

A PREPARATION PROGRAM FOR
JUNIOR-HIGH-SCHOOL TEACHERS

By
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AN ABSTRACT

Submitted to the School of Advanced Graduate Studies
of Michigan State University of Agriculture and
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The failure of the junior high school to become a fully distinctive institution has resulted in the lack of a clear conception of what the proper preparation program should be for prospective junior-high-school teachers.

In this study, an attempt was made to learn from in-service teachers their judgments of what ought to be included in a practical junior-high-school teacher training program. Opinions were also sought in reference to desirable preparation programs for both upper-elementary and senior-high-school teachers. This was done to discover the relationship between advisable training programs for teachers at all three instructional levels.

A rating instrument was developed which provided each respondent an opportunity to rate the significance of each of 15 possible training areas to a preparation program for teachers at the instructional level or levels at which he had had experience. In addition, teachers with junior-high-school experience were asked to respond to an open-end question concerning the most desirable type of training program for teachers at that instructional level.

The selection of the sample took into consideration the various sizes and kinds of school systems in southern Michigan. The results were then tabulated according to the background of experience that each respondent possessed.

Conclusions. From the analyses of opinions expressed by teachers and administrators cooperating in this study, the following conclusions were reached:

1. Certain areas of training are uniquely important to the prospective junior-high-school teacher.
2. Teachers' judgments concerning suggested training areas are not significantly affected by dissimilar types of teaching experience.
3. The following five training areas are most essential to the preparation program of junior-high-school teachers: guidance and counseling, special methods of teaching, general or liberal education, human growth and development, and methods of teaching reading and other basic skills.
4. A majority of teachers who have had experience in the junior high school believe that a separate preparation program for teachers at this instructional level should be offered.
5. Of the two common types of teacher preparation programs now available, the elementary training

program offers the best possibilities for producing adequately-prepared junior-high-school teachers.

6. A lack of homogeneity between the preparation programs judged to be best for senior-high-school teachers and for junior-high-school teachers results mainly from the great difference in emphasis placed upon training in a specialized subject.
7. The time is long overdue for teacher-training institutions to encourage young men and women who possess the necessary personal and professional characteristics to prepare for and remain in the junior high school.

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TABLE OF CONTENTS

CHAPTER	Page
I. INTRODUCTION	1
The Problem	5
Definition of Terms	11
Limitations	12
Summary	13
II. REVIEW OF THE LITERATURE	15
Objectives of Junior High Schools	15
Preparation Programs	19
Summary	27
III. METHODOLOGY	29
Development of the Rating Form	30
Obtaining the Ratings	34
Summary	36
IV. ANALYSIS OF THE STATISTICAL DATA	38
Analysis of Variance Results for Teachers Having Experience at One Instructional Level	39
Analysis of Variance Results for Teach- ers Having Experience at Two Instruc- tional Levels	40
Comparison of the Responses of the Four Groups	46

CHAPTER

Page

Comparison of the Ratings Between Junior High and Each of the Other Two Levels	50
Relative Rankings for the Three Levels of Instruction	53
Summary	57
V. UNSTRUCTURED RESPONSES	60
Reasons for Choices	63
Responses Favoring the Secondary Program	64
Responses Favoring the Elementary Program	65
Responses Favoring a Different Program .	67
Summary	69
VI. SUMMARY AND CONCLUSIONS	72
Conclusions	73
Recommendations	77
Suggestions for Further Study	84
BIBLIOGRAPHY	85
APPENDIXES	
A. Copy of Questionnaire Submitted to 38 Teachers who Helped Develop Final Rating Form	90
B. A Preparation Program for Teachers	93
C. List of Michigan School Systems Cooperating in the Study	102

APPENDIXES (continued)

Page

D.	Distribution of Frequencies of the Ratings Given by Teachers with Experience at Only One Instructional Level	104
E.	Analysis of Variance of Ratings Given by Teachers with Experience at One Instructional Level	106
F.	Distribution of Frequencies of the Ratings Given by Teachers with Experience at Two Instructional Levels	110
G.	Analysis of Variance of Ratings Given by Teachers with Experience at Two Instructional Levels	112
H.	Distribution of Frequencies of the Ratings Given by Teachers with Experience at Three Instructional Levels	116
I.	Analysis of Variance of Ratings Given by Teachers with Experience at Three Instructional Levels	118
J.	Distribution of Frequencies of the Ratings Given by Administrators with Experience at Three Instructional Levels	122
K.	Analysis of Variance of Ratings Given by Administrators with Responsibilities at Three Instructional Levels	124
L.	Analysis of Variance of Ratings Given by Total Sample of Teachers and Administrators.	128
M.	Unbiased Estimates of the Variance Between Group Means	132

LIST OF TABLES

TABLE	Page
I. F Ratios Resulting from Ratings by Teachers with Experience at Only One Instructional Level	41
II. F Ratios Resulting from Ratings of Teachers with Experience at the Junior High and One Other Instructional Level	42
III. F Ratios Resulting from Ratings by Teachers with Experience at All Instructional Levels	44
IV. F Ratios Resulting from Ratings by Administrators with Responsibilities at All Instructional Levels	45
V. F Ratios Resulting from Combined Ratings of All Respondents	49
VI. Test of Significance of Difference Between Means for Junior High School Level and Each of the Other Two Levels of Instruction	51
VII. Ranking of Importance of Training Areas for Each Instructional Level	55
VIII. Opinions Concerning Best Junior High School Preparation Program	61

CHAPTER I

INTRODUCTION

The junior high school had its beginnings in America early in the twentieth century after dissatisfactions arose with the traditional eight-year elementary school that had been transplanted here from Europe. The reasons for this displeasure varied. Some expressed the belief that the elementary program was too long and that students could be prepared to enter college at an earlier age if the high school subjects were introduced sooner. Others were alarmed at the large numbers of students who withdrew from school when their elementary training had been completed. Still others demanded that the school system on every level meet the changing interests and needs of the students.

Following its early beginnings, there developed an extreme faith in the worthwhileness, possibilities, and effectiveness of the junior high school. This confidence is shown by the rapid increase in the number of reorganized secondary schools in the United States. Since 1920 more than one-half of the public four-year high schools in this

country have been replaced by reorganized high schools. Even more significant, the number of students enrolled in the traditional four-year high school has declined until they made up in 1952, only 25.2 per cent of the total attendance in public high schools.¹

Despite the rapid growth in numbers, junior high schools have never been able to develop the same degree of self-identification as have the elementary and senior high schools. Probably one of the principal reasons for this is that often the junior high school has been established only as an appendage of either the elementary or the senior high school program, rather than as a unit worthy of equal status in the school organization.

A recent publication of the United States Office of Education describes the plight of the junior high school thus:

Too often this school was regarded as an "in between" institution. Those working in elementary education thought of it as a part of the program of secondary education; those working with the secondary schools regarded it as a part of the elementary system. Those looking at it from the standpoint of building space considered it a handy device to provide flexibility of space. If more room was needed in the elementary school, all or part of grade 6

¹Junior High School Facts, U. S. Department of Health, Education, and Welfare. Washington, D.C.: Office of Education, 1955, p. 16.

was sent to the junior high school; when the high school was crowded, all or part of grade 10 was sent to the junior high school "catch-all." When the junior high school was found to be "bursting at the seams," 7th graders might be sent back to the elementary school or 9th graders to the senior high school. The point is that the junior high school, instead of being given a definite place in its own right having specific educational purposes affecting young adolescents which neither the elementary or senior high school could serve as well, was not taken with sufficient seriousness to become a fully distinctive institution.²

The reference made in the preceding quotation to the junior high school being an "in between" institution applies equally well to the teachers at this grade level. Junior high schools have usually been staffed by teachers who were trained primarily for senior high or elementary school teaching. Seldom does a prospective teacher consider that his future may lie in the junior high school and thus try to prepare himself specifically for working with youngsters at this level. Probably even if he wishes to be trained for this level, he would find no such training program offered. Lloyd Elliot explained the problem when he wrote:

In the teacher-training institutions it is too commonly found that programs are designed to train either elementary or high school teachers or both with the addition of a simple professional course on the junior high school or some phase thereof made available to

²Ibid., pp. 4-5.

students who may have to begin their teaching at this level. In some colleges even this course has been pushed to the graduate level - out of reach of the beginning teacher. With such as a background of training it is not surprising that junior high school curricula still show a dominant pattern of patchwork subjects - an initial barrier to the fulfillment of the most fundamental functions of this new division.³

Even if teacher-training institutions did provide a preparation program especially for junior high school teachers, it is unlikely that such a program would fulfill the teacher certification requirements of many states. These requirements for teachers of grades seven, eight, and nine vary widely in America. Some states allow only holders of secondary teachers' certificates to teach in these grades. Others will permit both secondary and elementary certificate holders to work at this level. In still others, elementary certificates are valid in grades seven and eight if the school is organized with an eight-year elementary school, but not if it is organized on a six-six plan.⁴

In Michigan and many other states, teachers in grades seven and eight may be licensed to teach by meeting the

³Lloyd H. Elliot, "The Junior High - A School Without Teachers," Education, Nov. 1949, pp. 186-190.

⁴Robert C. Woellner and M. Aurilla Wood, Requirements for Certification, Chicago: The University of Chicago Press, 1955.

preparation requirements for either an elementary or a secondary teaching certificate. Since the training programs for these two types of certificates are quite different, a junior-high-school teacher may qualify for certification after completing either of two quite unlike programs of preparation.

Teacher certification requirements naturally dictate, to a large degree, the type of teacher preparation programs offered by training institutions. It has followed, therefore, that the same lack of agreement has existed among teacher trainers concerning what a proper junior-high-school teacher preparation program should be.

The Problem

Statement of the problem. It was the purpose of this study (1) to determine what in-service teachers judge to be the most practical preparation program for junior-high-school teachers; (2) to ascertain the relation between the pre-service training needs of junior-high-school teachers and the pre-service training needs of senior-high-school teachers; (3) to ascertain the relation between the pre-service training needs of junior-high-school teachers and the pre-service training needs of teachers of the upper elementary grades; and (4) to discover the implications for teacher training

institutions regarding the composition of a practical preparation program for teachers in the junior-high schools.

Importance of the study. The junior-high-school teacher in the United States is a part of a new and peculiarly American institution. While he is not concerned primarily with the mastery of the fundamentals, as is the elementary school teacher, he has correspondingly great responsibilities. For it is he who must work with youngsters during their critical years of transition from childhood to young adulthood.

Few teacher-training institutions, however, have shown evidence that they regard the preparation necessary for teachers of seventh, eighth, and ninth grade children as being any different from the preparation suitable for teachers of other grade levels. As a result it is virtually impossible for a school administrator to employ a teacher who has been trained specifically for junior-high-school teaching.

Eminent psychologists, however, have asserted that children of junior-high-school age constitute the greatest challenge to teacher resourcefulness. Luella Cole points out that the maturation of the sex glands is the most important single development of the adolescent years. But

she says that the mere physical ability to produce offspring is not nearly as significant at the moment as the added depths and nuances of emotional life that develop along with physical puberty. She writes:

In order to pass from childhood to adulthood the adolescent must solve a number of problems. He must develop heterosexual interests, become free from home supervision, achieve economic and intellectual independence, and learn how to use his leisure time; he must also make new emotional and social adjustments to reality, and begin to evolve a philosophy of life.⁵

6

Studies have shown that approximately 85 per cent of American boys and girls reach maturity between the ages of 12 and 16, the age range that includes the great majority of junior-high-school youngsters.

Gertrude Noar described the characteristics of junior-high-school students when she said:

In early adolescence, accompanying new spurts of physical growth, curiosities about the world and society, interests in developing new social and manual skills, needs for relating self to other human beings, urges toward independence of thought and action, and a quickening wonder about the meaning of life become awakened. These are the characteristics of the period that follows childhood. With few exceptions, children are in it for some part of the time they spend in junior high school.⁷

⁵ Luella Cole, Psychology of Adolescence. New York: Rinehart and Company, Inc., 1948, p. 54.

⁶ Ibid., pp. 69-70.

⁷ Gertrude Noar, The Junior High School Today and Tomorrow. New York: Prentice-Hall, Inc., 1953, p. 39.

Cole illustrates the complexity of the junior-high-school age group in the following way:

In a hypothetical school containing two-hundred 13 year old children, one-half of whom were boys and one-half girls, there would be the following situation: seventy girls would be physically mature and thirty immature, while half of the boys would be mature and half immature. Because of the paramount importance of sexual maturity to adolescents, this mixture would show differences in emotional attitude and interest that would make the group difficult to teach.⁸

The actual school situation is even more complex than the example just given because in any one class the range of chronological ages is about four years, with children in each age group showing varying degrees of maturity.

Robert Havighurst writes that, "From the age of thirteen or fourteen, most boys and girls are preoccupied with social activities and social experimentation. This is their most important business. They make school their social laboratory."⁹

In addition to the problems resulting from emotional changes in adolescent boys and girls, the difficulties of junior-high-school teachers are compounded because of still another factor. Students who are retarded in their normal

⁸

Ibid., pp. 56-57.

⁹

Robert J. Havighurst, Human Development and Education. New York: Longmans, Green and Company, 1953, p. 112.

progression through the grades tend to reach a maximum in junior-high school. Many of them withdraw from school as soon as they reach the age when school attendance is no longer compulsory. Thus, senior-high-school teachers do not have to work with as many of this more difficult group of slow learners.

This fact is illustrated by figures from the last national census. In the total continental United States, 95.9 per cent of children ages 12 and 13 were in school. Only a very slight drop occurred in the 14 and 15-year age group since 92.9 per cent of them were in school. However, only 74.4 per cent of children 16 and 17 were in school.¹⁰ It does not follow, of course, that those youth in these age groups who were in school were necessarily enrolled in junior-high-school grades. Children of 12 and 13 who were retarded in their progress would naturally have not yet reached the seventh-grade level. Many of these 16 and 17-year-olds would normally be enrolled in senior rather than junior-high-school grades. All of these age groups, however, are closely enough related to the intermediate level of education to suggest the extent of school retention and elimination.

¹⁰ Data from Bureau of Census, United States Department of Commerce, 1950, Col. 1 from state reports marked P-C, Table 62, and Cols. 2 and 3 from state reports marked P-B, Table 19.

Dr. S. M. Brownell, United States Commissioner of Education, had this to say about the junior-high school in an article published in the California Journal of Secondary Education:

Educational authorities insist that a great many of the original purposes of the junior high school have been accomplished and that it has overcome many of the criticisms originally levied against 8-4 plan. However, there is wide agreement that much progress needs to be made. Not enough is known about young adolescents and how they grow; a more positive and carefully considered program of teacher education needs to be devised for school staffs dealing with these young adolescents; both in policy and in program, the school should be more of an institution in its own right rather than a weakened replica of the senior high school; the basic findings of adolescent psychology should be used more than they have been thus far; further research is needed, and controlled experiments should be launched to dig much more deeply into the basic issues involved.¹¹

The task of developing a more positive and carefully considered program of teacher education for school staffs dealing with young adolescents falls to the teacher-training institutions of this nation. For, "If the junior high school of tomorrow is to become a reality today, the college departments of education will have to do their part by providing the kinds of courses that are needed."¹²

¹¹California Journal of Secondary Education, Vol. 29, No. 5, pp. 266-267, May, 1954.

