74-21,988

RIPPETOE, Jerry Wayne, 1931-
AN ANALYSIS OF OPINIONS REGARDING THE PRINCIPALSHIP IN OKLAHOMA AS PERCEIVED BY THE JUNIOR HIGH AND MIDDLE SCHOOL PRINCIPALS.

The University of Oklahoma, Ed.D., 1974
Education, administration

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THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

AN ANALYSIS OF OPINIONS REGARDING THE PRINCIPALSHIP IN OKLAHOMA AS PERCEIVED BY THE JUNIOR HIGH AND MIDDLE SCHOOL PRINCIPALS

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

DOCTOR OF EDUCATION

BY

JERRY RIPPETOE

Norman, Oklahoma

1974

AN ANALYSIS OF OPINIONS REGARDING THE PRINCIPALSHIP

IN OKLAHOMA AS PERCEIVED BY THE

JUNIOR HIGH AND MIDDLE SCHOOL PRINCIPALS

APPROVED BY

DISSERTATION COMMITTEE

ACKNOWLEDGEMENTS

Gratitude is sincerely expressed to Dr. Gerald Kidd who served as chairman of the doctoral committee and director of this study. His sincere interest and valuable assistance throughout the doctoral program are acknowledged with appreciation. Deepest gratitude is also expressed to the other members of the doctoral committee, Dr. Jack F. Parker, Dr. Robert F. Bibens, and Dr. Gene Pingleton for their interest and assistance in the writing of this study.

A special note of thanks is extended to Mrs. Pat Watson for her helpful suggestions.

This writer would like to express appreciation to the many people who contributed directly or indirectly to the development and completion of this paper. Without their encouragement, assistance, and patience, the study would not have been realized.

To my wife, Jackie, and other members of my family, a very special thanks for continuous encouragement and understanding throughout all phases of my graduate study.

To Jackie

Whose inspiration and assistance
made this study possible.

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AN ANALYSIS OF OPINIONS REGARDING THE PRINCIPALSHIP IN OKLAHOMA AS PERCEIVED BY THE JUNIOR HIGH AND MIDDLE SCHOOL PRINCIPALS

CHAPTER I

BACKGROUND AND NEED FOR THE STUDY

Introduction

"The chief function of a school is the education of boys and girls. To achieve this it is necessary to have good facilities, excellent teachers, adequate supplies and equipment, and community interest and support. But crucial to all instructional activities is the skill with which the principal plays his role as an educational leader."[1] The junior high school must have specially trained administrators to serve as effective leaders, as the greatest weakness or the greatest strength of the organization lies within its leaders.

Toward the close of the nineteenth century when reorganization of the public school system was being debated, a number of national committees were formed to research new plans. From a plan formulated by one of the committees came the notion of

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[1]Lester W. Anderson and Lauren A. Van Dyke, Secondary School Administration (Boston: Houghton Mifflin Co., 1963), p. 25.

the six-six plan for reorganization of the public school system. Approximately ten years later the six-three-three plan evolved, creating the "junior high school."

At the inception of the first junior high schools, there were no administrators trained to handle the new type of school organization such as that being developed. The junior high schools, during this period of change, became stepping stones for the most aspiring classroom teachers in the senior high school as well as for many elementary school principals, since they were often promoted to head these new schools.[1] Again, during the mid 1960's, attention was focused on reorganization and the 5-3-4 and the 4-4-4 plans were formulated. Both of these organizational plans incorporate a modified junior high school and are typically referred to as middle schools. The further growth and development of these organizational plans have brought about an awareness of the need for professionalization within the principalship.

With additional pressures being applied to the principal, such as teachers demanding more power, state legislatures calling for accountability of both the principal and his staff, and the community asking for parity in decision making, it is no wonder that the role of the principal is changing.[2] The

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[1]William T. Gruhn and Harl R. Douglass, The Modern Junior High School (New York: The Ronald Press Company, 1956), p. 367.

[2]Kenneth A. Tye, "The School Principal: Key Man in Educational Change," The National Association of Secondary School Principals, LVI, No. 364 (May, 1972), p. 77.

role of the administrator is to accomplish established goals through the utilization of established means. The role of the leader, on the other hand, is to locate and initiate new means for reaching established goals or to formulate with the staff new goals for the school.

The role of the principal is uniquely suited to buck-stopping action. Behavioral management theory, far from being limited in application to business and industrial institutions, contributes much insight to meeting the crisis in American public education--a crisis evidenced by student unrest, teacher strikes, and the demand for accountability. The principal must take an active role in the survival and reform of the school since he is in direct contact with the students, teachers, and district administrators and his influence should be strong and pervasive.[1]

A principal is and must be an instructional leader. He is the single most important individual influencing the instructional program in his school.[2]

The National Association of Secondary School Principals utilized a committee of professors in secondary school administration and supervision to conduct status research on the college preparation of principals. The results indicated

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[1]Valrie M. Bockman, "The Principal as Manager of Change," The National Association of Secondary School Principals, LVI, No. 36, (May, 1972), p. 25.

[2]Fred J. Brieve, "Secondary Principals as Instructional Leaders," The National Association of Secondary School Principals, LVI, No. 364, (December, 1972), p. 11.

that a change in their college preparation is in order.[1] Less rigid specific course requirements and expansion into related areas would improve the quality of secondary school principals. To deal with current issues that face these principals requires new strategies.

With this concern centered on the junior high/middle school and instructional leaders, perhaps it would be apropos to examine closely the role of the Oklahoma junior high/middle school principal in light of such questions as: To what extent have the schools in Oklahoma moved from the six-six organizational plan? To what extent are other organizational patterns developing? What are the views of the junior high/middle school principals in Oklahoma regarding educational issues such as areas of study relevant to professional preparation of teachers, educational objectives, curriculum and organization, professional courses of potential value to principals, and duties and compensation of the junior high/middle school principal?

If much needed change is to take place in the education of the "in-between-ager" in Oklahoma, the junior high/middle school principal must exercise strong and knowledgeable leadership. Today's principal should be concerned with a variety of factors influencing education such as societal changes and the knowledge explosion which have resulted in

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[1]Neal C. Nickerson, "Status of Programs for Principals," The National Association of Secondary School Principals, II, No. 362, (March, 1972), p. 10.

many efforts at revamping the junior high/middle school curriculum. Another factor that could influence the junior high/middle school principal and his decision making is the trend toward inquiry teaching, racial integration, differentiated staffing, and federal government. This list does not nearly exhaust the factors influencing the principalship, but merely indicates the widening range of responsibilities facing the administrators.

A review of the literature revealed that there is a great concern for the principal and his role, but very little has been done to alleviate the problem.

In 1966, the National Association of Secondary School Principals completed a nation wide survey after which they recommended that similar studies be made state wide to provide as much information as possible about the junior high school principalship.[1] In recent years, studies have been made in other states, regarding the junior high principalship. One study of particular interest to this writer was by Henoch concerning the status of the Kansas Junior High School Principalship.[2] It is one of the most recent and is based on the national study completed in 1966.

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[1]Donald A. Rock and John K. Hemphill Report of the Junior High School Principalship, (Washington, D. C.: NASSP), 1966.

[2]Norwood Bruce Henoch, "A Status Study of the Kansas Junior High School Principalship," Unpublished doctoral dissertation, University of Kansas, 1971, 152 pp.

In Oklahoma, several master theses have been written pertaining to the junior high school, but none were found which dealt with the status of junior high school principalships. French, in a doctoral dissertation in 1954, dealt with a few items regarding the status of the junior high school principalship.[1] In 1963, Holcomb did a study on the junior high schools of Oklahoma, comparing the Oklahoma junior high school curriculum with a defensible program in medium sized junior high schools of Oklahoma.[2]

According to information from the Oklahoma State Department of Education showing approved middle schools, the first ones appeared in this state during the school year of 1970-71. During that year, three middle schools were approved and since then there has been a steady increase. At the present time the State has approved twenty-nine middle schools, but the survey results indicate that a greater number exists and many principals indicated that others will become middle schools in the near future.

The review of literature indicated that very little research has been done in Oklahoma regarding the junior high school principalship and, at this time, none was found regarding the middle school principalship.

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[1]Harold K. French, "The Selection and Retention of Secondary School Principals in Oklahoma With Emphasis on the Junior High School," Unpublished doctoral dissertation, University of Oklahoma, 1954, 123 pp.

[2]Charlie Calvin Holcomb, "A Study of Oklahoma Junior High Schools," Unpublished doctoral dissertation, University of Oklahoma, 1963, 159 pp.

With the continuing reorganization of schools in Oklahoma and with an increasing number of middle schools, it seems necessary to survey the principals to gather information regarding the schools. As schools change in organization and grade structure, are they also changing in philosophy and objectives? Are the junior high schools in Oklahoma an extension downward of the high school? Are the junior high schools in Oklahoma an extension of the elementary schools? Will the middle schools be a reflection of a different philosophy or will they continue to be junior high schools with a different grade structure? Are the junior high schools and the middle schools separate and distinct from both the elementary and the high schools?

Statement of Problem

Although educators are writing more about the junior high and the middle school than ever before, very little is being written about the principalship. At a time when rapid changes are taking place in education, more research dealing with the junior high/middle school principalship appears to be of vital importance. The major questions the researcher investigated were as follows:

1. How much difference, if any, is there between the way the junior high school principal and the middle school principal in Oklahoma perceives the principalship as it exists?

2. How much difference, if any, is there between the way the middle school principal and the junior high school principal

would like to see the principalship exist?

3. Is there a difference in the way the junior high school principals of Oklahoma and the middle school principals of Oklahoma perceive the principalship?

4. How much difference, if any, is there between the way the junior high and the middle school principals of Oklahoma perceive certain educational issues as they exist with that of how they would like to see the condition?

Statement of Purpose

Certain unique purposes and characteristics have been assigned to the junior high school and to the middle school. Although certain elements within each program are common, there remains specific identifiable differences. It is within this context that principals must administer the school.

The purpose of this study was to determine differences of opinion between and among the responses reported by junior high and middle school principals of Oklahoma concerning the program elements of the principalship. More specifically, the purpose of the study was to compare discrepancy scores (the difference between the principalship as it is perceived "real" and the way the principal would like to see it exist "ideal" as reported by the junior high and middle school principals of Oklahoma.)

Operational Definitions

1. Middle School: An educational organization that focuses on the educational needs of the "in-between-ager" and

normally encompasses grades six through eight, but may include grade five.

2. Superintendent: That person appointed by the board of education to administer the educational program and other affairs of the school district.

3. Junior High School: Refers to the lower grades of reorganized secondary schools usually comprising grades seven, eight, and nine, combined as two-year or three-year organizations.

4. Principalship: Refers to the position in any and all schools for which a principal is hired.

5. Principal: That person who has complete or shared administrative responsibility in a junior high or middle school.

6. Questionnaire: A set of questions, sent to a statistically significant number of subjects by way of gathering information, as for a survey.

7. NASSP: National Association of Secondary School Principals.

8. Expectation: An individual's assessment of reality; his picture of things as he perceives them to be.

9. Opinion: A conclusion about a particular matter, not necessarily empirically stated.

10. Discrepancy Score: The score or difference score derived by subtracting the real score from the ideal score. This score was regarded as a measure of individual and group satisfaction with aspects of the principalship.

11. Total Score: Sum of the scores of the columns within each factor of the questionnaire.

Population and Sample

The population for the study was comprised of the junior high and middle school principals in Oklahoma. The Oklahoma Educational Directory lists approximately 311 schools. A random sample of subjects was drawn from the junior high group and matched with the middle school subjects.

Hypotheses to be Tested

In order to answer the questions posed in the Statement of Problem, it was necessary to test the following hypotheses for statistical significance at the .05 level of significance.

Ho_1 There is no significant difference of opinion in the way the junior high and the middle school principals of Oklahoma perceive the principalship.

Ho_2 There is no significant difference of opinion in the way the junior high and the middle school principals of Oklahoma would like to see the principalship.

Ho_3 There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the real and ideal conditions of the principalship in Oklahoma.

Ho_4 There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the real and ideal areas of study relevant to the professional preparation of teachers in Oklahoma.

Ho_5 There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the real and ideal educational objectives of the junior high/middle school.

Ho_6 There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the real and ideal curriculum and organization needs of the junior high/middle schools.

Ho_7 There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the real and ideal professional courses or subjects of potential value to principals of the junior high and middle school.

H_{o8} There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the real and ideal duties and compensation of the junior high/middle school principal.

Assumptions

The major assumptions of this study are:

1. It was assumed that the sample of junior high school principals used was a true representation of the larger population (matched pairs of junior high and middle school total scores were used in the comparison of difference scores of the groups.)

2. It was assumed that the data collection instrument was valid and reliable as far as can be determined by the committee reviewing the instrument.

3. It was assumed that the data collected from the participants was correctly classified at the ordinal level of measurement and that the statistical tests normally used with ordinal level data were appropriately used in making the necessary calculations.

4. It was assumed that the data collected was the true opinion of the respondent to the items on the data collection instrument.

Limitations of the Study

The present study, as in any research effort, assumed certain limitations in order to make the investigation feasible. The major limitations are stipulated as follows:

1. The principals of the middle schools have been in their present position for such a short time. The first middle school in Oklahoma is now in its fourth year.

2. In comparing difference scores between the respondents, a matched pair sample was used to compare the responses recorded by the junior high principals with those of the middle school principals.

3. The information collected from the participants concerning the various areas of the principalship was limited to the ordinal level of measurement. The measurement included two approximations, the ideal (like for it to be) and the real (what it actually is), of the fifty-two items shown on the data collection instrument. The level of the data, in turn, limited the number and kind of statistical manipulation which could be applied to the results.

4. The number of areas of the principalship sampled was limited to the fifty-two items shown on the data collection instrument.

Organization of Report

The introduction, background and need, statement of problem, statement of purpose, operational definitions, population, hypotheses to be tested, assumptions, limitations of the study, and organization of report are presented in Chapter I. Chapter II contains the review of the literature. The methodology is presented in Chapter III. Chapter IV contains the analysis and interpretation of data. The summary,

findings, implications, and conclusions are presented in Chapter V.

CHAPTER II

REVIEW OF RELATED RESEARCH AND LITERATURE

Introduction

In a never-ending search for knowledge concerning the learning process and ways and means of implementing the concept of universal education, the junior high school has received an abundant amount of attention. With the increasing popularity of the middle school concept during the past few years, a review of the current literature reveals a far greater amount being written about that concept than ever before. In fact, it would require a volume of considerable size just to list the sources of information concerning junior high/middle schools; therefore, this chapter is limited to the developmental and educational philosophy and selected sources of information relative to the curriculum, principal, and teacher.

Development of Junior High/Middle Schools

The junior high school movement started approximately sixty years ago. At that time, the concepts of that reorganization were varied and controversial. One recommendation was to speed up or accelerate the educational process so that the

college bound pupil could begin his college preparation earlier and, possibly, be ready to enter college at an earlier age. Other recommendations were based on the idea of moving some of the traditional secondary subjects into the upper elementary school while other ideas were based on a dissatisfaction with the existing eight year elementary program.

In 1888, Charles W. Eliot, speaking before the Department of Superintendents in Washington, D. C., advocated the reorganization of the public school system based on a concern that the average age of admission to Harvard College had been rising for the past sixty years and had reached the extravagant limit of eighteen years and ten months.[1] Thus, the attention of American educators was directed toward the need for reform. This advocacy gave impetus to the appointment of many national committees to study reorganization. The Committee of Ten in 1893, and the Committee on College Entrance Requirements in 1895, produced the idea from which developed the six-six plan of education. This organizational plan was given support from the Department of Secondary Education of the National Education Association.[2]

The Committee of Fifteen in 1893, was more directly charged with problems that concerned the reorganization of the elementary and secondary education. It made recommendations

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[1]Charles W. Eliot, Educational Reform: Essays and Addresses (New York: The Century Company, 1898), pp. 151-52.

