ABSTRACT

TEACHERS' PERCEPTIONS AND PRINCIPALS' EXPECTATIONS FOR THE TEACHER'S ROLE IN INDIVIDUALIZED INSTRUCTION

By

Roger Henry Lambert

Objective of the Study

The objective of the study was to identify the priority vocational agriculture teachers and their principals associated with selected activities related to the teacher's role in individualized instruction and to compare these priorities for significant differences among the groups studied.

Method

The method involved identifying important individualized instruction activities through a review of literature on the subject and organizing these activities into a survey instrument for use in the study. The selected activities were validated by a jury of experts who were familiar with individualized instruction. The population included all secondary vocational agriculture teachers in Michigan and their principals. A mail survey was taken with a response return of 83%. The analysis of the data included the determination of means for activities, the rank ordering of activities and role areas on the basis of means and the use of the one-way analysis of variance statistical test for significance to determine if various groups of teachers

and principals were in agreement or disagreement over the importance of selected individualized instruction activities.

Major Findings Include

The teachers' and principals' ratings of the 61 individualized instruction activities ranged from a high of 2.72 to a low of 0.99 on a 0-1-2-3 rating scale. Twelve activities were identified as being of high importance and twelve were classified as being of low importance in individualized instruction by teachers and by principals. One role area, communicator of information to significant others, was rated as being highly important by teachers and principals. Five role areas were classified as being of medium importance by teachers and principals. They were: Supervisor of independent study and experiences; provider of small group instruction and experiences; arranger of instructional facilities; planner of courses, units and lessons; and analyzer of student progress. Three role areas were considered to be of low importance by teachers and principals. They were: Analyzer of individual differences; provider of instructional materials and media; and provider of large group instruction and experiences.

Teachers and principals disagreed on the importance of the 61 individualized instruction activities when all were considered together and they also differed on ten activities when each was considered separately.

Teacher groups based on years of experience and class sizes disagreed on the importance of the 61 individualized instruction activities when all were considered at one time and the various groups also disagreed on the relative importance of a number of

activities when they were considered separately. Teacher groups selected on the basis of high school enrollments, student loads, and levels of academic preparation were in agreement concerning the importance assigned to the 61 individualized instruction activities.

The principals when grouped on the basis of high school enrollments, levels of academic education and years of experience were in agreement concerning the importance they expected teachers to assign to the 61 individualized instruction activities.

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DEDICATION

This work is dedicated to my wife, Louise C. Lambert, whose constant encouragement, cooperation and assistance has contributed immeasurably to the accomplishment of this task. The sacrifices she has made in the course of this work represent the epitome of everything a wife should be.

Roger H. Lambert

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CHAPTER I

THE DEVELOPMENT OF THE STUDY

Introduction to the Problem

In an effort to develop more effective learning situations for students, educators are seeking to adapt their teaching so an individual may have the stimulation and direction that will maximize his learning for the effort made both by the learner and by the teacher. Thus, instructional methods are currently undergoing many changes in an attempt to promote a better learning environment for students. The problem of finding instructional methods that will provide for individual differences has long been a consideration of teachers and educators. In recent years a renewed emphasis on individualization has arisen as a result of greater interest and appreciation for the rights and needs of the individual.

Interest and activity in the area of individualized instruction as a method of meeting individual differences has developed in many schools. Individualized instruction is an attempt to meet the needs of individuals who have different experiences, backgrounds, achievement levels and occupational goals, but at the same time are enrolled in a common class or program. The individualization of instruction allows each student to be involved in the decisions of what to learn, how to learn and when to learn as it may apply to his personal objectives

and/or expected outcomes. Kelly in discussing the development of self states:

> The growing self must feel that it is involved, that it is really part of what is going on, that in some degree it is helping shape its own destiny, together with the destiny of all. Perhaps there is no quality more important for the developing self than this feeling of involvement in what is taking place. This is what gives a person a reason to be.
>
> The lack of consultation and involvement is the cause of the continuing war between parents and their children, between teachers and learners, between teachers and administrators, employers and employees, ad infinitum. When the person is a part of something, then he becomes responsible.[1]

Stutz and Merell state the important characteristics of an individualized instructional program are as follows:

1. The student must be put in the position, and continually in the frame of mind, of accepting his own individual responsibility for learning. Knowledge is something he himself must acquire, not that which is "shoved down his throat."

2. Objectives in instruction (both course and topic) are defined in terms which are plain to the student and are made available to him. Students are helped to accept the objectives of instruction as their own goals.

3. The student understands that performance measures are designed to permit him to demonstrate his acquired competencies not to test his inadequacies.

4. Measurement of performance is carried out at frequent intervals for the specific purpose of permitting teachers, students, and guidance counselor to know what progress has been made, as well as what directions of future effort should be planned for the individual student.

5. Guidance takes on a new and added dimension within such a framework. It becomes a matter of informing the student about his progress, about next things to be undertaken, and relating each curricular choice to course goals and to vocational goals.

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[1] Earl C. Kelly, "The Fully Functioning Self," Perceiving, Behaving, Becoming: A New Focus for Education, ed. Arthur Combs (Washington: ASCD-NEA, 1962), p. 17.

6. The curriculum is a sequential one, which allows for continuous progress.

7. Individual alternatives within courses of instruction for the individual student are planned.[2]

The teacher's role in individualized instruction has not been identified to any great extent in the literature pertaining to instructional methods. The teacher's role may be very important in individualizing instruction since the teacher is the person who controls and prescribes the various instructional techniques to be used with students in conducting a learning experience. Consequently, the teacher's perception of his role may have a profound effect on the degree to which individualization is carried out in a particular classroom.

Lindsey[3] found that individual classroom teachers made provisions for individual differences in their classrooms and that this attempt to individualize was carried out in spite of the fact individualized instruction was contrary to the historical basis for having the graded school system. The increased emphasis in present-day schools on providing for individual differences has caused teachers to reconsider their instructional methods in search of more appropriate means of providing instruction for the varied needs of students.

Part of the problem may center around the fact that teachers may need to establish new role concepts of their teaching duties if they are to perform well while utilizing individualized instructional

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[2]Rowan C. Stutz and Russell G. Merell, ed., Individualizing Instruction in Small Schools (Salt Lake City: Western States Small Schools Project, 1966), p. 3.

[3]James F. Lindsey, "A Study of Provisions for Meeting Individual Differences Through Grade School Organization" (Berkeley: University of California, 1966), p. 22.

methods. In the report of the Western States Small Schools Project Stutz and Merell stated that a redefinition of the role of the teacher was necessary for a successful individualized instructional program to operate. They found changes in role occurring as:

1. Recognition of individual differences in teachers and efforts to better utilize teachers' talents and abilities.
2. Teachers as organizers of learning rather than presenters of information.[4]

The Need for Individualized Instruction

The need for individualized instruction is becoming more and more apparent, especially in light of a recent trend in vocational education, vocational agriculture being no exception. This trend involves an expansion of the curriculum to serve increasing numbers of students who are interested in the many fields of vocational education. It is apparent that classes are no longer made up of students who are seeking similar goals, but increasingly they are comprised of students with widely diversified objectives and goals. A single class of vocational agriculture at the eleventh or twelfth grade level may contain students with such widely diverse occupational goals as greenhouse manager, farm operator, farm equipment mechanic, elevator employee, chemical and fertilizer sales employee, forestry worker, conservation employee and many more. Such a composite of students in any one class certainly calls for a different approach to instruction than is currently found in most classroom instructional situations. In this kind of situation it is probably most desirable to provide a form of

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[4]Stutz and Merell, op. cit., p. 4.

individualized instruction that will satisfy the diverse requirements of the students.

The importance of individualized instruction cannot be overstated especially in light of the present knowledge explosion. It is rapidly becoming apparent, if not already so, that there is no longer a common "body of knowledge" that everyone must know, but rather, there is a "body of knowledge" a particular individual may need which is unique to that individual. This again, emphasizes the need for providing both general and vocational instruction which will take into account individual differences, thus enabling the student to emerge as a unique person with the kind of knowledge, competencies and abilities that will enable him to live a useful and productive life.

Background for the Study

This particular study deals with factors concerning the use of individualized instruction in vocational agriculture programs, but it should be noted that the idea and concept of individualized instruction along with the methods, procedures and techniques used by teachers to implement this kind of instruction may apply to other areas of vocational education and in a larger sense to all education.

In vocational agriculture, teachers have often given consideration to the students' backgrounds and their future goals in developing the farming program, in conducting classroom instruction and in providing FFA activities. The development of occupational training for the field of agri-business has put new and ever increasing demands on the teacher and the school to meet the needs of the greatly increasing heterogeneity among students enrolled in the programs of vocational agriculture.

Formerly students were primarily boys from farms or rural backgrounds and were preparing for occupations closely aligned with production agriculture in a traditional sense. Presently more and more boys as well as girls are coming from urban or at least non-farm backgrounds and are interested in agri-business and in new dimensions of production agriculture such as found in the fields of horticulture, forestry and natural resources. With the diversity of students, of students' goals, of job opportunities and course offerings, it is becoming more and more essential that the instruction be individualized to a greater degree than has been done in the past in order to provide the kind of education that will fit each student's needs.

Statement of the Problem

The study was concerned with identifying the priority vocational agriculture teachers and their principals associated with selected activities related to teacher's role in individualized instruction. In addition, a determination of agreement and disagreement between various subgroups was made for the priority they assigned to the selected activities.

Need for the Study

An effective educational program at any level should take into account the student's present level of understanding and the present beliefs, attitudes and concepts he holds in regard to the educational endeavor. The concept of individualized instruction is based on the fundamental supposition that each person should develop from the point he is at now to some other point as it fits his needs and/or meets the competency level required. With this in mind it appears reasonable to

expect that a teacher education program designed to prepare teachers to be more proficient and competent in using individualized instruction would need to identify the present teacher perceptions and understandings they hold for their role in individualized instruction. From this information educational programs could be derived that would take into account the present situation as well as the gap between what is now and what is necessary to enable the teachers to conduct programs of individualized instruction. Working on the basic assumption that more effective teacher education programs could be planned if more knowledge were made available to teacher educators concerning the role of the teacher, in this case the role of the teacher in regard to individualized instruction, it was the nature of this study to investigate what teachers perceive they should do and what is expected of them by principals in regard to their responsibilities for individualized instruction.

Objectives of the Study

The objective of the study was to identify the priority vocational agriculture teachers and their principals associated with selected activities related to the teacher's role in individualized instruction and to compare these priorities for significant differences. The categories of variables and the objectives are as follows:

Teacher and Principal Priority Ratings

1. To identify the priority ratings of individualized instruction activities as perceived by vocational agriculture teachers and expected by principals.
2. To identify those activities and those role areas that were perceived by vocational agriculture teachers and expected by their principals to be of greatest and of least importance

or priority in individualized instruction.

Teacher and Principal Comparisons

1. To compare vocational agriculture teachers' perceptions with principals' expectations for the teacher's role in individualized instruction.

Teacher Comparisons

1. To compare inexperienced vocational agriculture teachers' perceptions with experienced teachers' perceptions of their role in individualized instruction.
2. To compare perceptions of vocational agriculture teachers from schools with small enrollments with perceptions of vocational agriculture teachers from schools with large enrollments in regard to their role in individualized instruction.
3. To compare perceptions of vocational agriculture teachers who have small classes with perceptions of vocational agriculture teachers who have large classes in regard to their role in individualized instruction.
4. To compare perceptions of vocational agriculture teachers who have small student loads with perceptions of vocational agriculture teachers who have large student loads in regard to their role in individualized instruction.
5. To compare perceptions of vocational agriculture teachers who have minimum academic education with those who have higher levels of academic preparation in regard to their role in individualized instruction.

Principal Comparisons

1. To compare expectations of principals from low enrollment

schools with the expectations of principals from high enrollment schools in regard to the teacher's role in individualized instruction.

2. To compare expectations of principals who have minimum academic preparation with expectations of principals who have higher academic preparation in regard to the teacher's role in individualized instruction.
3. To compare expectations of principals who have few years of experience in education with expectations of principals who have considerable experience in education in regard to the teacher's role in individualized instruction.

Uses of the Study

The study will:

1. Provide educators with information on teachers' priorities for individualized instruction.
2. Provide educators with information on principals' priorities for individualized instruction.
3. Provide educators with a "bench mark" in time to indicate the present level of perceptions and the level of expectations for utilizing individualized instruction techniques.
4. Provide teacher educators with a basis for making a determination as to the content of a teacher education program that emphasizes the individualized instruction approach.
5. Provide an instrument to interpret teachers' perceptions and principals' expectations in regard to the teacher's responsibility concerning individualized instruction.

The information obtained through this study will be useful in developing better teacher education programs for the preparation of teachers as well as providing a basis for further study and research in the field of individualized instruction. Further research could explore more deeply and specifically the areas of importance identified through this study.

Assumptions

1. It is assumed that teachers and principals were sufficiently well informed on teaching activities so as to enable them to make intelligent priority ratings on the activities used in the study.
2. It is assumed that the instrument used was appropriate to measure the priorities teachers and principals had in regard to individualized instruction activities.

Definitions

1. Concensus. Within-group agreement concerning the appropriateness of a given instructional activity.
2. Convergence. Agreement between two groups about the appropriateness of a given instructional activity.
3. Divergence. Lack of agreement between two groups about the appropriateness of a given instructional activity.
4. High school. Any secondary institution including at least grades tenth, eleventh and twelfth. May include grade nine also.
5. Independent study. Study engaged in by a single individual.

6. Individual instruction. The process of teaching and learning on one-to-one basis.

7. Individualized instruction. The process of adjusting educational practices to the best interest of each student within a group as cooperatively determined by the teacher, the learner and others. It may occur through the use of such methods as group, small group and independent study.

8. Instructional activity. Any item or procedural action that is used in the teaching-learning process.

9. Instructional procedures. All of the processes that are involved in the direction of the learning process.

10. Position. The location of an individual or group of similar individuals in a system of social relationship.

11. Principal. An individual designated as principal in a high school or if more than one such designate, the individual assigned to curriculum supervision.

12. Priority. The importance the respondent attaches to a given instructional activity.

13. Role. The composite set of expected behaviors of an individual holding a position.

14. Role activity. A specific activity engaged in by an individual to fulfill a given role area expectation.

15. Role area. The classification of role activities into common groups or divisions.

16. Role expectation. A belief held by significant others as to whether or not a particular behavior is part of another individual's position.

17. Role perception. An individual's belief about his own role.

18. Vocational agriculture teacher. A person engaged in teaching vocational agriculture classes in grades nine through twelve. Referred to as teacher throughout the study.

Limitations

The study was limited to Michigan teachers of vocational agriculture and the principals where these vocational agriculture teachers work.

Delimitations

The study was delimited to only those perceptions and expectations the teachers and principals had in regard to the individualized instruction activities included in the instrument.

CHAPTER II

INDIVIDUALIZED INSTRUCTION: PAST AND PRESENT

Introduction

This chapter presents a review of individualized instruction in three major areas. First, the literature dealing primarily with the historical development of individualized instruction is reviewed; second, the literature which establishes those activities associated with individualized instruction is reported; and third, the literature pertaining to teacher role and especially teacher role in providing individualized instruction is reviewed. For practical purposes a good deal of overlap occurs in the reporting of this literature since most studies and experiments that are discussed in the literature contain information on individualized instruction development and individualized activities as well as references to teacher role.