¹²Yearbook of the New Jersey Secondary School Teachers Association, "We Look At Curriculum Growth," 1952, p. 72.

Definition of Terms

Junior High School. According to the most recent information available,¹³ of all of the more than 3,000 junior high schools in the United States, approximately 75 per cent consist of grades seven, eight, and nine. The other 25 per cent are made up of various combinations of grades seven through ten. In most states, all or nearly all of the junior high schools conform to the common grade grouping, namely seven, eight, and nine. Since this is the generally accepted grouping, the term "junior high school" in this study refers to grades seven, eight, and nine.

Upper Elementary Grades. The term "upper elementary grades" in this study refers to grades four, five, and six in any school system.

Secondary School. The term "secondary school" in this study refers to grades seven through twelve.

Senior High School. The term "senior high school" in this study refers to grades ten, eleven, and twelve.

Core Curriculum. The term "core curriculum" in this study refers to a plan of organization of learning experiences so that they may be clearly related to each other and lead

more directly to well-integrated learning outcomes.¹⁴

Another term often used to describe such learning experiences is "fused curriculum."

Reorganized Secondary School. Recently there has been a marked trend in the United States away from the traditional 8-4 plan of organization, commonly referred to as the "regular" or "four-year" high school. Many schools have shifted to an organizational plan which includes some form of junior high school.

The term "reorganized secondary school" in this study refers to secondary schools whose organizational pattern does not include the traditional four-year high school.

Limitations

Limitations of the study. The limitations to be found in this study fall into two main categories: (a) limitations related to the sample; and (b) limitations related to the instruments used.

The limitations inherent in the sample result from the relatively limited area from which it was chosen. Since teachers taking part in the study were selected from Michigan school systems, generalizations must be handled with care

¹⁴William T. Gruhn, "Junior High School," Encyclopedia of Educational Research (Revised Edition), p. 640.

and with full recognition that they are only indicative, and not to be considered necessarily representative of opinions of teachers in other parts of this country.

In addition, it must be recognized that the findings of this study were based upon, and stated within the limitations of, the assumed validity of data obtained from the questionnaire method.

Summary

Junior high schools were first organized in America soon after the turn of the century, and have greatly increased in numbers since 1920. Despite the confidence shown in this new type of school organization, junior high schools have never been able to reach the same degree of self-identification as have elementary and senior high schools. This failure to become a fully distinctive institution has resulted in a lack of a clear conception on the part of educators as to the proper training that should be provided for junior-high-school teachers.

This study was attempted to determine what should make up the preparation program for junior-high teachers; and to ascertain the relation between the pre-service training desirable for junior-high-school teachers and the pre-service training desirable for teachers at other grade levels.

Psychologists point out that in early adolescence a youngster is confronted with many new and complex problems. A large majority of students reach this stage of development during the years they are attending junior high schools. If teachers at this grade level are going to be prepared to do their jobs properly, college departments of education will have to do their part by providing the kinds of courses that are needed.

CHAPTER II

REVIEW OF THE LITERATURE

The basic understandings essential to a junior-high-school teacher may be considered as a means to the ends involved in his work and are obviously determined in large measure by the nature of these ends. Two questions pertinent to this study are accordingly raised: (1) What aims are to be accepted in junior-high-school teaching? (2) What kind of preparation best enables the teacher to work toward the realization of such aims?

The procedure used in seeking an answer to the question concerning acceptable aims consisted of a careful review of a considerable number of recognized writings on the subject.

Objectives of Junior High Schools

A number of studies have been made in an attempt to identify the purposes of the junior high school. One of the early studies was made by Briggs¹⁵ in 1920 and the following statement of functions resulted:

¹⁵
T. H. Briggs, The Junior High School. Boston: Houghton Mifflin Co., 1920, 350 pp.

1. To continue, insofar as it is possible, common integrating education.
2. To identify and reasonably to satisfy pupils' important immediate and future needs.
3. To explore by means of materials in themselves worthwhile the interests, aptitudes, and capacities of pupils.
4. To reveal to pupils, by materials otherwise justifiable, the possibilities in the major fields of learning.
5. To start each pupil on the career which as a result of exploratory courses, he, the school, and his parents are convinced is most likely to be of profit to him.

16

In 1925, Smith made an analysis of the statements of purposes proposed by leaders of the junior-high-school movement. He classified them around three main functions:

1. To provide a suitable educational environment for children approximately 12 to 16 years of age.
2. To effect economy of time in education.
3. To democratize the school system.

This idea that the junior high school should perform a time-saving function was first advocated by Charles Eliot, President of Harvard University, and one of the real educational leaders of his century. He believed strongly in the old Prussian system of education and felt that our

¹⁶W. A. Smith, The Junior High School. New York: The Macmillan Company, 1925, 478 pp.

youngsters should be entering college earlier. Thus by starting in algebra, foreign languages, and science in the seventh grade instead of the ninth, two years could be saved and our colleges would get students when they were two years younger.

The commission on curriculum of the N.E.A. Department of Superintendence listed in 1927 the frequency of mention of the special purposes of the junior high school as expressed in the literature from 1920 to 1927 by 59 public-school administrators and 20 college specialists. The eight purposes mentioned most frequently were as follows:

1. Meeting individual differences of pupils.
2. Prevocational training and exploration.
3. Counseling and guidance.
4. Meeting the needs of the early adolescent group.
5. Bridging the gap between elementary and secondary schools.
6. Development of qualities of good citizenship.
7. Providing opportunity for profitable self-activity.
8. Retention of pupils beyond compulsory school age.

The most recent statement of functions was formulated by Gruhn and Douglas¹⁷ after an extensive study of the literature

¹⁷ Gruhn and Douglas, The Modern Junior High School. New York: The Ronald Press, 1947, pp. 55-60.

on the subject. They submitted a tentative statement to a group of twelve specialists in secondary education for evaluation and criticism. The final statement emphasizes six functions:

1. Integration of learning experiences.
2. Exploration of pupil aptitudes, abilities, and interests.
3. Guidance.
4. Individualization of instruction.
5. Socialization.
6. Articulation of elementary with secondary education.

18

According to another recent study the most significant thing happening in junior high schools at present is the scheduling of pupils with a single teacher for a long block of time. Hundreds of the teachers in junior high schools are working seriously at the job of meeting pupil needs by organizing content in new ways and by using new methods. Some call their classes "common learnings," others "core curriculum," and still others refer simply to unit teaching. The important common element seems to be the breaking down of subject-matter barriers.

18

A. H. Lauchner, "Trends in Junior High School Practices." Bulletin of National Association of Secondary School Principals, Dec. 1951.

L. E. Leipold asked a group of 30 persons what, in their opinion, were the most pressing problems facing the junior high schools today. He found one of the four major areas of difficulty centered about the teachers. Quotations typical of comments expressed by members of the group taking part in the study included:

The most pressing problem facing the junior high school today is the problem of obtaining adequately trained teachers. Teachers are trained in college for one of two levels in teaching: the secondary level or the elementary level. This training is not adequate to provide an understanding of the many problems that arise to confront the teacher of junior-high-school students.

Colleges and universities, usually the last to employ and recognize new educational techniques, should establish programs of instruction that will prepare teachers specifically for a teaching assignment in the junior high school. Until this program is established, administrators will be compelled to recruit inadequately trained teachers for grades 7, 8, and 9.¹⁹

Preparation Programs

Most curricular studies on teacher education do not treat the training programs for junior-high-school teachers separately. Instead, teachers of these grades are included as a part of the training of secondary school teachers.

¹⁹L. E. Leipold, "Junior High Schools Face These Problems." Clearing House 27, January 1953, pp. 263-265.

Aron Goff points up the problem when he says:

Perhaps the most basic fault of the junior high lies in an educational system, national in scope, which has widely adopted a 6-3-3 plan on an administrative basis without adequate insight into the personnel problem.

To the best of my knowledge, junior high teachers are either elementary school people who were impressed for the innovation or attracted by higher salaries, and happened to have the necessary degree to qualify, or just plain frustrated, would be high school teachers. . . . Teachers colleges prepare for elementary school and secondary school teaching. The middle school takes the unhappy precipitate of the latter and the more ambitious of the former.²⁰

The most extensive of the fact-finding efforts in regard to secondary school teacher preparation was the National
²¹
 Survey of the Education of Teachers.

Recommendations concerning the amount and distribution of the training was presented by Evenden in the survey under the following headings:

- a. Professional orientation - the relation of education to society and the possibilities open in educational service.
- b. Educational "service" courses - the essential concepts and techniques used frequently in other courses and in educational literature.
- c. An understanding of the child to be taught.

²⁰

Aron Goff, "Junior High School Psychosis," Clearing House, May, 1948, pp. 544-545.

²¹

National Survey of the Education of Teachers, U. S. Office of Education Bulletin, 1933, Number 10, 6 volumes.

- d. Knowledge of the essential methods of teaching for the grade, or subject to be taught.
- e. Knowledge of the organization and management of class instruction in various types of schools.
- f. Acquisition of a "safety minimum" of teaching skill through observation, participation and practice teaching.
- g. A summarized and integrated "working philosophy" of education and an understanding of the individual's relationship to education and society.²²

A special committee of the Department of Secondary School Principals, in a report made in 1934 on the issues of secondary education, presented 10 issues, each of which offers a challenge to the classroom teacher. The following statements from the report emphasize the importance of a working knowledge of the aims, organization, and principles of secondary education.

No person should be a teacher, supervisor, or administrator in the secondary field unless he has a clear vision of the place of the secondary school in the whole educational scheme, both above and below.

Each teacher, supervisor, and administrator should have a clear concept of the special functions of secondary education.

No activities should find a place in the secondary school that do not contribute clearly to the realization of the special functions of secondary education.

An adequate guidance program is necessary in the secondary school.

We must get rid of the idea of one school preparing for another and foster the idea of the school continuously centering attention on the intellectual and emotional needs of the child. This is needed particularly in the high schools where emphasis on subject matter fields is prevalent.

Diagnostic tests should be given periodically to determine what children know and what they should be taught.²³

The Educational Policies Commission has stated that, "one of the major needs within its purview was the improvement of the preparation of teachers. Accordingly, plans were set in motion to prepare a statement of the problems in this field."²⁴ W. E. Peik was commissioned to present these problems and reported as follows:

The prospective teacher must acquire an understanding of the functions and purposes of education in society and of the historical evolution, the prevailing practices and the current policies of the institution in which he is to work.

It is essential that the teacher be thoroughly familiar with childhood and adolescence, with the characteristics of these periods, with the extent and nature of individual differences, and with the nature of the learning process.

²³

Issues of Secondary Education, Department of Secondary School Principals, National Education Association, 1934, pp. 247-278.

²⁴

Improvement of Teacher Education, Educational Policies Commission, National Education Association, 1938, p. 1

An understanding of the principles of statistics and of educational and mental measurements enables the teacher to become a more intelligent consumer, and to a lesser degree, a producer of educational research.

Planning units of instruction, locating references suitable to a given stage of development and further discriminative selection of varying degrees of ability, together with a knowledge of courses of study and their construction, are essential phases of professional orientation.

The organization, administration, and supervision of education is a general element of technical education concerning which each teacher should be well informed.

He also needs accurate information about such phases of his own profession as: salary schedules, economic security, professional ethics, sabbatical leave, professional organization, tenure, health, disability, retirement, and his relation to school board, superintendent, principal and associates.²⁵

26

H. A. Sprague conducted a thorough study of the literature related to the preparation of secondary school teachers. In his summary of the judgments of experts in the field of teacher education he lists the following criteria:

1. Prospective secondary school teachers should be equipped to gain an understanding of the pupils to be taught.
2. Prospective secondary school teachers should know the approved principles and methods of

²⁵

Ibid., pp. 53-55.

²⁶

H. A. Sprague, Progress in Preparation of Secondary School Teachers. New York: Bureau of Publications, Teachers College, Columbia University, 1940, p. 68.

teaching under various situations in junior or senior high school.

3. Prospective secondary school teachers should have an adequate understanding of the aims, organization, and community relations of a modern junior or senior high school.
4. Prospective secondary school teachers should have an adequate understanding of the principles and techniques of guidance.
5. Prospective secondary school teachers should be given opportunities to apply their theories of teaching and to gain the basic skills of teaching and of managing classroom situations. This includes practice in the use of mechanical aids.
6. Prospective secondary school teachers should have an adequate understanding of educational tests and measurements and an essential statistical means of interpreting observations and tests.
7. Prospective secondary school teachers should have an understanding of and practice in making and interpreting plans and programs of instruction.

T. W. Gosling attempted to point out some of the characteristics that should distinguish the junior-high-school teacher. He pointed out:

Junior high school teachers at their best exhibit both broad human sympathies and sound scholarship and respond generously to the new social demands which a progressive educational program is making upon them. In other words, the successful junior high school teacher must combine the distinguishing qualities of the successful senior high school teacher and in addition must

have an unusual willingness and ability to respond to the opportunities for usefulness which only a broad social outlook and a keen sensitiveness to social obligations can give.²⁷

At a recent meeting of the Southwestern Michigan School Administrators group held at St. Mary's Lake on November 14, 1955, an attempt was made to determine the type of preparation program that should be provided for junior-high-school teachers. Recommendations of the conference were summarized in the following eight points:

1. Junior-high teachers need to be prepared to teach reading.
2. Junior-high teachers need to be especially well-prepared in the field of child and adolescent psychology. Special attention should be given in these areas as to how children grow and learn.
3. Junior-high teachers need to be so prepared that they will present a child-centered approach on teaching.
4. Junior-high teachers need to be so prepared that they will have the proper attitude toward, and pride in teaching in the junior high school.
5. Junior-high teachers should learn to understand and appreciate the student, his family, and his strengths and weaknesses.
6. Junior-high teachers should do their practice teaching in a junior high school.

27

National Society for the Study of Education, Eighteenth Yearbook, Bloomington, Illinois, Public School Publishing Company, 1919.

7. Junior-high teachers should learn to direct student activities and to lead students in self-direction.
8. Junior-high teachers should learn to promote and guide extra-curricular and social activities for children of the junior-high age group.²⁸

Lloyd Elliot, in a provocative article entitled "The Junior High - A School Without Teachers," summarizes well one of the main problems facing school administrators as they attempt to improve the quality of instruction in the junior high school.