[2]William T. Gruhn and Harl R. Douglas, The Modern Junior High School (New York: The Ronald Press Company, 1956), pp. 8-11.

for closer articulation between the elementary and the secondary school, and suggested that certain secondary school subjects be taught earlier.[1] In September, 1909, the consolidation of the upper elementary grades and the high school had evolved into the three-three plan of organization when Columbus, Ohio, and Berkeley, California, called the lower three grades a "junior high school."[2] This was the first record of a 6-6-6 organization. In 1913, the Committee on the Economy of Time recommended that the six years devoted to secondary education should be divided into two administrative sections: (1) a junior high school of three years . . . and (2) a senior high school, also three years . . . .[3] During the years since, the reorganized schools have not only spread into every state of the union, but have continued to grow in number, prestige, and influence. In 1920, there were fifty-five junior high schools in the country. By 1930, there were 1,842, and by 1964, there were approximately 7,000 junior high schools across the nation.

The philosophy and function of the junior high school are interwoven in the history and development of the junior high school movement. As the philosophy developed, a general

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[1]William Van Til, Gordon F. Vars and John H. Lounsbury, Modern Education for the Junior High School Years (Indianapolis: Bobbs-Merrill Company, 1961), p. 8.

[2]Neal C. Nickerson, Junior High Schools Are On the Way Out (Danville: Interstate Printer and Publisher, 1966), p. 3.

[3]Ralph W. Pringle, The Junior High School (New York: Mcgraw Hill Book Company, 1937), p. 24.

set of functions also were formed. One of the best known statements regarding the changing functions was developed by Gruhn and Douglas: ". . . integration, exploration, guidance, differentiation, socialization, and articulation."[1]

Conant's investigation of the junior high school indicated that too many schools ignore the real function of the junior high school and actually operate a "little high school" patterned after the senior high school. Such a plan violates the basic principles of the junior high school and serves no real purpose in the American educational program. He further states that the highly departmentalized content courses of the junior high school do not provide for a transition period. Instead, it dumps the seventh grader into a new situation two years earlier than did the unrecognized 8-4 plan, at a time when he is less able to cope with the new situation.[2]

Many educators have been appalled at the rigid departmentalization and the plethora of activities including dances, interscholastic sports, and marching bands that make units "imitative high schools--junior grade." Such excesses, while not found in all junior high schools, were prominent enough to cause educators to question whether existing junior high schools were meeting their stated objectives.[3]

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[1]Van Til, op. cit., p. 31.

[2]James B. Conant, "The Transitional Years," Education in the Junior High Years (Princeton, New Jersey: Educational Testing Service, 1960), p. 12.

[3]Theodore C. Moss, "The Middle School Comes and Takes on Another Grade or Two," The National Elementary Principal, XLVIII, No. 4, (February, 1969), p. 39.

The middle school, like the junior high school before it, is conceived to be a new approach in providing an educational program designed to meet the needs of the preadolescent and early adolescent. These needs were important enough to warrant emphasizing junior high schools in school design and curriculum construction for forty years. With the earlier maturation of today's youth, the same purposes are still expressed and the same needs are still evident.[1]

A study of the functions of a junior high school might raise questions relative to whether or not they are unique to that particular school or equally applicable to middle schools. For example, if the term "junior high school" were substituted for "middle school" in the following list, very little philosophical conflict would be shown by junior high school educators. Alexander and Williams state:

1. The real middle school should be designed to serve the needs of older children, pre-adolescents, and the early adolescent.

2. A middle school program should make a reality of the long-held ideal of individualized instruction.

3. A middle school program should give high priority to the intellectual components of the curriculum.

4. A middle school program should place primary emphasis upon skills of continued learning.

5. A middle school should provide a rich program of exploratory experiences.

6. A program of health and physical education should be designed for boys and girls of the middle school years.

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[1]Leslie W. Kindred, The Intermediate Schools (Englewood Cliffs: Prentice Hall, Inc., 1968), p. 88.

7. An emphasis on values should underline all aspects of the middle school program.

8. The organization of the middle school would facilitate the most effective use of the special competencies and interests of the teaching staff.

9. The curricular plan of a real middle school would consist of planned programs in three phases--learning skills, general studies, and personal development. Every pupil would be scheduled into each of the three phases each year in the middle school.

10. Organization for instruction would be designed to facilitate an optimum curriculum and content program for every pupil.[1]

Although Alexander and Williams were writing about the middle school content, their guidelines for the model school of that name could easily suffice for a junior high school.

Batezel states that a carefully planned philosophy is essential as a guide in developing the program and organization of a good middle school and that the following points should be considered:

1. A good middle school ought to provide for a gradual transition from the typical self-contained classroom to the highly departmentalized high school.

2. Provision should be made by program and organization for each student to become well known by at least one teacher.

3. The middle school ought to exist as a distinct, very flexible and unique organization tailored to the special needs of pre-adolescent and early adolescent youths. It ought not to be an extension of the elementary nor seek to copy the high school.

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[1]William M. Alexander and Emmet L. Williams, "Schools for the Middle School Years," Educational Leadership, (December, 1972), pp. 217-20.

4. The middle school ought to provide an environment where the child, not the program, is most important and where the opportunity to succeed exists.[1]

The Committee on Junior High School Education, created by the National Association of Secondary School Principals, found that:

> In terms of the number of schools involved, the most frequent pattern of grade organization is the 6-6 arrangement where the secondary school is an undivided six year unit. In contrast, the 6-3-3 patterns which enrolls a majority of all secondary pupils, and the less common 6-2-4 organization scheme each provides for a separate junior high school of two or three school years. Interest recently has focused on two other organizatizational forms, the 5-3-4 and the 4-4-4, both of which incorporate a modified junior high school typically called a middle school.[2]

During the past decade, Americans have witnessed many changes in their schools. One of the most obvious is the rise of the middle school as the second of American intermediate schools. This is usually a 5-4-3 or a 4-4-4 plan of organization. Alexander reports that the number of middle schools has quadrupled since 1965, and now total over 2,000, while the junior high school concept is decreasing.[3] The dissatisfaction with the junior high schools seems to be their inability to meet most of the objectives set for them.

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[1]W. George Batezel, "The Middle School: Philosophy Program, Organization," Schools for the Middle Years: Readings, ed. by George C. Stoumbis and Alvin W. Howard, (Scranton: International Textbook Company, 1969), p. 162.

[2]Committee on Junior High School Education, "Recommended Grades or Years in Junior High or Middle Schools," The Bulletin of the National Association of Secondary School Principals, 316, No. 51, (February, 1967), p. 68.

[3]Alexander, op. cit., p. 169.

Nickerson concludes that the objectives of the middle school aren't much different from those of the junior high and there is no guarantee that they will be any better met, but at least they provide a fresh chance to succeed.[1]

Conant, in discussing education for the junior high school years, makes this statement:

> Intermediate schools, by whatever name, are trying to take account of the special needs and capabilities of children in the years between childhood and adolescence. Boys and girls from ten to fourteen or so, exhibit a social, psychological, and intellectual range that bursts the confines of grade patterns and of plain chronology. What they need above all is to be treated and taught as individuals. Insofar as this ideal is realized, it seems to make no great difference what particular age groups are put together for instructional or administrative convenience.[2]

Samuel Popper writes: "What is at issue now in professional dialogue is not whether there should be a junior high school or a middle school, a semantive distinction without difference, but rather which grades are functionally appropriate for this unit of public school education.[3]

A review of the history of the junior high school movement reveals that its original goals and functions are still appropriate. The goals of the middle school, when

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[1]Nickerson, op. cit., p. 11.

[2]James B. Conant, Recommendations for Education in the Junior High School Years (Princeton, New Jersey: Educational Testing Service, 1960), p. 26.

[3]Samuel Popper, The American Middle School: An Organizational Analysis (Waltham, Massachusetts: Blaisdell Publishing Company, 1967), pp. 48-9.

attained, must implement some differentiated educational functions in the larger public school systems. The following is proposed as a definition of the differentiated function and, therefore, also as a defining statement of the American middle school's paramount goal in the modern era:

> The differentiated function--hence, the paramount goal of the American middle school, is to intervene protectively in the process of education which was begun in the elementary school, mediate between the human condition at the onset of adolescence and the pressures of culture, and continue the general education of early adolescents with a curriculm applied in a psychological environment which is functional at this stage of socialization.[1]

Eichorn states that the emergence of the middle school as an alternative to the junior high school promises to bring the needed focus of this special period of growth and development in a child's school life. The junior high school normally enrolls pupils within the twelve-fifteen age range. Even though this may be a fair degree of homogeniety in age, there are many other factors that cause a wide range of differences in maturity at the junior high school level.[2]

Havinghurst states that there is evidence that young people are actually older now than their parents were at the same age. In awareness of these changing growth patterns, the middle school idea is based on the concept that the preadolescent in today's society is capable of more mature behavior than was thought possible thirty years ago. Ultimate

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[1]Poppers, op. cit., pp. 48-9.

[2]Don Eichorn, "Middle School Organization: A New Dimension," Theory Into Practice, VII, No. 3, (June, 1968), p. 111.

progress of the middle school, however, will depend upon the ability of educators to develop programs in which the middle school child is the focal point for change.[1]

How can a program of schooling be provided for students in the middle grades that is relevant, feasible, and educationally sound in terms of curriculum, instruction, learning, and grade organization? Grambs, in a report for the Association for Supervision and Curriculum Development, states that for a junior high school of the future, the following characteristics are necessary: The junior high school of the future

1. must continue to recognize the development of democratic values as its central committment.
2. should rely upon a basic policy of experimental development of the instructional program.
3. should seek continually to improve the time arrangements for effective learning and teaching.
4. should plan explicitly an educational process for the junior high years.
5. should be an ungraded institution.
6. should incorporate routines and patterns that encouraged civilty in living.
7. should use varying instructional procedures to accomplish the purposes.
8. should provide many means for the student to see himself as a significant individual in a larger world setting.

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[1]Robert J. Havinghurst, "The Middle School Child in Contemporary Society," Theory Into Practice, VII, No. 3, (June, 1968), p. 120.

9. should provide an extended school year for a richer, more effective educational program.

10. provide for aesthetic and creative opportunities and experiences in abundance.

11. provide extended guidance for all students.

12. should be given differentiated assignments.

13. should utilize new developments in technology and in materials of instruction.

14. should clearly define administrative responsibilities.

15. should set as basic goals, the gain of knowledge, skills, and understanding.[1]

The direction of change in junior high school education should be guided by the fundamental needs of all young people in our complex democratic society. The following suggestion of ways for achieving the junior high school needed, would apply to any public educational institution moving toward change.

1. The local community must be an integral part of all planning for change.

2. Planning for change must be based on extensive and continuing local study.

3. Professional educators must accept their leadership responsibility as architects and interpreters of needed change in the junior high school.

4. Educational leadership must develop in staff members an understanding and acceptance of and an active interest in change.[2]

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[1]Jean D. Grambs, Clarence G. Noyce, Franklin Patterson and John Robertson, The Junior High School We Need (Washington, D. C.: The Association for Supervision and Curriculum Development, 1961), pp. 19-30.

[2]Ibid., p. 31-2.

In addition, Pumerantz indicates that public school systems should develop a functional model or theoretical design which would assist planners in formulating a practice most relevant to individual communities. The best known about good educational practice should be used in designing future junior high school programs.[1]

Many lists of purposes of the junior high/middle schools have appeared in professional literature, but in the final analysis, all must be based upon one single function--the provision of an adequate educational program for the early adolescent years. The primary function of this administrative unit of the American School System is to meet the physical, social, emotional, and intellectual characteristics of the particular age group it serves.

Curriculum

The major vehicle for fulfilling the school objectives is the instructional program--that part of the curriculum which includes the formal classroom and intellectual pursuits usually associated with "school." The schools of any culture of society should reflect the values that are commonly held by that society. If the American democratic way of life is to flourish, the aims and purposes of the American school system must be consistent with it's ideals.

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[1]Phillip Pumerantz, "Relevance of Change Imperatives in the Junior High and Middle School Dialogue," The Clearing House, Vol. 43 (1968), p. 211.

The curriculum of a school is comprised of all the planned experiences conducted under the auspices of the school for the purpose of achieving the educational goals of that institution. Theoretically, this concept of the curriculum provides a broad framework within which educational experiences, appropriate to the philosophy and objectives of the school, may be organized and may be envisioned as all of the educational experiences of the learner, regardless of where or when they occur.[1]

Noar describes curriculum as:

> The process that goes on at all times throughout the public schools. It takes place in the classroom whenever the teacher moves away from inadequate practices and content in the direction of meeting the needs of today's children as they live in today's world. The process of curriculum development takes place outside of the classroom in meetings of study groups and committees called into being for that purpose. Curriculum change is concerned with the structure of the school day, the content of all the parts of the program, techniques, materials, buildings, teacher competencies, and professional education.[2]

Trump states that junior high school principals and teachers should work cooperatively with their colleagues in elementary and senior high schools to develop a logical, sequential curricular program in all subject areas from kindergarten through the twelfth grade. This content will constitute

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[1]Roland C. Faunce and Nelson L. Bossing, Developing the Core Curriculum (New York: Prentice Hall, 1951), p. 95.

[2]Gertrude Noar, The Junior High School Today and Tomorrow (Englewood Cliffs, New Jersey: Prentice Hall, 1961), p. 341.

a balanced basic education for all students.[1] The junior high school will endeavor to make the most effective possible use of its human resources in providing for all students.

The educational program should provide the knowledge for every individual to become all that he is able to become so he can be a useful citizen in a changing society. Van Til states that in a setting of change characterized by education, becoming a mirror or improver of society, educators must make a choice.[2]

Educators may accept the tendencies of the times in which they find themselves and develop school programs which reflect all prevalent forces or educators may appraise the tendencies of the times and develop school programs through which the learner may reflect upon and help shape social forces. The first approach concerns the school as a mirror of society, while the second approach conceives the school as an instrument for the improvement of individuals and society.[3]

Some curriculum writers have stated that few of the facts of education are retained very long, especially if infrequently used. Much of what is regarded as well-established at one time may appear later to be totally irrelevant.

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[1]J. Lloyd Trump, "Curriculum Changes for the Sixties," Secondary Schools Today, Ed. by Fredrick R. Smith and R. Bruce McQuigg, (Boston: Houghton Mifflin Company, 1965), pp. 90-7.

[2]Van Til, op. cit., p. 16.

[3]Ibid., p. 16.

Bossing's characteristics of a good junior high school are:

1. Recognition of the nature of pre-adolescence and early adolescence.
2. Emphasis upon personal, social and societal problems.
3. Organization around problem situations.
4. Sensitivity to local environmental learning situations.
5. Recognition of the dynamics of change.
6. Recognition of the varying need for coeducational experience.
7. Ideal of a unified curriculum for all.[1]

While Bossing's statements were based upon the "mind storage theory" rather than other accepted theories of learning, they were used as a basis for the core curriculum which had its beginning in the junior high school.

Van Til describes the social realities of our time, personal-social needs of early adolescents, and democratic values on which education for the junior high school years should be based during the 1960's. These three foundations--social realities, personal-social needs, and democratic values--are interrelated and inescapable foundations for the education of early adolescents in a society characterized by democratic beliefs.[2]

Faunce and Clute indicate that developing the meaning for quality, freedom, and justice can most logically come from

[1]Nelson L. Bossing and Roscoe V. Cramer, The Junior High School (Boston: Houghton Mifflin and Company, 1965), pp. 126-9.

[2]Van Til, op. cit., p. 117.

classroom experiences where such qualities are valued. General education must provide for the discovery of these values.[1] Will junior high school experiences help students to think better of themselves, or will these experiences diminish their estimate of self-worth?