No attempt has been made in this chapter to include every piece of literature on individualized instruction or teacher role, since even a quick search through a library will turn up literally thousands of articles, papers, reports of studies, dissertations and books which in one way or another are related to various aspects of individualized instruction. Only those pieces of literature that were considered to be of some importance by the author and contributed to the development of this study are reported here. Such things as programmed instruction,

teaching machines, auto-tutorial instruction, and other components of individualized instruction will be identified only insofar as they contributed to the teacher activities or teacher role in individualized instruction.

The Historical Development of Individualized Instruction

Early Movements Toward Individualized Instruction

Concern for individualized instruction or for the individual differences of students is not something new in the development of modern education. Leaders in educational theory and practice have advocated greater consciousness of the individual for many years. Rousseau in the eighteenth century believed "...education must be determined by the spontaneous interests and activities of the child."[1] He further believed that the child's education should not be governed by adult interests and activities. The child's individuality, in Rousseau's thinking, was above the interests of the society. "...the individual is a precious entity that is to be bent to no outer will. The needs and interests of the individual are above those of organized society."[2] In the early nineteenth century Pestalozzi[3] operated a boarding school for boys where coercion to learn was not used. He believed each individual develops in his own way and that educators must discover the laws of this development and use them in teaching.

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[1] S. E. Frost, Jr., History of Education (Woodbury, New York: Barrons Educational Series, Inc., 1947), p. 138.

[2] Ibid., p. 139.

[3] Ibid., p. 159.

Pestalozzi[4] further believed that the teacher's duties were to provide instruction to each individual according to his particular changing, unfolding nature as required at the various steps of his development.

The American education system gave rise to various educational leaders, many of which promoted ideas and concerns for the individual and for the individualized instruction. Foremost among these individuals would be such men as John Dewey, Francis W. Parker, and Charles E. Elliot.

John Dewey expressed his feeling for the student in the democratic society when he said, "...each one is equally an individual and entitled to equal opportunity of development of his own capacities, be they large or small in range. Moreover, each has needs of his own, as significant to him as those of others are to them..."[5]

This individuality, according to Dewey, is of prime importance in furthering the aims of a democratic society. He writes about this value to society when he says:

> "A society based on custom will utilize individual variation only up to a limit of conformity with usage; uniformity is the chief ideal within each class. A progressive society counts individual variations as precious since it finds in them the means of its own growth. Hence, a democratic society must in consistency with its ideal, allow for intellectual freedom and the play of diverse gifts and interests in its educational measures."[6]

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[4]Carrol Alkinson and Eugene Maleska, The Story of Education (New York: Bantam Books, 1962), p. 79.

[5]John Dewey, Problems of Man (New York: Philosophical Library, Inc., 1946), p. 60.

[6]John Dewey, Democracy and Education (New York: The Macmillan Company, 1961), p. 305.

Parker[7] contended that the school should provide a situation where children take part in learning activities voluntarily rather than because of external motivation in the form of awards and prizes. He made the following comments regarding his ideas on curriculum. "Memorizing of textbook facts received less emphasis because real things were being studied. Lessons on geography and science were largely based on first hand information gathered outside the classroom."[8]

Opposition among educators to the concept of uniformity among students and curriculum was expressed in 1892 by Charles W. Elliot, chairman of the Committee of Ten and former president of Harvard when he said:

> "Uniformity is the curse of American schools. That any school or college has a uniform product should be regarded as a demonstration of inferiority, of incapacity to meet the legitimate demands of a social order whose fundamental principle is that every career should be opened to talent. Selection of studies for the individual, instruction addressed to the individual, irregular promotion, grading by natural capacity and rapidity of attainment and diversity of product as regard to age and acquisitions must come to characterize the American public school, if it is to answer the purposes of a democratic society."[9]

These educators in advocating more concern for the individual and less for the subjects that make up the curriculum laid the groundwork for individualized instruction. Arthur Schlepp sums up these trends when he comments on Dewey's writings by saying:

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[7]Alkinson, op. cit., p. 87.

[8]Ibid.

[9]Charles W. Elliot, "Shortening and Enriching the Grammer School Course," Charles Elliot and Popular Education, ed. Edward Krug (New York: Teachers College Press, 1961), pp. 55-56.

> "John Dewey's revolution from subject centered education...is the single most important educational advance in a thousand years. As a result, education exists for the sake of the learner and not for the sake of subject matter."[10]

Examples of Early Programs Promoting Individualized Instruction. Attempts at individualized instruction in America came as early as 1888 when Preston Search, superintendent of schools in Pueblo, Colorado, decided that each child should progress at his own rate. Search then tried his ideas in Los Angeles but met with failure and consequently his ideas lay dormant for several years.[11]

In California Frederick Burk with assistance from May Ward initiated a new movement toward individualized instruction in 1912-13. Burk's individual system as it was later to be called consisted of providing each student with a course of study and making provision for testing and promoting pupils as the work was completed. Class lecture and daily assignments were abandoned. Teachers assisted students in locating the necessary material to study from; later a series of self instructional bulletins designed for student use were developed.[12] These bulletins were published and distributed across the United States until a ruling by the California attorney general stopped their publication in California.[13]

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[10] John P. Vergis, "Technology: Key to Individualized Instruction," Arizona Teacher, LV (September, 1966), pp. 12-13. Quoting Arthur Schlepp, ed., Library of Living Philosophy.

[11] Guy M. Whipple, ed., Adapting Schools to Individual Differences, Twenty-fourth Yearbook of the NSSE, Part II (Chicago: University of Chicago Press, 1925), p. 59.

[12] Ibid., p. 60.

[13] Ibid., p. 59.

Several other early experiments with individualized instruction are reported in the Twenty-fourth Yearbook of the National Society for the Study of Education published in 1925. Many of these early movements toward individualized instruction and recognition of individual differences bear a very high degree of similarity to current thinking and action in the area of individualized instruction. One such plan, the Winnetka Plan, in the early 1920's was developed along the lines of Burk's individual system at San Francisco State Teacher College and gave support to the idea that the class lock-step could be broken in public schools. The Winnetka plan divided the curriculum into two parts. One part dealt with knowledges and skills common to all and a second part dealt with self-expression of the child's own interests and abilities. This plan allowed for individual work and progress as well as group or class work when needed.[14]

The Dalton Laboratory Plan emerged in Dalton, Massachusetts about the same time as the Winnetka Plan developed. The Dalton Plan was a sociological rather than a curricular plan for individualizing instruction. It changed conditions of life in school and attempted to work with the conventional texts and curriculum materials. There were three basic principals of the Dalton Plan: (1) Freedom, (2) cooperation and interaction of group life or community living, and (3) the proportion of effort to attainment or budgeting of time.[15] This plan permitted more flexibility for students and recognized the "life of the school"

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[14] Ibid., p. 82.

[15] Ibid., p. 84-87.

and the opportunity for "individual development." Other programs were developed around the country such as the Individualized Instruction Plan for Arithmetic in Detroit, Michigan, and the Individualization of Work in the Vocational School at Madison, Wisconsin, all of which tried to center the instruction around the learner's interests, abilities and needs rather than around the subject matter.[16]

Recent Ideas and Theories Concerning Individualized Instruction

In recent years a large number of plans, programs and arrangements have been tried in regards to providing for individual differences. Many of these have failed to produce the desired results or have been discarded as being impractical at the present time; some however have been incorporated into school organization and into the curriculum. A large number of these plans for dealing with individual differences were developed around grouping procedures. Some of the examples given by Shane[17] are (1) up-graded groups, (2) primary-intermediate grouping, (3) grade-level grouping, (4) primary-intermediate grouping, (5) homogeneous grouping, (6) xyz grouping, (7) intra-subject-field grouping, (8) departmental grouping, (9) "vestibule" groups, and (10) Hosices Cooperative Group Plan. The list could go on and on to include almost every conceivable category of groups. The large numbers of grouping procedures initiated by educators in recent years reflect a growing and genuine concern for the nature of the individual and the need for

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[16] Ibid., p. 106-114.

[17] Harold G. Shane, "The School and Individual Differences," Individualizing Instruction, ed. Nelson B. Henry (Chicago: University of Chicago Press, 1962), p. 49.

differentiated instruction. Grouping plans as an answer to the need for more individualized instruction have come under close scrutiny by educators in recent years and consequently current plans for individualized instruction show a trend away from group or at least a de-emphasis on grouping procedures. Wilhelms gives several reasons for this reconsideration of grouping practices in regards to individualized instruction. He suggests:

> 1) There is a chance of stereotyping. Teachers and administrators tend to think of each sub-division as homogeneous groups and thus speak of them as slow or fast groups as if all were the same.
>
> 2) There is a danger that specialized courses designed for particular groups will become narrow in scope with little chance for student deviation.
>
> 3) There is a danger that firmly divided courses will center educational guidance practices on getting each student into the "right" courses and once there assuming they fit him.[18]

These considerations and others have led educators to search further for the "ideal" curriculum and school organization that will most nearly account for individual differences.

Contempory authors in the field of education and educational psychology have given support to the basic tenets of the early writers on child-centered educational systems. Arthur Combs suggests the need for self-direction in the student and for more selection among what is to be learned since it is impossible to learn everything. He states:

> "Schools which do not produce self-directed citizens have failed everyone, the student, the profession, and the society they are designed to serve. The goals of modern education cannot be achieved without self-direction. We have

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[18] Fred T. Wilhelms, "The Curriculum and Individual Differences," Individualizing Instruction, ed., Nelson B. Henry (Chicago: The University of Chicago Press, 1962), pp. 63-64.

> created a world in which there is no longer a common body of information which everyone must have. The information explosion has blasted for all time the notion that we can feed all students the same diet. Instead we have to adopt a cafeteria principle in which we help each student select what he most needs to fulfill his potentialities. This calls for student cooperation and acceptance of major responsibility for his own learning."[19]

Self-selection, responsibility, self-direction and individual student needs would appear to be the most significant points put forth by Combs. These conditions are all essential to individualizing instruction. Combs has presented the idea that there is no one body of knowledge that is essential to any or all individuals. Muessig comments on the fact that there are no identical individuals nor are there logically similar groups or breakdowns of individuals. He writes:

> It is difficult if not impossible to consider under the amorphous label 'adolescence' a myriad of variegated individuals with different ages, development levels, sizes, shapes, experiential backgrounds, needs, abilities, skills, aspirations, attitudes, appreciations, beliefs, values, and commitments.[20]

The implication that schools tend to treat students as a group, class or level rather than as individual personalities is clear in the foregoing comments. These two writers have given some strong rationale for instruction based on individual needs rather than on group needs. Robert and Shirley Thomas in a recent book further verify these statements when they write:

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[19]Arthur W. Combs, "Fostering Self Direction," Educational Leadership, No. 373 (February, 1966), p. 23-25.

[20]Raymond H. Muessig, "Youth Education: A Social-Philosophical Perspective," Youth Education: Problems, Perspectives, Promises, ed., Raymond H. Muessig (Washington: ASCD-NEA, 1968), p. 22.

> "Children are not created equal, nor do they become more alike as they grow older. Rather, by the time they enter school the inequalities among them - intellectually, physically, and in social behavior - have increased many fold. As they move upward through the grades, the differences increase even further."[21]

An example of the complexity of talking and working with individual differences can readily be seen by looking at a description of "inter" and "intra" - individual differences by Tyler and Stellwagen.[22] They define the expression "individual differences" as variability among individuals in the same attribute and suggest "interindividual" differences has the same connotation. The term "intraindividual differences" or "trait variability" is used in reference to the variation among traits within an individual. A practical explanation of this is each student scores differently when tested on the same attribute (interindividual differences) and a given student will achieve different scores on different attributes (intraindividual differences). Students not only differ from each other but differ within themselves from day to day and from situation to situation.

Current trends in individualized instruction have been to incorporate extensive use of recent technological advances into the total individualized program. Such things as programmed instruction, computer assisted instruction, teaching machines, tape and slide study carrels and many more audio visual devices are coming into use in many schools throughout the country. As was pointed out early in the chapter

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[21] Robert M. Thomas and Shirley M. Thomas, Individual Differences in the Classroom (New York: McKay, 1965), p. 3.

[22] Fred T. Tyler and Walter R. Stellwagen, "The Search for Evidence About Individual Differences," Individualized Instruction, ed., Nelson B. Henry, (Chicago: University of Chicago Press, 1962), p. 95.

this review will not attempt to isolate each of these instructional tools but rather will treat them as components of individualized instruction as it was defined at the start.

The advent of "programmed instruction" in the 1950's and its consequent growth in the 1960's has helped tremendously in developing what has come to be known as "behavioral analysis" and its instructional counterpart the "behavioral objective." Dale comments on this by saying, "A key factor in programmed instruction is the detailed specification of objectives of instruction in behavioral terms."[23]

The development of programmed material for instruction has been combined with various types of media and especially with computers to further expand the educational sphere of learning experiences which a student might come in contact with.

Examples of Current Programs of Individualized Instruction. In the 1960's several significant movements were initiated in various parts of the country which were designed to develop programs of individualized instruction. One such program, the Western States Small Schools Project, was initiated in 1962 with funds from the Ford Foundation. The project has been in progress for the past eight years and appears functioning well in terms of the original goals set up for it. The project set up five program areas in which it would concentrate its efforts in behalf of individualized instruction: They were:[24]

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[23]Edgar Dale, "Historical Setting of Programmed Instruction," Programmed Instruction, ed., Phil C. Lange (Chicago: University of Chicago Press, 1967), p. 33.

[24]Rowan C. Stutz and Russell G. Merell, ed., Individualizing Instruction in Small Schools (Salt Lake City: Western States Small Schools Project, 1966), p. 1.

1) Individualizing instruction in small rural schools.

2) Individualizing instruction in small schools through appropriate curriculum materials.

3) Administrative arrangements for individualizing instruction.

4) Instructional procedures for individualizing instruction in small schools.

5) Physical facilities that aid the individualization of instruction in small schools.

The Western States Small Schools Project (WSSSP) incorporated many changes and additions into the school and the curriculum. In brief, Stutz and Merell sum them up by saying significant among the attempts to individualize instruction in small schools are:[25]

1. New Ways of Organizing the Small School

   a. Varying the size of instructional groups
   b. Promotion policies which permit continuous learning
   c. Appropriate ways of recording and promoting pupil progress
   d. Practices related to examination, honors, awards, and credits that recognize and value student diversity
   e. Scheduling for flexibility
   f. Grouping for instruction
   g. Independent study opportunities

2. Changes in Curriculum and Materials

   a. The search for self-instructional materials and devices
   b. Development of a continuous progress curriculum
   c. The use of tape recorder
   d. The use of the telephone
   e. The construction of multi-phased curricula
   f. Use of paperbacks and periodicals
   g. Establishment of learning resources centers

3. A Redefinition of the Role of the Teacher

   a. Recognition of individual differences in teachers and efforts to better utilize teachers' talents and abilities
   b. Teachers as organizers of learning rather than presenters of information

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[25] Ibid., p. 4.