From its initial beginnings the junior high has been staffed by the products of secondary teacher-training institutions. In too many cases this has meant using the junior division as the training for young teachers who aspire to promotion to the senior high. Salary schedules for many years, and indeed, in some districts today, encourage such a path for teachers. Thus the earmarks of the academic senior high teacher became the guides which the junior high teacher followed. The new teacher acquired "respectability" when he became identified with scholarship in a chosen subject-matter field and began to rub elbows with his higher paid, more scholarly, upper division cousins.

This may be regarded as a blessing to those who view the function of the junior high school as primarily the mastery of assigned segments of text-book subject matter which will prepare the youngsters to partake of additional segments in the senior division. It will be defended, also, by the math teacher who would make mathematicians of all seventh

28

Bulletin of the Michigan Secondary School Association,
Vol. XX, No. 4, January, 1955, p. 69.

graders who come within his reach. But to those who see in the new school the promise of meeting some of the broader functions of education, such a continuing course of action is alarming.²⁹

Summary

A review of the literature reveals that there has been no lack of concern for the problems involved in the training of junior-high-school teachers. Before examining the preparation programs that best meet the needs of teachers at this level of instruction, it was essential to understand what functions the junior high school is expected to perform.

Various studies have been made in an effort to identify these functions. Included among the goals suggested are the following: counseling and guidance; bridging the gap between elementary and secondary schools; integration of learning experiences; exploration of pupil aptitudes, abilities, and interests; meeting individual differences of students; providing a suitable educational environment for children approximately 12 to 16 years of age; and the development of qualities of good citizenship.

While most educators have conceded that the junior high school should serve some specialized functions, most curricular studies on teacher education do not treat the

²⁹Lloyd H. Elliot, "The Junior High - A School Without Teachers," Education, Nov., 1949, pp. 186-90.

training programs for teachers at this level separately. Instead, teachers of these grades are included as a part of the training of secondary school teachers. This is approved by those who regard the function of the junior high school as primarily that of imparting a mastery of assigned textbook subject matter. But to those who envision the junior high school as an instructional level with functions unique from the senior high school, this lack of emphasis upon specialized training programs is alarming.

CHAPTER III

METHODOLOGY

There are several approaches that might be made to determine the preparation program most desirable for junior-high-school teachers. An analysis of the tasks actually performed by the teacher and of the training program's contribution to the performance of these tasks might be made. It might be feasible to analyze the writings of eminent psychologists, sociologists, and educators concerned with the problems, interests, and emotions normally experienced by children of junior-high-school age, attempting then to develop a training program that would best give prospective teachers a real understanding of youngsters during this period in their lives.

If anyone is familiar with the problems faced by a junior-high-school teacher, it should be the teacher himself. It follows, then, that his judgments concerning the type of preparation program that would best prepare others to perform the tasks required should be a valuable third source of evidence. This study was based upon the opinions of teachers and administrators who are presently engaged in educating youngsters of junior-high-school age. It is recognized that

the answers that they give are not the only answers to the problem at hand. They represent only the judgments of one important source of information about what the best preparation program should be.

Development of the Rating Form

In order to determine the opinions of teachers concerning the desirable components of a practical preparation program, it was necessary to develop a rating instrument which could be submitted to a selected group.

The first step in the development of such an instrument consisted of the compilation of all the important training areas which might be helpful to prospective teachers. After these areas were determined, teachers could then be asked to rate their importance to a preparation program.

After a thorough examination of the literature dealing with teacher training programs, a list of possible training fields was prepared by the investigator. This list was then submitted for review to 38 selected teachers chosen from seven different Michigan school systems. It was at first considered desirable for the training areas to be proposed by teachers without suggestions from another source. However, it was arbitrarily decided that such proposals from teachers could be obtained more efficiently if some common areas of

training were first suggested by the investigator. This made it unnecessary for each teacher then to duplicate several suggestions that would undoubtedly be included quite generally among the proposals from all.

The seven school systems from which teachers were selected were chosen after consideration of the size, location, and organizational structure of each. Included were St. Joseph, Belding, Grosse Pointe, Ionia, Buchanan, Lansing, and Brighton. A personal contact with an administrative official of each system was made by the investigator. At this time the project was explained, and the cooperation of local school officials was obtained. Each administrator was asked to designate six teachers in his system whom he considered to be competent and willing to give thoughtful consideration to problems in education. Only teachers working at grade four or above were chosen.

Copies of the suggested list of possible training areas for teachers were then distributed to the teachers selected by the school administrator. Each teacher was asked to (a) suggest any other areas of training which should have been included, and (b) indicate any of the areas already listed which were confusing and needed to be stated more clearly.³⁰

A revised list incorporating the suggestions received from the public school teachers was then reviewed by 10 professional educators from the staff of the College of Education at Michigan State University. Each of the educators chosen had had public school experience within the past 10 years. Each was asked to (a) suggest any other areas of training that might be included, and (b) indicate any areas already listed which lacked clarity of meaning.

After these suggestions were received, a second revision of the list was made.

The next step involved the submission of the list of possible training areas to a test group for consideration. Directions for completion of the rating form, questions to determine the background of experience of those responding, and an open-end question concerning the best preparation program for junior-high-school teachers were added. The form was then completed by 47 teachers who were enrolled in evening classes at Michigan State University. It was found that the printed directions enabled each teacher to complete the questionnaire as expected. The test showed a tendency for teachers to rate all areas high, and not as great a spread in responses was received as had been anticipated. An attempt to correct this difficulty was made through a revision of the rating key. Introduced in the revised form

was the factor of priority as well as usefulness. It contained both a ranking of the items and a rating of the items.

The original rating key contained the following degrees of usefulness.

1. Understanding of this area is extremely useful.
2. Understanding of this area is very useful.
3. Understanding of this area is moderately useful.
4. Understanding of this area is of little usefulness.
5. Understanding of this area has practically no usefulness.

After revision the rating key read as follows:

1. Top priority. Should be among those few areas included regardless of what is excluded.
2. High priority. Should be included but would yield precedence to some other areas.
3. Moderate priority. Should be included but quite a few other areas are more important.
4. Low priority. Should be included if time permits.
5. Is not logically a part of the undergraduate training program.

After this revision was made, the form was tested with a group of 41 teachers who were members of an extension class taught by Michigan State University at Hillsdale, Michigan. The results of the test proved to be highly satisfactory, indicating that the form was now ready for final printing and distribution.

Two forms were used as a part of the study. Both were basically the same, but one was designed especially for use by teachers, the other for use by administrators.³¹

Obtaining the Ratings

To insure that the panel of teachers to whom the rating form was submitted would be representative of opinions of teachers in varying sizes and kinds of schools, the school systems of Michigan with reorganized secondary schools were divided into the following four groups:

- a. Schools organized on a 6-3-3 plan with fewer than 150 teachers.
- b. Schools organized on a 6-3-3 plan with more than 150 teachers.
- c. Schools organized on a 6-6 plan with more than 150 teachers.
- d. Schools organized on a 6-6 plan with fewer than 150 teachers.

From information contained in the Michigan Education Directory³² the school systems fitting one of the categories above were listed appropriately and numbers assigned to each. Schools from each group were then chosen for inclusion in the

³¹ See Appendix B for copies of the questionnaires used.

³² Michigan Education Directory and Buyers Guide, Lansing: Michigan Education Directory, 1955, 260 pp.

study through the use of a table of random numbers.³³ Only schools organized with a separate junior high school or a combined junior-senior high school were included, since the study primarily involved the preparation of junior-high-school teachers. In Michigan, 92 per cent of all students attending secondary schools are enrolled in schools thus organized.

So that schools taking part in the study might be more easily reached, all places north of a line on a map connecting the cities of Saginaw and Muskegon were excluded from schools chosen.

A contact with an administrative official of the schools selected was made, and the cooperation of the school enlisted. Each school taking part which had fewer than 25 teachers was asked to have the rating form completed by three upper-elementary, three junior-high, and three senior-high-school teachers. Schools with from 25 to 100 teachers were asked to have rating forms completed by five teachers at each level; schools with 100 to 200 teachers were asked for ratings from 15 at each level; schools with more than 200 teachers supplied ratings from 25 teachers at each level. The final sample represented answers from most interested teachers as selected by the school administrator.

In each school system the school administrator who had responsibilities for employment of personnel and/or supervision

of teachers at all grade levels was asked to complete a rating form.

A total of 393 forms were distributed, and 333 returned. An analysis of the data secured is contained in chapters four and five of this dissertation.

Summary

A rating instrument was developed which sought an expression of opinion concerning the importance of various components of a pre-service training program for teachers. Each respondent was asked to rate the significance of each of 15 possible training areas to the preparation program for teachers at the instructional level or levels at which he had had experience.

To insure that the panel of teachers to whom the rating form was presented would be representative of judgments of teachers in varying sizes and kinds of schools, the school systems of Michigan were divided into four groups. Schools from each group were then chosen for inclusion in the study through the use of a table of random numbers.

In each school system selected, rating forms were completed by upper-elementary, junior-high, and senior-high-school teachers. In addition the school administrator who had

responsibilities for selection of personnel and/or supervision of teachers at all grade levels was asked to make similar judgments.

A total of 314 teachers and 19 administrators responded to the questionnaire.

CHAPTER IV

ANALYSIS OF THE STATISTICAL DATA

The ratings of importance given to the 15 training areas included in the questionnaire were divided into four categories based upon the background of experience of each respondent. Tabulations of results were then made separately for those teachers who had experience at only one level of instruction, for those who had experience at two levels of instruction, (junior high school and either the senior high or elementary school), for those who had experience at all three instructional levels, and for administrators who had leadership responsibilities for all three levels.

The analysis of variance was used to compare the relative importance given to each training area for the three instructional levels by teachers with various backgrounds of experience.^{33A} The results made it possible to identify those areas of training which were rated as differentially important for the three instructional levels.

^{33A}

It was assumed that the intervals between the five statements contained in the rating key were equal.

Analysis of Variance Results for Teachers Having Experience at One Instructional Level

The detailed summary of the ratings given by teachers whose experience had been at only one instructional level is given in Appendix D. The respondents represented 50 teachers who had taught in senior high school only, 52 who had taught only in junior high school, and 58 who had taught only in grades four, five, or six.

The method of analysis of variance³⁴ provides a test for the hypothesis that the differences in means vary significantly for the three instructional levels. The complete results of the analysis of variance are shown in Appendix E. A summary of the F ratios obtained for each of the 15 items when rated by teachers with experience at only one instructional level is shown in Table I. The general area of study covered by each item is listed, along with the number of the item, for ease in identification. The complete statement of each of the items is shown in Appendix B.

On the basis of the sample employed, an F ratio of 3.06 was needed for significance at the 5 per cent level of confidence. The areas of general education, specialized

³⁴E. F. Lindquist, Statistical Analysis in Educational Research. New York: Houghton Mifflin Company, 1940, p. 91.

subject matter, human growth and development, reading methods, core curriculum, and tests showed F ratios exceeding this figure. Referring to Table I, it can, therefore, be assumed that teachers with experience at only one of the instructional levels judged these items to be significantly different in importance to the preparation program for teachers at each of these three instructional levels.

Analysis of Variance Results for Teachers Having Experience at Two Instructional Levels

The ratings given by teachers who had taught in the junior high school as well as either the elementary or senior high school level are shown in Appendix F. The F ratios obtained through an analysis of variance are summarized in Table II. The complete results are shown in Appendix G. The number of ratings given for the senior high school level was 85 and for the elementary school level 42. Each of these groups rated the items in relation to preparation program for junior high school teachers, making a total of 127 responses for this level of instruction.

An F ratio of 3.04 was needed for significance at the 5 per cent level. The following items exceeded this figure and were therefore considered to be significantly different in importance by this group of raters: specialized subject

TABLE I

F RATIOS RESULTING FROM RATINGS BY TEACHERS WITH
EXPERIENCE AT ONLY ONE INSTRUCTIONAL LEVEL

Item	F Ratio
5. General Education	5.574
6. Specialized Subject Matter	56.823
7. Counseling and Guidance	2.056
8. Audio-Visual	0.243
9. Sociology of Education	3.057
10. Educational History-Philosophy	0.999
11. Special Methods of Teaching	0.513
12. Human Growth and Development	7.401
13. Learning Theory	0.468
14. Special Education	1.209
15. Reading Methods	28.079
16. Core Curriculum	6.553
17. Classroom Management	0.183
18. Human Relations	1.920
19. Tests	4.572

F ratio needed for significance at the 5% level - 3.06

F ratio needed for significance at the 1% level - 4.75

TABLE II

F RATIOS RESULTING FROM RATINGS OF TEACHERS WITH
EXPERIENCE AT THE JUNIOR HIGH AND
ONE OTHER INSTRUCTIONAL LEVEL

Item	F Ratio
5. General Education	2.778
6. Specialized Subject Matter	134.107 ✓
7. Counseling and Guidance	1.991
8. Audio-Visual	1.831
9. Sociology of Education	4.473 ✓
10. Educational History-Philosophy	0.332
11. Special Methods of Teaching	2.030
12. Human Growth and Development	9.839 ✓
13. Learning Theory	0.100
14. Special Education	2.629
15. Reading Methods	34.348 ✓
16. Core Curriculum	13.178
17. Classroom Management	0.953
18. Human Relations	2.959
19. Tests	3.398

F ratio needed for significance at the 5% level - 3.04

F ratio needed for significance at the 1% level - 4.71

matter, sociology of education, human growth and development, and reading methods.

The ratings given by teachers who had taught at all three instructional levels and by administrators who had responsibility for the employment and/or supervision of teachers at all three instructional levels are shown in Appendixes H and J respectively. The F ratios of the responses of each of these groups are summarized in Tables III and IV. Complete results are shown in Appendixes I and K respectively. There were 27 teachers and 19 administrators responding. An F ratio of 3.11 was necessary for significance at the 5 per cent level in the teacher group, and an F ratio of 3.17 was needed for significance at the same level for the administrator group.

Training areas judged by the teachers to be significantly different in importance to the background of training necessary for teachers at the various instructional levels include: specialized subject matter, counseling and guidance, and reading methods. Among the administrators, specialized subject matter, human growth and development, reading methods, and core curriculum were considered significantly different in importance to teachers at the three instructional levels.