An effective junior high school of today should have a flexible schedule, provide a modern instructional program in subject areas, have ample laboratory and workshop facilities, and provide for physical education programs.[2] These elements should be viewed as the minimum requirements.

Numerous critics have been adamant regarding the junior high schools not fulfilling their objectives. Shirts describes ninth graders as curriculum misfits and feels that an integrated society of seventh, eighth, and ninth grade pupils is an unrealistic dream. Ninth grade students are capable of higher achievement than the traditional junior high program has provided. The decrease of active interest in exploratory classes of the junior high school is evidence that the course of study of the ninth grade group should be more completely integrated with the tenth, eleventh, and twelfth grades.[3]

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[1]Roland V. Faunce and Morrel J. Clute, Teaching and Learning in the Junior High School (San Francisco: Wadsworth Publishing Company, Inc., 1961), pp. 84-5.

[2]Grambs, op. cit., p. 13.

[3]Morris A. Shirts, "Ninth Grade--Curriculum Misfits," The Bulletin of the National Association of Secondary School Principals, Vol. 41, No 232, (November, 1957), pp. 136-7.

The junior high school model is presently the object of widespread criticism. There is growing reluctance on the part of many educators and laymen to accept the premise that there are justifiable reasons for the continuation of the current junior high school. Eichorn maintains that throughout the history of the junior high school, the ninth grade has continued its philosophic and practical ties with the high school.[1] Turnbaugh stated that educators have expressed disappointment with the worst of the junior aspects of the junior high school or their tendency to imitate programs for older pupils without imagination or concern for children.[2]

Brod lists sixteen reasons for adopting a middle school philosophy. Some of his reasons deal with status and efficiency, while others are concerned with child development and improved service.[3] The middle school organization may provide an excuse for either downward extension of secondary education patterns or upward extension of elementary patterns. Indications are that neither is desirable. A curriculum should be developed specifically adapted to young people going through the in-between years.[4] Without the ninth

[1]Eichorn, op. cit., p. 111.

[2]Roy C. Turnbaugh, "The Middle School: A Different Name or a New Concept?, The Clearing House, (October, 1968), p. 87.

[3]Gordon F. Vars, "Junior High or Middle School? Which is Best for the Education of Young Adolescents?" The High School Journal, Vol. 50, No. 3, (December, 1966), p. 111.

[4]Ibid., p. 111.

grade, a junior high school staff may feel less constrained to gear their program to the requirements of the high school.

The curriculum in the middle school is designed to accomplish the long range objectives of fostering the spirit of inquiry and development of problem analysis/decision making capabilities. The particular content of the curriculum is that content which the students and professional staff members, working together, decide upon. The curricular frame of reference for middle schools is composed of the four disciplines--social science, science, mathematics, and language arts.[1] Exploration in the middle schools has been described as one of the primary roles of the institution. Emphasis must be placed upon stimulating the student to investigate the various disciplines, to question his findings and to conceive new approaches to persistent problems rather than concentrating upon learning factual information.

Alexander categorizes curriculum for the middle school as:

1. Personal development.
2. Skills for continued learning.
3. Organized knowledge.[2]

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[1]M. Ann Grooms, Perspectives on the Middle School (Columbus, Ohio: Charles E. Merrill Books, Inc., 1967), pp. 74-5.

[2]William M. Alexander, The Emergent Middle School (Columbus, Ohio, Holt, Rinehart and Winston, Inc., 1969) p. 65.

This classification permits inclusion of all learning opporunities while facilitating a relation between purpose and curriculum organization.

In a paper presented to the ASCD Conference in 1971, Eichorn states that the curriculum of the emerging adolescent school appears to have three dimensions which include the acquisition of learning processes necessary for self-education; the actualization of self through self-awareness, understanding, and interaction; and the active involvement of the learner with knowledge as it relates to the various aspects of man's heritage and contribution.[1]

The characteristics and needs of the emerging adolescent learner are central to school program development. Some of those to be considered are individual attention, performance basis, learning skills and processes versus acquisition of content, and social or interaction skills and processes.[2] Although a review of literature stresses the importance of curriculum, the deciding factor in determining the success or failure of any curriculum depends on teacher effectiveness.

Staffing the School

Although much has been written about the process of curriculum change, the single most essential ingredient is

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[1]Donald Eichorn, The Emerging Adolescent School of the Future--Now (Paper presented at ASCD Conference, Chicago, Illinois, October, 1971).

[2]Eichorn, op. cit., pp. 11-2.

leadership--leadership with a vision, leadership that is in the finest of democratic tradition, free from authoritarian and laissez faire tendencies. Professional administration, including superintendents, supervisors, and principals, are expected to provide the necessary quality leadership described above.[1] The principal, however, is the chief school's administrator in the actual day to day administration and supervision of that system's building unit. He is, in effect, the "local" superintendent of schools, and if his job is carried out effectively, he will naturally assume many of the same responsibilities and duties carried by the central office staff.[2]

Principals must make a concerted effort to keep abreast of available knowledge concerning junior high/middle school education and their responsibilities as educational leaders. In some cases, the principal is the sole administrator in that school, while in larger schools he would perhaps have one or more assistants.

The Council on Junior High School Administration recommends "there be one full time administrator for each fifteen to twenty professional staff members, exclusive of

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[1]Van Til, op. cit., p. 515.

[2]Ross L. Neagley and N. Dean Evans, Handbook for Effective Supervision of Instruction (Englewood Cliffs, New Jersey, 1964), p. 86.

the principal."[1] The Council for Administrative Leadership recommends that a junior high school of 700 to 1,000 pupils should have one principal and two assistant principals.[2] The North Central Association of Colleges and Secondary Schools recommends a full time administrator for a school of 300 and additional administrative assistants for enrollment that exceeds 300.[3]

Stodgill states that leadership is not a matter of passive status, nor does it delve upon a person simply because he is the possessor of a combination of traits. Rather, the leader gains leader status through the interactions of the group in which he participates and demonstrates his capacity for assisting the group to complete its task.[4] Anderson feels that leaders in any major enterprise need a basic philosophy if they are to be effective. Acceptance of a "democratic" concept of leadership by the principal is basic in schools committed to preparing future citizens

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[1]Council on Junior High School Administration,"Ten Tenets of Junior High School Administration," The Clearing House, Vol. 37, (1964), p. 331.

[2]The Administrative Organization of the Modern Junior High School, The Council for Administrative Leadership, New York, (1959), p. 26.

[3]North Central Association of Colleges and Secondary Schools. Policies, Principles, and Standards for the Approval of Junior High Schools, (1969), p. 7.

[4]R. M. Stogdill, "Personal Factors Associated With Leadership: A Survey of the Literature," Journal of Psychology, Vol. 25, (January, 1948), p. 66.

for responsible participation in our free society. A half-century ago, school administration was characterized by autocratic policies, and yet John Dewey wrote of the need for democratic action in school administration as early as 1903.[1] Jacobson cited studies by Levin and his colleagues which indicated that in our democratic culture a democratic administrator was certainly more effective than one which was authoritarian.[2]

In assuming a leadership role, the principal must accept some general responsibilities, such as:

1. General administrative duties.
2. Personal management of school.
3. Supervision of class and out-of-class activities.
4. Supervision of school clerical workers and records.
5. Development of a professional morale.
6. Planning the improvement of the education program.
7. Cooperating in community responsibilities.
8. Evaluating the effectiveness of the school enterprise.[3]

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[1]Lester W. Anderson and Lauren A. Van Dyke, Secondary School Administration (Boston: Houghton Mifflin Company, 1963), p. 28.

[2]Paul B. Jacobson, William C. Reavis and James D. Logsdon, The Effective School Principal (Englewood Cliffs, New Jersey: Prentice Hall, 1963), p. 88.

[3]Paul E. Elicker, The Administration of Junior and Senior High Schools (Englewood Cliffs, New Jersey: Prentice Hall, 1964), p. 20.

The principal must administer and organize the staff so the entire organization operates at maximum effectiveness for the development and growth of all students and personnel. He should provide instructional leadership, which is a four part role consisting of administration, support, coordination, and initiation.[1] Garrison found in his study of leader behavior of secondary school principals in Oklahoma that superintendents tend to value principals who are administrators rather than leaders, since they appear to place higher priority on maintenance tasks rather than on change responsibility.[2] Hedges indicated that the effective school principal of today is skilled in maintaining those aspects of the school that he serves best by enabling the faculty to use their talents to shape the school.[3]

West uses the analogy of "ship's captain" to illustrate three types of leadership for school principals: nomothetic, idiographic, and transactional. The principal should take full advantage of having served as the captain aboard the universal school and be a transactional leader

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[1]Fred J. Brieve, "Secondary Principals As Instructional Leaders," The Bulletin of NASSP, Vol. 56, No. 368, (December, 1972), p. 11.

[2]Joe Mac Garrison, "The Leader Behavior of Oklahoma Secondary Principals," Unpublished doctoral dissertation, University of Oklahoma , 1968, p. 170.

[3]William D. Hedges, "Being a Leader," The Bulletin of NASSP, Vol, 57, No. 376, (November, 1973), p. 29.

which is an earned honor granted for cooperative effort.[1] Educational leadership, then, appears to be that action or behavior among individuals or groups which causes both the individual and the group to move toward educational goals that are mutually acceptable.[2] Wiles says, "Leadership is any contribution to the establishment and achievement of goals by a group . . . official leadership must be concerned with the fullest possible cultivation of the leadership potential of each member of the group."[3]

In regard to students, the principal's role offers him the opportunity to make a significant contribution to American education by creating a modern school to serve children. Since the junior high school will offer these students their last formal education, the principal must create a school in which the students will continue to develop their manual skills, learn what society requires of them, and understand how to become contributing members of productive groups with a wide range of activities and interests.[4]

Goldman believes that a somewhat different role for principals is forthcoming. He feels that principals will

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[1]Philip T. West and Willard R. Lane, "P. S. Caine," The Bulletin of NASSP, Vol. 57, No. 376, (November, 1973), p. 16.

[2]Ibid., p. 17.

[3]Kimball Wiles, Supervision for Better Schools (Englewood Cliffs, New Jersey, 1967), p. 177.

[4]Noar, op. cit., p. 104.

have to move toward a behavioral orientation if they wish to retain a meaningful leadership role within the formal educational institution and if they sincerely wish to avoid being relegated coordinators of administrivia.[1]

The world demands educational reform and reform necessitates change. Changing the principalship seems imperative for improving education, and so the recruiting or training of more principals who function differently should be a part of reform. These principals must have different experience, training, attitudes, loyalties, and functions from that of the traditional administrator.[2] On the other hand, Tye believes that society neither has the financial nor the human resources to develop new change agents who are to be added to existing institutions such as schools. He suggests that concentration be upon the development of personnel already filling leadership roles.[3] Other critics feel that school leadership has been inadequate due to a lack of essential training for present day jobs, and that failure to provide adequate leadership is false economy and a disservice to teachers.[4]

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[1]Harvey Goldman, "New Roles for Principals," The Clearing House, Vol. 3, (November, 1970), p. 135.

[2]William W. Wayson, "A New Kind of Principal," The Education Digest, XXXVI, No. 9, (May, 1971), p. 4.

[3]Kenneth A. Tye, "The School Principal: Key Man in Educational Change," Bulletin of NASSP, Vol. 56, No. 364, (May, 1972), p. 77.

[4]School Leadership, "Training School Leaders for Better Public School Education," The Education Digest, XXVIII, No. 9, (May, 1973), p. 23.

Professional Preparation of Principal

Principal preparation programs usually emphasize educational theory more than the process of organizing improved teaching and learning environments. Trump and Martin indicate that universities must develop more diverse programs with options in order to meet the needs brought about by student activism, teacher militancy, racial conflict, criticism, and funding controls.[1],[2] Nickerson reports that results of a questionnaire developed by the NASSP Committee of Professors of Secondary School Administration and Supervision and sent to 207 principals, indicated that college professors need to change their efforts by outlining less rigid specific course requirements and by providing more exposure into other areas in order to improve the quality of secondary school principal pre-service and in-service programs.[3] The suggestions are:

1. The principal should spend the greatest part of his on-the-job time in the improvement of instruction.
2. The principal must work directly with teachers and students as resources for improvement ideas.
3. The principal must delegate routine matters plus supervisory activities to assistant principals, department chairmen, and administrative assistants.

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[1]J. Lloyd Trump, "Principal Most Potent Factor in Determining School Excellence," The Bulletin of NASSP, Vol. 56, No. 362, (March, 1972), p. 3.

[2]Evelyn B. Martin, "Programs for the Principal," The Bulletin of NASSP, Vol. 56, No. 362, (March, 1972), p. 21.

[3]Neal C. Nickerson, "Status of Programs for Principals," The Bulletin of NASSP, Vol. 56, No. 362, (March, 1972), p. 10.

4. The principal's preparation program must include human awareness training.

5. The principal's preparation program must be wide and varied.

6. The principal's preparation program must be made more flexible--tailored to the individual's unique strengths, weaknesses and interests.

7. The principal's competencies, rather than credit hours, are the preferred measure of adequacy of preparation.

8. The administrative internship . . . should be required.

9. Clinical experiences, other than the internship, should be required at the M.A. level.

10. Simulation, small group projects, role playing, using resource people from the field and field trips should be used as instructional techniques.

11. In recruitment of students for graduate education programs, less importance should be put on standardized tests.

12. Colleges and universities must expand their inservice programs.[1]

A survey of fifty universities during the fall of 1971 was conducted to determine their responsiveness toward professional growth of principals. The results indicated that half of the respondents conducted workshops or institutes which were, in the majority of cases, determined by the needs of the participants.[2]

The graduate program for the junior high school principal should emphasize curriculum development and methods of teaching since the major area of responsibility is instructional

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[1] Ibid., p. 20.

[2] Martin, op. cit., p. 23.

leadership. It should also include courses in educational leadership, group dynamics, supervision, school administration, history and philosophy, measurement and evaluation, psychological and social foundations, and psychology of learning.[1]

The NASSP Committee of Professors of Secondary School Administration and Supervision, 1971, indicates that programs to prepare educational leaders suffer from inflexibility on the one hand and a lack of design, logic, and integration on the other. A systematic approach is needed with programs shaped toward a design that reflects the university's total philosophy, and not the disparate parts of the institution's aggregate offerings.[2]

The junior high/middle school should be staffed with dedicated and highly qualified administrators that are especially trained for work with young adolescents. Van Til states that students are shortchanged by so-called successful elementary principals that have been promoted.[3] A survey, conducted by NASSP in 1964, showed that sixty per cent of the junior high school principals that responded were previously elementary or senior high school principals, while only thirty

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[1]Bossing and Cramer, op. cit., p. 326.

[2]Donald Brandewie, Thomas Johnson and J. Lloyd Trump, "The Preparation and Development of Secondary School Administrators," The NASSP Bulletin, Vol. 56, No. 362, (March, 1972), p. 24.

[3]Van Til, Lars, and Lounsbury, op. cit., p. 504.

per cent were former teachers.[1] Despite what is known about the unique characteristics and demands of junior high/middle school, little serious attention has been given by teacher training institutions to the preparation of administrators.[2] Certification requirements are such that a principal holds a single certificate that will enable him to direct the affairs of a separate junior high, middle school, senior high, or a combination of two.

Manney conducted a study in 1955, regarding the professional preparation needed by junior high school principals in Oklahoma. He compared his findings with the present status of professional preparation and certification requirements in the North Central Association of Secondary Schools and Colleges. He concludes that:

1. Junior high school principals are not well prepared for the positions they hold.
2. The status of professional preparation of junior high school principals exceeds the certification requirements in most states.
3. The certification requirements in most states are not high enough to have any significant effect on the professional education of junior high school principals.[3]

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[1]Richard H. Conover, "The Junior High School Principalship," Schools for the Middle Years, ed. by George C. Stoumbis (International Textbook Company, 1969), p. 61.