4. New Instruction Procedures

    a. Small group instruction
    b. Independent study
    c. Self-instruction
    d. Individual project
    e. Seminars (with and without teacher supervision)

5. Minor Remodeling to Provide More Appropriate Physical Facilities

    a. Open labs
    b. Listening and viewing centers
    c. Large instructional laboratories (learning barn)
    d. Study carrels

The scope and significance of these new programs is not fully understood at this point in time. A later part of this chapter will deal with some specific results of experimental programs of individualized instruction and will include additional references to various aspects of the Western States Small Schools Project.

Another such project is the Upper Midwest Small Schools Project[26] which involves fifteen schools in North Dakota and Montana. Its primary aim was to improve instructional methods and help teachers incorporate change into the school program. Innovations incorporated into these schools included the following: (1) All types of audio-visual techniques and equipment, (2) Non-graded systems, (3) Team teaching, (4) Flexible schedules, (5) Sharing services, (6) Portable facilities, (7) Instruction materials and many other modifications of tradition classrooms and curriculum which allowed students in small schools to participate more fully in educational experiences.[27]

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[26] The Upper Midwest Small Schools Project, A Report to the Upper Midwest Regional Education Laboratory (St. Paul, Minnesota: 1967), p. 1.

[27] Ibid., pp. 4-11.

A third program of individualized instruction which has made an important contribution to the field of knowledge about individualization through experimentation and implementation of individualized programs in many schools is the Individually Prescribed Instruction Program administered by the Learning Research and Development Center of the University of Pittsburgh and Research for Better Schools, Inc., A Regional Educational Laboratory based in Philadelphia. Scanlon and Bolvin describe the function of this project as an "...instructional system based on specific objectives, correlated with diagnostic tools, teaching materials and methods. It represents one specific way of providing for wide ranges of differences that exist in classrooms. Certainly it typifies what can be done to help resolve the age-old problem of providing for each student, each day, his own program of studies."[28] The program currently is involved primarily with the subject areas of mathematics, reading, science, handwriting, and spelling and is concerned with planning and carrying out with every student a program of work which is adapted to his personal learning needs and situation. Four main considerations are put forth for the achievement of a program in individually prescribed instruction. They are:

1. The rate of speed at which each child progresses depends upon his own capacities. He places himself on the continuum by taking both placement tests and pre-tests.

2. The curriculum material is arranged in a sequential order called continuum. The assignments are given by a prescription to fit his individual needs. (A prescription is an individual lesson plan for each student each day.)

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[28] Robert G. Scanlon and John O. Bolvin, Individually Prescribed Instruction (Philadelphia: Research for Better Schools, Inc., 1969), p. 1.

3. The student's mastery of the curriculum is judged by curriculum-embedded tests and post-tests. He is required to perform at a level of 85%.

4. The child works independently in most cases, thus building up his sense of responsibility and also his confidence in his own knowledge. He begins to realize that learning is a process that is dependent on his own participation and initiative.[29]

These examples of individualized instruction programs are of the kind that have had impact on relatively large areas and many schools. In addition to these multi-state projects there have been many projects within states that have significantly changed the emphasis of instruction to meeting individual needs. One such project is reported by Clark.[30] He explains an individualized instruction program in vocational agriculture as being necessary because we must devise ways to meet in the same program and class the needs of students with widely diverse objectives. Clark further states, "It seems obvious that we cannot group students into classes with common occupational objectives; therefore, we must find ways to help students achieve their respective occupational objectives when enrolled in heterogeneous classes."[31] Units of instruction for various occupations were developed for use by teachers in high school vocational agriculture classes. Each unit was designed so it could be selected by a member of a class and used as a guide for studying a particular occupation or career activity. The units are set

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[29] Ibid., p. 2.

[30] Raymond M. Clark, "Individualizing Instruction in Vocational Agriculture," Agricultural Education Magazine, Vol. 42, No. 5 (November, 1969), pp. 122-23.

[31] Ibid.

up with objectives, scope, subject matter, instructional materials, student activities, evaluation procedures and reference material described for each lesson. Suggested uses of the units included whole class participation, small group involvement and individual work, with each student carrying out activities and gaining experiences as his needs and interests dictated.[32]

In all of the new programs of individualized instruction the emphasis is in the direction of more student involvement, increased student selection of materials and subject matter, increased allowance for students to proceed at their own rate and more student responsibility for their own learning.

In the following pages an attempt will be made to identify some of the major individualized activities and teaching techniques that have been associated with individualized instruction. As explained in Chapter III the instrument used with this study was developed primarily from reviewing the literature and identifying the individualized activities that were described therein.

Individualized Activities

A key part of developing individualized instruction has been the identification of activities that are performed by students, by teachers and by other instructional means. King, working through his teaching staff, attempted to isolate these activities according to the person

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[32] Ibid.

or physical facility that could best accomplish it. He makes the following breakdown of activities.[33]

Activities Primarily Performed by Teachers

Planning curriculum
Choosing, creating, adapting materials
Diagnosing student needs
Lecturing
Questioning
Giving directions

Activities Performed Cooperatively By Students and Teachers

Setting goals
Motivating
Planning activities
Guiding
Evaluating
Testing and grading
Disciplining
Coaching
Explaining
Demonstrating

Activities Performed Primarily by Students

Choosing alternatives
Getting materials
Researching
Doing activities
Manipulating equipment
Discussing
Role playing
Job experience
Checking work

Activities Performed by Materials and Equipment

Motivating
Assigning activities
Exposing
Questioning
Drilling
Dispensing information
Testing and grading

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[33]Robert E. King, "Tasks That Only the Teacher Can Do," Quality and the Small School, ed. by Edwin P. Hildebrand (Denver: Colorado Department of Education, 1968), pp. 35-41.

In a breakdown such as this it is readily apparent that many more kinds of activities are being shifted to the realm of student responsibility with the teacher serving as a guide and a supervisor to make sure progress takes place.

Stutz and Merell describe individualized instruction as needing certain kinds of materials that are not usually available in the traditional classroom.[34] Included here are placement tests, a sequenced list of objectives for leading to terminal behaviors, appropriate study materials (e.g., outlines, reference books, tapes, films, etc.), a performance measure suitable for frequent measurement of achievement of specific objectives and student record cards to record progress data pertinent to each individual's development in his studies. In addition to new materials the instructional arrangement is far more varied than is found in a regular classroom teaching situation. Stutz and Merell[35] point out the instructional arrangements revolve around large group instruction, independent study, small group instruction, directed study, laboratory experiences, tutorial instruction and research. This is a greatly expanded concept of the instructional activities that are normally associated with teaching in a classroom where the teacher disseminates information and the students feed back selected parts of it on tests.

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[34] Stutz and Merell, op. cit., p. 10.

[35] Ibid., p. 19.

Bratten[36] reported the development of individualized instruction in a biology class came about by (1) using study guides which called for a variety of material and equipment, (2) using programmed instruction, (3) utilizing special assignments, and (4) teaching in levels (three levels of difficulty). He goes on to point out the organizational features of the program included (1) a revolving period (students are not scheduled in a specific class at this time), (2) student flexibility in changing schedules, (3) large group instruction, (4) student teacher assistants, (5) health and personal development classes, and (6) self-pacing (letting student be responsible for his own learning).[37]

The measuring of student achievement from individualized instruction can be accomplished by placement tests, unit pre-tests, post-tests and curriculum-embedded tests according to Cox and Barton.[38] They describe curriculum-embedded tests as identifying when a student has mastered a single objective within a unit of work.

Esbensen describes individualized instruction in his school "...as an arrangement whereby every student is encouraged to pursue learning according to his own personal inventory of abilities, needs,

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[36]Jack E. Bratten, The Organization of a Biology Course for Individualized Progress of Theodore High School (Santa Monica, California: Systems Development Corporation, 1965), pp. 6-7.

[37]Ibid., pp. 9-10.

[38]Richard Cox and Elizabeth Barton, Diagnosis of Pupil Achievement in the Individually Prescribed Instruction Project, (University of Pittsburgh: Learning Research and Development Center, 1967), p. 38.

and interests."[39] He further suggests it is possible for students to learn different things in different ways, that they work at different rates, that they can work alone or cooperatively on a problem, and that they can budget their time in order to organize their learning experiences.[40]

Students can, according to Esbensen, operate their own projectors, record players and tape recorders; they can locate their own assignment sheets, assemble and work with appropriate instructional material and finally take the test that will measure their accomplishment of an educational objective.[41]

This self-resourcefulness of the student is a trait developed through individualized instruction that is worth pursuing says Glaser.[42] Some requirements of individualized instruction as seen by Glaser include (1) the conventional grade levels and time units need to be redesigned to permit students to work on levels of accomplishments, (2) well defined sequences of progressive, behaviorally defined objectives need to be defined in various subject areas to enable the student to measure progress, (3) student progress must be monitored at intervals in order to plan future programs and instruction, (4) student must be taught and

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[39]Thorwald Esbensen, Individualizing the Instructional Program (Duluth, Minnesota: Duluth Public Schools, 1966), p. 18.

[40]Ibid., p. 20.

[41]Ibid., p. 21.

[42]Robert Glaser, The Education of Individuals (Pittsburgh, Pennsylvania: Learning Research and Development Center, University of Pittsburgh, 1966), p. 2.

provided with appropriate instructional materials for self-directed, self-paced learning, (5) special training must be provided to high school personnel to help them become proficient in evaluation and diagnosis of student performance, and (6) provision must be made to facilitate the teacher use of student records and information about students for planning of student programs.[43]

Teacher Role

Three categories of teacher status or role expectations are described by Brookover and Gottlieb.[44] They include those status-role expectations concerned with:

1. The teacher's membership in the school. This can be classed as primary and involves the relationship with students and staff including his instructional functions as well as professional responsibilities concerning teaching.
2. The teacher's peripheral expectations relating to ancillary functions of the teacher which includes extra curricular functions other than major ones.
3. The teacher's expectations related to teacher activities outside of school, his community, social and civil functions as well as his personal attributes.

This study deals entirely with instructional activities, consequently material reviewed on teacher role will be concerned primarily with the

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[43] Ibid., pp. 5-6.

[44] Wilber Brookover and David Gottlieb, A Sociology of Education (New York: American Book Company, 1964), pp. 328-329.

instructional functions of teachers and more specifically their instructional functions related to individualized instruction.

Bush[45] states that research on teacher role indicates the teacher perceives his job in the following manner. The teacher: (1) provides knowledge to students, (2) directs their learning, (3) keeps youngsters under direct control at all times, (4) does the whole education job himself, i.e. make tests, grade tests, interprets results to students and teaches all phases of the subjects to students, (5) feels teaching method is a teacher's prerogative, (6) believes he should motivate and discipline students, (7) feels he should be a model of good behavior and conduct himself so as to help shape the moral structure of the student, (8) expects elementary teachers to teach all subjects to all students for one year, and (9) expects high school teachers to teach only one subject at a time in fifty minute periods, five days per week. Bush[46] speculates that the future teacher role will develop around the following ideas:

1. The teacher will be able to view the process of education as a whole and to understand each individual child.
2. The teacher will have an opportunity to confer and work individually with pupils and parents.
3. The teacher will be free to work with small groups (3-8 students).
4. The teacher will no longer be "sole operator" but will be a "captain of a team" in educating the child.

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[45] R. Bush, "Redefining the Role of Teacher," Theory Into Practice, Vol. 6, (December, 1967), p. 246.

[46] Ibid., pp. 247-250.

5. The teacher will be at the top of the educational pyramid instead of at the bottom.
6. The teacher will work primarily in small groups, but not as a lecturer or purveyor of knowledge.
7. The teacher will be more non-evaluative and attempt to convey the idea that all members of a group have a worthy contribution to make.

Administrators, according to Bush, tend to agree on the teacher functions that are currently perceived by teachers as their role in teaching, although they make one additional point and that is it is important for teachers to teach in a similar way to facilitate coordination of instruction.[47]

Boyan[48] indicates that in recent years teachers, both elementary and secondary, have become more expert in their teaching, they have become better organized, and they participate more vigorously in local educational decisions. He also suggests that because of the educational leadership now developing in teachers it is necessary for administrators to seek new forms of administrative organization which will separate administrative authority from supervisory authority.[49]

Teacher Role in Individualized Instruction

Many references to the teacher role or functions have been made in reporting on individualized instruction in other sections of this chapter. No effort will be made here to repeat those references but

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[47] Bush, Op. Cit., p. 247.

[48] N. J. Boyan, "Emergent Role of the Teacher and Authority Structure of the School," Journal of Secondary Education, Vol. 42, (November, 1967), p. 302.

[49] Ibid., p. 303.

additional information which deals primarily with teacher role in the individualized instruction situation will be presented.

Coulson[50] states that in a study comparing an active teacher role with a passive teacher role for conducting a self-study program that no difference was found among treatment groups using a post-training criterion test. Some conclusions he drew from this study were:

1. Teachers should work on a macroscopic level with variables such as classroom organization, the use of social reinforcers, and the selection of different modes of instruction for different students, such as small group discussion, individualized programmed instruction, whole class instruction, etc.
2. The teacher should program his own behavior just as carefully as the instructional material itself is programmed, i.e. he should know in advance that if a certain student performs in a certain way on a certain task, that student should be assigned to a certain mode of instruction.[51]

Thompson and Tom[52] in a study of a comparison of the effectiveness of a pupil-centered versus a teacher-centered pattern for teaching vocational agriculture found a significant difference in mean scores on a dairy enterprise test in favor of the pupil centered instruction. Overall they concluded:

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[50]John E. Coulson, The Teachers Role in Classes Using Self-Study Materials (Santa Monica, California: Systems Development Corporation, 1967), p. 1.

[51]Ibid., p. 2.

[52]Orville Thompson and Frederick K. Tom, "Comparison of the Effectiveness of a Pupil-Centered Versus a Teacher-Centered Pattern for Teaching Vocational Agriculture," Journal of Educational Research, No. 50, (May, 1957), p. 675.

1. The "experimental" pattern of teaching was superior in developing the ability to recall factual material.
2. The "experimental" pattern was comparable to the "conventional" in bringing about change in attitudes toward farming.
3. The "experimental" pattern was comparable to the "conventional" in developing ability to solve problems.
4. The "experimental" pattern was rated by the majority of teachers to be as effective or more effective than their usual pattern.[53]

The definition given by Thompson and Tom for "experimental" pattern indicated they placed the student in the key role. The teacher directed the activities but the individual student was led to decide what problem he should study, what references to use and how to plan to solve the problem. In contrast, "conventional" teaching referred to a teacher dominated classroom situation where the teacher made the decisions of what, when, and how to learn.[54]

Swenson[55] in writing about teacher preparation for individualized instruction attempted to identify the teacher characteristics or role assignments that were necessary if they were to operate effectively in an individualized instruction situation. These characteristics include:

1. The teacher needs to know about and have information on the variations found in humans such as physical, intellectual, perceptual, emotional, social and economic differences.

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[53] Ibid., p. 677.

[54] Ibid., p. 668.