The purpose of the preceding calculations was to determine whether teachers and administrators with four different

TABLE III
F RATIOS RESULTING FROM RATINGS BY TEACHERS WITH
EXPERIENCE AT ALL INSTRUCTIONAL LEVELS

Item	F Ratio for Teachers
5. General Education	0.336
6. Specialized Subject Matter	53.401
7. Counseling and Guidance	4.934
8. Audio-Visual	1.538
9. Sociology of Education	3.019
10. Educational History-Philosophy	0.608
11. Special Methods of Teaching	2.130
12. Human Growth and Development	1.471
13. Learning Theory	0.450
14. Special Education	1.608
15. Reading Methods	22.925
16. Core Curriculum	2.992
17. Classroom Management	0.074
18. Human Relations	0.000
19. Tests	0.012

F ratio needed for significance at the 5% level - 3.11

F ratio needed for significance at the 1% level - 4.88

TABLE IV

F RATIOS RESULTING FROM RATINGS BY ADMINISTRATORS WITH
RESPONSIBILITIES AT ALL INSTRUCTIONAL LEVELS

Item	F Ratio
5. General Education	0.560
6. Specialized Subject Matter	47.230
7. Counseling and Guidance	0.913
8. Audio-Visual	1.069
9. Sociology of Education	0.992
10. Educational History-Philosophy	0.680
11. Special Methods of Teaching	0.912
12. Human Growth and Development	3.832
13. Learning Theory	0.114
14. Special Education	2.689
15. Reading Methods	15.615
16. Core Curriculum	4.636
17. Classroom Management	0.839
18. Human Relations	0.143
19. Tests	0.112

F ratio needed for significance at the 5% level - 3.17

F ratio needed for significance at the 1% level - 5.01

types of experience backgrounds judged certain training areas to be significantly different in importance to the preparation programs of senior-high, junior-high, and elementary school teachers. Some items were rated significantly different by respondents in each of the four groups. Therefore, the assumption could be made that, regardless of their experience background, educators do consider that certain training areas vary significantly in importance to preparation programs of teachers at the three instructional levels under consideration.

Comparison of the Responses of the Four Groups

The responses of teachers who had taught at one instructional level, of teachers who had taught at two instructional levels, of teachers who had taught at three instructional levels, and of administrators with responsibilities at three instructional levels have been analyzed to determine if they judge certain training areas to be of varying degrees of importance to the preparation programs of elementary, junior-high, and senior-high-school teachers. It was next important to know whether the ratings given by respondents in each group varied significantly from the ratings given by respondents in any of the other groups. If it could be

determined that the responses from the four groups did not vary significantly, the ratings could be combined and dealt with as a single group.

Since the number of teachers in each group varied, a simple comparison of the F ratios obtained for each item was not valid. It was necessary, therefore, to compute unbiased estimates of the variance between population means. These estimates were obtained by using the method described by Kempthorne³⁵ and are shown in Appendix M.

To test the unbiased estimates for significant variations, Wilcoxon's³⁶ sign-rank test of differences was used. In applying this test, it was necessary to analyze these four groups in all combinations of pairs.

The results of the tests revealed no significant differences among the unbiased estimates. Finding this to be true, it was possible then to combine the responses given by all teachers and administrators, regardless of the background of experience of each.

The combination of all responses concerned with the junior-high-school teacher preparation program was then made.

³⁵ Oscar Kempthorne, The Design and Analysis of Experiments. New York: John Wiley and Sons, Inc., 1951, pp. 104-5.

³⁶ F. Wilcoxon, Some Rapid Approximate Statistical Procedures. Stanford, Conn.: American Cyanamid Co., 1949.

Similarly, the responses concerned with the senior-high and elementary school teacher training programs were combined and new mean scores were obtained for each item at each instructional level. An analysis of variance was then computed with the combined responses numbering 181 at the senior-high, 225 at the junior-high, and 146 at the upper elementary school levels. The F ratios obtained for each of the 15 items are summarized in Table V. Complete results are shown in Appendix L.

An F ratio of 3.02 was needed for significance at the 5 per cent level. Only three of the 15 items failed to produce F ratios exceeding this figure. It was assumed, therefore, that for these areas of history and philosophy of education, learning theories, and classroom management, no particular differences existed in their importance to a training program, whether that training program was designed to prepare elementary, junior-high, or senior-high-school teachers. This does not mean that these areas necessarily lack importance, but only that they are no more important to the preparation programs for teachers at one instructional level than at another.

Exceedingly high F ratios were found for the areas of specialized subject matter, human growth and development, reading methods, and core curriculum. This indicated that

TABLE V
F RATIOS RESULTING FROM COMBINED RATINGS
OF ALL RESPONDENTS

Item	F Ratio
5. General Education	7.58
6. Specialized Subject Matter	277.7
7. Counseling and Guidance	5.65
8. Audio-Visual	5.07
9. Sociology of Education	7.59
10. Educational History-Philosophy	1.37
11. Special Methods of Teaching	5.02
12. Human Growth and Development	21.08
13. Learning Theory	1.04
14. Special Education	7.02
15. Reading Methods	94.47
16. Core Curriculum	21.47
17. Classroom Management	0.55
18. Human Relations	4.03
19. Tests	4.36

F ratio needed for significance at the 5% level - 3.02

F ratio needed for significance at the 1% level - 4.66

the raters judged these areas to vary greatly in their importance to a preparation program depending upon whether the teacher is training for upper-elementary, junior-high or senior-high-school teaching.

Comparison of the Ratings Between Junior High
and Each of the Other Two Levels

The analysis of variance of the combined ratings indicated that the means were not homogeneous for 12 of the items. An important factor in this investigation was to determine how the ratings given to items for junior-high-school teacher preparation compared with the ratings given to the same items for elementary or senior-high-school teacher preparation.

To test where such significant differences existed, Tukey's³⁷ procedure for comparing individual means was used. The results are summarized in Table VI. A t value of 1.97 was necessary for significance at the 5 per cent level.

Four items were revealed as having mean ratings for both the elementary and the senior-high-school instructional levels that did not vary significantly from the mean ratings given for the junior-high-school instructional level. They were

³⁷ Allen L. Edwards, Statistical Methods for the Behavioral Sciences. New York: Rinehart and Company, Inc., pp. 330-332.

TABLE VI

TEST OF SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS FOR
JUNIOR HIGH SCHOOL LEVEL AND EACH OF THE OTHER
TWO LEVELS OF INSTRUCTION

Item	Means of Combined Ratings Senior Hi.	Means of Combined Ratings Junior Hi	Means of Combined Ratings Elementary	t Values Jr. Hi Versus Sr. Hi	t Values Jr. Hi Versus Elementary
5.	1.88	1.57	1.73	3.92**	1.88
6.	1.27	2.42	3.19	-15.54**	9.63**
7.	1.64	1.43	1.61	3.09**	2.47*
8.	2.59	2.47	2.26	1.29	-2.10*
9.	2.59	2.58	2.95	0.10	3.56**
10.	2.99	3.10	3.16	-1.18	0.60
11.	1.35	1.52	1.59	-2.36*	0.91
12.	2.02	1.59	1.53	5.66**	-0.73
13.	2.14	2.07	1.99	0.78	-0.83
14.	3.33	3.08	2.84	2.19*	-1.97*
15.	2.40	1.69	1.25	9.34**	-5.37**
16.	3.43	2.72	3.07	6.57**	3.02**
17.	1.99	1.90	1.88	0.96	-0.20
18.	2.46	2.29	2.14	1.68	-1.39
19.	2.22	2.32	2.52	-1.10	2.04*

* Significant at 5% level

** Significant at 1% level

the areas of history and philosophy of education, learning theories, classroom management, and human relations. The latter area showed significant differences of ratings when all the instructional levels were compared with each other. The differences in ratings given to the senior-high and elementary school levels were great enough to be significant, but when each of these levels were compared with the junior-high-school level only, the variations in ratings were not significant.

The test revealed five training areas for which the ratings of importance given to the junior-high-school teacher's preparation program varied significantly from the ratings of importance given to both the senior-high and the elementary teacher's training program. These training areas rated as uniquely different in importance to the junior-high-school teacher were: specialized subject matter, guidance and counseling, special education, reading methods, and core curriculum.

Specialized subject matter was rated much more important to the senior-high-school teacher and much less important to the elementary teacher than to the prospective junior-high-school teacher.

For the areas of both guidance and counseling and core curriculum, the ratings of importance given to the training program of the junior-high-school teacher were significantly

higher than those given to either the senior-high or upper-elementary levels of instruction.

Study of reading methods and special education were rated of significantly less importance to senior-high-school teachers but of significantly greater importance to elementary teachers than to the junior-high-school teacher.

There were three areas of study which were rated significantly different in importance for the prospective junior-high-school teacher when compared to the ratings given to the prospective senior-high-school teacher but of approximately the same importance to the prospective teacher in upper elementary school. They were: general education, human growth and development, and special methods of teaching.

There were also three areas rated significantly different in importance when the junior-high and elementary levels of instruction were compared but of little difference when compared to the senior-high-school level. They were: audio-visual, sociology of education, and tests.

Relative Rankings for the Three Levels of Instruction

The tests described previously in this chapter established the relationships between ratings given to the 15 areas of study under consideration for each of the three instructional levels. It was necessary next to investigate each of the

instructional levels individually, to see how the respondents ranked the importance of the various possible training areas to the preparation programs of senior-high, junior-high and upper-elementary teachers respectively.

The mean ratings of the items for each of the instructional levels are shown in Table VI. A listing of the various training areas in the order of priority to a training program is shown in Table VII.

The five areas ranked of greatest importance to the prospective junior-high-school teachers were: guidance and counseling, special methods of teaching, general education, human growth and development, and reading methods.

The same five areas were also rated to be of greatest importance to the upper-elementary teacher, although in different order. Specialized subject matter and classroom management replaced the areas of human growth and development and reading methods in the five areas given highest priority for senior-high-school teachers.

Two of the training areas rated significantly different for junior-high-school teachers were core curriculum and special education. Neither of these items are ranked highly in comparison with other possible training areas, however. They are ranked thirteenth and fourteenth respectively, and

TABLE VII
RANKING OF IMPORTANCE OF TRAINING AREAS
FOR EACH INSTRUCTIONAL LEVEL

Senior High		Junior High		Upper Elementary	
1.	Specialized Subject Matter	1.	Guidance and Counseling	1.	Reading Methods
2.	Special Methods of Teaching	2.	Special Methods of Teaching	2.	Human Growth and Development
3.	Guidance and Counseling	3.	General Education	3.	Special Methods of Teaching
4.	General Education	4.	Human Growth and Development	4.	Guidance and Counseling
5.	Classroom Management	5.	Readings Methods	5.	General Education
6.	Human Growth and Development	6.	Classroom Management	6.	Classroom Management
7.	Learning Theory	7.	Learning Theory	7.	Learning Theory
8.	Tests	8.	Human Relations	8.	Human Relations
9.	Reading Methods	9.	Tests	9.	Audio-visual
10.	Human Relations	10.	Specialized Subject Matter	10.	Tests
11.	Audio-visual	11.	Audio-visual	11.	Special Education
12.	Sociology of Education	12.	Sociology of Education	12.	Sociology of Education
13.	History and Philosophy	13.	Core Curriculum	13.	Core Curriculum
14.	Special Education	14.	Special Education	14.	History and Philosophy
15.	Core Curriculum	15.	History and Philosophy	15.	Specialized Subject Matter

only history and philosophy of education is ranked as being less important to the preparation program of a junior-high-school teacher.

It is noteworthy that the item concerned with the core or fused curriculum is ranked so low by experienced junior-high-school teachers. There has been a concerted effort on the part of many educators to recommend the teaching of various subjects combined, rather than individually, in the junior high school. The lack of importance attached to this area by teachers indicates that the movement toward such curriculum planning may not have received wide acceptance among teachers.

Specialized subject matter was ranked first by senior-high teachers, tenth by junior high teachers, and last by upper-elementary teachers. Such variations are not surprising for this particular training area. General education is ranked among the first five areas for each of the three instructional levels. It should be remembered that study of these two areas involves a much greater proportionate amount of time than do most of the other areas under consideration. A sufficient understanding of most of the other areas can be acquired with much less study than is required for a good background in the subject matter fields, whether it is

specialized or of a more general nature. This factor must be considered when establishing the pattern of a teacher preparation program.

Summary

The ratings given by respondents to the questionnaire were tabulated in four groups, in accordance with the experience background of each rater. These four groups were made up of (1) teachers who had taught at only the senior-high, junior-high, or elementary school instructional level; (2) teachers who had taught at the junior-high-school and one other instructional level; (3) teachers with experience at all three instructional levels; and (4) administrators who had responsibilities for employment or supervision of teachers at all three instructional levels.

An analysis of variance technique was used to determine if the ratings given by respondents within each of these four groups varied more significantly than variations that might have resulted from chance. For each group, it was found that some items were rated significantly different in importance to the preparation program of an elementary, junior-high and senior-high-school teacher.

To test the differences in ratings between the four groups, unbiased estimates were computed and Wilcoxon's

sign rank test applied to all possible combinations of pairs. The results showed no significant differences in the ratings due to the experience background of the rater. This made it possible, therefore, to combine the results of the four groups and deal with the responses as a single population.

An analysis of variance of the combined ratings showed that 12 of the 15 items were rated significantly different in importance to the preparation programs for teachers at the three levels of instruction.

When the mean ratings for each item given to the junior-high-school teacher preparation program were tested for significance against the same items in relation to the senior-high and upper-elementary programs, five training areas were rated significantly different in importance. They were specialized subject matter, guidance and counseling, special education, reading methods, and core curriculum.

A ranking of the items in the order of importance to each of the instructional levels resulted in the following five areas receiving highest priority ratings for the prospective junior-high-school teacher: guidance and counseling, special methods of teaching, general education, human growth and development, and reading methods. The same five areas were at the top of the rankings for upper-elementary school teachers, although in a different order. Three of the

same five were also rated highest for senior-high-school teachers. Specialized subject matter and classroom management replaced human growth and development and reading methods in the top five for this instructional level.

CHAPTER V

UNSTRUCTURED RESPONSES

In the interest of brevity the checklist response provides readily accessible data. This is particularly useful when the range of possible responses is a known quantity. The open-end question, however, provides a qualitative kind of data which often reveals the more significant dimensions of the problem.

In order to allow teachers with junior-high-school experience to express their opinions concerning types of preparation programs, the following question was asked: ³⁸

The preparation program that is now common for secondary school teachers is quite unlike the preparation program that is common for elementary school teachers. In your opinion, which training program provides the better preparation for teaching in the junior high school? Or should it be different from either one?

The answers given to this question are summarized in Table VIII.

TABLE VIII
OPINIONS CONCERNING BEST JUNIOR HIGH SCHOOL
PREPARATION PROGRAM

Preferences	Responses of Teachers Trained Primarily for Sec- ondary School		Responses of Teachers Trained Primarily for Elemen- tary School		Total	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Favor present secondary program	33	20.0	1	3.6	34	17.6
Favor present elementary program	39	23.6	14	50.0	53	27.5
Favor a dif- ferent program	93	56.4	13	46.4	106	54.9
Total	165	100.0	28	100.0	193	100.0

More than one-half (54.9 per cent) of the total number of teachers who replied expressed the opinion that a different preparation program should be provided for prospective junior-high-school teachers. A slightly higher percentage (56.4 per cent compared to 46.4 per cent) of those whose own training had been primarily for secondary school expressed this view than did those who had trained primarily for work in the elementary school.

