Education, Associated Public
School System Yearbook, and others.
Director of the middle school workshop held at Michigan
State University during the summer of 1968.
Middle school consultant for numerous public school
systems.
I.G.E. trainer for the Kettering Foundation.

Dr. Emmett Williams:

Coauthor of The Emergent Middle School, New York: Holt,
Rinehart and Winston, Inc., 1968.
Guest editor of Theory Into Practice, Vol. VII, June,
1968. This edition was devoted entirely to the subject
of middle school education.
Author of articles relating to middle school education
that have appeared in Educational Leadership, Today's
Education, Phi Delta Kappan, and other similar publica-
tions.
Director of the summer workshop on middle school education
held every summer at the University of Florida at Gaines-
ville, Florida.
Featured middle school resource person at numerous state,
regional, and national conferences.
Consultant on middle school education to numerous public
school systems.

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