[55] Esther J. Swenson, "Teacher Preparation," Individualized Instruction, ed., Nelson B. Henry, (Chicago: University of Chicago Press, 1962), pp. 289-297.

2. The teacher needs to understand the implications student variations have for teaching, i.e. what does it mean in terms of teacher behavior when students have different levels of readiness to learn, different abilities to do certain tasks and have varying goals?
3. The teacher needs to accept the idea of learner differences and not reject him for these differences.
4. The teacher needs to understand the relationship of the teacher's subject matter competence to differences among learners, i.e. he needs enough subject matter to be able to guide learners as they pursue goals in subject areas.
5. The teacher needs to have a good grounding in general education to assist him in understanding subject matter and prepare him for living as a competent secure adult and citizen. This background will enable him to work with students who have interests different from his.
6. The teacher needs to know teaching as a human-relations activity. He must strike a balance between needs of individuals in a group and the needs of the group.
7. The teacher needs to know that teaching is guiding learning.
8. The teacher needs to understand that teaching is control of the environment for learning to take place, i.e. the physical, psychological and social environment are important in carrying forth an individualized instruction program.

An appropriate description of the teacher role in individualized instruction is provided by Wolfson when she says "...the teacher is

more like a travel consultant."[56] By this she means the teacher helps students plan within the scope of their overall plans. This planning and suggesting provides additional experiences for students and these are as important as the final outcome.

She goes on to describe some important aspects of the teacher role as:[57]

1. The teacher should be primarily a consultant and resource person to the learner.
2. The teacher should manage the classroom environment, supplying material and at times initiating new experiences.
3. The teacher should help pupils learn to plan, to evaluate and consider alternatives.
4. The teacher should promote self-direction of students.

In addiion, Wolfson suggests teachers utilizing individualized instruction will change their classroom patterns in the following ways.[58]

1. They will have a flexible view of individualized activities, small group activities and large group activities.
2. They will have frequent pupil teacher conferences, both individual and group.
3. They will arrange for temporary interest-centered groups to develop.
4. They will use a wide variety of media.
5. They will utilize out-of-school resources.

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[56]Bernice J. Wolfson, "Pupil and Teacher Roles in Individualized Instruction," Elementary School Journal, Vol. 68 (April, 1968), p. 359.

[57]Ibid., p. 362.

[58]Ibid.

6. They will plan the instructional program cooperatively with students.

Thus, the teacher's role takes on many new aspects as individualized instruction develops in the school. The student role also changes and these changes in student role reflect the changes in teacher role. A brief description of these changes for students may help in describing the teacher's role. Students, according to Wolfson, in individualized instruction programs will:[59]

1. Play a more significant role in determining their learning activities.
2. Choose what to learn and in whose company.
3. Plan their studies and evaluate themselves.
4. Be free to raise questions
5. Be encouraged to clarify their personal meanings and values.
6. Be a self-directing, active learner.

These apparent changes in the teacher's and the student's role point to more student responsibility for learning and a change in teacher responsibility from a purveyor of information to a guider of learning experiences.

Other Studies Reflecting Teacher Role in Individualized Instruction

McCarley[60] found in an experimental study of lecture-discussion versus individualized unit of instruction for corn grading that

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[59] Ibid., p. 362.

[60] Walter McCarley, "An Experimental Study to Evaluate Effectiveness of an Individualized Instructional Method and Lecture Discussion Method for Teaching Vocational Agriculture Class," Thesis, Ph.D., Michigan State University, East Lansing, Michigan, 1969.

students working through the individualized unit obtained higher scores on a proficiency test at the end than did those in the lecture discussion method. These differences were significant at the <.05 level.

Bryant[61] in a study comparing inexperienced teachers' perceptions with what they do and what they think should be done found that one of the areas in which a significantly high priority should be given was in the area of providing individualized instruction. In addition he found that experienced teachers gave more priority to providing individualized instruction than did beginning teachers. The activities in the role area of provider of individualized instruction that were rated in Bryant's study were concerned with (1) using class time for problem solving of individual problems, (2) providing on-farm visits, (3) planning with students, (4) utilizing self-evaluation techniques, (5) collecting background data on students and (6) providing a variety of instructional materials.[62]

Todd and Woodin[63] reported on a study of the role analysis of the beginning teacher of vocational agriculture in Ohio. They found new teachers entered the teaching position with a good understanding of the teacher's role and that they made few changes in their perceptions of their role during the first year.

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[61]Charles Bryant, "Role Priorities of Beginning and Experienced Teachers of Vocational Agriculture in North Carolina," Thesis, Ed.D., Michigan State University, East Lansing, Michigan, 1963, pp. 83-87.

[62]Ibid., pp. 119-120.

[63]Hollis E. Todd and Ralph J. Woodin, "A Role Analysis of the Beginning Teacher of Vocational Agriculture in Ohio," A Research Report of a Graduate Study, The Ohio State University, Columbus, Ohio, 1966.

In a study of the professional role of the teacher of vocational agriculture in Michigan Drake[64] found that activities in the role areas of directing the learning of the student and guidance and counseling of students were most often felt to be activities that should be performed. A number of these activities related directly to individualizing instruction. They might be categorized as follows: (1) developing courses of study, (2) directing student work experience, (3) involving students in selection of learning experiences, (4) using a variety of audio-visual materials, (5) providing individual farm instruction, (6) providing a wide variety of instruction, (7) using student records to determine student needs, (8) arranging individual conferences with students, and (9) maintaining a personal file on students.

The guidance functions of the teacher, which are an important part of individualized instruction, were studied by Campbell.[65] These important guidance functions of the agriculture instructor are summarized as follows: (1) interviewing and conferring with students, (2) providing information, (3) planning with students, (4) utilizing cumulative guidance information in planning, (5) aiding students in placement and establishment in farming, and (6) following the student up after graduation.

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[64]William E. Drake, "Perceptions of the Vocational Agriculture Teacher's Professional Role in Michigan," Ph.D. Thesis, Michigan State University, East Lansing, Michigan, 1962.

[65]Kearney Campbell, "The Role of the Agriculture Teacher in Vocational and Educational Guidance of Students in Vocational Agriculture in High Schools of Kentucky," Ed.D. Thesis, University of Kentucky, Lexington, Kentucky, 1958.

Implications of Review of Literature for This Study

The idea of individualized instruction has been used for many years with various periods of development occurring that emphasized one aspect or another of individualized instruction. The recognition of individual differences as being important, the move toward a child-centered instructional approach and recent advancements in programmed materials, instruction media and facilities have brought about a revision in the teacher's role in instruction. This change in teacher role seems to be directed at taking the "disseminator of information" label from the teacher and applying the title of "guider of learning experiences."

A good deal of work has been done in the area of development of individualized instruction in schools throughout the country. Most of these programs have been primarily concerned with instructional activities that are conducive to individualized instruction. Reference to changes in teacher role are made only as an indirect result of changed teaching activities. Thus identification of teacher role is obtained by interpreting teaching activities into teacher role and responsibility. Educators writing about individualized instruction have done this and have provided ideas on what the new role the teacher is expected to look like as he moves toward a more individualized approach.

Identification of Teacher Role Areas

The teaching activities that reflect teacher role in individualized instruction were found to center around several areas of teacher responsibility. An area identified in most studies was one which

included activities concerned with analyzing individual differences in and among students. A second area centered around cooperative development of programs of study, materials, and goals of education for students. Two additional areas given consideration were concerned with instructional materials and media development and the use and the arrangement of instructional facilities. Additional role areas identified included providing large group instruction, providing small group instruction and supervising independent study. Evaluation of student progress was considered in all programs and communication with other persons or groups that influenced individualized instruction was also dealt with in many reports. These role areas appeared to be the most common and appeared to be inclusive of most activities associated with individualized instruction.

The literature reviewed has provided this study with the information necessary to develop the teacher role questionnaire. The activities identified through the literature were included on the questionnaire for teachers and administrators to rate in terms of the priority they should be given in providing individualized instruction.

CHAPTER III

DESIGN OF THE STUDY

In designing this study it was decided that a survey instrument would be the most logical method of collecting the data. A search of the literature failed to produce a usable instrument and consequently an instrument was developed which was used in this study. The decision to use a questionnaire resulted in the necessity of making additional choices concerning the contents of the questionnaire, the population to be studied, the data collection procedure and the treatment of the data once they were assembled. It is these things that chapter three will be concerned with.

Development of the Instrument

Since no suitable instrument was available to collect the kind of data sought in this study it was the task, in part, of this study to develop an instrument which would gather the required data and perhaps be of use to other researchers in gathering similar data from other groups of educators. The initial step in formulating the questionnaire, once the objectives for the study were established, was to review the related literature to locate and identify the various teaching activities associated with individualized instruction. The literature concerning individualized instruction abounds with numerous reports of studies, experiments, observations and opinions of educators from which

the individualized teaching activities were selected. A more detailed report of the literature is presented in Chapter II of this study.

The assembly of individualized teaching activities into a composite list set the ground work for the next step which was to locate these activities into various role areas which would lend a degree of commonality to the various activities. Here again, the current literature was relied upon initially to make these determinations with additional assistance coming from the jury of experts on individualized instruction who evaluated the instrument and rearranged some of the activities into more logical role areas. Nine selected role areas were finally established from the literature and from the jury's evaluation. They were:

1. Analyzer of individual differences.
2. Planner of courses, units and lessons.
3. Provider of instructional material and media.
4. Arranger of instructional facilities.
5. Provider of large group instruction and experiences.
6. Provider of small group instruction and experiences.
7. Supervisor of independent study experiences.
8. Analyzer of student progress.
9. Communicator of information to significant others.

In addition to the main body of statements concerning individualized instruction a group of questions were developed to identify and collect some basic data about the respondents. These questions were concerned with the variables of school size, number of vocational agriculture students per day, average class size, teaching load, percent of teaching time in vocational agriculture, academic degree completed

and total years of educational experience. The first five variables were answered by the vocational agriculture teachers, while the last two were answered by the teacher and the principal when filling out the questionnaire.

Development of a Response Scale

A response scale incorporating scale divisions of 0-1-2-3 was adopted with 0 representing low priority and 3 representing high priority. The specific scale description and directions for its use were as follows:

Mark the blank (0-1-2-3) on the answer sheet that indicates the priority you associate with each activity. Assume each activity may apply to any grade level of high school vocational agriculture instruction.

Low Priority	0.	A teaching activity you believe to be a "low priority item". i.e. It has questionable value and/or importance in individualizing instruction.
	1.	A teaching activity you believe to be above 0 in priority but is closer to 0 than to 3.
	2.	A teaching activity you believe to be below No. 3 in priority but is closer to 3 than to 0.
High Priority	3.	A teaching activity you believe to be a "high priority item". i.e. It is of the highest value and/or most importance in individualizing instruction.

The four point scale was used because answers were expected to be in a positive direction, low priority to high priority, and it was reasoned that four divisions were an adequate number to allow sufficient choice for the respondents.

The Score Sheets

The respondents were asked to record their answers on data processing score sheets with a soft lead pencil. This was deemed the most

appropriate way to handle a large number of returns since the score sheets could be machine processed and data processing cards for computer analysis could be punched directly from the respondents' returned score sheet. An identification number was penciled on the first four answers of the score sheet. This number identified each respondent only for the purposes of sending follow-up cards and additional questionnaires when necessary. It also separated the respondents into the two basic groups of vocational agriculture teachers and high school principals. The numbers were of four digits with numbers of 1001-1188 assigned to vocational agriculture instructors and the numbers 2001-2188 assigned to the vocational agriculture instructors' principals. Five schools had two agriculture instructors so five numbers allotted to the principals were not assigned since one principal represented two instructors in these cases.

Testing the Instrument

In order to obtain information about the ability of the respondents to understand and complete the instrument correctly a pilot study was undertaken during a supervising teacher workshop for vocational agriculture teachers. For this pilot study a draft of the questionnaire, which was thought to be as complete as possible, was used and the comments of the teachers concerning the mechanics of responding as well as the wording and selection of questions were tabulated and reviewed.

After analyzing the results of the pilot study another draft of the questionnaire was prepared and sent to a jury of experts on individualized instruction (Appendix A) and specific instructions were given to them in terms of their function in evaluating the instrument (Appendix B). The jury was selected from persons who had contributed significantly

to the literature concerning individualized instruction. After establishing a list of possible jury members they were discussed with the major advisor for this study and six were selected to be contacted. A letter was prepared and sent to them explaining this study and asking for their assistance in evaluating the questionnaire. All of these individuals responded, with two suggesting other individuals of equal status in this area in place of themselves. The other four accepted and the two alternates agreed to evaluate the questionnaire after receiving a letter explaining the request.

The revised questionnaire along with a letter of directions concerning their function in the evaluation was sent to each juror. All six jury members responded, but few major changes were suggested. The changes which had the concensus of the jurors were incorporated into the final draft of the questionnaire (Appendix C).

The questionnaire was printed along with the cover letter on both sides of green paper (Appendix D). It was purposely printed on both sides to make it appear short and on green paper to aid the respondent in distinguishing it from other mail. Sufficient copies were produced to allow for a fifty percent remail, if necessary, of the original questionnaire. In preparing the questionnaire for printing it was laid out so that the cover letter appeared on the first page, the directions on the second page and body of the questionnaire on the succeeding four pages. The total length of the printed questionnaire was three sheets of paper printed on both sides.

Selecting the Population

The population studied was comprised of vocational agriculture teachers of Michigan and the principals of the high schools where each

of these teachers taught. It was decided to collect data from the entire population instead of a sample for several reasons. First of all the total population was not large, a total of 188 vocational agriculture teachers were listed by the state agricultural education staff as teaching in Michigan. The corresponding number of principals was 183, allowing for five schools which had two vocational agriculture teachers. Secondly, the variables used in this study such as years of experience, size of classes, academic degree completed, etc. would have made for very small populations to draw samples from.

The list of names, addresses and high schools of the Michigan Vocational Agriculture Teachers, was obtained from the Agriculture Education Section, Division of Vocational Education of the Michigan Department of Education. The list was current as of September, 1969. The principals of the high schools identified on this list and their addresses were obtained from the most recent publication of Michigan Educators Guide. Necessary corrections or changes in addresses were made as the study progressed but the initial population total of 188 vocational agriculture instructors and 183 principals did not change.

Collection of Data

The collection process used to insure a satisfactory number of returns involved the use of substantial correspondence by mail. The names and addresses were typed and then duplicated onto stick-on address labels. Six copies of each address label were made in order to make available any address required for the several mailings involved.

The initial mailing was completed on Friday, September 26, 1969 and consisted of the questionnaire, the cover letter, the data processing score sheet, and a stamped self-addressed envelope for

returning the completed score sheet. This date was selected to coincide with a time when teachers and principals would be least likely to be overloaded with school work and problems. An eleven by thirteen inch mailing envelope was used to send out the material and a ten by twelve inch envelope was used for the return to keep the score sheet from being folded and consequently causing difficulty in machine processing.

The returned score sheets were checked for completion and useability. The respondent was identified through the code number and checked off on a master list as having returned the score sheet. A reminder card was sent after eight days to those who had not yet responded (Appendix E). Returns in the first eight days amounted to 165 responses out of the possible 371 or approximately 45%.