Of the two preparation programs currently available to teachers, the elementary program was favored over the secondary program as a better training program for junior-high-school teachers as well. Among those who had been trained primarily as secondary school teachers, approximately one-fourth (23.6 per cent) favored the elementary training program now being offered by most training institutions as the best for junior-high-school teachers also.

Only one of the twenty-eight respondents who had been trained for elementary school teaching thought the secondary program would provide better preparation for junior-high-school teachers. Twenty per cent of those who had completed a secondary training program stated a preference for the same type of training for junior-high-school teachers.

It should be noted that a large proportion of the teachers expressing an opinion on the question had been trained for secondary school work. This is indicative of the high percentage of teachers now teaching in the junior high schools who have completed a training program directed primarily toward secondary school teaching. A summary of the responses received from teachers who had taught exclusively at the junior-high-school level shows that 44 of 49 had completed a preparation program for secondary school teaching.

This cannot be considered as an adequate sample, but it is indicative of the high percentage of junior-high-school teachers who completed a secondary school teacher-training program.

Reasons for Choices

Each teacher who had had junior-high-school teaching experience was asked to tell why he considered the secondary, elementary, or a different training program as the most desirable for prospective junior-high-school teachers. The problem of summarizing the varied responses was solved in the following manner. A master tally sheet was prepared, containing a column for each of the possible preparation programs. Responses were listed verbatim in the proper column and then studied as units, to perceive similarities. A second tally sheet was then prepared to include only broad classifications under which the responses fell. The original responses were then interpreted and re-recorded under these broader classifications. Where the response would not fit into a broad classification without changing its intent, the original responses were maintained intact.

A summary follows of the main reasons given by respondents for judging one or the other of the two commonly-

available types of teacher preparation programs as best meeting the training needs of junior-high-school teachers.

Responses Favoring the Secondary Program

The reasons given by the 17.6 per cent who favored the present secondary preparation program for junior-high-school teachers were of the following two types.

1. The junior-high-school teacher needs a strong subject-matter background. Typical of the comments made by teachers favoring this point of view were:

Junior high work requires strong subject matter training. In my experience as a teacher of chemistry and general sciences, I have met many junior-high teachers who regret their lack of knowledge of sciences as it relates to geography and social science.

The junior-high teacher in most cases needs about as high a degree of knowledge of his subject area as the high school teacher. The big difference is the greater emphasis necessary on discipline in the junior high.

2. Senior-high trained teachers allow the student to develop maturity. These comments provide an insight into the reasoning involved.

The junior high school is a weaning process. The teacher with secondary training will expect the transition and encourage it. Junior-high pupils need to do more studying on their own and a teacher whose experience and training is in the elementary field will tend to encourage continued dependence on the teacher.

Too many ex-elementary teachers who enter junior high school work seem to cling desperately to elementary methods. They don't seem to understand that children grow up.

It is apparent from the reasons given that those favoring this type of training program view the function of the junior high school as primarily the teaching of assigned segments of textbook subject matter which will better prepare the students to learn additional segments in the senior-high-school division.

Responses Favoring the Elementary Program

Teachers who favored the elementary type training program for junior-high-school teachers expressed four main reasons for doing so. Some of the comments are listed below under the items mentioned most frequently by this group.

1. Elementary teachers more often use the child-centered rather than the subject-centered approach.

The elementary training program gives a better understanding of the student and his environment for that age group. Most senior-high teachers are subject-centered with less emphasis on the student.

The elementary training program gives more and better preparation for the actual teaching process than high school. High school deals too much with subject matter.

2. The elementary training program gives better preparation for working with heterogeneous groups.

If the grouping of children in junior high school is heterogeneous as it usually is now, the training of the elementary teacher is more helpful because they learn how to work with groups within the classroom and seem to have more training and interest in the individual child than just subject matter.

3. The elementary program prepares the teacher to teach the basic fundamentals of reading, writing, spelling, and arithmetic.

Children in junior high school are not very different from fifth and sixth grade pupils. Many of them still do not know how to read and study. I feel that teachers need to know how to teach the fundamentals of reading, writing, spelling, and arithmetic. The grade teachers are trained along this line.

Secondary teachers have not had the necessary training required to teach retarded readers. This skill is needed in junior high.

4. The elementary training program provides for the broad subject-matter background that is essential to the junior-high-school teacher.

The junior-high teacher in the small school must be a "master of all arts" and can hardly be a specialist as high school teachers are trained to be.

There is entirely too much tendency for junior high teachers to specialize. They may know a lot about their specialty and very little about anything else. Their knowledge should be broad - they should be teachers of reading and spelling as well as their specialty.

It has been generally accepted by most educators that the teacher has a responsibility to provide for individual differences at any level of education. Teachers expressing a preference for the elementary type training program as best also for junior-high-school teachers center most of their reasons around this point.

Responses Favoring a Different Program

A majority of the experienced junior-high-school teachers expressed favor for a special preparation program for teachers of grades seven, eight, and nine. Their reasons for expressing such a need are grouped under the five items mentioned most frequently. Illustrative quotations from respondents accompany each item.

1. An understanding of the emotional, physical, and psychological problems of junior-high-school-age youngsters is essential.

It is during this stage of development that a very deep understanding of the person himself is so desperately needed. The junior-high boy or girl does not understand himself, therefore, the teacher must understand him and be able to help him understand himself.

The junior-high period is a difficult time for children. I think it necessary that the teacher understand the problems the student faces of an emotional, physical, and social nature. At this age they are idealistic, warm, curious, interested

in each other for the first time. Junior high school should have "extra special" teachers with all the implications of that term.

Students coming into the seventh and eighth grades are not mature enough to step into classes as they are arranged in the junior high. They still need the guidance, understanding, and individual help of the teacher.

2. Special training for working with a fused curriculum is necessary.

Junior high school, with its emphasis on the fused program, requires teachers who are skilled in using the program. While its aims are good, teachers presently being graduated by training institutions are not fully qualified to teach in the fused program.

In view of the trend toward the fused curriculum in junior high school, less specialized and more general training is desirable.

3. Junior-high-school youngsters are a unique group requiring specialized training.

The elementary children fall within known and like limits of physical and mental development. The same can be said of high-school students. Of course, there are differences in individuals at all levels, but in these two areas the limits are constant. In junior high school this is not true. Practically every possible stage of child development is present. Reconciling these various stages to each other and to a curriculum should be considered of prime importance. The only constant here is the unique presence of extreme differences. This is a constant that warrants special training.

Junior high school is a transitional period in which children show great variations of physical development, social adjustment, and emotional maturity. It is a great growing period that calls for firmness and kindness. It is specialized work that calls for special preparation.

4. Prestige of junior high school would be raised
if a specialized training program existed.

Our junior-high program is presently a mirror image of high school. Why! Mainly because our junior high teachers have their training as secondary teachers. It is only through specialized preparation that improved junior-high programs will evolve and teachers will be satisfied with junior-high teaching as a career.

Teachers are not trained specifically for junior-high work. They mark time there while waiting for high-school openings, or they sometimes take it on after unhappy experiences in later elementary work. It's specialized work that deserves special preparation. Specialized preparation would lend prestige to this level of instruction.

Summary

Teachers who had had actual teaching experience in junior high school were asked whether the elementary preparation program, the secondary preparation program, or a different training program would best prepare a prospective teacher for teaching in junior high school. A majority of the respondents favored a training program especially for junior-high-school teachers. Of the two programs presently available, the elementary was received more favorably.

The reasons given by those favoring the secondary program centered around the need for a strong subject-matter background. The child-centered approach of elementary teachers

was given as a main reason by those who favored the elementary training for junior-high-school teachers as well.

The most frequently mentioned reasons by those who urged the establishment of a training program especially for junior-high-school teachers were that: (1) an understanding of the emotional, physical, and psychological problems of junior-high-school age youngsters is essential; (2) special training to work with a fused curriculum is necessary; (3) junior-high-school youngsters are a unique group requiring specialized training; and (4) prestige of junior high school would be raised if a specialized training program existed.

CHAPTER VI

SUMMARY AND CONCLUSIONS

During the first half of the twentieth century, the junior high school became an integral administrative unit of many school systems in America. Despite this rapid growth in numbers, junior high schools have seldom been able to develop the same degree of self-identification as have the elementary and senior high schools. It has often been regarded as an "in-between" institution. Those teaching in elementary schools have regarded it as part of the secondary school program; those working in secondary schools have considered it as part of the elementary system.

The failure of the junior high school to gain status in its own right has probably been due in part to the failure of teacher-training institutions to regard it as an instructional level requiring specially-trained teachers. Teacher preparation programs have been designed primarily to train either elementary or high-school teachers with little concern being shown for the training of junior-high-school teachers as such. As a result, from its early beginnings, the junior high school has been staffed largely by graduates of secondary

teacher-preparation institutions. This has often meant that young teachers were assigned to the junior division until they could be placed in a senior-high-school position. With such a training background, it is not surprising that many junior high schools have functioned only as little replicas of the senior high school.

In this study, an attempt was made to learn from teachers who were actively engaged in teaching their judgments of what should be the desirable components of a teacher-training program. Primary emphasis was placed upon the junior-high-school teacher preparation program, but opinions were also sought in reference to the most practical program of preparation for both the upper-elementary and senior-high-school levels. This was done to discover the relationship between desirable training programs for teachers at these three instructional levels.

A preliminary rating instrument was developed with the cooperation of 38 selected teachers that described the important areas of training which might be helpful to prospective teachers. A rating system was devised which combined features of both a rating and a ranking. Each teacher was asked to express his judgments, in terms of one of the five possible choices, concerning the importance of each of the areas of training listed for each of the levels of

instruction at which he had had experience. In addition, teachers with junior-high experience were asked to respond to an open-end question concerning the most desirable type of training program for teachers at that instructional level.

Care was taken, when choosing the sample of teachers to whom the rating form was submitted, to obtain the judgments of teachers in varying sizes and kinds of schools. The results were then tabulated according to the background of experience that each teacher possessed.

A separate form was submitted to administrators who had responsibility for supervision and/or selection of teachers at all three levels of instruction. The information sought from them was the same as from teachers, except that each was asked to make judgments concerning the importance of each of the training areas to all three instructional levels regardless of whether he personally had actual teaching experience at each level.

Conclusions

From the analysis of the opinions expressed by teachers and administrators cooperating on this study, it seems reasonable to conclude that:

1. Certain areas of training are uniquely important to the prospective junior-high-school teacher. Five of the 15

suggested training areas were rated significantly different in importance to the junior-high teacher when compared with both the upper-elementary and the senior-high-school teacher. These were guidance and counseling, special education, specialized subject matter, reading methods, and core curriculum.

2. Teacher's judgments concerning suggested training areas are not essentially affected by dissimilar types of teaching experience. Differences in ratings among four groups representing varied teaching backgrounds were tested, and the results showed no significant variance due to the experience background of the rater.

3. The following five training areas are most essential to the preparation program of junior-high-school teachers: guidance and counseling, special methods of teaching, general education, human growth and development, and reading methods.

The same five areas rank at the top for upper-elementary-school teachers but in a different order.

Specialized subject matter ranks as most important for senior-high-school teachers, with special methods of teaching, guidance and counseling, general education, and classroom management also ranked high.

4. A majority of teachers who have had experience in the junior high school believe that a separate preparation

program for teachers at this instructional level should be offered. When asked this question directly, 55 per cent expressed this opinion. Those who favored the present secondary training program as best for teachers of grades seven, eight, and nine represented only 18 per cent of the respondents. The remaining 27 per cent judged the present elementary training program as adequate for prospective junior-high-school teachers as well.

The most frequently mentioned reasons by those who favored the establishment of a training program especially for junior-high-school teachers were: (a) an understanding of the emotional, physical, and psychological problems of junior-high-school-age youngsters is essential; (b) special training for teachers to work with a fused curriculum is necessary; (c) junior-high-school youngsters are a unique group requiring specialized training; and (d) the prestige of the junior high school would be raised if a specialized training program existed.

5. Of the two common types of teacher preparation programs now available, it seems evident that the elementary training program offers the best possibilities for producing adequately-prepared junior-high-school teachers. The ranking of the items in the order of relative importance shows a

striking similarity between the training areas judged most essential to the training backgrounds of junior-high-school and elementary teachers. In fact, the same items were included among the top eight areas suggested for teachers at both instructional levels.

The mean ratings were not significantly different in all but two of the eight areas, indicating that respondents judged an understanding of special methods of teaching, human growth and development, general education, classroom management, learning theories, and human relations as important to the elementary teacher as to the junior-high teacher. Only in the areas of guidance and counseling, and reading methods were significantly different ratings of importance given for each of these two levels of instruction.

6. A lack of homogeneity between the preparation programs judged to be best for senior-high-school teachers and for junior-high-school teachers resulted mainly from the great differences in the rating of the training area of specialized subject matter. This item was judged to be much more important to the senior-high than the junior-high teacher. It ranked first among the areas essential to senior-high teachers, but only tenth for junior-high teachers.

The time required to gain competency in each of the training areas varies. An adequate background in subject

matter would take much longer to acquire than sufficient understanding of most of the other areas. This makes it necessary, in the senior-high-school teacher preparation program, to curtail the study of many of the other areas in order to acquire the subject-matter background needed. This curtailment of other areas rated to be of greater importance to the junior-high-school teacher makes the senior-high-school preparation program impractical for teachers of grades seven, eight and nine.

Recommendations

Ideally, a training program should be developed especially to prepare junior-high-school teachers. Such a preparation program would offer the following two main advantages:

1. The prestige and self-identification of the junior high school would be greatly enhanced if a specialized training program existed. Such a program would aid in the development of the junior high school as an independent unit worthy of equal status with the elementary and senior high school.

Although the junior high school has been in existence for nearly 50 years, most teacher-training institutions have still failed to take active cognizance of this level of public education. By ignoring responsibility, the training

schools have done little to aid in the promotion of strong junior-high-school programs. Not only are teachers being inadequately prepared to meet their responsibilities, but also training institutions are failing to provide a positive force that will influence teachers to choose the junior-high-school level of instruction as a career.

One of the teachers taking part in the study expressed it this way. "Teachers in junior high are, for the most part, only there marking time until an opening appears in the senior high school for which they can qualify."

As long as this attitude is prevalent among junior-high-school teachers, we shall remain unable to develop strong teaching staffs in grades seven, eight, and nine.

Steps have been taken by school systems to eliminate largely the salary differences that once existed between the instructional levels. The time is long overdue for teacher-training institutions to encourage young men and women who possess the necessary personal and professional characteristics to prepare for and remain in the junior high school.

2. Prospective junior-high-school teachers could be better prepared to understand the emotional, physical, and psychological problems of adolescents. Specifically, the following five areas of training should be emphasized in the development of a practical preparation program for junior-high school teachers.