[2]Kindred, op. cit., p. 10.

[3]Robert G. Brandt, "Administrator Attributes for Success," The Bulletin of NASSP, Vol. 57, No. 376, (November, 1973), p. 37.

At one time the administrator was an autocrat; then he became a successful manager, and at present he is a member of the administrative team. Brandt says that certain qualities, if not innate, should be developed for greater success in relating with teachers and students. These are sincerity, empathy, open-mindedness, intellectuality, objectivity, creativity, inspiration, and respect for people.[1] In addition, the administrator must have a good self-concept, must be fully aware of his assets and liabilities, and must be flexible in his search for new and better ways to bring about improvement. Moss adds that successful teaching experience with early adolescents must be the major requirement for becoming principal.[2]

Popper says that the quality of middle school administrators in the United States has been rising perceptibly since World War II. NASSP was given credit for this change.[3] It is no longer realistic to expect that one year of professional preparation in educational administration can equip principals of junior high/middle schools with the necessary technical skills of administration and also with those intellectual insights which distinguish between an administrative technicist and institutional leader.

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[1]Alexander, op. cit., p. 56.

[2]Theodore C. Moss, Middle School (Boston: Houghton, Mifflin Company, 1969), pp. 178-9.

[3]Popper, op. cit., p. 311.

The background of the middle school principal suggests that the future middle schools will have a problem recruiting an adequate supply of principals since this principalship requires persons with broad educational and managerial experience and training.[1] The middle school principal is a middle school manager whose management functions are those of planning, organizing, and controlling the school.

In 1963, NASSP launched an internship for prospective administrators. Fifty-five interns were selected to spend a year with an innovative principal. In 1969, the Ford Foundation funded this continuing project by involving 443 interns and 343 schools, and sixty-three colleges and universities.[2] Since there has been precious little help in the formal training of administrators to prepare them to assume the role of instructional leader, this program provided interns with a pattern of principalship.

Professional Preparation of Teachers

The teacher is the central figure in the process of leading students in their educational experience since he is the one who has the most contact with them. The quality of these experiences, therefore, depends significantly on the kind of person the teacher is.[3]

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[1]Grooms, op. cit., p. 53.

[2]Administrative Internship in Secondary School Improvement, Experience in Leadership (Washington: The National Association of Secondary School Principals, 1970), p. 9.

[3]George Sharp, Curriculum Development as Pre-Education of the Teacher (New York: Bureau of Publications, Columbia University, 1951), p. 2.

Howard finds that remarkably few teachers have undergone a preparation program specifically designed to prepare them to teach in a junior high school.[1] Middle schools appear to be encountering virtually the same problem in staffing schools. Typically, teachers for junior high schools have been prepared by college and university departments of secondary education with major stress upon training for departmentalized teaching in high schools. Klingele states that as a result of this failure to require a specific and distinctive program of preparation for the teachers of intermediate students, not only are the students short-changed, but their teachers are facing unnecessary daily frustration and anxieties in a job for which they have not been adequately prepared.[2] Stainbrook, quoting Van Til, labels the problem of teachers for the junior high school as the blind spot in teacher education and the forgotten teaching area.[3]

Toepfer states that the junior high school has been and will be expected to achieve specific objectives in the education of students as they progress through the American

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[1]Alvin W. Howard and Joan G. Brown, A Study of Competencies, Attitudes, and Characteristics Desirable for Teachers in Junior High and Middle Schools, Report, Educational Leadership Institute, Inc., III, No. 9, (May, 1971).

[2]William E. Klingele, "Teacher in Review Comparisons at the High and Intermediate School Levels," The Clearing House, Vol. 47, No. 9, (May, 1973), p. 557.

[3]James R. Stainbrook, "Preparing Teachers for the Intermediate Schools," The Clearing House, Vol. 46, No. 288, (January, 1972), p. 284.

public school system. The lack of definition of the education suitable for the junior high school teacher, as compared with the elementary and senior high teacher, seems to indicate that the prospects for success of teachers in junior high schools must be considerably less than at the other two levels.[1] The question is not whether teachers need special preparation for teaching, but what type of preparation they should receive. There is probably no aspect of contemporary education on which there is greater unanimity of opinion than that of overhauling teacher education.[2]

Teachers who care are of great importance during these years of early adolescence.[3] According to Bossing and Cramer, the following are characteristics that one must strive for when employed for the junior high school:

1. The teacher should have an awareness and understanding of the characteristics, needs, and interests of late pre-adolescent and early adolescent boys and girls.

2. The teacher's preparation should make possible teaching with the student rather than teaching to the student.

3. The teacher should provide opportunities for students to appropriately participate in formulating tests or material covered in units of class work.

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[1]Conrad F. Toepfer, Jr., "Who Should Teach in Junior High?" Schools for Middle Years: Readings ed. by George C. Stoumbis and Alvin W. Howard, (Scranton: International Textbook Company, 1969), p. 276.

[2]Charles E. Silberman, "The Teacher as Student: What's Wrong With Teacher Education," Crisis in the Classroom, (New York: Random House, 1970), p. 913.

[3]Jack E. Blackburn, "The Junior High School Teachers We Need," Educational Leadership, Vol. 29, No. 3., (December, 1965), p. 205-8.

4. The teacher should have broad knowledge and experience.
5. The teacher should be able to utilize problem solving techniques in student learning.
6. The teacher should be able to identify and utilize school and community resources.
7. The teacher should have the ability and desire to recognize and help students resolve their many and varied personal and special problems.[1]

There is, however, no foolproof list of characteristics for becoming an effective teacher. Each must adjust his style of teaching to fit his own abilities and aptitudes. Henderson and Bibens also state that quite possibly the most outstanding qualification for teaching is dedication--a combination of all of a teacher's qualities.[2]

In regard to teacher preparation, Grambs notes that most junior high teachers are accredited for secondary school work or specialization in subject matter. While the junior high school teacher needs excellent preparation in subject matter, he also needs additional professional instruction in the needs and nature of the adolescent, in guidance techniques and counseling, and in classroom practices which allow for maximum flexibility and provision for individual interests.[3] Southworth states that a case could be built for greater priority for the preparation of teachers for junior high and

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[1]Bossing and Cramer, op. cit., pl 327.

[2]George Henderson and Robert F. Bibens, Teachers Should Care (New York: Harper and Row, 1970), p. 23.

[3]Grambs, op. cit., p. 15.

middle schools. Transescent youth are behaving differently and their behavior changes have accelerated during a period when the field of psychology has been primarily concerned with fundamental and animal research.[1]

Vars suggests that the crucial element in the success of the junior high school of the future is the development of teachers whose preparation is neither exclusively secondary or exclusively elementary. He further states that what will be needed is a judicious blending of both types of preparation.[2] Vars also made recommendations for a desirable program for prospective junior high school teachers.

> Ideally, junior high and middle school teachers not only know their subject areas well, but also understand and accept young adolescents. They possess a sound background in psychology, anthropology, sociology, and human relations, which they are both willing and able to apply in work with this age group.
>
> The recommended professional education sequences include study, but not necessarily separate courses in the following: philosophy, purposes, and current developments in junior high school education; characteristics of young adolescents; principles of teaching and learning; methods of teaching reading and communication in the chosen subject field; observation and student teaching under competent guidance in junior high schools; and skills in counseling and group guidance.[3]

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[1]Horton C. Southworth, "Teacher Education for the Middle School: A Framework," Theory into Practice, (June, 1968), p. 27.

[2]Gordon F. Vars, "Change--and the Junior High School," Educational Leadership, Vo. XLIV, No. 6 (December, 1965), pp. 187-9.

[3]Gordon F. Vars, "Guidelines for Junior High and Middle School Education," The Bulletin of NASSP, Vol. 55, No. 357, (1966), p. 16-7.

Gruhn and Douglas add that the minimum professional preparation of teachers should include principles and problems of curriculum development; mental hygiene; the history, objectives, organization, and curriculum of the secondary school in America; the history, functions, organization, and curriculum of the junior high school; and the philosophy, organization, and procedures for guidance; and extra class activities. For those who desire to go beyond the minimum, study in the following areas should be considered.[1]

1. The use and interpretation of intelligence tests.
2. Organization and techniques of guidance.
3. Psychology and measurement of personality.
4. Abnormal educational psychology.
5. History of education.
6. Workshop experience in curriculum development and guidance.
7. School community relations.

A report on the Junior High School Principalship, a study conducted by NASSP in 1964, revealed that principals stressed courses in adolescent development, courses dealing with reading instruction, and practice teaching on the junior high level as being most valuable in the preparation of junior high school teachers. This serves to point up the fact that course work should deal more with content and less with method.[2]

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[1]Gruhn and Douglas, op. cit., p. 364.

[2]Conover, op. cit., p. 64.

The junior high/middle school teachers of tomorrow will exhibit many of the same characteristics that are considered desirable today: dedication, understanding, teaching competency, and flexibility. Bailey said, "We must change, we must continue to search for better ways to educate our youth."[1] The perceived demands of the future make it imperative that today's good practices be made even better. It is quite possible for those interested in rhetorical interplay to debate the degree to which change is good or bad, but it can be predicted that greater productivity and direction for education will result from a careful analysis of the forces affecting educational personnel.[2]

It is time that parents, educators, and college professors went back to the fundamental truth that fancy organizations and names do not make good schools for adolescents.[3] Good schools are the product of concerted effort by a dedicated and well-trained staff.

The following chapter describes the methodology used for this research. The methodology is composed of development of the questionnaire, research design, and statistical treatment used in this study.

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[1]Goldman, op. cit., p. 135.

[2]Goldman, op. cit., p. 134.

[3]J. H. Hull, "Are Junior High Schools the Answer?" Educational Leadership, Vol. 50, No. 331, (December, 1965), pp. 213-7.

CHAPTER III

METHODOLOGY

Introduction

Three hundred eleven junior high principals and middle school principals were asked to complete a fifty-two item questionnaire in order to determine their opinions relating to selected areas of principalship. Specifically, the principals were asked their opinions about the principalship as it presently exists in Oklahoma (real) and how they would like to see the principalship exist in Oklahoma (ideal). The difference between the real and ideal scores reported by each individual was regarded as an indicator of the level of satisfaction/dissatisfaction with the principalship. The real, ideal, and the difference scores were used to test the hypotheses stated in Chapter I. This chapter provides a detailed explanation of the procedures followed in conducting this study. Primary to the success of this investigation was the development of an adequate instrument.

Development and Validation of the Instrument

Best describes the basic principles for development

of a survey instrument.[1] He includes twelve suggestions which could be described as mechanical, since they deal with such items as sentence length and structure, simplicity of expression, relevance to the respondent, avoidance of suggestive items, interpretative validity, and others. The items for the questionnaire were drawn, mainly, from the items used by the National Association of Secondary School Principals in their survey regarding the principalship of the junior high school. Other items of the questionnaire were based on the review of literature and personal interviews with educational leaders regarding desirable aspects of the junior high and middle school.

The questionnaire contained five areas of concern: (1) professional preparation of teachers for the junior high and middle school; (2) educational objectives of the junior high and middle school; (3) curriculum and organization of the junior high and middle school; (4) professional courses or subjects of potential value to junior high and middle school principals; and (5) duties and compensation of the junior high and middle school principal.

The characteristics of the principal included in the national survey by NASSP were incorporated in this study. The responses given on this part of the questionnaire indicate the representativeness of the survey. A copy of the questionnaire is included in the Appendix C.

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[1]John W. Best, Research in Education (Englewood Cliffs: Prentice-Hall, 1959), pp. 145-50.

A five-item Likert rating scale suggested by Remmer[1] was used in the questionnaire. The rating scale for the questionnaire utilized a range from one (very desirable) to five (least desirable) for both the "real" condition and the "ideal" condition.

Prior to the distribution of the instrument, a careful pre-test validation procedure was conducted. Revision of the questionnaire was made a number of times with the assistance of fellow public school educators. Fifteen educators were selected as a group to whom the instrument was administered for the purpose of testing for clarity, objectivity, and basic characteristics of good instrumentation as described earlier in this chapter. After further revisions, the instrument was distributed to the selected respondents.

Population and Sample

The 311 junior high schools and middle schools, as shown by the Oklahoma Educational Directory, were sent a questionnaire. This list includes a total of 209 school systems that have separate junior high schools (not listed as a part of the elementary school or the high school) and twenty-nine middle schools.

A matched sample of subjects was also used in the statistical analysis of the data. These subjects used in

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[1]H. H. Remmer, "Rating Methods in Research on Teaching," Handbook of Research on Teaching, Ed. by N. L. Gage, (Chicago: Rand McNally and Company, 1963), p. 331.

the matched sample are shown in Appendix E. The subjects were matched using the "real" total scores of the junior high principals' responses matched with the "real" total scores of the middle school principals' responses.

Questionnaire Return Percentage

Sixty-five per cent of the questionnaires mailed for this study were returned in usable form. The return from middle school principals was approximately ninety-seven per cent, while the return from junior high school principals was approximately sixty-one per cent. Kerlinger reports that returns of less than forty to fifty per cent are common. Higher percentages are rare, and at best, the researcher must content himself with returns of fifty to sixty per cent.[1] The return percentages coupled with the representativeness of the groups led to the decision to continue the study.

Support for the Study

Support for the survey was given by the Oklahoma Association of Secondary School Principals. After obtaining the necessary assistance and support to conduct the study, the questionnaires were distributed to the participants. An intensive effort was made to collect as many completed questionnaires as possible, although, the return of responses was considered to be terminated after a reasonable length of time.

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[1]Fred N. Kerlinger, Foundations of Behavioral Reserch (New York: Holt, Rinehart and Winston, Inc., 1964), p. 397.

Design of Study

Kerlinger describes the survey research design as:

> . . . that branch of social scientific investigation that studies large and small populations (or universes) by selecting and studying samples chosen from the populations to discover the relative incidence, distribution and interrelations of sociological and psychological variables.[1]

A design serves two basic purposes: (1) it provides answers to research questions posed by the investigator and (2) it controls external sources of variation. A design tells what type of statistical analysis to use and, in a sense, what observation (measurement) to make, how to make them and how to analyze the quantitative representations of the observations. It does not tell what to do, but rather, suggests the directions of observation-making and analysis. It suggests how many observations should be made and which variables are active variables and which are assigned. An adequate design outlines possible conclusions to be drawn from the statistical analysis.[2]

Statistical Treatment

The selection of the appropriate statistical test for making the desired statistical calculation is important. In determining the statistical test, certain criteria should be considered. The criteria used are as follows: (1) the

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[1] Ibid., p. 393.

[2] Ibid., p. 276.

level of measurement of the data collected; (2) the number of participants used; (3) the number of groups being compared/contrasted simultaneously; (4) the assumptions underlying the particular statistical test; and (5) the most important factor, the nature of the information being sought by the hypothesis being tested. The Mann-Whitney U statistic was selected for each of the groups to be measured because of the power of the test in relation to the criteria used and discussed above.

The nature of this study and existing conditions dictated the selection of a statistical test applied to an independent samples design. According to Siegel, in an independent samples design, the two samples may be drawn at random from two populations or they may arise from the assignment at random of two treatments. In either case it is not necessary that the two samples be of the same size.[1]

The usual technique for analyzing data from two independent samples is to apply a "t" test to the means of the two groups. However, since all of the assumptions of the "t" test could not be guaranteed in this study, an alternative test was chosen. The Mann-Whitney U Test was selected for the purpose of testing the hypotheses.

According to Siegel:[2]

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[1]Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences (New York: McGraw-Hill Book Company, 1956), p. 95.

[2]Ibid., p. 116.

> The Mann-Whitney U Test is one of the most powerful of the nonparametric tests and is a most useful alternative to the parametric 't' test when the researcher wishes to avoid the 't' assumptions.