A second follow-up letter announcing the excellent cooperation received from teachers and principals was sent three weeks after the initial mailing of the questionnaire. This letter invited those who had not yet responded to become part of this research effort (Appendix E). A new questionnaire and score sheet along with a new cover letter were mailed five weeks after the initial mailing to all those who had not yet responded (Appendix D). An additional reminder letter was mailed at seven days after the second mailing (Appendix E).

The final returns amounted to 308 out of a possible 371 for a response percentage of 83%. A total of 156 vocational agriculture instructors returned usable score sheets or 83% of the 188 mailed out. The principals responded with 130 usable returns or 71 percent of the possible 183 mailed out. Of the total returns received, 7 score sheets

from vocational agriculture teachers and 15 from principals were not usable. This totaled 22 and represented 6 percent of the total population.

Analysis of the Data

Information received from the score sheets was transferred to data processing cards and analyzed utilizing the 3600 computer at Michigan State University. The specific techniques of analysis were selected with the aid of the research consultant in the College of Education.

The data related to the objectives dealing with identifying the priority ratings of teachers and principals for individualized instruction activities were analyzed by obtaining the mean for each activity based on a scale of 0-1-2-3 and an average mean for each role area. These were then rank ordered and reported in Chapter IV.

The remaining objectives in the study dealt with determining if a significant difference existed within the various teacher variables of size of school, class size, total student load, academic degree completed and total years of teaching experience and the principal variables of school size, academic education and total years of experience. Also the total principal group and total teacher group were analyzed to see if a significant difference existed between these two groups in their perceptions and expectations for the teacher's role in individualizing instruction. The one-way analysis of variance test was used to determine if a significant difference existed.

CHAPTER IV

THE TEACHER'S ROLE IN INDIVIDUALIZED INSTRUCTION— PRIORITIES AND EXPECTATIONS

Introduction

The summarization and reporting of the data are presented in three sections of this chapter. The first section deals with a description of the population variables as they were identified through the questionnaire. The second section contains a summarization of the priority ratings assigned to individualized instruction activities as perceived by teachers and expected by principals. Objectives one and two under teacher and principal priority ratings were reported in this section. These objectives were:

1. To identify the priority ratings of individualized instruction activities as perceived by vocational agriculture teachers and expected by their principals.
2. To identify those activities and those role areas that were perceived by vocational agriculture teachers and expected by their principals to be of greatest and of least importance or priority in individualized instruction.

The last section of the chapter reports on comparisons of teachers' perceptions and principals' expectations to determine if significant differences existed in the responses of various groups and subgroups for the individualized instruction activities. The objectives reported in

this section were grouped in the following three categories:

1. Teacher and principal comparisons.
2. Teacher comparisons.
3. Principal comparisons.

The objective of the teacher and principal comparison was:

1. To compare vocational agriculture teachers' perceptions with principals' expectations regarding the teacher's role in individualized instruction.

The objectives of teacher comparisons were:

1. To compare inexperienced vocational agriculture teachers' perceptions with experienced teachers' perceptions of their role in individualized instruction.
2. To compare perceptions of vocational agriculture teachers from schools with small enrollments with perceptions of vocational agriculture teachers from schools with large enrollments in regard to their role in individualized instruction.
3. To compare perceptions of vocational agriculture teachers who have small classes with perceptions of vocational agriculture teachers who have large classes in regard to their role in individualized instruction.
4. To compare perceptions of vocational agriculture teachers who have small student loads with perceptions of vocational agriculture teachers who have large student loads in regard to their role in individualized instruction.
5. To compare perceptions of vocational agriculture teachers who have minimum academic education with those who have higher

levels of academic preparation in regard to their role in individualized instruction.

The objectives of principal comparisons were:

1. To compare expectations of principals from low enrollment schools with the expectations of principals from high enrollment schools in regard to the teacher's role in individualized instruction.
2. To compare expectations of principals who have minimum academic preparation with expectations of principals who have considerable experience in education in regard to the teacher's role in individualized instruction.
3. To compare expectations of principals who have few years of experience in education with expectations of principals who have considerable experience in education in regard to the teacher's role in individualized instruction.

In the following discussion of the findings the term teachers when used alone will refer to and be synonymous with vocational agriculture teachers in Michigan and the term principal will refer to principals of schools which have vocational agriculture teachers in Michigan. This shortening of terms will help considerably in reducing the wordiness of description and yet will allow the reader to interpret the reporting in the proper context.

Section I: The Population Variables

The study involved vocational agriculture teachers and their principals from the state of Michigan. The population variables identified through the questionnaire included (1) high school enrollments

of the schools where the teachers and principals were employed, (2) the level of academic education acquired by the teachers and principals, (3) the years of educational experience possessed by teachers and principals, (4) the number of daytime vocational agriculture students under the direction of each teacher, (5) the average class size for eleventh and twelfth grade vocational agriculture classes, (6) the total student load for teachers of vocational agriculture, and (7) the total time the vocational agriculture teacher spends teaching organized classes of agriculture.

Teacher and Principal Characteristics

High school enrollments (Table 1) were summarized into three categories, less than 301, 301-600 and more than 600 students. Thirty-five teachers and 28 principals were from small schools while 42 teachers and 59 principals came from medium-sized schools. Schools with over 600 students were reported by 79 teachers and 43 principals. A total of 156 teachers and 130 principals reported for a grand total of 286 respondents.

Table 1.--High School Enrollments of the Population Studied

	High School Enrollment			
	<301	301-600	>600	Total
No. of Teachers	35	42	79	156
No. of Principals	28	59	43	130
Totals	63	101	122	286

Academic education of the population (Table 2) reflects an expected trend which indicates principals have more education than teachers. Twelve principals had only a B.S. degree whereas 70 teachers were in this category. Seventy-seven principals had gone beyond the master's but less than a specialist degree while only 51 teachers were at this level.

Table 2.--Academic Education of the Population

	Academic Level				
	B.S. Degree	M.S. Degree	M.S.+ Credits	Specialist Ph.D.	Total
No. of Teachers	70	31	51	4	156
No. of Principals	12	36	77	5	130
Totals	82	67	128	9	286

In reporting years of educational experience (Table 3) the principals, as expected had more experience than did teachers. A large majority of principals had over six years experience while only about one-half of the teachers were in this category.

Table 3.--Years of Educational Experience of the Population

	Years of Experience			
	<3	3-6	>6	Total
No. of Teachers	35	42	79	156
No. of Principals	5	15	110	130
Totals	40	57	189	286

Additional Teacher Characteristics

The description of instructional load for vocational agriculture teachers (Table 4) included items that were thought to represent the total and specific work load assigned to the teacher. The number of daytime students in vocational agriculture gave an indication of how many students the instructor worked with in terms of classes, farming programs, work experience programs, and the FFA. Twelve teachers worked with less than 37 vocational agriculture students per day while 70 teachers had 37-70 and a nearly equal number, 74, met with more than 70 per day.

Table 4.--Description of the Instructional Load for Vocational Agriculture Teachers

	No. of Daytime Vo-Ag Students				Total Teachers
	<37	37-70	>70		
No. of Teachers	12	70	74		156
	Ave. Class Size-11th & 12th Grade				
	<13	13-18	19-24	>24	
No. of Teachers	22	61	54	19	156
	Total Student Load				
	<76	76-100	101-125	>125	
No. of Teachers	64	70	17	5	156
	Instructors Time in Vo-Ag				
	<50%	51-75%	76-99%	100%	
No. of Teachers	14	33	41	68	156

The average class size at the eleventh and twelfth grade level gave some indication of the number of students in classes where diversified occupational goals were more likely to be apparent. The two class sizes of 13 to 18 and 19 to 24 students were the most common, while the small and large class sizes were nearly equal in number.

The instructors' total student load was used to give some indication of how many students a teacher met in one day. This figure included vocational agriculture students as well as non-vocational agriculture students. The vast majority of teachers had student loads of 100 students or less and 64 teachers met less than 76 students per day. In contrast only five teachers met with more than 125 students per day.

The instructor's time spent in vocational agriculture represented the percentage of his teaching duties which were primarily associated with vocational agriculture. Few teachers spent less than 50% of their time in vocational agriculture, while 68 individuals spent full time in their vocational agriculture teaching duties.

Section II: Priorities of Individualized Instruction Activities

Teacher Ratings and Rank of Individualized Instruction Activities

Teacher ratings and rank of individualized instruction activities were based on the following scale: Zero represented low priority or importance (questionable value in individualized instruction) and 3 represented highest priority or importance (most important in individualized instruction). The scale points of 1 and 2 were designated as something more than 0 and something less than 3 respectively. It

should be recalled at this point that all 61 individualized instruction activities included in the questionnaire were judged as having importance in individualized instruction by the jury of experts, consequently ratings of "does not apply" or "negative" ratings were not used. (See letter of instruction to jury of experts for criteria of selection of individualized instruction activities, Appendix B)

Objective number one of teacher and principal priority ratings is reported in this division of the report. It states: To identify the priority ratings of individualized instruction activities as perceived by vocational agriculture teachers. A composite list of all individualized instruction activities with the priority ratings and rank assigned to them by teachers appears in Table 32, Appendix F. The mean score for the 61 individualized instruction activities ranged from a high of 2.72 to a low of 0.99. The mean score of teachers' responses for all activities was 2.12. This score was obtained by totaling the means of all activities and then dividing by 61, the total number of individualized instruction activities included in the questionnaire. The standard deviation (SD) for each activity is reported in Table 32 as well as in other tables dealing with the ratings and rank of the individualized instruction activities by teachers. The standard deviation for activities with low mean scores tended to be larger than for activities with high mean scores which indicated the possibility of increased diversity and range in the teachers' responses for activities with low mean scores.

Teacher Ratings. Objective number two of teacher and principal priority ratings is reported in the following discussion. It stated:

To identify those activities that were perceived by vocational agriculture teachers to be of greatest and of least importance or priority. In selecting the highest and lowest priority activities to be discussed an arbitrary cutoff point of 20 percent was chosen because no observable significant break occurred in the rank order of mean scores. Since no logical break occurred to set off the high and low areas the 20 percent level was adopted to identify those nearest the highest priority rating and those nearest the lowest priority rating. Activities just beyond the limits of the 20 percent cutoff level for each group may be of similar importance to the activities reported in the respective high and low groups. As mentioned previously a complete listing of all 61 individualized instruction activities is found in Table 32 Appendix F.

Teacher ratings and rank for the highest priority individualized instruction activities appear in Table 5. The 12 activities in Table 5 represented approximately 20 percent of the 61 individualized instruction activities in the questionnaire. These 12 activities ranged in mean score from a high of 2.72 down to 2.46. Teachers apparently considered these activities were the highest priority activities in individualized instruction.

Activities with numbers 19, 18, 12, 59 and 53 referred to the teacher observing or discussing certain problems with students. The discussion aspects of these activities imply little in the way of record keeping or in depth planning that might result from these discussions. These activities could be carried out without a great deal of advanced planning or preparation on the part of the teacher, hence they do not require extensive effort on the part of the teacher.

Table 5.--Teacher Ratings and Rank of Highest Priority Individualized Instruction Activities

Activity No.	Activity	Rank	Mean	SD
19	Discusses career goals with individual students.	1	2.72	0.55
25	Incorporates laboratory activities that complement the classroom work.	2	2.66	0.59
69	Seeks from school officials the required facilities, equipment and materials needed for learning to take place.	3	2.65	0.57
70	Makes the arrangements with school officials for activities not regularly scheduled. i.e. trips, visits, projects, etc.	4	2.63	0.61
26	Incorporates out-of-school learning experiences into a student's study program. i.e. work experience, job placement, visitations, etc.	5	2.62	0.62
18	Observes student's actions in class, in small groups and in independent work to help identify his characteristics.	6	2.59	0.63
28	Maintains an up-to-date supply of texts, bulletins and magazines for student use.	7	2.58	0.63
12	Holds individual conferences with students to discuss problems, past achievements, and plans.	8	2.49	0.70
21	Incorporates various kinds of learning activities into courses to accommodate different learning styles.	8	2.49	0.63
59	Helps student accept responsibility for his own learning.	8	2.49	0.70
50	Arranges time at the "opportune moment" for worthwhile activities to take place. i.e. Does not put good ideas for discussion or projects off to some future time.	11	2.47	0.62
53	Accepts contributions from all group participants as being worthwhile.	12	2.46	0.75

Mean based on scale of 0-1-2-3.
N = 156

Activities 25, 69, 70, 26, 28, 21 and 50 referred to certain kinds of arrangements that the instructor might make to provide additional learning experience for students. The nature of these activities evidently reflects the teachers concern for creating and incorporating various learning experiences into the curriculum. In terms of teacher perceptions of individualized activities these 12 appeared to be of the most important.

Individualized instruction activities that received a low priority rating and consequently were ranked in the bottom 20 percent of the 61 activities included on the questionnaire were identified in Table 6. The 12 low activities ranged in mean score from a low of 0.99 up to 1.86 based on a scale of 0-1-2-3. Although no activity approached the 0 rating (questionable value in individualized instruction) it appeared that teachers thought these particular teaching activities were of considerably less value than those reported in Table 5. Activities 13, 14, and 15 represented activities built around cumulative records available on students and the development of a personal file for use in developing appropriate instruction for the students. Teachers apparently felt these were not critical activities for success in their role. Two activities (23 and 20) which called for the teacher to work cooperatively with students in planning instructional procedures and developing student objectives were also apparently not perceived as important parts of the teacher's role. Another group of activities (35, 33 and 32) associated with student manipulation and operation of equipment and materials were rated in the low area. These represented things which students could do by themselves as one step in accepting responsibility

Table 6.--Teacher Ratings and Rank of Lowest Priority Individualized Instruction Activities

Activity No.	Activity	Rank*	Mean	SD
16	Uses placement tests to determine the appropriate levels of entrance into courses for each student.	61	0.99	0.95
35	Makes available facilities and assistance whereby students can duplicate work for distribution, photograph projects or events, and print pictures.	60	1.28	1.00
14	Collects autobiographies, anecdotal records, and other information from students to help assess their differences.	59	1.43	0.94
44	Utilizes large group assemblies to collect and disseminate necessary information. i.e. announcements, filling out reports, gathering personal data for records, testing, etc.	58	1.63	1.06
23	Develops cooperatively with students the performance goals and outcomes expected for them from the course or units.	56	1.74	0.82
52	Reacts within groups as an equal.	56	1.74	0.98
33	Arranges for students to secure the use of tapes, movies, slides, transparencies, and other audio-visual materials for their study programs.	55	1.77	0.95
20	Develops course materials cooperatively with students.	52	1.79	0.87
15	Keeps a personal file on each student's achievements, actions, interests, and problems.	52	1.79	0.96
24	Provides study guides that lead the student from one learning experience to another.	52	1.79	0.87
32	Instructs students in how to operate audio-visual equipment for independent or small group study. i.e. tape recorders, slide projectors, movie projectors, overhead projectors.	51	1.85	1.00
13	Seeks clues from cumulative records, test scores, and past achievement that will provide help in identifying student's characteristics and needs.	50	1.86	0.85

*Activities ranked from low to high. Mean based on scale of 0-1-2-3. N = 156

for their learning. Apparently teachers were not willing to accept these activities as part of their role in instruction. The remaining activities represented various activities that were also considered to be of low priority or importance.