- A. Courses of study which help the teacher learn more about understanding the individual and counseling with him about his problems.

The primary purpose of this area of training would be to help the teacher develop an understanding of individual differences and their relationship to actual teaching situations. Aiding the youngster to understand himself and his problems would then be the desired result. Course work to develop such understandings and skills is often considered under the general title of "Counseling and Guidance."

- B. Courses which give the prospective teacher a broad general background in the principal fields of organized knowledge.

Study in this area is often called general or liberal education. It would include course work in such fields as physical and natural science, the humanities, social sciences, psychology, philosophy, literature, and the communication arts.

This is sometimes described as training with breadth rather than training with depth in a particular subject field. It seems evident that

subject-matter training of this sort will enable the junior-high-school teacher to develop further, as the occasion demands, the knowledge necessary in a particular subject area.

If limitations of time were not a factor, a complete and thorough study of several subject-matter areas should be provided for each prospective junior-high-school teacher. This, of course, is impossible during the normal four-year program of pre-service teacher preparation. The alternative, then, is to study less intensively in many areas, since the teacher at this grade level is not usually called upon to teach only one subject in isolation or subject matter of such difficulty that a complete mastery of all its aspects is required.

A junior-high-school teacher thus trained should be better able to help the student in the exploration of various fields of knowledge. This would be consistent with the function of exploration that has been included in most listings as one of the purposes for which the junior high school was established.

C. Courses concerned with objectives, materials, and teaching techniques in particular subject areas.

This area of study would help develop skill in the presentation of the subject matter to be learned, knowledge of available teaching materials that would be of help in the process, and an understanding of fundamental goals to be achieved. A title that is often attached to this area of training is "Special Methods of Teaching." The word "Special" in this case refers to particular subject-matter areas.

D. Courses concerned with basic principles and techniques of reading improvement.

While primary importance should be placed on methods of improving reading ability, this area could be broadened to include the improvement of writing, arithmetic, and spelling as well. Teachers report that many students in junior high school are not sufficiently skillful in these fundamental tool subjects upon which further learning largely depends.

Course work which will provide the junior-high-school teacher with competence to help students improve these skills will enable him to overcome many ancillary problems that result.

- E. Course work to develop an understanding of the physical, psychological, and social development of the child, especially during the pre-adolescent and adolescent periods, and the relation of his environment to his development.

The purpose of such training would be to provide junior-high-school teachers with an understanding of the needs and interests of adolescent youngsters. It is generally accepted that teachers must provide for the individual differences among the children which they teach. This area of training would provide them with an intelligent understanding of the great variations which psychologists have discovered among children of junior-high-school age.

Titles often given to particular courses that would be directed toward such understandings might include: Human Growth and Development; Child

Psychology; Adolescent Psychology; or Mental Hygiene.

While ideally a special training program for junior-high-school teachers may be most desirable, it must be recognized

that certain obstacles exist that make this ideal not immediately attainable. One of the largest of these stumbling blocks is the present teacher certification codes under which most states operate. These regulations have been written recognizing only two main types of preparation programs for the classroom teacher, one to train elementary, and the other to train secondary school teachers. Training institutions are, therefore, almost bound to pattern their training programs within the framework established by the state certifying agency.

Another difficulty that handicaps the development of strong junior-high-school programs is the apparent lack of emphasis that many school officials are willing to give to this instructional level. Instead of being accorded a distinctive place in its own right, with specific responsibilities which it alone can best perform, it is not uncommon for the junior high school to receive the cast-off facilities, improperly-prepared personnel, and a patchwork of curricular offerings.

Until administrative officials accept the junior high school as a vital unit having special educational purposes affecting youngsters at a most critical period in their development, we shall continue to see this instructional level suffering from neglect.

Suggestions for Further Study

This exploratory study was intended as a first step in seeking a full solution of the problem of providing adequate preparation for the junior-high-school teacher. There are many other questions related to this problem that are in need of better answers:

1. What is the type of school organization that will best meet the educational needs of the youngsters of this nation?
2. Should junior high schools be organized as separate schools? If not, should they be more closely associated with the elementary or secondary program?
3. How well are the junior high schools performing the functions for which they were created?
4. What changes are necessary in the certification codes of most states to enable junior-high-school teachers to be more adequately trained.
5. What effect does length of teaching service have upon the ratings of importance given by teachers to certain training areas?

Until the answers to some of these questions have been found, the place of the junior-high-school in American education will remain a controversial subject.

BIBLIOGRAPHY

Books and Pamphlets

- Briggs, T. H. The Junior High School. Boston: Houghton-Mifflin Company, 1920.
- Cole, Luella. Psychology of Adolescence. New York: Rinehart and Company, Inc., 1948.
- Cruze, Wendel W. Adolescent Psychology and Development. New York: Ronald Press Company, 1953.
- Edwards, Allen L. Statistical Methods for the Behavioral Sciences. New York: Rinehart and Company, Inc.
- Erickson, C. E., and Glenn E. Smith. Organization and Administration of Guidance Services. New York: McGraw-Hill Book Company, Inc., 1947.
- Gruhn, William T. "Junior High School," Encyclopedia of Educational Research (Revised Edition)
- Gruhn and Douglas. The Modern Junior High School. New York: The Ronald Press, 1947.
- Havighurst, Robert J. Human Development and Education. New York: Longmans, Green and Company, 1953.
- Hurlock, Elizabeth B. Adolescent Development. First Edition. New York: McGraw-Hill Book Company, Inc., 1949.
- Kempthorne, Oscar. The Design and Analysis of Experiments. New York: John Wiley and Sons, Inc., 1951.
- Kuhlen, R. G. The Psychology of Adolescent Development. New York: Harper and Brothers, 1952.
- Lindquist, E. F. Statistical Analysis in Educational Research. New York: Houghton-Mifflin Company, 1940.
- New York, N.Y., Board of Education. A Guide to Curriculum Improvement in the Junior High Schools of New York City. New York: The Board (Curriculum Bulletin 1945-46, No. 2.)

- Noar, Gertrude. The Junior High School Today and Tomorrow. New York: Prentice-Hall, Inc., 1953.
- Smith, W. A. The Junior High School. New York: Macmillan Company, 1925.
- Sprague, H. A. Progress in Preparation of Secondary School Teachers. New York: Bureau of Publications, Teachers College, Columbia University, 1940.
- Wilcoxon, F. Some Rapid Approximate Statistical Procedures. Stanford, Connecticut: American Cyanamid Company, 1949.
- Wisconsin Cooperative Educational Planning Program. Guides to Curriculum Building, Junior High School Level. Madison, Wisconsin: State Superintendent of Public Instruction, 1950. (Problems Approach Bulletin No. 2, Curriculum Bulletin No. 12) (Also issued by the Illinois Secondary School Curriculum Program as Bulletin No. 8, Urbana, Illinois, State Superintendent of Public Instruction.)
- Woellner, Robert C., and M. Aurilla Wood. Requirements for Certification. Chicago: The University of Chicago Press, 1955.

Periodicals

- Alberty, H. B., "Developing a Curriculum That Meets the Needs of Junior High School Youth." The Bulletin of the National Association of Secondary-School Principals, 31:69-81, April, 1947.
- Alberty, H. B., "Reorganizing the Junior High School Curriculum." The Bulletin of the National Association of Secondary-School Principals, 29:17-28, April, 1945.
- Barnes, Jarvis, "Future of the Junior High School." School Executive, 64:43-45, February, 1945.
- Beals, Lester, "The Junior High School - Past and Present." The Bulletin of the National Association of Secondary-School Principals, 36:15-24, January, 1952.

- Briggs, Thomas H., "Has the Junior High School Made Good?" Educational Administration and Supervision, XXIV, 1-10, January, 1938.
- California Journal of Secondary Education, Vol. 29, No. 5, pp. 266-267, May, 1954.
- Cole, Thomas R., "What Grades Should Constitute the Junior High School?" American School Board Journal, CXII, p. 42, February, 1946.
- Committee on Junior High School Problems. "Organizing the Junior High School." California Association of Secondary-School Administrators. The Bulletin of the National Association of Secondary-School Principals, 35:6-157, December, 1951.
- Douglas, A. A., "Persistent Problems of the Junior High School." California Journal of Secondary Education, 20:110-20, February, 1945.
- Douglass, Harl R., "The Function of the Modern Junior High School." Bulletin of the National Association of Secondary-School Principals, 34-119-127, April, 1950.
- Elliot, Lloyd H., "The Junior High - A School Without Teachers." Education, pp. 186-190, November, 1949.
- Frazier, G. W., "Junior High School as an Educational Problem." California Journal of Secondary Education, 27:112-115, February, 1952.
- Gaumnitz, Walter, and J. Dan Hull, "Junior High Schools Versus the Traditional (8-4) High School Organization." Bulletin of the National Association of Secondary School Principals, Vol. 38, pp. 112-121, March, 1954.
- Goff, Aron, "Junior High School Psychosis." Clearing House, 22:544-51, May, 1948.
- Gruhn, William T., "The Purposes of the Junior High Schools After 40 Years." California Journal of Secondary Education, 27:127-132, March, 1952.
- Havighurst, Robert J., "Poised at the Crossroads of Life: Suggestions to Parents and Teachers of Young Adolescents." School Review, 61:329-336, September, 1953.

- Herriott, M. E., "What is a Functional Program for the Junior High School?" The Bulletin of the National Association of Secondary-School Principals, 33:95-108, May, 1949.
- Leipold, L. E., "Junior High Schools Face These Problems." Clearing House 27, pp. 263-265, January, 1953.
- Low, Camilla M., "Tasting Their Teens in the Junior High School." National Education Association Journal, 42:347-349, September, 1953.
- Mackie, R. H., "Why the Junior High School?" Education, LXXIII, 374-77, February, 1953.
- Rogers, H. J., and R. D. Brackett, "What Curriculum Changes Are Needed in the Junior High School?" Summary of Presentations. The Bulletin of the National Association of Secondary-School Principals, 38:160-164, April, 1954.
- Shipp, Frederic T., "4-4-3: New Plan for School Organization," School Executive, LXXI: p. 62, September, 1951.
- Tuttle, Harold S., "Has the Junior High School Kept Its Promise?" Clearing House, XIV: 263-66, January, 1940.
- Young, Irvin F., "What Are the Most Significant Functions of the Six-Year School?" Bulletin of the National Association of Secondary School Principals, XXXVI: 304-11, March, 1952.

Publications of the Government, Learned Societies
And Other Organizations

- Bulletin of the Michigan Secondary School Association, Vol. XX, No. 4, January, 1955, p. 69.
- Evenden, E. E. National Survey of the Education of Teachers. Washington: Department of Interior, Office of Education, Vol. VI, pp. 173-174.
- Gaumnitz, Walter H. Supplementary Statistics of Public Secondary Schools, 1951-52, with Special Emphasis upon Junior and Junior-Senior High Schools, Circular Number 423, February, 1955. Washington: U. S. Department of Health, Education, and Welfare, Office of Education, 1955, p. 4.

Improvement of Teacher Education, Educational Policies Commission, National Education Association, 1938, p. 1.

Issues of Secondary Education, Department of Secondary School Principals, National Education Association, 1934, pp. 247-278.

Junior High School Facts, U. S. Department of Health, Education, and Welfare. Washington: Office of Education, 1955.

Michigan Education Directory and Buyers Guide. Lansing: Michigan Education Association, 1955.

National Society for the Study of Education, Eighteenth Yearbook, Bloomington, Illinois, Public School Publishing Company, 1919.

National Survey of the Education of Teachers. Washington: U. S. Office of Education, Bulletin No. 10, 6 volumes, 1933.

United States Bureau of the Census. Washington: U. S. Department of Commerce, 1950.

Yearbook of the New Jersey Secondary School Teachers Association, "We Look at Curriculum Growth," 1952, p. 72.

APPENDIX A

**COPY OF QUESTIONNAIRE SUBMITTED TO 38 TEACHERS
WHO HELPED DEVELOP FINAL RATING FORM**

A PREPARATION PROGRAM FOR JUNIOR HIGH SCHOOL TEACHERS

An attempt is being made to discover ways of improving the preparation program for teachers of junior-high-school-age youngsters. The first step in this process is the identification of areas of training that might be helpful to a prospective teacher in this grade range. These areas will later be submitted to teachers to rate in importance. It is essential therefore, that all possible areas be included and that they be clearly stated.

You have had an opportunity to face the problems of a junior-high-school teacher. Would you be willing to share some of the things that you have learned by reviewing the items listed below? Then would you do two things: (1) suggest any other basic areas of understanding that you feel are important but which have not been included and; (2) call attention to any areas already listed which are confusing to you and need to be stated more clearly.

1. Courses in the subject matter specialty of the teacher designed to give a thorough and complete background of training in a particular subject. For example, advanced English courses for the English teacher, or advanced Mathematics courses for the teacher of Mathematics.
2. Courses of study designed to help the student learn more about understanding the individual and counseling with him about his problems.
3. Audio-visual materials and techniques. For example, projector operation; selection sources, and elements of effective utilization of such teaching tools as flat pictures, slides, film strips, sound picture films and field trips.
4. Course work designed to give the prospective teacher a better understanding of the school as a social institution and the structure of school society.
5. Study of the historical background of present issues in education and an analysis of educational philosophy.
6. Practice teaching experience under the direction of an experienced teacher.
7. Courses showing objectives, methods, and materials in particular subject areas which a student is preparing to teach.
8. Physical, psychological, and social development of the child and the relation of his environment to his development. Problems of the individual's adjustment to his personal and social environment.

9. Courses designed to develop an understanding of the theory of learning.
10. Methods of instruction of the atypical child. Methods of facilitating growth and development of children who are crippled, hard of hearing, defective in vision, mentally handicapped, etc.
11. Basic principles and techniques in remedial reading, including causes of reading difficulties, diagnostic testing, materials, and instructional procedures.
12. Theory and practices of the core or fused curriculum.
13. Classroom management, such as techniques for classroom organization, record keeping, teacher-pupil planning, handling disciplinary problems, etc.
14. Techniques for working with parents, administrators and other teachers.
15. General education courses designed to give the prospective teacher a better understanding of the world in which he lives.
- 17.
- 18.
- etc.

Use the back of the page for any additional comments if necessary.

APPENDIX B

A PREPARATION PROGRAM FOR TEACHERS

A PREPARATION PROGRAM FOR TEACHERS

94

Teacher training institutions are constantly trying to evaluate and improve their preparation programs for prospective teachers. Many of the problems they face have no easy solutions. For example, ideally every prospective teacher should be thoroughly trained in many different fields. Practically, however, only so much can be crammed into the four years of pre-service training. It becomes doubly important, therefore, that each teacher in training receive the kind of preparation which is of most practical importance for the grade level he is going to teach.