He further points out that the Mann-Whitney U Test has a power efficiency of 95.5 per cent and as the sample sizes increase (n_1, n_2, ≥ 20) the sampling distribution rapidly approaches the normal distribution with

$$\text{Mean} = \mu u = \frac{N_1 \cdot N_2}{2}$$

$$\text{Standard Deviation} = \sigma u = \sqrt{\frac{(N_1)(N_2)(N_1+N_2+1)}{12}}$$

The procedure for applying the U test is to first combine the observations or scores from both groups and rank these in order of increasing size. The rank of 1 is assigned to the lowest score. In the combined group of scores, assign rank to the next lowest score, etc. Then: $U = N_1N_2 + \frac{N_1(N_1+1)}{2} - R_1$ or, equivalently, $U = N_1N_2 + \frac{N_2(N_2+1)}{2} - R_2$

where R_1 = sum of the ranks assigned to group whose sample size is N_1

R = sum of the ranks assigned to group whose sample size is N_2

Where N_1 = number of subjects in the smaller of two independent groups, and N_2 = the number of subjects in the larger. When $N_2 \geq 20$ the significance of an observed value of U may be determined by: $Z = \frac{U-\mu u}{\sigma u} = \frac{U - \frac{(N_1N_2)}{2}}{\sqrt{\frac{(N_1)(N_2)(N_1+N_2+1)}{12}}}$

The probability associated with the occurance under H_o of values as extreme as an observed z may be determined by reference to a table of probabilities for the normal distribution. For the purposes of this study, the table provided by Siegel was utilized.[1]

Summary of Methods and Procedures

The questionnaire method was used to collect data from the junior high and middle school principals of Oklahoma. A fifty-two item questionnaire was developed by using a national survey conducted in 1966 by NASSP as a model. Each subject's "real" and "ideal" response to questionnaire items concerning satisfaction with the principalship was used in testing the eight hypotheses.

The responses on the questionnaire were tabulated and descriptive and statistical treatments of the data were utilized for their relevance to the purpose of this study. The Mann-Whitney U Test was used to test the significance of the difference between the mean scores of the two groups utilizing the .05 level of confidence.

Chapter IV contains the results of a statistical and descriptive analysis of each of the hypotheses.

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[1] Ibid., p. 247.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

Introduction

This chapter of the research report is concerned with the presentation of descriptive and inferential statistics and interpretations of the collected data taken from the survey questionnaire mailed to the junior high and middle school principals of Oklahoma. The major questions this research effort attempted to answer were:

1. How much difference, if any, is there between the way the junior high school principals in Oklahoma perceive the principalship?

2. How much difference, if any, is there between the way the middle school principals and the junior high school principals would like to see the principalship exist?

3. Is there a difference in the way the junior high school principals and the middle school principals of Oklahoma perceive the principalship?

4. How much difference, if any, is there between (a) the way junior high and the middle school principals of Oklahoma perceive certain educational issues as they exist with (b) that of how they would like to see the condition exist?

Three hundred eleven questionnaires were mailed to the two groups. Twenty-eight middle school and 173 junior high school principals responded. According to the information from the State Department of Education, there are only twenty-nine accredited middle schools in the state and 282 accredited junior high schools. An extra effort was put forth to secure as many returns as possible. A copy of the questionnaire is presented in Appendix C.

Review of Statistics

There were fifty-two items on the questionnaire dealing with aspects of the principalship. Since the ratings are from 1 (most desirable) to 5 (least desirable), a low score is a more desirable score. A comparison of participants' responses to the questionnaire was made between the two groups in order to determine if a difference between the two groups was significant. The Mann-Whitney U Test described by Siegel[1] was utilized. This test involves the ranking of two sets of scores. To apply the U test, the raw scores of the groups are ranked in order of increasing size. The value of U was computed by using the following equation:

$$U=n_1n_2 + \frac{n_1(n_1+1)}{2} - R_1$$

N_1= number of subjects of one group. N_2= number of subjects of other group. R = the sum of the rankings of the scores. A matched sample was used in the statistical analysis of the

[1]Siegel, op. cit., pp. 116-126.

data. The subjects used in the matched samples are shown in Appendix E. The junior high school principals' "real" responses were matched with the middle school principals' "real" responses.

Siegel states that anytime the n_2 is larger than twenty, the probability with a value as extreme as the observed value of U may be determined by computing the value of z by the following formula:[1]

$$z = \frac{U - \frac{(n_1\ n_2)}{2}}{\sqrt{\frac{(n_1)(n_2)(n_1+n_2+1)}{12}}}$$

One section of the questionnaire dealt with personal data regarding the principalship. This data is used to determine the representativeness of the sample to the population.

Comparison of Middle School and Junior High Principals

A comparison of the data regarding information secured from the questionnaire indicated a close similarity between the matched sample of junior high principals and the population. It was determined by the investigator that personal data utilized in this study provided acceptable evidence to verify the assumptions regarding the representativeness of the sample. The age of the principals, experience of the principals,

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[1] Ibid., p. 126.

and the enrollments of the schools they represent are shown in Tables I and III. These findings are compared to the mean age, experience, and enrollments of the schools of the subjects used in the sample.

Table 1 shows that of the 172 junior high principals' responses to the questionnaire, 48.84 per cent of the respondents were forty years of age and under, while 44.5 per cent of the middle school principals were forty or younger. The mean age determined for the total of the groups was forty-two years. The mean age of the junior high principals was 41.9, while the mean age shown for the middle school principals was 42.2 years. There was no significant difference between the mean ages of the two samples.

The total years of experience of the principals are shown in Table II. Only 172 junior high principals and twenty-seven middle school principals responded to the questionnaire. Table II shows that 58.72 per cent of the junior high principals who responded had seven years or less experience as compared to 66.67 per cent of middle school principals having seven years or less experience as principal.

The mean in years of experience determined for the total group of respondents was 8.06 years. The mean in years of experience determined for the sample of junior high school principals was 8.1 years, while the experience of the middle school principals averaged 7.07 years. The average experience of middle school principals was, therefore, about one year less than the total sample.

TABLE I

AGE DISTRIBUTION OF PRINCIPAL POPULATION

	Junior High School		Middle School	
Age	No.	Per Cent	No.	Per Cent
25 or less	2	1.16	--	--
25-30	13	7.56	3	11.11
31-35	32	18.61	4	14.82
36-40	37	21.51	5	18.52
41-45	21	12.21	4	14.82
46-50	25	14.53	6	22.22
51-55	22	12.79	2	7.40
46-60	12	6.98	1	3.71
61-65	6	3.49	2	7.40
66 or older	2	1.16	--	--
TOTAL	172	100.00	27	100.00

According to Table III, 59.30 per cent of the junior high principals' responses indicated that their enrollment was 399 or less, while 9.63 per cent of the middle school principals indicated the same. The mean enrollment for the total group was 427.24, the mean enrollment for the junior high sample was 510, and the mean enrollment for the middle school was 718. It was concluded, on the basis of the information

TABLE 2

TOTAL YEARS EXPERIENCE AS PRINCIPAL

	Junior High School		Middle School	
Years	No. Reporting	Per Cent	No. Reporting	Per Cent
1	9	5.23	3	11.11
2-4	43	25.00	8	29.63
5-7	49	28.49	7	25.93
8-10	23	13.37	3	11.11
11-13	14	8.14	3	11.11
14-16	7	4.07	2	7.41
15-20	11	6.40	1	3.70
21-over	16	9.30	--	--
TOTAL	172	100.00	27	100.00

determined by the responses on the questionnaire, that the matched sample of subjects was a fair representation of the group.

Results of Hypotheses Testing

Results of Testing Ho_1

The proposition tested in hypothesis 1 was as follows:

Ho_1: There is no significant difference of opinion in the way the junior high school and the middle school principals of Oklahoma perceive the principalship of Oklahoma.

This hypothesis was tested using the Mann-Whitney U Test. The computed U value was converted to a z format since the total number of participants within the groups exceeded

TABLE 3

ENROLLMENTS OF JUNIOR HIGH AND MIDDLE SCHOOLS

	Junior High School		Middle School	
Enrollments	No.	Per Cent	No.	Per Cent
Under 100	9	5.23	--	--
100-199	41	23.84	2	7.41
200-399	52	30.23	6	22.22
400-599	33	19.19	6	22.22
600-799	15	8.71	2	7.41
800-999	8	4.65	1	3.70
1000-1200	4	2.33	3	11.11
1201-1300	4	2.33	4	14.82
1301-1400	1	.58	3	11.11
1401 or more	5	2.91	--	--
TOTAL	172	100.00	27	100.00

twenty. This hypothesis (Ho_1) was tested by comparing the "real" scores of the junior high school and the "real" scores of the middle school principals by using the total groups. The calculations and results are presented:

$$U = (173)(28) + \frac{173(173+1)}{2} - 17706$$

$$U = 2189$$

$$z = \frac{2189 - 2422}{\sqrt{\frac{(173)(28)(173+28+1)}{12}}}$$

$n_1 = 173$

$n_2 = 28$

$R_1 = 17706$

$x = .816,\ p > .05$ (n.s.)*

Reference to a table of probabilities for the normal distribution of a one-tailed probability reveals that a $\underline{z} = .82$ requires the acceptance of the null hypothesis at the .05 level. The hypthesis Ho_1 of no difference between the two groups allows the researcher to accept the null hypothesis and conclude that the two groups see the principalship in the same way. There is no statistical difference of significance between the perception of the "real" by the junior high principals and middle school principals.

A sample of subjects was drawn to compare the two groups. The matched pair samples of the "real" scores for the junior high principals were compared with the "real" scores of the middle school principals' responses to the questionnaire. The calculations and results are presented:

$$U = (28)(28) + \frac{28(28+1)}{2} - 794$$

$$U = 396$$

$$n_1 = 28$$

$$n_2 = 28$$

$$R_1 = 794$$

$$z = \frac{396 - 392}{\sqrt{\frac{(28)(28)(28+28+1)}{12}}}$$

$$z = \frac{396-392}{61.02}$$

$$z = .07,\ p > .05 \text{ (n.s.)}$$

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*n.s. means no significant difference

Reference to a table of probabilities for the normal distribution of one-tailed probability reveals that a $\underline{z}$ value of .07 leads to the acceptance of the null hypothesis at the .05 level of significance.

One can conclude from the results of the total group and the sample group that a significant difference does not exist between the way the junior high school principals and the middle school principals perceive the principalship.

Results of Testing Ho_2

The proposition tested in hypothesis 2 was as follows:

Ho_2: There is no significant difference of opinion in the way the junior high and the middle school principals of Oklahoma would like to see the principalship.

This hypothesis was tested by using the Mann-Whitney U Test. The computed U value was converted to a $\underline{z}$ format since the total number of participants within the groups exceeded twenty. This hypothesis (Ho_2) was tested comparing the "ideal" scores of the junior high school principals with the "ideal" scores of the middle school principals. The calculations and results are presented:

$$U = (173)(28) + \frac{173(173+1)}{2} - 17950$$

$$U = 1945$$

$$z = \frac{1945 - 2422}{\sqrt{\frac{(173)(28)(173+28+1)}{12}}}$$

$n_1 = 173$

$n_2 = 28$

$R_1 = 17950$

$$z = \frac{1945 - 2422}{285.55}$$

$z = 1.6704$, $p < .05$

A z value of this size leads to the rejection of the null hypothesis in favor of the alternative hypothesis. It is concluded that there is a significant difference in the responses to the questionnaire made by the two groups. A significant difference does exist in the way the middle school principals perceive the ideal conditions of the principalship as it is compared to the way the junior high school principals perceive the principalship.

A matched sample of subjects was drawn to compare the ideal of the junior high principals' responses to the "ideal" of the middle school principals' responses. The subjects used for the matched pair groups are shown in Appendix E. The "real" scores of the junior high principals' responses were matched with the "real" scores of the middle school principals' responses. By using a matched pair sample, the researcher was able to compare the responses of the two groups by starting at a common place and measuring the distance between the groups.

The calculations and results are presented:

$$U = (28)(28) + \frac{28(28+1)}{2} - 944$$

$U = 246$

$n_1 = 28$

$n_2 = 28$

$R_1 = 944$

$$z = \frac{246 - 392}{\sqrt{\frac{(28)(28)(28+28+1)}{12}}}$$

$$z = \frac{246 - 392}{61.02}$$

$$z = 2.3926,\ p < .01$$

One can conclude from the results of the total group that a significant difference exists between the way the junior high principals perceive the "ideal" condition of the principalship as compared with the middle school principal's perception of the "ideal" conditions of the principalship.

Results of Testing Ho_3

The proposition tested in hypothesis 3 was as follows:

Ho_3: There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the "real" and "ideal" conditions of the principalship in Oklahoma.

This hypothesis was also tested with a Mann-Whitney U Test. Tests were made comparing the discrepancy scores between the two groups. (The discrepancy score is the difference between the "real" and "ideal" responses given by the participant.) The difference scores of the real and ideal scores of the junior high school are compared with the difference scores of the middle school principals. The difference scores are found in Appendix D.

In testing this hypothesis, a matched sample was used. The subjects used for the matched sample are shown in Appendix

E. The samples were drawn by comparing the junior high principals' "real" scores with the "real" scores of the middle school principals. By using a matched pair sample, the researcher was able to compare the responses of the two groups by starting at a common place and then measuring the distance between the two groups.

The calculations and results are presented:

$$U = (28)(28) + \frac{28(28+1)}{2} - 910$$

$$U = 280$$

$$z = \frac{280 - 392}{\sqrt{\frac{(28)(28)(28+28+1)}{12}}}$$

$$z = \frac{280 - 392}{61.02}$$

$$z = 1.8354,\ p < .05$$

$n_1 = 28$

$n_2 = 28$

$R_1 = 910$

A z value of this size leads to the rejection of the null hypothesis in favor of the alternative hypothesis. It is concluded that there is a significant difference in the discrepancy scores between the two groups. The rejection of the null hypothesis allows the researcher to conclude that a considerable difference exists between the perceived "real" and the perceived "ideal" of the principalship. A comparison of the means of the two groups will be discussed later in the paper.

Results of Testing Ho_4

Ho_4: The proposition tested in hypothesis 4 was as follows:

> There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the "real" and "ideal" areas of study relevant to the professional preparation of teachers in Oklahoma.

This hypothesis was tested using the Mann-Whitney U Test. Tests were made comparing the discrepancy scores between the responses reported by the junior high and middle school principals. The discrepancy score is the difference between the "real" and "ideal" responses given by the participant. By using a matched pair sample, the researcher was able to compare the responses of the two groups by starting at a common place and measuring the distance between the two groups.

The calculations and results are presented:

$$U = (28)(28) + \frac{(28)(28+1)}{2}$$

$$U = 452$$

$$z = \frac{452 - 392}{\sqrt{\frac{(28)(28)(28+28+1)}{12}}}$$

$$z = \frac{452 - 392}{61.02}$$

$$z = .6555,\ p > .05 \text{ (n.s.)}$$

$n_1 = 28$

$n_2 = 28$

$R_1 = 738$

A z value of this size leads to the acceptance of the null hypothesis at the .05 level of significance. The

results allowed the researcher to accept the fourth hypothesis and conclude that the junior high and middle school principals believed that there was no difference between the amount of emphasis placed on the preparation of teachers and the amount of emphasis which should be placed on this factor.

Results of Testing Ho_5

The proposition tested in hypothesis 5 was:

Ho_5: There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the "real" and "ideal" educational objectives of the junior high/middle school.

This hypothesis was tested by using the Mann Whitney U Test. The computed U value was converted to a z format since the total number of participants within the groups exceeded twenty. Hypothesis 5 was tested comparing the discrepancy scores of the two groups. The tests were made comparing the differences noted between the "ideal" and "real" ratings made from the questionnaire items in this factor of the questionnaire. The difference scores, the junior high matched sample, and difference scores of the middle schools are found in Appendix D.