Teacher Ratings and Rank of Individualized Instruction Activities in Nine Selected Role Areas

In the questionnaire the activities were assigned to nine role areas. Objective number two under teacher and principal priority ratings referred to identifying role areas that were perceived by vocational agriculture teachers to be of greatest and of least importance in individualized instruction. In reporting this the mean scores were used as a basis for the ranking of the role areas. In addition the activities assigned to each role area were ranked in order of importance for that role area. This ranking in role areas provided a comparison of important and unimportant activities in role areas and provided a better understanding of the ranking of role areas. The nine role areas included in the questionnaire were: (1) Analyzer of individual differences, (2) Planner of courses, units and lessons, (3) Provider of instructional materials and media, (4) Arranger of instructional facilities, (5) Provider of large group instruction and experiences, (6) Provider of small group instruction and experiences, (7) Supervisor of independent study experiences, (8) Analyzer of student progress, and (9) Communicator of information to significant others.

Teacher Rank of Role Area. Teacher rank of role areas (Table 7) was determined by averaging the means of all individualized instruction activities assigned to each role area. Teachers, as a total group,

Table 7. --Teacher Rank of Role Areas by Average Mean of Activities Within the Role Areas

Role Area	Rank	Mean
Communicator of information to significant others.	1	2.37
Supervisor of independent study and experiences.	2	2.20
Provider of small group instruction and experiences.	3	2.17
Arranger of instructional facilities.	3	2.17
Planner of courses, units and lessons.	3	2.17
Analyzer of student progress.	6	2.14
Analyzer of individual differences.	7	1.98
Provider of instructional materials and media.	8	1.94
Provider of large group instruction and experiences.	8	1.94
Average Mean of All Role Areas		2.12

Mean based on scale of 0-1-2-3.
N = 156

perceived the role area of "communicator of information to significant others" as being the most important. The mean score for this role area was 2.37 which placed it well above the mean for all 61 activities which was 2.12. The second most important role area was "supervisor of independent study and experiences." It received a mean score of 2.20. Three role areas, "provider of small group instruction and experiences," "arranger of instructional facilities," and "planner of courses, units and lessons" were tied for third with mean scores of 2.17. "Analyzer of student progress" was ranked sixth and "analyzer of individual differences" was placed seventh. The mean scores for these two role areas were 2.14 and 1.98 respectively. The eighth or bottom location was assigned to two role areas, "provider of instructional material and media" and "provider of large group instruction and experiences." A mean score of 1.94 was reported for each of these role areas.

The mean scores for the role areas reflect an averaging of the mean of all activities within that role area so some role areas may contain high rated activities even though the role area it is in appears to be low in rank. Likewise some low rated individualized instruction activities may be found in teacher role areas which received a high over-all rating.

Rank Within Role Area. Generally teachers did not tend to rate all activities in a role area high or low. Most role areas contained a wide range of ratings and consequently some included very high ranked activities as well as some very low ranked activities. This may mean that the activities were located in the wrong role areas but more probably could be interpreted as teachers simply did not perceive certain activities as being important in individualized instruction.

In analyzing a correlation matrix of the correlation of each activity with each other no high correlations were found which may be interpreted to mean that any other logical grouping of activities into role areas would not have produced a more homogeneous list of role area activities. In some role areas certain kinds of individualized instruction activities tended to group near the top or bottom. These will be noted in the description provided for each role area.

The teacher role area of "analyzer of individual differences" (Table 8) had a mean score of 1.98. It contained eight individualized instruction activities, three of which were rated very high over-all and five of which received ratings of considerably less priority in terms of teachers' perceptions of their importance. The three high ranking items (19, 18, 12) with mean scores of 2.72, 2.59 and 2.49 respectively, all referred to some form of discussion or observation on the teacher's part that was more or less general in nature and required little in the way of specific actions on the part of the teacher. The remaining items all of which were thought to be considerably less important dealt with specific kinds of activities that required the teacher to take some overt action in carrying out the activity. They may have required more instruction time and effort to carry out since they involve such things as keeping records, using special tests and interpreting existing records to obtain more information. These low-rated activities were ones which have often been associated with duties of the school guidance counselor but for that matter, the top three items have also been traditional functions of the guidance personnel. Regardless of the reasons, teachers perceived activities numbered 19, 18, and 12 as being much more important

Table 8.--Teacher Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Analyzer of Individual Differences"

Activity No.	Activity	Rank In Area	Overall Rank	Mean	SD
19	Discusses career goals with individual students.	1	1	2.72	0.55
18	Observes student's actions in class, in small groups and in independent work to help identify his characteristics.	2	6	2.59	0.63
12	Holds individual conferences with students to discuss problems, past achievements, and plans.	3	8	2.49	0.70
17	Diagnoses how each student learns best.	4	43	2.00	0.88
13	Seeks clues from cumulative records, test scores, and past achievement that will provide help in identifying student's characteristics and needs.	5	50	1.86	0.85
15	Keeps a personal file on each student's achievements, actions, interests and problems.	6	52	1.79	0.96
14	Collects autobiographies, anecdotal records, and other information from students to help assess their differences.	7	59	1.43	0.94
16	Uses placement tests to determine the appropriate levels of entrance into courses for each student.	8	61	0.99	0.95
	Average Mean of Role Area			1.98	

Mean based on scale of 0-1-2-3.
N = 156

in individualized instruction than the remaining items in the role area of "analyzer of individual differences."

The ratings assigned to activities in the role area of "planner of courses, units and lessons" (Table 9) indicate that three activities (25, 26 and 21) were considered to be high priority activities by teachers. The means for these three activities were 2.66, 2.62 and 2.49 respectively compared to the role area mean of 2.17. These activities were concerned with incorporating laboratory experience, out-of-school experience and a variety of learning activities into the curriculum. In contrast to the high rankings received by those three activities, 24, 20 and 23 were ranked sixth and eighth in the role area and 52nd and 56th over-all. These activities dealt with developing course material and objectives cooperatively with students and also with providing study guides for students. The mean scores for activities 24, 20 and 23 were not extremely low (1.79, 1.79 and 1.74 respectively) indicating teachers felt they were of some importance but much less so than those ranked 1, 2 and 3 in the role area.

The activities that made up the role area of "provider of instructional materials and media" (Table 10) produced a role area mean of 1.94 and were for the most part given ratings of medium importance. The top ranked activity, (28) with a mean of 2.58, referred to providing up-to-date texts and magazines for students and was perceived by teachers to be of higher priority than any other item in that role area. Activities which were ranked 2 through 7 in the role area were given priority ratings which tended to indicate they had some importance in individualized instruction but were not high priority items. One activity (35) referring to providing facilities for students to

Table 9.--Teacher Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Planner of Courses, Units, and Lessons"

Activity No.	Activity	Rank In Area	Overall Rank	Mean	SD
25	Incorporates laboratory activities that complement the classroom work.	1	2	2.66	0.59
26	Incorporates out-of-school learning experiences into a student's study program. i.e. work experiences, job placement, visitations, etc.	2	5	2.62	0.62
21	Incorporates various kinds of learning activities into courses to accommodate different learning styles.	3	8	2.49	0.63
22	Allows for different rates of learning in developing course materials.	4	23	2.23	0.72
27	Designs curriculum to allow for self-instruction.	5	36	2.05	0.79
24	Provides study guides that lead the student from one learning experience to another.	6	52	1.79	0.87
20	Develops course materials cooperatively with students.	6	52	1.79	0.87
23	Develops cooperatively with students the performance goals and outcomes expected for them from the course or units.	8	56	1.74	0.82
	Average Mean of Role Area			2.17	

Mean based on scale of 0-1-2-3.
N = 156

Table 10.--Teacher Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Provider of Instructional Materials and Media"

Activity No.	Activity	Rank In Area	Overall Rank	Mean	SD
28	Maintains an up-to-date supply of texts, bulletins and magazines for student use.	1	7	2.58	0.63
34	Maintains a curriculum file, open to the students, of articles, bulletins, study guides, newsletters, and charts.	2	25	2.19	0.86
30	Locates instructional material for student use when it is not available through the school library.	3	31	2.12	0.71
31	Assists students in preparation of instructional material for their own use.	4	46	1.91	0.74
29	Prepares instructional materials needed by individual students.	5	47	1.89	0.76
32	Instructs students in how to operate audio-visual equipment for independent or small group study. i.e. tape recorders, slide projectors, movie projectors, overhead projectors.	6	51	1.85	1.00
33	Arranges for students to secure the use of tapes, movies, slides, transparencies, and other audio-visual materials for their study programs.	7	55	1.77	0.95
35	Makes available facilities and assistance whereby students can duplicate work for distribution, photograph projects or events, and print pictures.	8	60	1.28	1.00
	Average Mean of Role Area			1.94	

Mean based on scale of 0-1-2-3.
N = 156

duplicate work and photograph projects, etc. was ranked at the bottom of the role area with a mean of 1.28, and also placed 60th out of the total 61 individualized instruction activities. Apparently teachers did not feel this activity should be an important consideration in an individualized instruction program.

Teacher ratings for the individualized instruction activities related to the role area of "arranger of instructional facilities" (Table 11) were clustered closely around the mean for all 61 activities (2.12). The role area mean was 2.17 just slightly higher than the average for all activities. This may indicate that teachers generally perceived the activities making up the role area as being of about average importance in utilizing individualized instruction. Activities 37 and 41 appear 15th and 18th in over-all rank; in contrast, activities 39 and 38 ranked 34th and 40th over-all. The higher ranked activities referred to providing laboratory space and simulated work experience whereas the lower ranked activities provided for away-from-school study or visits and away-from-school use of school equipment. This may indicate that teachers perceived the in-school activities as being slightly more important than the out-of-school activities.

No activities in the role area of "provider of large group instruction and experiences" (Table 12) received ratings that would class them in the region of high priority. The role area mean was 1.94 and all but one activity was rated below the mean for all 61 activities (2.12). The activity of least importance (44) in this role area dealt with utilizing large groups to collect and disseminate information for reports, testing, etc.

Table 11.--Teacher Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Arranger of Instructional Facilities"

Activity No.	Activity	Rank In Area	Overall Rank	Mean	SD
37	Makes available laboratory space for individuals and/or teams to carry out projects.	1	15	2.33	0.73
41	Arranges simulated work experience situations for students who cannot be placed in real work situations, i.e. shop experiences, land laboratories, etc.	2	18	2.29	0.75
36	Modifies classroom seating to accommodate groups or other variations in class arrangement.	3	25	2.19	0.83
40	Arranges with the parent, the business or the industry the proper facilities for a student to obtain work experience.	4	29	2.16	0.84
39	Arranges for students to conduct away from school study, i.e. visitations, interviews, observations, etc. undertaken away from school.	5	34	2.06	0.87
38	Arranges for students to use selected school equipment at home and away from the school for educational purposes. i.e. shop equipment, special tools and apparatus.	6	40	2.03	0.91
	Average Mean of Role Area			2.17	

Mean based on scale of 0-1-2-3.
N = 156

Table 12.--Teacher Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Provider of Large Group Instruction and Experiences"

Activity No.	Activity	Rank in Area	Overall Rank	Mean	SD
42	Conducts large groups on tours and field trips.	1	28	2.17	0.88
45	Provides large groups with factual course content information of common interest to all.	2	34	2.06	0.84
46	Designs group instruction so that it ultimately leads to small group and/or independent study activities.	3	44	1.99	0.86
43	Utilizes large groups as audiences for reports, speeches and presentations of activities developed in small groups or through independent study.	4	49	1.87	0.89
44	Utilizes large group assemblies to collect and disseminate necessary information. i.e. announcements, filling out reports, gathering personal data for records, testing, etc.	5	58	1.63	1.06
	Average Mean of Role Area			1.94	

Mean based on scale of 0-1-2-3.
N = 156

Three activities (50, 53 and 48) in the role area of "provider of small group instruction and experiences" (Table 13) were rated considerably higher than the mean for all activities (2.12). The role area mean was 2.17 and the three activities had mean scores of 2.47, 2.46 and 2.43 which indicated teachers perceived these activities as being quite important in the process of providing individualized instruction. No activity received an exceptionally low rating but the lowest activity (52) concerned with the teacher reacting within groups as an equal received a mean score of 1.74.

The teacher role area of "supervisor of independent study" (Table 14) contained six activities with a role area mean of 2.20. Most of these activities were rated near or above the mean for all activities (2.12). The number one ranked activity in the role area was perceived to be a high priority activity by teachers. It referred to helping students accept responsibility for learning and received a mean score of 2.49 with an over-all rank of 8th. The least important activity (58) which referred to providing study guides for organizing independent learning activities was given a mean score of 1.89 and an over-all rank of 40th.

The teacher role area of "analyzer of student progress" (Table 15) contained seven activities which produced a role area mean of 2.14. One activity (64) dealing with helping students understand and accept their achievements was given a rating slightly higher than the rest. The remaining activities clustered more closely around the mean for all activities (2.12) and were apparently considered to be of some importance in providing individualized instruction but less so than activity 64 which ranked number one in this role area.

Table 13.--Teacher Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Provider of Small Group Instruction and Experiences"

Activity No.	Activity	Rank in Area	Overall Rank	Mean	SD
50	Arranges time at the "opportune moment" for worthwhile activities to take place. i.e. Does not put good ideas for discussion or projects off to some future time.	1	11	2.47	0.62
53	Accepts contributions from all group participants as being worthwhile.	2	12	2.46	0.75
48	Varies the schedule to accommodate a variety of learning activities. i.e. discussions, projects, inquiries, visits.	3	13	2.43	0.66
47	Orients students to small group learning methods.	4	37	2.04	0.72
49	Participates actively in certain small group activities.	4	37	2.04	0.88
51	Removes himself physically from certain small group activities.	6	42	2.01	0.88
52	Reacts within groups as an equal.	7	56	1.74	0.98
	Average Mean of Role Area			2.17	

Mean based on scale of 0-1-2-3.
N = 156

Table 14.--Teacher Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Supervisor of Independent Study"

Activity No.	Activity	Rank in Area	Overall Rank	Mean	SD
59	Helps student accept responsibility for his own learning.	1	8	2.49	0.70
55	Arranges independent study for individuals as they exhibit the need, interest and maturity for it.	2	17	2.32	0.73
54	Orients students to independent study techniques and tools.	3	20	2.26	0.80
57	Helps student arrange for use of instructional materials, equipment or facilities needed for his study program.	4	27	2.18	0.75
56	Assists student in assessing progress and in planning supporting and/or advanced study programs.	5	33	2.08	0.78
58	Makes available a study guide that helps the student organize his independent learning activities.	6	40	1.89	0.82
	Average Mean of Role Area			2.20	

Mean based on scale of 0-1-2-3.
N = 156

Table 15.--Teacher Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Analyzer of Student Progress"

Activity No.	Activity	Rank in Area	Overall Rank	Mean	SD
64	Helps student understand and accept his achievements.	1	14	2.40	0.64
66	Helps student develop an accurate self-appraisal.	2	22	2.24	0.80
60	Provides relatively frequent assessments of student progress.	3	24	2.21	0.76
61	Measures progress in terms of previously stated performance objectives.	4	29	2.16	0.75
63	Avoids using evaluative results to emphasize a student's inadequacies and shortcomings.	5	37	2.04	0.92
62	Utilizes assessment results to emphasize a student's progress, strengths and accomplishments.	6	40	2.03	0.72
65	Assists student in utilizing evaluative data in planning future study programs.	7	45	1.96	0.75
	Average Mean of Role Area			2.14	

Mean based on scale of 0-1-2-3.
N = 156

Table 16.--Teacher Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Communicator of Information to Significant Others"

Activity No.	Activity	Rank in Area	Overall Rank	Mean	SD
69	Seeks from school officials the required facilities, equipment and materials needed for learning to take place.	1	3	2.65	0.57
70	Makes the arrangements with school officials for activities not regularly scheduled. i.e. trips, visits, projects, etc.	2	4	2.63	0.61
68	Assists school officials in focusing public attention on students' accomplishments and needs.	3	15	2.33	0.72
67	Relates students' needs for changes in school policies and practices that affect learning to the administration.	4	18	2.29	0.80
72	Helps parents understand and accept student's achievements.	5	21	2.25	0.75
71	Arranges evaluative conferences between parents, student, employer and teacher.	6	31	2.12	0.85
	Average Mean of Role Area			2.37	

Mean based on scale of 0-1-2-3.
N = 156

The teacher ratings for activities in the role area of "communicator of information to significant others" (Table 16) produced a role area mean of 2.37 which was the highest of role area means. The activities in this role area were at or above the mean for all activities (2.12). Two activities (69 and 70) dealing with discussing and making arrangements with school officials for facilities or scheduling of activities were rated as being very important with mean scores of 2.65 and 2.63 respectively. The remaining activities (68, 67, 72 and 71) were all perceived as being considerably above average or at least of average importance in providing individualized instruction.