You, as an experienced teacher, are a most important source of information about what a practical preparation program should be. We would appreciate having you share some of your ideas with us.

First of all we need information about your experience.

1. How many years have you taught? (Circle the correct number.)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

2. In what size community do you now teach?

☐

Less than 15,000

☐

15,000-50,000

☐

More than 50,000

3. How is the system in which you now teach organized with regard to Elementary, Junior High and Senior High School?

☐

6 - 3 - 3

☐

6 - 6

☐

8 - 4

4. What kind of teaching experience have you had? Circle the letter of the statement below that best describes it.

a. I have taught **only** at the senior high school level. (Grades 10, 11, or 12) a.

b. I have taught **only** at the junior high school level. (Grades 7, 8, or 9) b.

c. I have taught **only** at the upper elementary school level. (Grades 4, 5, or 6) c.

d. I have taught at both the upper elementary (Grades 4, 5, or 6) and at the junior high (Grades 7, 8, or 9) school levels. d.

e. I have taught at both the senior high (Grades 10, 11, or 12) and at the junior high (Grades 7, 8, or 9) school levels. e.

f. I have taught at the upper elementary, junior high and senior high school grade levels. f.

If you marked statements a, b, or c above, follow Directions A at the top of Page 2.
If you marked statements d, e, or f, above, follow Directions B near the top of Page 2.

DIRECTIONS A. (Only for teachers who marked statements a, b, or c at the bottom of Page 1.)

Use the coded phrases in the box below to express your opinion regarding the relative importance of the areas of training described in statements 5-19. If your experience has been at the senior high level, record the number of your choice in the box marked **Sr. Hi**. If your experience has been at the junior high level, record your choice in the box marked **Jr. Hi**. If your experience has been at the upper elementary level, record your choice in the box marked **Elem**.

DIRECTIONS B. (Only for teachers who marked statements d, e, or f, at the bottom of Page 1.)

Use the coded phrases in the box below to express your opinion regarding the relative importance of the areas of training described in statements 5-19. Record the number that best describes its importance to junior high teachers in the box marked **Jr. Hi**. Make the same judgment concerning its importance to teachers at the other grade level(s) at which you have had experience and put the number in the box appropriately marked. (**Sr. Hi** if your experience has been at the senior high level or **Elem** if your experience has been in the elementary school.)

Key:

1. Top priority. Should be among those few areas included regardless of what is excluded.
2. High priority. Should be included but would yield precedence to some other areas.
3. Moderate priority. Should be included but quite a few other areas are more important.
4. Low priority. Should be included if time permits.
5. Is not logically a part of the undergraduate training program.

REMEMBER: Judge each area with regard to pre-service training for teachers of the particular grade range.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

5. Courses which give the prospective teacher a broad general background in the principle fields of organized knowledge. For example, survey courses in science, literature, the humanities, etc.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

6. Courses designed to give a thorough and complete background of training in the subject matter specialty or specialties of the teacher. For example, advanced English courses for the English teacher, or advanced Mathematics courses for the teacher of Mathematics.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

7. Courses of study which help the prospective teacher learn more about understanding the individual and counseling with him about his problems.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

8. Audio-visual materials and techniques. For example, projector operation; selection sources and elements of effective utilization of such teaching tools as flat pictures, slides, film strips, sound picture films and field trips.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

9. Course work which gives the prospective teacher a better understanding of the school as a social institution and the structure of school society. For example, cliques, social class, etc.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

10. Study of the historical background of present issues in education and an analysis of educational theory and practice.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

11. Courses showing objectives, materials, and teaching techniques in particular subject areas which a student is preparing to teach.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

12. Physical, psychological and social development of the child and the relation of his environment to his development.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

13. Courses which develop an understanding of the theories of learning as they apply to the classroom.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

14. Training in working with children with special problems. Methods of facilitating growth and development of children who are crippled, hard of hearing, defective in vision, mentally handicapped, etc.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

15. Basic principles and techniques of reading improvement. Causes of reading difficulties, diagnostic testing, materials and instructional procedures.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

16. Courses designed to develop an understanding of various ways of developing the core or fused curriculum.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

17. Classroom management such as techniques for classroom organization, record keeping, teacher-pupil planning, handling disciplinary problems, etc.

☐ ☐ ☐
 Sr. Hi Jr. Hi Elem

18. Techniques for working with parents, administrators and other teachers.

☐ ☐ ☐
 Sr. Hi Jr. Hi Elem

19. An understanding of the construction, selection, administration and uses of tests.

* * * * *

If you have taught in Junior High School, answer these three questions.

20. What type of teaching certificate do you hold?

☐ Elementary

☐ Secondary

21. The preparation program that is now common for secondary school teachers is quite unlike the preparation program that is common for elementary school teachers. In your opinion, which training program provides the better preparation for teaching in the junior high school? Or should it be different from either one?

.....

22. Why?

A PREPARATION PROGRAM FOR TEACHERS

98

Teacher training institutions are constantly trying to evaluate and improve their preparation programs for prospective teachers. Many of the problems they face have no easy solutions. For example, ideally every prospective teacher should be thoroughly trained in many different fields. Practically, however, only so much can be crammed into the four years of pre-service training. It becomes doubly important, therefore, that each teacher in training receive the kind of preparation which is of most practical importance for the grade level he is going to teach.

You have responsibility for the employment and/or supervision of teachers in elementary, junior high and senior high schools. Are there particular aspects of the training background that you feel are of varying degrees of importance to teachers at each of these grade levels?

You, as an experienced administrator, are a most important source of information about what a practical preparation program should be. We would appreciate having you share some of your ideas with us.

First of all we need information about your experience.

1. How many years have you taught? (Circle the correct number.)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

2. In what size community are you now employed?

☐ Less than 15,000 ☐ 15,000-50,000 ☐ More than 50,000

3. How is the system in which you are now employed organized with regard to Elementary, Junior High and Senior High School?

☐ 6 - 3 - 3

☐ 6 - 6

☐ 8 - 4

DIRECTIONS:

Use the coded phrases in the box below to express your opinion regarding the relative importance of the areas of training described in statements 4-18. Record the number that best describes its importance to junior high teachers (grades 7-9) in the box marked **Jr. Hi**. Make the same judgment concerning the importance to the upper elementary (grades 4-6) teacher and record the number in the box marked **Elem**. Do the same thing for the senior high school (grades 10-12) teacher and record your choice in the box marked **Sr. Hi**.

Key:

1. Top priority. Should be among those few areas included regardless of what is excluded.
2. High priority. Should be included but would yield precedence to some other areas.
3. Moderate priority. Should be included but quite a few other areas are more important.
4. Low priority. Should be included if time permits.
5. Is not logically a part of the undergraduate training program.

REMEMBER: Judge each area with regard to pre-service training for teachers of the particular grade range.

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| ☐ | ☐ | ☐ | 4. Courses which give the prospective teacher a broad general background in the principle fields of organized knowledge. For example, survey courses in science, literature, the humanities, etc. |
| Sr. Hi | Jr. Hi | Elem | |
| | | | |
| ☐ | ☐ | ☐ | 5. Courses designed to give a thorough and complete background of training in the subject matter specialty or specialties of the teacher. For example, advanced English courses for the English teacher, or advanced Mathematics courses for the teacher of Mathematics. |
| Sr. Hi | Jr. Hi | Elem | |
| | | | |
| ☐ | ☐ | ☐ | 6. Courses of study which help the prospective teacher learn more about understanding the individual and counseling with him about his problems. |
| Sr. Hi | Jr. Hi | Elem | |
| | | | |
| ☐ | ☐ | ☐ | 7. Audio-visual materials and techniques. For example, projector operation; selection sources and elements of effective utilization of such teaching tools as flat pictures, slides, film strips, sound picture films and field trips. |
| Sr. Hi | Jr. Hi | Elem | |

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

8. Course work which gives the prospective teacher a better understanding of the school as a social institution and the structure of school society. For example, cliques, social class, etc.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

9. Study of the historical background of present issues in education and an analysis of educational theory and practice.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

10. Courses showing objectives, materials, and teaching techniques in particular subject areas which a student is preparing to teach.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

11. Physical, psychological and social development of the child and the relation of his environment to his development.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

12. Courses which develop an understanding of the theories of learning as they apply to the classroom.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

13. Training in working with children with special problems. Methods of facilitating growth and development of children who are crippled, hard of hearing, defective in vision, mentally handicapped, etc.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

14. Basic principles and techniques of reading improvement. Causes of reading difficulties, diagnostic testing, materials and instructional procedures.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

15. Courses designed to develop an understanding of various ways of developing the core or fused curriculum.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

16. Classroom management such as techniques for classroom organization, record keeping, teacher-pupil planning, handling disciplinary problems, etc.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

17. Techniques for working with parents, administrators and other teachers.

☐ ☐ ☐
Sr. Hi Jr. Hi Elem

18. An understanding of the construction, selection, administration and uses of tests.

* * * * *

APPENDIX C

**LIST OF MICHIGAN SCHOOL SYSTEMS COOPERATING
IN THE STUDY**

Akron

Battle Creek

Caro

Carson City

Dearborn

Fenton

Grand Rapids

Greenville

Hillsdale

Lakeview

Marcellus

New Baltimore

Niles

Pinckney

Portland

Rochester

St. Joseph

Three Oaks

Unionville

APPENDIX D

**DISTRIBUTION OF FREQUENCIES OF THE RATINGS GIVEN BY TEACHERS
WITH EXPERIENCE AT ONLY ONE INSTRUCTIONAL LEVEL**

The ratings are on a scale of 1 to 5: 1 denoting the highest priority, down to 5, the lowest priority.

ITEM	SENIOR HIGH					JUNIOR HIGH					ELEMENTARY				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
5. General Education	14	19	14	2	1	29	18	2	3	0	29	16	13	0	0
6. Specialized Subject Matter	37	12	1	0	0	8	18	20	6	0	1	19	24	5	9
7. Counseling and Guidance	23	18	9	0	0	33	15	4	0	0	30	24	3	1	0
8. Audio-Visual	12	12	17	9	0	12	18	16	5	1	16	16	17	8	1
9. Sociology of Education	7	17	12	13	1	6	22	22	2	0	3	20	21	13	1
10. Educational History- Philosophy	7	11	19	8	5	5	6	19	20	2	5	10	23	18	2
11. Special Methods of Teaching	36	8	6	0	0	30	18	3	1	0	33	20	5	0	0
12. Human Growth and Development	15	17	17	1	0	26	19	6	1	0	35	17	5	1	0
13. Learning Theory	14	13	21	2	0	14	22	13	2	1	17	24	15	1	1
14. Special Education	3	8	14	16	9	5	7	17	16	7	7	12	17	15	7
15. Reading Methods	11	13	13	13	0	22	21	8	1	0	41	15	1	1	0
16. Core Curriculum	1	11	15	17	6	8	16	18	8	2	3	11	25	15	4
17. Classroom Management	23	17	8	1	1	25	15	10	1	1	24	19	13	1	1
18. Human Relations	8	13	24	5	0	13	18	19	2	0	20	13	20	3	2
19. Tests	15	17	15	2	1	9	29	13	0	1	8	20	20	7	3

APPENDIX E

ANALYSIS OF VARIANCE OF RATINGS GIVEN BY TEACHERS WITH EXPERIENCE AT ONE INSTRUCTIONAL LEVEL

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
5. General Education	Between groups	8.250	2	4.125	5.574
	Within groups	116.125	157	.740	
	Total	124.375	159		
6. Specialized Subject Matter	Between groups	84.666	2	42.333	56.823
	Within groups	116.934	157	0.745	
	Total	201.600	159		
7. Counseling and Guidance	Between groups	1.969	2	0.985	2.056
	Within groups	75.131	157	0.479	
	Total	77.100	159		
8. Audio-Visual	Between groups	0.535	2	0.268	0.243
	Within groups	172.965	157	1.102	
	Total	173.500	159		
9. Sociology of Education	Between groups	5.142	2	2.571	3.057
	Within groups	132.102	157	0.841	
	Total	137.244	159		
10. Educational History-Philosophy	Between groups	2.224	2	1.112	0.999
	Within groups	174.720	157	1.113	
	Total	176.944	159		

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
11. Special Methods of Teaching	Between groups	0.480	2	0.240	0.513
	Within groups	73.464	157	0.468	
	Total	73.944	159		
12. Human Growth and Development	Between groups	9.043	2	4.522	7.401
	Within groups	95.932	157	0.611	
	Total	104.975	159		
13. Learning Theory	Between groups	0.767	2	0.384	0.468
	Within groups	128.733	157	0.820	
	Total	129.500	159		
14. Special Education	Between groups	3.305	2	1.653	1.209
	Within groups	214.595	157	1.367	
	Total	117.900	159		
15. Reading Methods	Between groups	40.321	2	20.161	28.079
	Within groups	112.654	157	0.718	
	Total	152.975	159		
16. Core Curriculum	Between groups	13.408	2	6.704	6.553
	Within groups	160.567	157	1.023	
	Total	173.975	159		

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
17. Classroom Management	Between groups	0.319	2	0.160	0.183
	Within groups	137.456	157	0.876	
	Total	137.775	159		
18. Human Relations	Between groups	3.526	2	1.763	1.920
	Within groups	144.074	157	0.918	
	Total	147.600	159		
19. Tests	Between groups	8.037	2	4.019	4.572
	Within groups	137.957	157	0.879	
	Total	145.994	159		

APPENDIX F

**DISTRIBUTION OF FREQUENCIES OF THE RATINGS GIVEN BY TEACHERS
WITH EXPERIENCE AT TWO INSTRUCTIONAL LEVELS**

The ratings are on a scale of 1 to 5: 1 denoting the highest priority, 111 down to 5, the lowest priority.