The calculations and results are presented:

$$U = (28)(28) + \frac{(28)(28+1)}{2} - 711$$

$$U = 479$$

$$z = \frac{479 - 392}{\sqrt{\frac{(28)(28)(28+28+1)}{12}}}$$

$n_1 = 28$

$n_2 = 28$

$R_1 = 711$

$$z = \frac{479 - 392}{61.02}$$

$z = 1.4257$, $p > .05$ (n.s.)

A z value of this size leads to the acceptance of the null hypothesis. It is concluded that there was no statistical significance in the discrepancy scores between the two groups. The acceptance of the null hypothesis allows the researcher to conclude that a significant difference did not exist in the way the junior high and middle school principals perceive the educational objectives and the way they would like for them to be.

Results of Testing Ho_6

The proposition tested in hypothesis 6 was as follows:

Ho_6: There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the "real" and "ideal" curriculum and organization needs of the junior high/middle school.

This hypothesis was tested using the Mann-Whitney U Test. Tests were made comparing the discrepancy scores between the responses reported by the junior high and middle school principals. By using a match pair sample, the researcher was able to compare the responses of the two groups by starting at a common place and measuring the distance between the two groups.

The calculations and results are presented:

$$U = (28)(28) + \frac{(28)(28+1)}{2} - 784.5$$

$$U = 405.5$$

$n_1 = 28$

$n_2 = 28$

$R_1 = 784.5$

$$z = \frac{405.5 - .392}{\sqrt{\frac{(28)(28)(28+28+1)}{12}}}$$

$$z = \frac{405.5 - 392}{61.02}$$

$$z = .2212,\ p > .05 \text{(n.s.)}$$

It should be noted that all items of this factor of the questionnaire were treated as "positive" items. That is, they should enhance the learning of the in-between ager. Items 18, 21, 24, and 31 are conditions normally found in a traditional junior high school. In tabulating, the items were reversed in order to treat the raw data as positive responses.

Results of Testing Ho_7

The proposition tested in hypothesis 7 was as follows:

Ho_7: There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the "real" and "ideal" professional courses or subjects of potential value to principals of the junior high and middle school.

This hypothesis was tested using the Mann-Whitney U Test. Tests were made comparing the discrepancy scores between the responses reported by the junior high and middle school principals. The discrepancy score is the difference between the "real" and "ideal" responses given by the participant

By using a matched pair sample, the researcher was able to compare the responses of the two groups by starting at a common place and measuring the distance between the two groups.

The calculations and results are presented:

$$U = (28)(28) + \frac{(28)(28+1)}{2} - 634$$

$$U = 556$$

$$n_1 = 28$$

$$n_2 = 28$$

$$R_1 = 634$$

$$z = \frac{556 - 392}{\sqrt{\frac{(28)(28)(28+28+1)}{12}}}$$

$$z = \frac{556 - 392}{61.02}$$

$$z = 2.6876,\ p < .01$$

A z value of this size leads to the rejection of the null hypothesis at the .05 level of significance. The results allowed the researcher to accept the seventh hypothesis and conclude that the junior high school and middle school principals believed that there was a significant difference between the amount of emphasis placed on the professional courses or subjects of potential value to principals and the amount of emphasis which should be placed on this factor.

Results of Testing Ho_8

The proposition tested in hypothesis 8 was as follows:

Ho_8: There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the "real" and "ideal" duties and compensations of the junior and middle school principals.

This hypothesis was tested using the Mann-Whitney U Test. Tests were made comparing the discrepancy scores between the responses reported by the junior high and middle school principals. By using a matched pair sample, the researcher was able to compare the responses of the two groups by starting at a common place and measuring the distance between the two groups.

The calculations and results are presented:

$$U = (28)(28) + \frac{(28)(28+1)}{2} - 753$$

$$U = 437$$

$$z = \frac{437 - 392}{\sqrt{\frac{(28)(28)(28+28+1)}{12}}}$$

$$z = \frac{437 - 392}{61.02}$$

$$z = .7538,\ p > .05 \text{ (n.s.)}$$

$n_1 = 28$

$n_2 = 28$

$R_1 = 753$

A z value of this size leads to the acceptance of the null hypothesis. The results allowed the researcher to accept the eighth hypothesis and conclude that the junior high and middle school principals believed that there was no difference between the amount of emphasis placed on the duties and compensations of the junior high school and middle school principals and the amount of emphasis which should be placed on this factor.

It should be noted that all items of this factor of the questionnaire were treated as "positive" items in relation to the principalship. Item 42, Teaching Regularly Scheduled Classes, is not a desirable condition of the principalship. In tabulating, the response for this item was reversed in order to treat the raw data as a positive response.

Descriptive Comparison of Means

The results of the Mann-Whitney U Test for independent samples are shown in Table IV. In a comparison of the responses of the "real" of the junior high with the "real" scores of the middle school shows no statistical significant difference. The z value of the total group was .82, and the z value for the matched sample was .07. The null hypothesis (Ho_1) is accepted since this z value indicates no statistical difference between the two groups.

Table V shows a comparison of the total means for the groups to be similar. The junior high total mean is ($\overline{X} = 146.9$), the middle school mean is ($\overline{X} = 143.6$), and the sample junior high mean is ($\overline{X} = 143.5$). A comparison of these means shows only a slight difference. A look at the $\overline{X}$'s of the factors shows only a slight difference with no real significance.

The obtained z values and the comparison of the $\overline{X}$'s lead to an acceptance of the null hypothesis, that no significant difference existed in the way the middle school principal

and the junior high school principal perceived the principalship.

A comparison of the responses of the "ideal" of the junior high principals with the "ideal" scores of the middle school principals showed that a statistical difference did exist between the groups. The results allowed the researcher to reject the second hypothesis and conclude that a significant difference did exist between the two groups' perceptions of the principalship.

TABLE 4

RESULTS OF MANN-WHITNEY U TEST
FOR INDEPENDENT SAMPLES

Compared	R_1	U	Z	Significance Level
Total JH/MS (Real/Real)	17706	2189	.82	.21(n.s.)
Total JH/MX (Real/Ideal)	17950	1945	1.67	.05
Sample JH/MS (Real/Real)	794	396	.07	.47(n.s.)
Sample JH/MX (Ideal/Ideal)	944	246	2.39	.01
Diff. Scores (Real/Ideal)	910	280	1.84	.03
Factor I	738	452	.655	.25(n.s.)
Factor II	711	479	1.43	.07(n.s.)
Factor III	784.5	405.5	.22	.41(n.s.)
Factor IV	634	556	2.69	.01
Factor V	753	437	.753	.22(n.s.)

TABLE 5

MEAN, STANDARD DEVIATION, AND STANDARD ERROR OF MEAN FOR SAMPLE AND GROUP

Raw Scores	n	$\bar{X}$	S. D.	S. E.
Sample X (Real) J.H.	28	143.5	21.5	4.06
Sample X (Ideal) J.H.	28	105.5	20.9	3.95
Total Score (Real) J.H.	173	146.9	22.1	1.68
Total Score (Ideal) J.H.	173	99.2	20.4	1.60
Total Score (Ideal) M.S.	28	85.9	28.7	3.54
Total Score (Real) M.S.	28	143.6	21.6	4.07

TABLE 6

TOTAL GROUP MEANS AND STANDARD DEVIATION OF THE FACTORS INCLUDED IN THE QUESTIONNAIRE

	N	1 $\bar{X}$	1 S.D.	2 $\bar{X}$	2 S.D.	3 $\bar{X}$	3 S.D.	4 $\bar{X}$	4 S.D.	5 $\bar{X}$	5 S.D.
J.H.											
Real	173	23.5	4.7	23.7	5.0	52.1	8.7	19.1	4.1	28.7	5.9
Ideal	173	15.9	3.9	14.7	4.0	36.3	8.2	12.3	3.8	19.9	5.3
M.S.											
Real	28	23.9	4.7	23.5	4.6	49.1	10.9	20.0	3.9	26.9	6.4
Ideal	28	14.6	3.6	14.6	4.0	34.0	7.4	11.2	3.1	18.4	5.8

TOTAL SCORE:
J.H. Real $\bar{X}$ = 146.9 S.D. = 22.1
J.H. Ideal $\bar{X}$ = 99.2 S.D. = 20.4
M.S. Real $\bar{X}$ = 143.6 S.D. = 21.6
M.S. Ideal $\bar{X}$ = 85.9 S.D. = 28.7

TABLE 7

MIDDLE SCHOOL AND SAMPLE JUNIOR HIGH
GROUP MEANS STANDARD DEVIATIONS

		1		2		3		4		5	
	N	$\bar{X}$	S.D.	$\bar{X}$	S.D.	$\bar{X}$	S.D.	$\bar{X}$	S.D.	$\bar{X}$	S.D.
M.S.											
Real	28	23.9	4.7	23.5	4.6	49.1	10.9	20.0	3.9	26.9	6.5
Ideal	28	14.6	3.6	14.6	4.0	34.0	7.4	11.2	3.1	18.4	5.8
Sample J.H.											
Real	28	22.9	4.6	23.0	3.7	50.5	8.0	17.9	3.8	29.1	6.2
Ideal	28	16.8	4.1	16.1	3.9	38.4	8.0	12.9	4.5	21.2	5.1

TOTAL SAMPLE:

J.H. Ideal $\bar{X}$ = 105.5 S.D. 20.9
J.H. Real $\bar{X}$ = 143.5 S.D. 21.5

TOTAL SCORE:

M.S. Ideal $\bar{X}$ = 85.9 S.D. 28.0
M.S. Real $\bar{X}$ = 143.6 S.D. 21.6

A z value of 1.67 was significant at the .05 level of significance. A z value of the sample was 2.39 and was significant at .01 level of significance.

In a comparison of $\bar{X}$'s of Ho_2, there was a significance difference between the means. Table V shows the total means for the junior high responses as ($\bar{X}$ = 99.2) and the middle school responses as $\bar{X}$ = 85.0. The means of the sample

response for junior high was $\bar{X}$ = 105.5. A comparison of the means in the factors for both the group and sample shows that a significant difference exists in the factor.

The results allowed the researcher to reject the null hypothesis Ho_2 and conclude that there was a considerable difference in the way the middle school principal would like to see the principalship (ideal) and the way the junior high principal would like to see the principalship in both the population and the sample. It seems that the middle school principal has a higher expectation for the school than does the junior high principal.

In Table IV, the results of the Mann-Whitney show a significant value of $\underline{z}$ ($\underline{z}$ = 1.84) for the third hypothesis. Tests were made comparing the differences noted between the "real" and the "ideal" ratings made by each group. In the analysis of Ho_3, a matched pair sample was used. Both groups started at the same point ("real" scores of junior high were matched with the "real" scores of middle school.) Then the difference between the "real" scores and the "ideal" scores were compared. Actually, the distance from the "real" to the "ideal" scores of the two groups were compared since both groups started at the same point. Significance beyond the .05 level of significance was determined as shown in Table IV.

Table VIII shows the means for the difference scores. The subjects used for the matched sample and the difference

scores are found in Appendix D. An interesting thing to note is the direction of the means of the difference scores of the factors. In all factors but Factor V, which deals with the duties and compensations of the principals, the lower means are found in the junior high difference scores. This would indicate that a larger discrepancy existed between the middle school principal's response on the "real" score and his response on the "ideal" than did the responses given by the junior high principals. These results allowed the researcher to reject the null hypothesis and conclude that the middle school principals see more difference between the principalship as it exists and how they would like to see it exist than do the junior high principals.

TABLE VIII

DIFFERENCE SCORE MEANS

	1	2	3	4	5
Total M.S.	8.9	8.9	14.9	9.0	7.9
Sample J.H.	7.5	7.2	12.4	5.7	8.6

A comparison of the means of the discrepancy score in Table VIII show that a significant difference does not exist for Ho_4. The results allowed the researcher to accept the fourth hypothesis and conclude that there was no significant

difference between the amount of emphasis being placed on courses for the preparation of teachers and the amount of emphasis which should be placed on this area.

A z value of 1.42 is not significant at the .05 level of significance. Tests were made comparing the difference noted between the "real" and the "ideal" ratings reported by the junior high school and middle school principals. This factor of the questionnaire deals with certain educational objectives of the junior high school and the middle school. There desn't seem to be a significant difference between the means of the two groups as shown in Table VII.

The results allowed the researcher to accept the fifth hypothesis and conclude that the junior high school and middle school principals believed that there was no significant difference between the amount of emphasis being placed on the educational objectives and the amount of emphasis which should be placed on this factor.

In Table IV results of the Mann-Whitney U Test shows a z value of .22 for Ho_6. This value for z is not statistically significant at the .05 level of significance. Tests were made comparing the differences noted between the "real" and the "ideal" ratings, reported by the junior high and middle school principals. A comparison of the means for Factor III, which deals with curriculum and organization of junior high schools and middle schools shows a slight difference. A closer examination of the means indicates a wider

margin of differences in middle school principals' responses than in the junior high principals' responses given for the "real" and "ideal" scores.

A look at Table VI shows a middle school mean "real" ($\bar{X}$ = 49.1), "ideal" ($\bar{X}$ = 34.0), and the sample mean for junior high "real" ($\bar{X}$ = 50.5) and "ideal" ($\bar{X}$ = 38.4). It would seem that the middle school principal would have responded much better for this factor since it deals mainly with the curriculum and organization for a good middle school with the exception of items 18, 21, 24, and 31.

The results allowed the researcher to accept the null hypothesis Ho_6 and conclude that the junior high school and middle school principals believed that there was no significant difference between the amount of emphasis being placed on the curriculum and organization and the amount of emphasis which should be placed on this factor.

In Table IV, results of the Mann-Whitney U test show a z value of 2.69 on Ho_7. This value of z is statistically significant at .05 level and the researcher rejected the null hypothesis in favor of the alternative hypothesis. A comparison of the means for Factor IV, which deals with the professional courses or subjects of potential value to principals, shows that a significant difference exists between the means. The difference score means in Table VIII reveal that the junior high mean is lower than the middle school mean, but Table VII shows that a wide margin of difference

exists between the junior high sample mean ($\overline{X}$ = 105.5) and the middle school mean ($\overline{X}$ = 85.9).

The results allowed the researcher to reject the seventh hypothesis and conclude that the junior high school and middle school principals believed that there was a considerable difference between the amount of emphasis being placed on the professional courses or subjects of potential value to principals and the amount which should be placed on this factor.

A comparison of the means for Ho_8 indicates a slight difference of significance. A difference mean of the middle school is $\overline{X}$ = 7.9 and the difference mean of the junior high school is $\overline{X}$ = 8.6. The comparison of the means led the researcher to accept the null hypothesis and conclude that there was no significant difference between the amount of emphasis being placed on the duties and compensations of the principalship and the amount which should be placed on this factor.

Summary

The investigation revealed that there were significant differences in the way the junior high principals and middle school principals perceive the principalship. The null proposition of hypotheses 2, 3, and 7, were rejected. The null propositions of 1, 4, 5, 6, and 8 were accepted since the observed differences among the discrepancy ratings

reported by the two groups were not significantly different. The conclusions drawn from these results are presented in the final chapter of this report.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to determine whether or not there was a difference of opinion between and among the responses reported by the junior high and middle school principals concerning the principalship in Oklahoma. More specifically, the purpose of this study was to compare the discrepancy scores (the difference between the amount of emphasis being placed on the principalship and the amount of emphasis that should be placed on the principalship) reported by the junior high and middle school principals of Oklahoma.

The data collection instrument shown in Appendix C contained fifty-two items. The questionnaires were mailed to 311 junior high and middle school principals in Oklahoma. Sixty-five per cent of the questionnaires were returned in usable form. The return from middle school principals was approximately ninety-seven per cent while the return from junior high school principals was approximately sixty-one per cent.