Principal Ratings and Rank
of Individualized Instruction Activities

The specific objective answered in this division of the report is: To identify those individualized instruction activities that were expected by principals to be of greatest and of least importance or priority in individualized instruction. In keeping with the description used to identify the teacher ratings of individualized instruction activities the highest and lowest 20 percent of the activities were identified to represent important and unimportant activities.

The principals rated the same list of individualized instruction activities as the teachers did, but did so in regards to the priority or importance they expected teachers should attach to it. The same rating scale was used. Zero represented low priority or importance (questionable value in individualized instruction) and 3 represented highest priority or importance (most important in individualized instruction). A high mean score by principals would indicate they

expected teachers to consider that activity as an important part of the teacher's role in providing individualized instruction. Likewise a low mean score on an activity by principals would indicate they did not expect it to be an important part of the teacher's role in individualized instruction.

The mean score or average rating of all 61 individualized instruction activities as expected by principals was 2.13. This score or expectation level for all activities by principals is almost identical to the teacher mean for all activities (2.12). This mean score although useful as a reference point may or may not indicate agreement on perceived and expected role or role area priorities for teachers in providing individualized instruction. In Section III of this chapter a more detailed explanation of comparisons of teacher perceptions and principal expectations is presented and significant differences when apparent are discussed.

A composite list of all individualized instruction activities rated by principals appears in Table 33 Appendix F. The range of mean scores was from a high of 2.71 to a low of 1.08. The standard deviation (SD) for each activity is reported in this table as well as other tables throughout the report. The standard deviation for activities tended to follow the same pattern as that set by teachers; large standard deviations were associated with low mean scores and small standard deviations were common with high mean scores. Again, it indicates the possibility of more diversity and range of responses for low scores than for high.

Principal Ratings. The principal expectation ratings of the 12 highest ranking individualized instruction activities (Table 17) ranged

Table 17.—Principal Ratings and Rank of Highest Priority Individualized Instruction Activities

Activity No.	Activity	Rank	Mean	SD
25	Incorporates laboratory activities that complement the classroom work.	1	2.71	0.55
19	Discusses career goals with individual students.	2	2.65	0.59
70	Makes the arrangements with school officials for activities not regularly scheduled. i.e. trips, visits, projects, etc.	3	2.64	0.66
69	Seeks from school officials the required facilities, equipment and materials needed for learning to take place.	4	2.56	0.63
48	Varies the schedule to accommodate a variety of learning activities. i.e. discussions, projects, inquiries, visits.	5	2.55	0.64
28	Maintains an up-to-date supply of texts, bulletins and magazines for student use.	6	2.52	0.63
12	Holds individual conferences with students to discuss problems, past achievements, and plans.	7	2.50	0.69
26	Incorporates out-of-school learning experiences into a student's study program. i.e. work experience, job placement visitations, etc.	8	2.48	0.76
21	Incorporates various kinds of learning activities into courses to accommodate different learning styles.	9	2.47	0.61
53	Accepts contributions from all group participants as being worthwhile.	10	2.44	0.73
64	Helps student understand and accept his achievements.	10	2.44	0.68
59	Helps student accept responsibility for his own learning.	12	2.40	0.76

Mean based on scale of 0-1-2-3.
N = 130

from a high of 2.71 down to 2.40. These 12 activities represented approximately 20 percent of the 61 individualized instruction activities listed in the questionnaire. The high priority ratings assigned to these activities by principals indicated they would expect teachers to include these activities in a program of individualized instruction and that teachers would give a reasonable amount of importance to these activities. There may be additional activities that principals expect teachers to carry out in a program of individualized instruction (See Table 33 Appendix F for complete ranking of activities) but these were considered the most important.

Principals ranked the individualized instruction activity referring to providing laboratory work (25) as being the most important. Number 2 in rank referred to discussing career goals with students (19). The third and fourth placed activities (70 and 69) concerned seeking administrative approval for activities and equipment. Of the remaining 8 high ranking activities, 4 activities (48, 28, 26 and 21) were concerned with making provisions for student learning activities, experiences and study materials. The additional 4 activities (12, 53, 64 and 59) were associated with helping students understand achievements, accept responsibility for learning and teacher acceptance of student contributions.

The 12 lowest ranking activities according to principals (Table 18) of the 61 individualized instruction activities ranged in mean scores from a low of 1.08 to 1.90. These activities represent the items that principals would least expect teachers to include in an individualized instruction program. This does not mean they would be excluded completely from the instructional program but merely that these

Table 18.--Principal Ratings and Rank of Lowest Priority Individualized Instruction Activities

Activity No.	Activity	Rank*	Mean	SD
16	Uses placement tests to determine the appropriate levels of entrance into courses for each student.	61	1.08	0.91
35	Makes available facilities and assistance whereby students can duplicate work for distribution, phograph projects or events, and print pictures.	60	1.52	0.93
14	Collects autobiographies, anecdotal records, and other information from students to help assess their differences.	58	1.58	0.87
44	Utilizes large group assemblies to collect and disseminate necessary information. i.e. announcements, filling out reports, gathering personal data for records, testing, etc.	58	1.58	0.88
32	Instructs students in how to operate audio-visual equipment for independent or small group study. i.e. tape recorders, slide projectors, movie projectors, overhead projectors.	57	1.60	0.91
52	Reacts within groups as an equal.	56	1.63	0.97
38	Arranges for students to use selected school equipment at home and away from the school for educational purposes. i.e. shop equipment, special tools and apparatus.	55	1.73	0.89
43	Utilizes large groups as audiences for reports, speeches and presentations of activities developed in small groups or through independent study.	54	1.78	0.82
33	Arranges for students to secure the use of tapes, movies, slides, transparencies, and other audio-visual materials for their study programs.	53	1.84	0.82
45	Provides large groups with factual course content information to common interest to all.	52	1.88	0.86
58	Makes available a study guide that helps the student organize his independent learning activities.	51	1.89	0.85
17	Diagnoses how each student learns best.	50	1.90	0.91

*Activities ranked from low to high. Mean based on scale of 0-1-2-3. N = 130

activities would be expected to receive less emphasis by teachers than the others included in the questionnaire and in particular they would be less important than the 12 activities reported in Table 17.

The lowest ranked activity (16) referred to using placement tests in determining appropriate course levels for students. Apparently, to the principals, this activity should be given least priority in individualized instruction. It was given a mean score rating considerably below the next lowest ranking activity, 1.08 as compared to 1.52 which indicates there was little question about it being the least important. The total differences in priority ratings of the next 11 activities was less than that between the lowest and second lowest ones. This may indicate that no one of the remaining eleven low ranked activities was of great deal less important than another but rather as a group they would be considered to be somewhat less important than those activities rated above them. (See Table 33 Appendix F for complete ranking of all activities). Of these 11 low ranking activities two (14 and 17) dealt with identifying differences and diagnosing how a student learns. Four of these activities (35, 32, 38 and 33) were concerned with acquainting and providing media and materials for students to use in their study programs. One activity (58) referred to providing study guides for students and the remaining four activities (44, 52, 43 and 45) were concerned with the use of group activities and in particular the use of large groups for certain functions of instruction. From observation of these data it appeared that principals did not expect teachers to associate a great deal of importance with these activities in providing individualized instruction.

Principal Ratings and Rank of Individualized Instruction Activities in Nine Selected Teacher Role Areas

As was reported for teacher ratings and rank of activities in the nine teacher role areas the same format will be followed for reporting principal ratings and rank of activities in these same teacher role areas. The specific objective reported here is number two under teacher and principal priority ratings. It states: To identify those role areas that were expected by principals to be of greatest or of least importance or priority in individualized instruction. Once again the nine role areas were: (1) Analyzer of individual differences; (2) Planner of courses, units and lessons; (3) Provider of instructional materials and media; (4) Arranger of instructional facilities; (5) Provider of large group instruction and experience; (6) Provider of small group instruction and experiences; (7) Supervisor of independent study; (8) Analyzer of student progress; and (9) Communicator of information to significant others.

Principal Rank of Role Areas. Principal rank of role areas (Table 19) was obtained by averaging the means for the activities within each role area. Principals ranked the teacher role area of "communicator of information to significant others" as the one which had the most importance in individualized instruction. A mean score of 2.33 was obtained for this role area out of a possible 3.00. The second, third, fourth and fifth ranked role areas were: "Planner of courses, units and lessons," "analyzer of student progress," "provider of small group instruction and experiences," and "supervisor of independent study and experiences." These four role areas were given mean scores ranging from

Table 19.--Principal Rank of Role Areas by Average Mean of Activities Within the Role Areas

Role Area	Rank	Mean
Communicator of information to significant others.	1	2.33
Planner of courses, units and lessons.	2	2.24
Analyzer of student progress.	3	2.21
Provider of small group instruction and experiences.	4	2.20
Supervisor of independent study and experiences.	5	2.18
Arranger of instructional facilities.	6	2.08
Analyzer of individual differences.	7	2.02
Provider of instructional materials and media.	8	1.97
Provider of large group instruction and experiences.	9	1.91
Average Mean of All Role Areas		2.13

Mean based on scale of 0-1-2-3.
N = 130

2.24 down to 2.18 which indicated little difference in their over-all importance as a teacher role area. All were considered to be of some importance in providing individualized instruction. The remaining four role areas, "arranger of instruction facilities," "analyzer of individual differences," "provider of instructional materials and media," and "provider of large group instruction and experiences" were ranked 6 through 9 and ranged in mean scores from 2.08 to 1.91. The mean score for all activities and role areas was 2.13. The mean score of role areas as reported in this table reflects the averaging of the mean scores reported for all activities in a particular role area as determined by principals in their response to the individualized instruction questionnaire. A low mean score for a role area does not necessarily mean there were no high ranking activities in that role area, likewise a high mean score does not mean that there were no low rated activities in that role area.

Rank Within Role Areas. Principal response to the rating of each activity in the role areas tended to be along the same lines as reported for teachers. Principals did not rank all activities in a single role area as being either all high or all low but generally tended to spread the ratings out over a considerable range of scores. The possibility of individualized instruction activities being placed under the wrong role areas always exists but an inspection of the correlation matrix for all activities indicates that few if any activities of one role area correlated highly with any activities in another role area, consequently it appears that principals, by ranking some activities low and some high within one role area, felt that some were of much less

importance than others and perhaps that some should not be part of that role area even though the activity may not fit under any other identified role area in the questionnaire either.

The principal ratings for activities in the teacher role area of "analyzer of individual differences" (Table 20) indicated two activities (19 and 12) were of considerable importance. The mean score for this role area was 2.02 and the two highest ranking activities had mean scores of 2.65 and 2.50 respectively. The first activity deals with career discussion and the second with individual conferences, both dealing primarily with the one to one relationship between the student and the teacher. One activity (16) which centered around the use of placement tests received little support from principals and was consequently ranked last in the role areas and last over-all of the 61 individualized instruction activities on the questionnaire. It obtained a mean score of 1.08. The remaining activities (18, 15, 13, 17 and 14) were rated nearer the mean for all activities (2.13).

The teacher role area of "planner of courses, units and lessons" (Table 21) contained the number one activity (25) in over-all priority rating according to principals. The mean for this activity was 2.71 compared to the role area mean of 2.24. This activity was associated with providing for laboratory experiences in the course. The second and third ranked activities (26 and 21) in this role area also received fairly high ratings and were concerned with providing for out-of-school experiences and a variety of learning activities for the student. The remaining activities were rated somewhat lower in importance but no one activity was rated extremely low. The two lowest ranked

Table 20.--Principal Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Analyzer of Individual Differences"

Activity No.	Activity	Rank in Area	Overall Rank	Mean	SD
19	Discusses career goals with individual students.	1	2	2.65	0.59
12	Holds individual conferences with students to discuss problems, past achievements and plans.	2	7	2.50	0.69
18	Observes student's actions in class, in small groups and in independent work to help identify his characteristics.	3	15	2.34	0.73
15	Keeps a personal file on each student's achievements, actions, interests and problems.	4	29	2.16	0.78
13	Seeks clues from cumulative records, test scores, and past achievement that will provide help in identifying student's characteristics and needs.	5	46	1.95	0.86
17	Diagnoses how each student learns best.	6	50	1.90	0.91
14	Collects autobiographies, anecdotal records, and other information from students to help assess their differences.	7	58	1.58	0.88
16	Uses placement tests to determine the appropriate levels of entrance into courses for each student.	8	61	1.08	0.91
	Average Mean of Role Area			2.02	

Mean based on scale of 0-1-2-3.
N = 130

Table 21.--Principal Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Planner of Courses, Units and Lessons"

Activity No.	Activity	Rank in Area	Overall Rank	Mean	SD
25	Incorporates laboratory activities that complement the classroom work.	1	1	2.71	0.55
26	Incorporates out-of-school learning experiences into a student's study program. i.e. work experience, job placement, visitations, etc.	2	8	2.48	0.76
21	Incorporates various kinds of learning activities into courses to accommodate different learning styles.	3	9	2.47	0.61
22	Allows for different rates of learning in developing course materials.	4	19	2.30	0.71
23	Develops cooperatively with students the performance goals and outcomes expected for them from the course or units.	5	41	2.05	0.74
24	Provides study guides that lead the student from one learning experience to another.	6	44	2.01	0.85
27	Designs curriculum to allow for self instruction.	7	48	1.94	0.78
20	Develops course materials cooperatively with students.	8	49	1.91	0.73
	Average Mean of Role Area			2.24	

Mean based on scale of 0-1-2-3.
N = 130

activities in the role area (27 and 20) were related to providing for self-instruction and developing course material cooperatively with students when planning units of instruction.