QUESTION	SENIOR HIGH					JUNIOR HIGH					ELEMENTARY				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
5. General Education	37	29	19	0	0	70	46	10	1	0	22	14	4	2	0
6. Specialized Subject Matter	64	18	3	0	0	10	58	52	7	0	0	7	22	12	1
7. Counseling and Guidance	39	35	11	0	0	77	39	11	0	0	24	14	6	0	0
8. Audio-Visual	4	26	41	14	0	9	44	57	17	0	6	14	18	4	0
9. Sociology of Education	8	27	37	12	1	18	28	59	18	4	3	5	21	8	5
10. Educational History- Philosophy	2	17	42	21	3	6	22	62	31	6	2	5	20	13	2
11. Special Methods of Teaching	61	22	2	0	0	79	36	9	3	0	30	6	5	1	0
12. Human Growth and Development	19	44	19	3	0	71	40	12	4	0	20	17	4	1	0
13. Learning Theory	21	35	24	5	0	37	47	36	7	0	12	18	8	4	0
14. Special Education	4	12	31	30	8	6	32	47	33	9	5	9	17	7	4
15. Reading Methods	18	26	32	8	1	59	50	16	2	0	33	8	1	0	0
16. Core Curriculum	2	12	21	34	16	16	36	33	35	7	4	11	16	9	2
17. Classroom Management	33	21	23	8	0	52	41	28	6	0	17	14	10	1	0
18. Human Relations	13	28	27	13	4	25	45	40	13	4	13	14	11	4	0
19. Tests	16	39	24	6	0	16	56	42	12	1	1	19	17	4	1

APPENDIX G

ANALYSIS OF VARIANCE OF RATINGS GIVEN BY TEACHERS WITH EXPERIENCE AT TWO INSTRUCTIONAL LEVELS

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
5. General Education	Between groups	3.077	2	1.539	2.778
	Within groups	139.033	251	0.554	
	Total	142.110	253		
6. Specialized Subject Matter	Between groups	118.014	2	59.007	134.107
	Within groups	110.364	251	0.440	
	Total	228.378	253		
7. Counseling and Guidance	Between groups	1.851	2	0.926	1.991
	Within groups	116.763	251	0.465	
	Total	118.614	253		
8. Audio-Visual	Between groups	2.376	2	1.188	1.831
	Within groups	162.825	251	0.649	
	Total	165.201	253		
9. Sociology of Education	Between groups	8.258	2	4.129	4.473
	Within groups	231.569	251	0.923	
	Total	239.827	253		
10. Educational History-Philosophy	Between groups	0.503	2	0.252	0.332
	Within groups	190.414	251	0.759	
	Total	190.917	253		

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
11. Special Methods of Teaching	Between groups	1.879	2	0.940	2.030
	Within groups	116.200	251	0.463	
	Total	118.079	253		
12. Human Growth and Development	Between groups	11.866	2	5.933	9.839
	Within groups	151.429	251	0.603	
	Total	163.295	253		
13. Learning Theory	Between groups	0.157	2	0.079	0.100
	Within groups	198.300	251	0.790	
	Total	198.457	253		
14. Special Education	Between groups	5.409	2	2.705	2.629
	Within groups	258.280	251	1.029	
	Total	263.689	253		
15. Reading Methods	Between groups	43.484	2	21.742	34.348
	Within groups	158.831	251	0.633	
	Total	202.315	253		
16. Core Curriculum	Between groups	30.651	2	15.326	13.178
	Within groups	291.888	251	1.163	
	Total	322.539	253		

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
17. Classroom Management	Between groups	1.677	2	0.839	0.953
	Within groups	220.847	251	0.880	
	Total	222.524	253		
18. Human Relations	Between groups	6.279	2	3.140	2.959
	Within groups	266.213	251	1.061	
	Total	272.492	253		
19. Tests	Between groups	4.811	2	2.406	3.398
	Within groups	177.819	251	0.708	
	Total	182.630	253		

APPENDIX H

**DISTRIBUTION OF FREQUENCIES OF THE RATINGS GIVEN BY TEACHERS
WITH EXPERIENCE AT THREE INSTRUCTIONAL LEVELS**

The ratings are on a scale of 1 to 5: 1 denoting the highest priority, 117
down to 5, the lowest priority.

QUESTION	SENIOR HIGH					JUNIOR HIGH					ELEMENTARY				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
5. General Education	14	7	5	1	0	13	10	4	0	0	12	7	8	0	0
6. Specialized Subject Matter	23	3	1	0	0	5	13	6	3	0	0	3	16	6	2
7. Counseling and Guidance	17	8	2	0	0	22	3	2	0	0	12	7	8	0	0
8. Audio-Visual	6	7	11	3	0	7	12	6	2	0	11	8	6	2	0
9. Sociology of Education	5	8	9	4	1	5	6	11	3	2	3	2	11	7	4
10. Educational History- Philosophy	2	6	10	8	1	1	6	12	7	1	1	4	10	11	1
11. Special Methods of Teaching	21	4	1	1	0	15	8	3	1	0	14	6	5	2	0
12. Human Growth and Development	12	6	9	0	0	15	7	5	0	0	17	6	4	0	0
13. Learning Theory	10	6	11	0	0	10	8	9	0	0	13	6	8	0	0
14. Special Education	4	4	8	5	6	5	8	4	5	5	11	4	5	2	5
15. Reading Methods	6	8	11	2	0	10	15	2	0	0	24	3	0	0	0
16. Core Curriculum	0	5	12	3	7	4	8	9	4	2	3	4	9	3	8
17. Classroom Management	11	7	6	2	1	11	7	7	1	1	11	8	7	0	1
18. Human Relations	9	10	5	2	1	9	10	5	2	1	9	11	3	3	1
19. Tests	9	6	7	5	0	7	9	7	4	0	7	9	8	3	0

APPENDIX I

ANALYSIS OF VARIANCE OF RATINGS GIVEN BY TEACHERS WITH
EXPERIENCE AT THREE INSTRUCTIONAL LEVELS

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
5. General Education	Between groups	0.469	2	0.235	0.336
	Within groups	54.593	78	0.700	
	Total	55.062	80		
6. Specialized Subject Matter	Between groups	58.099	2	29.050	53.401
	Within groups	42.444	78	0.544	
	Total	100.543	80		
7. Counseling and Guidance	Between groups	4.963	2	2.482	4.934
	Within groups	39.259	78	0.503	
	Total	44.222	80		
8. Audio-Visual	Between groups	2.766	2	1.383	1.538
	Within groups	70.148	78	0.899	
	Total	72.914	80		
9. Sociology of Education	Between groups	7.728	2	3.864	3.019
	Within groups	99.852	78	1.280	
	Total	107.580	80		
10. Educational History-Philosophy	Between groups	1.062	2	0.531	0.608
	Within groups	68.148	78	0.874	
	Total	69.210	80		

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
11. Special Methods of Teaching	Between groups	3.186	2	1.593	2.130
	Within groups	58.370	78	0.748	
	Total	61.556	80		
12. Human Growth and Development	Between groups	1.950	2	0.975	1.471
	Within groups	51.704	78	0.663	
	Total	53.654	80		
13. Learning Theory	Between groups	0.691	2	0.346	0.450
	Within groups	60.000	78	0.769	
	Total	60.691	80		
14. Special Education	Between groups	6.741	2	3.371	1.608
	Within groups	163.481	78	2.096	
	Total	170.222	80		
15. Reading Methods	Between groups	20.173	2	10.087	22.925
	Within groups	34.296	78	0.440	
	Total	54.469	80		
16. Core Curriculum	Between groups	8.618	2	4.309	2.992
	Within groups	112.296	78	1.440	
	Total	120.914	80		

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
17. Classroom Management	Between groups	0.173	2	0.087	0.074
	Within groups	91.778	78	1.177	
	Total	91.951	80		
18. Human Relations	Between groups	0.000	2	0.000	0.000
	Within groups	94.000	78	1.205	
	Total	94.000	80		
19. Tests	Between groups	0.025	2	0.013	0.012
	Within groups	86.444	78	1.108	
	Total	86.469	80		

APPENDIX J

**DISTRIBUTION OF FREQUENCIES OF THE RATINGS GIVEN BY ADMINISTRATORS
WITH EXPERIENCE AT THREE INSTRUCTIONAL LEVELS**

The ratings are on a scale of 1 to 5: 1 denoting the highest priority, down to 5, the lowest priority.

QUESTION	SENIOR HIGH					JUNIOR HIGH					ELEMENTARY				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
5. General Education	7	9	3	0	0	11	6	2	0	0	9	8	1	0	1
6. Specialized Subject Matter	15	3	1	0	0	0	13	5	1	0	0	2	8	4	5
7. Counseling and Guidance	12	4	2	1	0	15	3	1	0	0	12	5	2	0	0
8. Audio-Visual	5	4	8	1	1	6	6	6	0	1	6	8	5	0	0
9. Sociology of Education	5	8	5	1	0	4	9	5	1	0	3	6	8	2	0
10. Educational History- Philosophy	2	2	10	4	1	1	3	8	5	2	0	3	8	6	2
11. Special Methods of Teaching	13	4	2	0	0	11	6	1	1	0	10	4	4	1	0
12. Human Growth and Development	8	6	5	0	0	14	4	1	0	0	14	4	1	0	0
13. Learning Theory	6	9	3	0	1	8	7	3	0	1	9	6	3	0	1
14. Special Education	0	3	8	4	4	1	6	5	4	3	5	5	4	3	2
15. Reading Methods	3	11	4	1	0	11	8	0	0	0	16	3	0	0	0
16. Core Curriculum	1	4	10	3	1	6	7	4	2	0	2	4	7	3	3
17. Classroom Management	6	7	5	1	0	7	7	4	1	0	10	6	2	1	0
18. Human Relations	6	7	5	0	1	8	6	4	0	1	7	8	3	0	1
19. Tests	4	9	4	1	1	4	10	3	1	1	4	7	6	1	1

APPENDIX K

**ANALYSIS OF VARIANCE OF RATINGS GIVEN BY ADMINISTRATORS WITH
RESPONSIBILITIES AT THREE INSTRUCTIONAL LEVELS**

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
5. General Education	Between groups	0.737	2	0.369	0.560
	Within groups	35.579	54	0.659	
	Total	36.316	56		
6. Specialized Subject Matter	Between groups	53.369	2	26.685	47.230
	Within groups	30.526	54	0.565	
	Total	83.895	56		
7. Counseling and Guidance	Between groups	0.982	2	0.491	0.913
	Within groups	29.053	54	0.538	
	Total	30.035	56		
8. Audio-Visual	Between groups	2.141	2	1.071	1.069
	Within groups	54.105	54	1.002	
	Total	56.246	56		
9. Sociology of Education	Between groups	1.508	2	0.754	0.992
	Within groups	41.053	54	0.760	
	Total	42.561	56		
10. Educational History-Philosophy	Between groups	1.298	2	0.649	0.680
	Within groups	51.579	54	0.955	
	Total	52.877	56		

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
11. Special Methods of Teaching	Between groups	1.298	2	0.649	0.912
	Within groups	38.421	54	0.712	
	Total	39.719	56		
12. Human Growth and Development	Between groups	3.509	2	1.755	3.832
	Within groups	24.737	54	0.458	
	Total	28.246	56		
13. Learning Theory	Between groups	0.245	2	0.123	0.114
	Within groups	58.316	54	1.080	
	Total	58.561	56		
14. Special Education	Between groups	7.684	2	3.842	2.689
	Within groups	77.158	54	1.429	
	Total	84.842	56		
15. Reading Methods	Between groups	10.211	2	5.106	15.615
	Within groups	17.684	54	0.327	
	Total	27.895	56		
16. Core Curriculum	Between groups	10.246	2	5.123	4.636
	Within groups	59.684	54	1.105	
	Total	69.930	56		

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
17. Classroom Management	Between groups	1.368	2	0.684	0.839
	Within groups	44.000	54	0.815	
	Total	45.368	56		
18. Human Relations	Between groups	0.316	2	0.158	0.143
	Within groups	59.684	54	1.105	
	Total	60.000	56		
19. Tests	Between groups	0.246	2	0.123	0.112
	Within groups	59.263	54	1.097	
	Total	59.509	56		

APPENDIX L

**ANALYSIS OF VARIANCE OF RATINGS GIVEN BY TOTAL SAMPLE
OF TEACHERS AND ADMINISTRATORS**

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
5. General Education	Between groups	9.70	2	4.850	7.580
	Within groups	351.300	549	.640	
	Total	361.000	551		
6. Specialized Subject Matter	Between groups	311.000	2	155.500	277.700
	Within groups	307.000	549	.560	
	Total	618.000	551		
7. Counseling and Guidance	Between groups	5.420	2	2.710	5.650
	Within groups	265.450	549	0.480	
	Total	270.870	551		
8. Audio-Visual	Between groups	8.920	2	4.460	5.070
	Within groups	481.860	549	0.880	
	Total	490.780	551		
9. Sociology of Education	Between groups	14.580	2	7.290	7.590
	Within groups	527.300	549	0.960	
	Total	541.880	551		
10. Educational History-Philosophy	Between groups	2.440	2	1.220	1.370
	Within groups	488.890	549	0.890	
	Total	491.330	551		

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
11. Special Methods of Teaching	Between groups	5.320	2	2.660	5.020
	Within groups	290.530	549	0.530	
	Total	295.850	551		
12. Human Growth and Development	Between groups	25.290	2	12.650	21.080
	Within groups	328.620	549	0.600	
	Total	353.910	551		
13. Learning Theory	Between groups	1.700	2	0.850	1.040
	Within groups	449.400	549	0.820	
	Total	451.100	551		
14. Special Education	Between groups	18.540	2	9.270	7.020
	Within groups	725.780	549	1.320	
	Total	744.320	551		
15. Reading Methods	Between groups	113.360	2	56.680	94.470
	Within groups	328.900	549	0.600	
	Total	442.260	551		
16. Core Curriculum	Between groups	50.680	2	25.340	21.470
	Within groups	645.360	549	1.180	
	Total	696.040	551		

Item	Source of Variation	Sum of Squares	DF	Mean Square	F
17. Classroom Management	Between groups	1.000	2	0.500	0.550
	Within groups	499.000	549	.910	
	Total	500.000	551		
18. Human Relations	Between groups	8.450	2	4.230	4.030
	Within groups	578.420	549	1.050	
	Total	586.870	551		
19. Tests	Between groups	7.410	2	3.710	4.360
	Within groups	468.560	549	0.850	
	Total	475.970	551		

APPENDIX M**UNBIASED ESTIMATES OF THE VARIANCE BETWEEN GROUP MEANS**

Item	Teachers With Exp. At One Instruct. Level	Teachers With Exp. At Two Instruct. Levels	Teachers With Exp. At Three Instruct. Levels	Adminis- trators
5. General Education	0.0636	0.0127	-0.0172	-0.0153
6. Specialized Subject Matter	0.7814	0.7552	1.0558	1.3747
7. Counseling and Guidance	0.0095	0.0059	0.0733	-0.0025
8. Audio-Visual	-0.0157	0.0069	0.0179	0.0036
9. Sociology of Education	0.0325	0.0443	0.0957	-0.0003
10. Educational History- Philosophy	-0.0000	-0.0065	-0.0127	-0.0161
11. Special Methods of Teaching	-0.0043	0.0062	0.0313	-0.0033
12. Human Growth and Development	0.0735	0.0687	0.0116	0.0683
13. Learning Theory	-0.0082	-0.0092	-0.0157	-0.0504
14. Special Education	0.0054	0.0216	0.0472	0.1270
15. Reading Methods	0.3653	0.2722	0.3573	0.2515
16. Core Curriculum	0.1067	0.1826	0.1063	0.2115
17. Classroom Management	-0.0135	-0.0005	-0.0404	-0.0069
18. Human Relations	0.0159	0.0268	-0.0446	-0.0498
19. Tests	0.0590	0.0219	-0.0406	-0.0513