Findings

Each of the hypotheses tested using the Mann-Whitney U Test and a z score conversion. Significance for rejecting the stated hypothesis was set at .05 level of significance. The study revealed the following major findings:

Hypothesis 1: There is no significant difference of opinion in the way the junior high and middle school principals of Oklahoma perceive the principalship. The hypothesis was accepted.

Hypothesis 2: There is no significant difference of opinion in the way the junior high and middle school principals of Oklahoma would like to see the principalship. The hypothesis was rejected.

Hypothesis 3: There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the real and ideal conditions of the principalship in Oklahoma. The hypothesis was rejected.

Hypothesis 4: There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the real and ideal study relevant to the professional preparation of teachers in Oklahoma. The hypothesis was accepted.

Hypothesis 5: There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the real and ideal educational objectives of the junior high and middle school. The hypothesis was rejected.

Hypothesis 6: There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the real and ideal curriculum and organization needs of the junior high and middle school. The hypothesis was accepted.

Hypothesis 7: There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the real and ideal professional courses or subjects of potential value to principals of the junior high and middle school. The hypothesis was rejected.

Hypothesis 8: There is no significant difference between the discrepancy scores reported by the junior high and middle school principals concerning the real and ideal duties and compensation of the junior high and middle school principal. The hypothesis was accepted.

Summary of Findings

The mean age of the junior high principals was 41.92, whereas, the mean age of middle school principals was 42.2. The average experience in years of middle school principals was approximately one year less than that of junior high principals, 7.07 and 8.1 years, respectively.

There was no significant difference in the "real" opinions of the total groups of junior high and middle school principals, as related to the principalship in Oklahoma. There was significant difference in the "ideal" perceptions of the total groups of middle school versus junior high

principals, related to the principalship. Middle school principals had higher ideals for the principalship. The same results for real and ideal perceptions occurred using a matched sample of junior high versus middle school principals.

When discrepancy scores (difference between "real" and "ideal" scores) were tested for significant difference between matched samples of the two principal groups, there were significantly greater discrepancies between the ideal/real responses of middle school principals and junior high principals. The mean real scores of both groups were almost equal (144), but the ideal mean of 85.9 of the middle school was a much higher goal than the ideal mean of 105.5 in the junior high group. Both principal groups had almost equal real perceptions of the principalship, but the ideals of middle school principals were significantly higher.

When discrepancy scores (difference between ideal/real scores) were compared between the two groups on the five factors of the survey, the only significant difference between middle and junior high principals was in Factor IV, Professional Courses or Subjects of Potential Value to Principals. The middle school principals perceived that a greater discrepancy existed between professional courses which were currently of value and needed professional courses than did the junior high principals.

Conclusions

Results of the statistical treatment of the data received from the junior high and middle school principals in Oklahoma show:

1. Age and experience have no bearing on the perception of the principal regarding the principalship in either the junior high or middle school.

2. Middle school principals had higher ideals for the principalship than did the junior high school principals.

3. Both principal groups had almost equal "real" perceptions of the principalship.

4. The middle school principals see a greater difference between the principalship as it exists and how they would like to see it exist than do the junior high school principals.

5. Middle school principals are less satisfied with the professional courses or subjects offered in state universities and colleges at the present time than are the junior high principals.

6. Junior high and middle school principals are complacent in regard to the professional preparation of teachers.

7. The duties and compensation as seen by the junior high principals are essentially the same as seen by the middle school principals.

8. Most of the junior high and middle schools in Oklahoma are an extension downward of the high school and do not operate as a distinct, separate school designed for this age youngster.

Recommendations

The following recommendations are made on the basis of outcomes determined in this investigation and a review of related literature:

It is recommended that the results of this research be used by college and university personnel who are involved in the professional preparation of junior high and middle school principals in Oklahoma.

It is recommended that the results of this research be used by college and university personnel who are involved in training teachers for junior high and middle schools.

It is recommended that school administrators establish in-service programs relating to education of the student in intermediate education.

It is recommended that the results of this research be used as a basis for further study in the area of middle schools in Oklahoma.

It is recommended that the results of this research be used as a basis for further study in the area of junior high schools in Oklahoma.

It is recommended that educational organizations in Oklahoma make a special effort to become more informed with regard to the implications involved in the principalship.

It is recommended that additional studies be done to determine what professional courses should be offered to benefit teachers and principals in middle schools.

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APPENDICES

APPENDIX A

Oklahoma City, Oklahoma
December 3, 1973

Dear Principal,

The National Association of Secondary School Principals made a nation-wide study of the junior high principalship in 1966. The results of this study were used in ways which have helped to raise the standards and status of the principalship. Similar studies have been and are being made on a state level in several states.

After reviewing the national study and some of those made in individual states, I have developed the attached questionnaire with the feeling that the information gained will be significant in helping to improve the standards and professional status of the junior high and middle school principalship in Oklahoma.

This study has been endorsed by Ocie Anderson, President of the Oklahoma Association of Secondary School Principals, and is being conducted under the direction of Dr. Gerald Kidd, Professor of Education at the University of Oklahoma.

For the benefit of the profession, may I ask if you will take time from your busy schedule to respond to each item on the questionnaire and return it to me in the enclosed envelope by December 20, 1973. The results of the individual questionnaires will remain confidential.

Thanks for your cooperation.

Sincerely,

Jerry Rippetoe

Jerry Rippetoe

APPENDIX B

December 29, .973

Dear Principal,

Recently I mailed you a questionnaire relative to the junior high/middle school principalship. Although I have received a good number of responses, obviously many of the questionnaires were mislaid over the busy holidays. Having been a principal, I am most certainly aware of the numerous demands on your time. If, however, you have not already completed and returned your response to my early questionnaire, would you please take a few minutes to complete the one enclosed and return it to me within the next few days? I would appreciate it very much. Each response helps to make this study more relevant and significant.

Thank you.

Jerry Rippetoe

APPENDIX C

QUESTIONNAIRE FOR OKLAHOMA JUNIOR HIGH/MIDDLE SCHOOL PRINCIPALS

A. CHARACTERISTICS OF THE JUNIOR HIGH/MIDDLE SCHOOL PRINCIPALSHIP

1. Personal Characteristics

   a. Age:_____ c. Male_____Female_____

   b. Race:_____ d. Marital Status: Married_____Single_____

2. _____How long have you been principal of this school?

3. _____How many total years of experience as a principal have you had? (Count this year as one year of experience.)

4. _____What was your major field in undergraduate study? (English, social studies, physical education, etc.)

5. _____How many years of teaching experience did you have prior to your first position as a principal?

6. _____What was the enrollment of your school as of October 1, 1973?

7. _____What is the approximate population of the city in which your school is located?

8. Yes No (circle one) Did you do your graduate work in the state of Oklahoma?

9. Yes No (circle one) Did you do work for certification in the state of Oklahoma?

10. Yes No (circle one) Is your school housed in a facility separate from the high school and elementary school?

11. 20:1 25:1 30:1 35:1 40:1 45:1 Circle the answer that most nearly describes the pupil teacher ratio in your school.

12. Junior High Middle School (circle one) Do you consider your school a junior high or middle school?

13. What grades are included in the school where you are principal?
    _____7-8 _____6-8 _____6-9 _____7-10
    _____K-8 _____7-9 _____Other

14. Which of the following best describes the organization of your school system. Is your school part of a:
    _____6-3-3 system _____6-2-4 system _____5-3-4 system
    _____6-6 system _____8-4 system _____Other

15. What was the last position you held prior to becoming a junior high/middle school principal?_____

The following statements require two responses. In each instance number 1 should represent the highest degree or the most desirable condition, while number 5 represents the least desirable or lowest degree.

Circle the response in the left hand column that you feel best describes the condition as it now exists. Circle the response in the right hand column as you would like for the condition to be.

Please mark all responses frankly and realistically. Consider each main topic (ex? Duties of the Principal) before you respond to the individual items beneath the main topic.

B. EDUCATIONAL ISSUES AS SEEN BY THE PRINCIPAL

Areas of Study Relevant to the Professional Preparation of Junior High/Middle School Teachers

Perceived Real (Now)			Ideal
Very Desirable 1 2 3 4 5 Least Desirable			Very Desirable 1 2 3 4 5 Least Desirable
1 2 3 4 5	1.	The adolescent, with emphasis on emotional development.	1 2 3 4 5
1 2 3 4 5	2.	History, purposes and functions of the junior high school.	1 2 3 4 5
1 2 3 4 5	3.	Guidance in the junior high/middle school.	1 2 3 4 5
1 2 3 4 5	4.	Teaching of specific subjects.	1 2 3 4 5
1 2 3 4 5	5.	Teaching reading.	1 2 3 4 5
1 2 3 4 5	6.	Student teaching in the junior high or middle school.	1 2 3 4 5
1 2 3 4 5	7.	Junior high/middle school curriculum.	1 2 3 4 5
1 2 3 4 5	8.	History, purpose and function of the middle school.	1 2 3 4 5
Educational Objectives of the Junior High/Middle School			
1 2 3 4 5	9.	Acquisition of basic skills (reading, writing, computing).	1 2 3 4 5
1 2 3 4 5	10.	Acquisition of basic knowledge.	1 2 3 4 5
1 2 3 4 5	11.	Understanding of values inherent in the American way of life.	1 2 3 4 5
1 2 3 4 5	12.	Adaptability of a changing world.	1 2 3 4 5
1 2 3 4 5	13.	Physical fitness.	1 2 3 4 5
1 2 3 4 5	14.	Career awareness	1 2 3 4 5
1 2 3 4 5	15.	Development of skills by the use of inquiry	1 2 3 4 5
1 2 3 4 5	16.	Development of positive self-concept.	1 2 3 4 5
Curriculum and Organization			
1 2 3 4 5	17.	A well-conducted intramural program.	1 2 3 4 5
1 2 3 4 5	18.	Interscholastic sports for girls.	1 2 3 4 5
1 2 3 4 5	19.	Interscholastic sports for boys.	1 2 3 4 5
1 2 3 4 5	20.	Ability grouping.	1 2 3 4 5
1 2 3 4 5	21.	Complete subject departmentalization.	1 2 3 4 5
1 2 3 4 5	22.	Selection of elective courses.	1 2 3 4 5

Curriculum and Organization - Continued

As the Condition Exists Perceived Real (Now)			The Condition As You Would Like To See It Ideal
Very Desirable 1 / More Desirable 2 / Desirable 3 / Less Desirable 4 / Least Desirable 5			Very Desirable 1 / More Desirable 2 / Desirable 3 / Less Desirable 4 / Least Desirable 5
1 2 3 4 5	23.	Team teaching (single subject).	1 2 3 4 5
1 2 3 4 5	24.	Self-contained classes for basic skills.	1 2 3 4 5
1 2 3 4 5	25.	Student grouping (large, small).	1 2 3 4 5
1 2 3 4 5	26.	Flexible and/or modular scheduling.	1 2 3 4 5
1 2 3 4 5	27.	Independent study.	1 2 3 4 5
1 2 3 4 5	28.	Team planning.	1 2 3 4 5
1 2 3 4 5	29.	Exploration of subjects.	1 2 3 4 5
1 2 3 4 5	30.	Use of paraprofessionals.	1 2 3 4 5
1 2 3 4 5	31.	Traditional scheduling (Carnegie unit).	1 2 3 4 5
1 2 3 4 5	32.	Learning labs (math, science, etc.).	1 2 3 4 5
1 2 3 4 5	33.	Student involvement in development of curriculum	1 2 3 4 5
1 2 3 4 5	34.	Use of inquiry methods of learning.	1 2 3 4 5
1 2 3 4 5	35.	Interdisciplinary team teaching.	1 2 3 4 5
		The Professional Courses or Subjects of Potential Value to Principals	
1 2 3 4 5	36.	Junior high/middle school organization.	1 2 3 4 5
1 2 3 4 5	37.	Curriculum development in the junior high/ middle school.	1 2 3 4 5
1 2 3 4 5	38.	Planning, scheduling, and extra curricular activities in a junior high/middle school.	1 2 3 4 5
1 2 3 4 5	39.	Counseling, guidance theory, and practice in the junior high/middle school.	1 2 3 4 5
1 2 3 4 5	40.	School business management in the junior high/ middle school.	1 2 3 4 5
1 2 3 4 5	41.	Psychology of early adolescence.	1 2 3 4 5
		C. DUTIES AND COMPENSATION OF THE JUNIOR HIGH/MIDDLE SCHOOL PRINCIPAL	
		Duties of the Principal	
1 2 3 4 5	42.	Teaching regularly scheduled classes.	1 2 3 4 5
1 2 3 4 5	43.	Written evaluation of teachers.	1 2 3 4 5
1 2 3 4 5	44.	Final authority in the selection of teachers.	1 2 3 4 5
1 2 3 4 5	45.	Conferences held periodically with beginning teachers.	1 2 3 4 5
1 2 3 4 5	46.	Classroom visits.	1 2 3 4 5
		Compensation	
1 2 3 4 5	47.	Self-satisfaction as principal.	1 2 3 4 5
1 2 3 4 5	48.	Prestige in the community.	1 2 3 4 5
1 2 3 4 5	49.	Accomplishment of a long range objective.	1 2 3 4 5
1 2 3 4 5	50.	Job security.	1 2 3 4 5
1 2 3 4 5	51.	Opportunities for more professional growth.	1 2 3 4 5
1 2 3 4 5	52.	Adequate salary.	1 2 3 4 5

APPENDIX D

APPENDIX D - Raw Data of Middle School Principal's Response

	Real						Ideal						
Sub. No.	1	2	3	4	5	Ts	1	2	3	4	5	Ts	Diff
1	18	28	68	23	29	161	10	16	33	12	17	88	73
2	20	18	93	18	27	126	14	11	33	7	18	83	43
3	24	24	58	19	26	141	16	17	45	14	16	108	33
4	23	26	54	17	29	149	18	14	35	11	26	105	45
5	28	30	50	21	26	155	15	12	25	13	21	86	69
6	22	23	53	34	30	162	15	12	31	13	22	93	69
7	25	26	49	22	21	143	18	21	42	13	14	108	35
8	25	26	66	23	33	173	8	19	30	8	12	72	101
9	10	9	35	18	17	89	10	9	26	16	11	62	27
10	23	20	44	22	38	147	13	13	31	12	15	84	63
11	29	24	60	22	30	165	18	17	42	11	23	111	54
12	33	24	49	22	26	154	23	22	43	17	19	124	30
13	25	28	59	23	44	179	15	17	52	15	34	133	46
14	25	25	49	19	29	147	17	21	35	12	15	100	47
15	29	22	42	17	21	131	12	9	23	6	13	63	68
16	31	25	59	20	40	175	13	9	30	11	18	81	94
17	23	29	37	18	18	125	16	15	32	16	16	95	30
18	26	23	41	12	25	127	23	22	41	14	24	124	3
19	25	19	49	18	22	133	14	10	42	10	22	98	35
20	25	19	23	24	25	116	10	13	21	6	12	62	54
21	19	19	36	19	24	117	12	17	35	12	23	99	18
22	23	23	43	21	25	135	14	15	30	13	19	91	44
23	23	22	55	18	22	140	11	9	37	10	11	78	62

APPENDIX D, Continued

	Real						Ideal						
Sub. No.	1	2	3	4	5	Ts	1	2	3	4	5	Ts	Diff
24	26	27	56	22	21	152	17	14	28	6	10	75	77
25	25	31	60	22	30	168	13	19	36	13	16	97	71
26	28	29	66	13	22	158	15	13	22	11	17	78	80
27	26	23	51	19	35	154	17	13	38	15	29	112	42
28	16	21	38	17	26	118	15	12	29	9	19	84	34

APPENDIX E

APPENDIX E - Difference (Real--Ideal)

Sub. No.		Factor 1	2	3	4	5	TS
M.S.	1	8	12	35	11	7	73
J.H.	70	7	10	15	15	14	61
M.S.	2	6	7	10	11	9	43
J.H.	19	13	11	12	4	12	52
M.S.	3	8	7	3	5	10	33
J.H.	44	5	2	8	1	11	27
M.S.	4	5	12	19	8	3	45
J.H.	71	13	10	11	7	8	49
M.S.	5	13	18	25	8	5	69
J.H.	152	7	8	16	4	7	42
M.S.	6	7	11	22	21	8	69
J.H.	137	10	7	18	3	9	47
M.S.	7	7	5	7	9	7	35
J.H.	31	10	10	30	10	17	77
M.S.	8	17	12	36	15	11	101
J.H.	114	14	10	26	12	6	68
M.S.	9	0	0	9	12	6	27
J.H.	58	5	3	5	0	8	15
M.S.	10	10	7	13	10	12	63
J.H	35	12	9	12	5	5	43
M.S.	11	11	7	18	11	7	54
J.H.	42	8	12	8	4	12	44
M.S.	12	10	2	6	5	7	30

APPENDIX E, Continued

Sub.	No.	Factor 1	2	3	4	5	TS
J.H.	77	3	3	8	6	2	16
M.S.	13	10	11	7	8	10	46
J.H	24	12	16	14	7	8	57
M.S.	14	8	4	14	7	14	47
J.H.	16	7	13	12	13	3	38
M.S.	15	17	13	19	11	8	68
J.H.	94	4	1	4	1	6	16
M.S.	16	18	16	29	9	22	94
J.H.	96	8	8	17	4	12	50
M.S.	17	7	14	5	2	2	30
J.H.	147	11	18	22	12	14	55
M.S.	18	3	1	0	2	1	3
J.H.	21	7	4	13	3	16	39
M.S.	19	11	9	7	8	0	35
J.H.	8	2	1	2	6	0	11
M.S.	20	15	6	2	18	17	54
J.H.	83	3	4	4	7	5	23
M.S.	21	7	2	1	7	1	18
J.H.	123	1	0	10	1	1	13
M.S.	22	7	2	1	7	1	18
J.H.	139	7	10	11	11	6	43
M.S.	23	12	13	18	8	11	62
J.H.	66	6	4	12	9	9	20

APPENDIX E, Continued

Sub. No.		Factor 1	2	3	4	5	TS
M.S.	24	9	13	28	16	11	77
J.H.	7	12	12	14	8	8	54
M.S.	25	12	12	24	9	14	71
J.H.	81	1	3	12	4	5	17
M.S.	26	3	16	44	2	5	80
J.H.	124	12	7	20	0	13	51
M.S.	27	9	10	13	4	6	42
J.H.	87	3	0	1	0	16	14
M.S.	28	1	9	9	8	7	34
J.H.	20	7	5	10	2	9	33

APPENDIX F

APPENDIX F - Raw Data of Junior High Principal's Response

	Real						Ideal						
Sub. No.	1	2	3	4	5	Ts	1	2	3	4	5	Ts	Diff
1	20	19	43	16	23	121	17	20	37	13	23	110	11
2	17	13	39	15	22	106	19	20	39	13	26	117	-11
3	24	20	40	15	24	123	20	21	36	15	23	115	8
4	22	23	46	15	24	130	18	17	33	11	19	98	32
5	27	29	47	21	36	160	16	16	31	12	23	98	62
6	30	30	50	21	31	162	18	19	44	13	23	117	45
* 7	26	23	52	20	31	152	14	11	38	12	23	98	54
* 8	21	21	51	19	21	133	19	20	49	13	21	122	11
9	24	27	61	20	32	164	16	13	38	12	22	101	63
10	28	22	56	26	43	175	17	16	38	11	24	106	69
11	31	28	72	18	18	167	19	16	26	17	18	96	71
12	20	27	54	24	30	155	11	16	45	13	28	113	42
13	8	10	36	10	19	83	21	19	56	20	26	142	-59
14	27	29	59	20	30	164	15	10	29	11	21	86	78
15	22	21	49	19	24	135	15	13	36	14	18	96	39
*16	27	23	52	16	28	146	20	10	40	13	25	108	38
17	25	26	55	15	30	151	16	15	28	11	13	83	68
18	20	21	50	18	24	133	16	18	41	16	18	109	24
*19	24	21	46	11	23	125	11	10	34	7	11	73	52
*20	19	21	41	11	26	118	12	16	31	9	17	85	33
*21	20	20	43	16	28	127	13	16	30	18	16	88	39
22	31	28	52	24	37	172	15	18	39	8	21	101	71
23	25	27	56	21	31	160	14	13	28	13	25	93	67

APPENDIX F, Continued

	Real						Ideal						
Sub. No.	1	2	3	4	5	Ts	1	2	3	4	5	Ts	Diff
*24	29	32	61	20	36	178	17	16	47	13	28	121	57
25	29	33	69	24	35	190	33	23	52	12	23	143	47
26	24	22	59	18	26	149	18	17	45	15	22	117	32
27	21	33	61	17	32	164	21	8	31	11	10	81	83
28	28	16	54	17	30	145	25	12	34	11	22	104	41
29	24	24	57	22	23	150	12	10	27	10	17	76	74
30	26	25	49	18	33	151	19	17	32	13	14	95	56
*31	22	21	49	18	33	143	12	11	19	8	16	66	77
32	26	26	47	17	23	139	12	16	29	8	14	79	60
33	27	25	60	20	28	160	15	22	54	16	22	129	31
34	20	23	54	18	29	144	19	20	35	18	23	115	29
*35	26	25	51	21	24	147	14	16	39	16	19	104	43
36	25	25	58	25	23	156	17	15	47	22	20	121	35
37	24	23	48	23	38	156	13	12	33	10	16	84	72
38	20	19	45	20	33	137	19	12	44	18	34	127	10
39	17	24	46	18	22	127	13	25	35	12	16	101	26
40	22	21	46	18	25	132	15	11	20	10	16	72	60
41	23	22	45	18	21	129	20	20	45	17	19	121	8
*42	25	28	54	20	38	165	17	16	46	16	26	121	44
43	24	24	50	20	35	153	16	14	35	12	18	95	58
*44	22	18	49	18	34	141	17	16	41	17	23	114	27
45	17	29	56	18	32	152	18	20	45	11	23	117	35
46	25	27	52	18	29	151	21	22	43	16	28	130	21

APPENDIX F, Continued

	Real						Ideal						
Sub. No.	1	2	3	4	5	Ts	1	2	3	4	5	Ts	Diff
47	22	22	47	18	25	134	15	15	48	15	23	116	18
48	14	12	39	12	18	95	8	8	28	8	16	68	27
49	21	20	42	24	29	136	8	8	15	8	10	49	87
50	20	25	48	26	29	148	15	15	34	12	19	95	53
51	23	32	60	15	29	159	16	21	47	13	21	118	41
52	16	27	45	15	31	134	9	13	40	13	25	100	34
53	25	24	60	21	34	164	20	15	35	15	24	109	55
54	17	13	39	16	19	104	17	13	37	12	18	97	7
55	20	15	37	12	20	104	19	12	36	10	19	96	8
56	22	21	42	20	30	135	18	18	37	15	30	118	17
57	16	22	45	18	22	123	11	14	41	14	16	96	27
*58	13	20	30	12	15	90	18	17	35	12	23	105	-15
59	29	25	58	24	25	161	13	15	32	9	13	82	79
60	23	26	56	23	36	164	18	23	45	15	23	124	40
61	14	10	47	13	29	113	13	8	23	11	22	77	36
62	23	23	53	17	32	148	18	17	32	11	23	101	47
63	22	25	56	11	28	142	12	11	26	9	22	80	62
64	25	27	53	14	24	118	10	12	31	11	23	87	87
65	27	23	46	18	32	146	23	16	33	12	24	108	38
*66	22	21	50	19	28	140	16	17	38	10	19	100	40
67	15	19	37	10	23	104	10	10	26	6	13	65	39
68	28	27	59	20	35	169	21	25	47	18	28	139	30
69	26	25	50	21	14	136	17	16	34	13	13	93	43

APPENDIX F, Continued

	Real						Ideal						
Sub. No.	1	2	3	4	5	Ts	1	2	3	4	5	Ts	Diff
*70	25	24	55	24	33	161	18	14	40	9	19	100	61
*71	29	26	47	19	28	149	16	16	3	12	20	100	49
72	25	31	56	25	27	164	18	13	29	10	14	84	80
73	32	28	61	24	36	181	12	10	28	7	13	70	111
74	23	28	59	26	23	159	22	14	38	7	16	97	62
75	26	24	49	19	30	148	17	14	37	10	28	106	42
76	19	21	47	14	33	134	14	10	32	10	26	92	42
*77	24	16	56	26	32	154	21	19	48	20	30	138	16
78	24	28	59	19	31	156	14	14	38	13	26	105	51
79	25	13	61	18	35	152	19	16	49	26	24	134	18
80	24	36	62	20	30	172	15	12	50	20	20	114	55
*81	27	23	61	22	35	168	26	20	49	26	30	151	17
82	27	32	62	23	31	175	13	15	43	14	23	108	67
*83	15	18	43	14	26	116	12	14	39	7	21	93	23
84	28	24	61	19	25	157	14	12	32	11	12	81	76
85	21	21	65	15	26	148	8	9	18	6	10	51	97
86	15	18	34	8	28	103	15	20	34	8	22	99	4
*87	21	24	53	18	38	154	24	24	52	18	22	140	14
88	27	25	56	21	37	166	20	18	51	17	25	131	35
89	29	31	58	20	31	169	14	15	44	12	15	100	69
90	25	22	46	17	29	139	14	9	28	9	12	72	67
91	21	21	52	24	21	139	13	15	39	14	18	99	40
92	19	27	45	21	30	142	21	24	44	16	28	133	9

APPENDIX F, Continued

	Real						Ideal						
Sub. No.	1	2	3	4	5	Ts	1	2	3	4	5	Ts	Diff
93	28	31	58	33	22	172	13	9	31	6	17	76	96
*94	17	23	44	17	30	131	13	22	40	16	24	115	16
95	27	23	66	21	38	175	12	9	28	6	21	76	99
*96	27	26	61	21	40	175	19	18	43	17	28	125	50
97	30	23	64	24	27	168	17	14	40	17	22	110	58
98	21	25	68	22	32	168	16	19	41	19	26	121	47
99	29	24	48	22	30	153	15	13	42	14	25	109	44
100	21	26	42	22	22	133	8	10	18	6	10	52	81
101	20	24	57	15	38	154	14	16	50	15	18	113	41
102	31	17	56	21	20	145	18	14	38	8	20	98	47
103	21	20	46	16	19	122	17	18	35	15	18	103	19
104	28	28	57	18	29	160	19	19	41	14	23	116	44
105	25	28	62	20	25	160	18	21	43	15	22	119	41
106	22	23	46	19	30	140	15	11	25	8	14	73	67
107	24	24	51	18	19	136	17	14	31	14	15	91	45
108	27	28	62	26	35	178	9	13	25	10	23	80	98
109	16	23	58	18	18	133	11	15	40	16	14	96	37
110	30	23	58	24	23	158	16	15	48	13	21	113	45
111	23	23	60	15	22	143	16	11	37	6	13	83	60
112	19	24	59	12	34	148	14	17	37	12	23	103	45
113	25	29	43	19	19	135	12	11	21	6	11	49	86
*114	28	28	65	23	29	173	14	18	39	11	23	105	68
115	20	18	56	21	23	138	15	11	36	13	22	97	41

APPENDIX F, Continued

	Real						Ideal						
Sub. No.	1	2	3	4	5	Ts	1	2	3	4	5	Ts	Diff
116	24	22	51	19	32	148	18	17	38	14	22	109	39
117	25	28	61	23	33	170	15	12	38	12	18	95	75
118	23	21	60	19	29	152	15	16	48	12	20	111	41
119	24	21	58	22	29	154	17	12	41	12	21	103	51
120	14	7	21	8	23	73	14	7	16	7	23	67	6
121	25	29	45	23	32	154	17	14	36	15	17	99	55
122	28	32	61	20	30	171	9	12	42	10	15	88	83
*123	23	18	45	11	20	117	22	18	35	10	19	104	13
*124	30	24	60	14	30	158	18	17	40	14	17	107	51
125	27	27	53	21	30	158	12	15	37	9	20	93	65
126	17	13	36	13	19	98	12	11	23	6	15	67	31
127	28	30	51	19	34	162	14	13	34	7	18	86	76
128	24	28	42	19	20	133	20	18	34	10	17	99	34
129	18	23	47	18	22	128	10	9	27	6	10	62	66
130	14	18	42	13	16	103	23	16	37	12	13	101	2
131	26	25	46	22	24	143	20	12	27	12	20	91	52
132	32	33	66	28	42	201	15	14	31	8	24	92	109
133	19	20	42	22	26	129	18	19	46	14	17	114	15
134	32	24	67	18	22	163	22	17	39	12	22	112	51
135	35	29	53	23	25	165	21	24	43	14	23	125	40
136	23	28	59	20	36	166	15	18	43	17	35	128	38
*137	24	28	59	18	33	162	14	21	41	15	24	115	47
138	25	28	42	21	37	153	21	15	35	16	26	113	40

APPENDIX F, Continued

	Real						Ideal						
Sub. No.	1	2	3	4	5	Ts	1	2	3	4	5	Ts	Diff
*139	19	21	42	17	17	116	12	11	31	8	11	73	43
140	29	21	58	25	24	157	14	11	25	9	12	71	86
141	32	21	59	24	30	166	20	13	41	13	24	111	55
142	28	28	51	22	26	151	17	15	39	13	20	104	47
143	25	21	53	20	27	146	16	9	28	11	14	78	68
144	24	22	64	15	32	157	18	13	42	9	18	100	57
145	19	14	41	16	24	114	17	14	29	12	19	91	23
146	16	18	33	17	26	110	10	11	23	12	20	76	34
*147	13	26	39	18	28	124	24	8	17	6	14	69	55
148	27	33	56	26	30	172	15	15	32	8	13	83	89
149	24	16	49	20	29	138	14	8	29	6	15	72	66
150	30	25	63	23	42	183	14	9	27	8	10	68	115
151	26	29	64	22	39	180	17	11	38	14	17	97	83
*152	23	26	55	19	32	155	16	18	39	15	25	113	42
153	15	22	44	18	25	124	15	17	40	12	19	103	21
154	27	25	61	21	31	165	17	11	42	17	21	108	57
155	20	18	62	23	25	148	10	8	23	13	17	71	77
156	24	15	51	20	30	140	19	13	45	14	26	117	23
157	30	26	62	23	37	178	20	18	39	15	29	121	57
158	16	24	52	10	28	130	13	8	19	12	14	66	64
159	25	28	46	19	35	153	16	15	43	17	16	107	46
160	27	27	53	18	26	151	18	16	39	18	28	119	32
161	25	30	70	20	35	180	18	16	34	16	27	111	69

APPENDIX F, Continued

	Real						Ideal						
Sub. No.	1	2	3	4	5	Ts	1	2	3	4	5	Ts	Diff
162	31	29	64	19	30	173	16	14	27	9	10	96	77
163	18	20	43	27	34	142	8	11	41	7	16	83	59
164	30	33	65	25	36	189	16	12	37	17	24	106	83
165	28	21	65	19	35	168	12	8	20	8	10	58	110
166	17	17	35	9	27	105	12	10	26	7	13	68	37
167	29	32	57	21	37	176	20	18	44	17	24	123	53
168	24	24	48	19	34	149	21	21	41	15	25	123	26
169	21	21	55	18	31	146	14	13	32	10	14	83	63
170	24	25	46	19	35	149	16	16	42	18	29	121	28
171	23	20	46	16	35	140	17	13	32	11	26	99	41
172	16	16	48	14	25	119	11	8	26	7	11	63	56
173	20	26	54	22	41	163	10	13	45	11	13	92	71

*Subjects used to compare with middle school subjects

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21988

MICROFILMED—1974