In response to the activities in the role area of provider of instructional materials and media (Table 22) principals rated only one activity (28) in the area of considerable importance. A mean of 2.52 was obtained for this activity while the mean for the role area was 1.97. This activity was concerned with providing up-to-date texts and bulletins for the students. Of lesser importance but still clustered around the mean for all activities (2.13) the next five ranking activities (34, 30, 29, 31 and 33) were considered by principals to be of some importance in providing instructional materials and media. Two activities (32 and 35) were placed well down the list in priority ratings by principals, consequently they became seventh and eighth in rank in this role area. These two activities dealt with instructing students in the use of audio-visual equipment and providing them with duplicating facilities for their work. Apparently these activities were not, according to principals, an important part of the teacher role as provider of instructional materials and media.

The teacher role area of "arranger of instructional facilities" (Table 23) contained six activities which produced a role area mean of 2.08. None of these activities received an exceptionally high rating nor did any receive extremely low ratings although one activity (38) did rate in the area of low importance. This activity was related to letting students use school equipment at home. Apparently principals felt this was the least important activity for teachers to engage in

Table 22.--Principal Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Provider of Instructional Materials and Media"

Activity No.	Activity	Rank in Area	Overall Rank	Mean	SD
28	Maintains an up-to-date supply of texts, bulletins and magazines for student use.	1	6	2.52	0.63
34	Maintains a curriculum file, open to the students, of articles, bulletins, study guides, newsletters, and charts.	2	20	2.29	0.76
30	Locates instructional materials for student use when it is not available through the school library.	3	41	2.05	0.75
29	Prepares instructional materials needed by individual students.	3	41	2.05	0.75
31	Assists students in preparation of instructional materials for their own use.	5	45	1.96	0.75
33	Arranges for students to secure the use of tapes, movies, slides, transparencies, and other audio-visual materials for their study programs.	6	53	1.84	0.82
32	Instructs students in how to operate audio-visual equipment for independent or small group study. i.e. tape recorders, slide projectors, movie projectors, overhead projectors.	7	57	1.60	0.91
35	Makes available facilities and assistance whereby students can duplicate work for distribution, photograph projects or events, and print pictures.	8	60	1.52	0.93
	Average Mean of Role Area			1.97	

Mean based on scale of 0-1-2-3.
N = 130

Table 23.--Principal Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Arranger of Instructional Facilities"

Activity No.	Activity	Rank in Area	Overall Rank	Mean	SD
37	Makes available laboratory space for individuals and/or teams to carry out projects.	1	16	2.33	0.71
36	Modifies classroom seating to accommodate groups or other variations in class arrangement.	2	29	2.16	0.83
39	Arranges for students to conduct away from school study, i.e. visitations, interviews, observations, i.e. undertaken away from school.	3	34	2.13	0.82
41	Arranges simulated work experience situations for students who cannot be placed in real work situations. i.e. shop experiences, land laboratories, etc.	4	36	2.11	0.76
40	Arranges with the parent, the business or the industry the proper facilities for a student to obtain work experience.	5	38	2.08	0.92
38	Arranges for students to use selected school equipment at home and away from the school for educational purposes. i.e. shop equipment, special gools and apparatus.	6	55	1.73	0.89
	Average Mean of Role Area			2.08	

Mean based on scale of 0-1-2-3.
N = 130

of the six included in the role area. Principals rated the remaining activities in the role area (37, 36, 39, 41 and 40) near the mean for all individualized activities (2.13).

Principals tended to rate the activities in the teacher role area of "provider of large group instruction and experiences" (Table 24) as being of average or less than average importance. The mean for this role area was 1.91 compared to the mean for all activities of 2.13. Only two activities (46 and 42) were slightly above this mean for all activities while the remaining three (45, 43 and 44) were considerably below it. The highest ranking activity (46) in the role area was concerned with designing group instruction which would lead to independent study and the lowest ranked activity (44) was directed at the use of large groups for collection of data and dissemination of information.

The relative importance of individualized instruction activities in the teacher role area of "provider of small group instruction and experience" (Table 25) is illustrated by the figures which give the priority ratings for five activities in the role area as being above the mean for all activities (2.13) and with only two activities that were below this mean. The role area mean was 2.20 or slightly above the mean for all activities. The top two activities in this role area (48 and 53) were rated in the area of high importance to teachers. The top ranked activity concerned variations in schedules to accommodate small group activities and the second ranked activity referred to accepting the contribution of all students within a group as being worthwhile. The bottom activity in this role area (52) also was rated fairly low over-all by principals. This activity referred to

Table 24.--Principal Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Provider of Large Group Instruction and Experiences"

Activity No.	Activity	Rank in Area	Overall Rank	Mean	SD
46	Designs group instruction so that it ultimately leads to small group and/or independent study activities.	1	25	2.19	0.74
42	Conducts large groups on tours and field trips.	2	29	2.16	0.84
45	Provides large groups with factual course content information of common interest to all.	3	52	1.88	0.86
43	Utilizes large groups as audiences for reports, speeches and presentations of activities developed in small groups or through independent study.	4	54	1.78	0.82
44	Utilizes large group assemblies to collect and disseminate necessary information. i.e. announcements, filling out reports, gathering personal data for records, testing, etc.	5	58	1.58	0.88
	Average Mean of Role Area			1.91	

Mean based on scale of 0-1-2-3.
N = 130

Table 25.—Principal Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Provider of Small Group Instruction and Experiences"

Activity No.	Activity	Rank in Area	Overall Rank	Mean	SD
48	Varies the schedule to accommocate a variety of learning activities. i.e. discussions, projects, inquiries, visits.	1	5	2.55	0.64
53	Accepts contributions from all group participants as being worthwhile.	2	10	2.44	0.73
50	Arranges time at the "opportune moment" for worthwhile activities to take place. i.e. Does not put good ideas for discussion or projects off to some future time.	3	13	2.39	0.77
49	Participates actively in certain small group activities.	4	26	2.18	0.69
47	Orients students to small group learning methods.	5	28	2.17	0.72
51	Removes himself physically from certain small group activities.	6	38	2.08	0.88
52	Reacts within groups as an equal.	7	56	1.63	0.97
	Average Mean of Role Area			2.20	

Mean based on scale of 0-1-2-3.
N = 130

reacting within a group as an equal and apparently principals felt this was not an important part of the teacher's role in the area of "provider of small group instruction and experiences."

The principal ratings for individualized instruction activities in the teacher role area of "supervisor of independent study experience" (Table 26) tended to be slightly above the average for all activities (2.13). The role area mean (2.18) was also above the mean for all activities. The top activity (59) which referred to helping the student accept responsibility for his own learning was ranked fairly high over-all. Three other activities (55, 56 and 54) were above the mean for all 61 activities and these dealt primarily with helping students start an independent study unit. The fifth ranked activity (57) was concerned with helping the student locate materials for independent study. The lowest ranked activity in this role area (58) related to providing a study guide to help students organize his learning activities. This, according to principals, was the least important activity of this role area for teachers to carry out in providing individualized instruction.

The teacher role area of "analyzer of student progress" (Table 27) contained seven individualized instruction activities five of which were above the mean for all activities (2.13). The role area had a mean score of 2.21. The number one activity which related to helping the student understand his achievements was given a fairly high priority rating by principals. No activity received a very low rating and consequently it appears that all activities were thought to be of considerable importance to the teacher role area of "analyzer of student progress."

Table 26.—Principal Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Supervisor of Independent Study Experiences"

Activity No.	Activity	Rank in Area	Overall Rank	Mean	SD
59	Helps student accept responsibility for his own learning.	1	12	2.40	0.76
55	Arranges independent study for individuals as they exhibit the need, interest and maturity for it.	2	14	2.36	0.76
56	Assists student in assessing progress and in planning supporting and/or advanced study programs.	3	26	2.18	0.74
54	Orients students to independent study techniques and tools.	4	29	2.16	0.81
57	Helps student arrange for use of instructional materials, equipment or facilities needed for his study program.	5	37	2.12	0.76
58	Makes available a study guide that helps the student organize his independent learning activities.	6	51	1.89	0.85
	Average Mean of Role Area			2.18	

Mean based on scale of 0-1-2-3.
N = 130

Table 27.--Principal Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Analyzer of Student Progress"

Activity No.	Activity	Rank in Area	Overall Rank	Mean	SD
64	Helps student understand and accept his achievements.	1	10	2.44	0.68
60	Provides relatively frequent assessments of student progress.	2	18	2.31	0.72
61	Measures progress in terms of previously stated performance objectives.	3	22	2.22	0.80
62	Utilizes assessment results to emphasize the student's progress, strengths and accomplishments.	3	22	2.22	0.74
66	Helps student develop an accurate self-appraisal.	3	22	2.22	0.73
65	Assists student in utilizing evaluative data in planning future study programs.	6	35	2.12	0.74
63	Avoids using evaluative results to emphasize a student's inadequacies and shortcomings.	7	46	1.95	0.98
	Average Mean of Role Area			2.21	

Mean based on scale of 0-1-2-3.
N = 130

Table 28.--Principal Ratings and Rank of Individualized Instruction Activities Related to the Teacher Role Area of "Communicator of Information to Significant Others"

Activity No.	Activity	Rank in Area	Overall Rank	Mean	SD
70	Makes the arrangements with school officials for activities not regularly scheduled. i.e. trips, visits, projects, etc.	1	3	2.64	0.66
69	Seeks from school officials the required facilities, equipment and materials needed for learning to take place.	2	4	2.56	0.63
72	Helps parents understand and accept student's achievements.	3	16	2.33	0.80
68	Assists school officials in focusing public attention on students' accomplishments and needs.	4	21	2.25	0.81
67	Relates students' needs for changes in school policies and practices that affect learning to the administration.	5	33	2.15	0.89
71	Arranges evaluative conferences between parents, student, employer and teacher.	6	40	2.07	0.87
	Average Mean of Role Area			2.33	

Mean based on scale of 0-1-2-3.
N = 130

Principals rated the activities in the teacher role area of "communicator of information to significant others" (Table 28) as being fairly important. A role area mean of 2.33 was obtained which was the highest of all role areas reported. The top two ranking activities (70 and 69) in this role area received high priority ratings. These two activities were specifically concerned with seeking approval from school officials for activities and equipment used with the instructional program. The third ranked activity (72) related to helping parents understand the student's achievements while the fourth ranked activity (68) involved focusing public attention on student needs and accomplishments. Relating student needs to the administration (67) was ranked fifth and arranging evaluative conferences with parents, student, employers and others (71) was ranked last in this role area.

Section III: Teacher and Principal Comparisons

Teacher and Principal Differences

Teacher and principal responses were compared to determine if a significant difference existed between teachers' perceptions and principals' expectations for the teacher's role in individualized instruction. The specific objective answered in this portion of the report was number one under teacher and principal comparison. It stated: To compare agriculture teachers' perceptions with principals' expectations regarding individualized instruction activities. The identification of differences in teachers' and principals' perceptions and expectations was accomplished by the use of the one-way analysis of variance test.

The significance level of <0.05 was predetermined as the basis for a significance determination. An F-statistic producing a level of significance of <0.05 was considered to be a significant difference.

The results of the test for significant difference for 61 individualized instruction activities as perceived by teachers and expected by principals indicated that teachers and principals did differ in their response to the individualized instruction questionnaire (Table 29). This difference was significant at <0.01 level. This means that considering all 61 individualized instruction activities at one time teachers and principals tended not to agree on the priority or importance that should be associated with those activities as they related to the teacher's role in individualized instruction. Further explained it means that teachers held a perception of their role in individualized instruction that differed significantly from the expectation that their principals held for this same teaching role.

Areas of Conflict. In addition to identifying the over-all differences between teachers and principals for the 61 individualized instruction activities Table 29 contains figures which represent the mean and over-all ranks of each activity for teachers and principals. It also indicates the standard deviation, F-statistics, and level of significance for each activity. To give some indication of where possible difference between teachers' perceptions and principals' expectations were greatest an inspection of the column labeled level of significance indicates that ten activities (15, 18, 23, 24, 32, 35, 38, 41, 46 and 62) were significant at <0.05 level. Although these ten activities may not have been the only activities that contributed

Table 29.--Mean, Rank, Standard Deviation and Level of Significance For 61 Individualized Instruction Activities as Perceived by Teachers and Expected by Principals

Activity No.	Teacher (n=150) Mean	Rank	Principal (n=130) Mean	Rank	SD	F*	Level of Sig.
12	2.49	8	2.50	7	0.70	0.00	0.93
13	1.86	50	1.95	46	0.85	0.86	0.35
14	1.43	59	1.58	58	0.90	1.87	0.17
15	1.79	52	2.16	29	0.88	12.24	0.0006
16	0.99	61	1.08	61	0.93	0.77	0.38
17	2.00	43	1.90	50	0.90	0.86	0.35
18	2.59	6	2.34	15	0.67	9.71	0.002
19	2.72	1	2.65	2	0.57	1.32	0.25
20	1.79	52	1.91	49	0.81	1.51	0.21
21	2.49	8	2.47	9	0.62	0.05	0.80
22	2.23	23	3.30	19	0.72	0.64	0.42
23	1.74	56	2.05	41	0.79	10.86	0.001
24	1.79	52	2.01	44	0.86	4.58	0.03
25	2.66	2	2.71	1	0.58	0.47	0.49
26	2.62	5	2.48	8	0.68	3.17	0.07
27	2.05	36	1.94	48	0.78	1.44	0.23
28	2.58	7	2.52	6	0.63	0.63	0.42
29	1.89	47	2.05	41	0.75	2.97	0.08
30	2.12	31	2.05	41	0.72	0.50	0.47
31	1.91	46	1.96	45	0.74	0.33	0.56
32	1.85	51	1.60	57	0.96	4.85	0.02
33	1.77	55	1.84	53	0.90	0.41	0.51
34	2.19	25	2.29	20	0.82	1.04	0.30
35	1.28	60	1.52	60	0.97	4.05	0.04
36	2.19	25	2.16	29	0.83	0.06	0.80
37	2.33	15	2.33	16	0.74	0.00	0.96
38	2.03	40	1.73	55	0.91	7.43	0.006
39	2.06	34	2.13	34	0.85	0.52	0.46
40	2.16	29	2.08	38	0.88	0.62	0.42
41	2.29	18	2.11	36	0.76	3.95	0.04
42	2.17	28	2.16	29	0.87	0.00	0.96
43	1.87	49	1.78	54	0.86	0.71	0.39
44	1.63	58	1.58	58	0.97	0.19	0.65

(Continued)

Table 29.—(Continued)

Activity No.	Teacher (n=150) Mean	Rank	Principal (n=130) Mean	Rank	SD	F*	Level of Sig.
45	2.06	34	1.88	52	0.85	3.10	0.07
46	1.99	44	2.19	25	0.81	4.45	0.03
47	2.04	37	2.17	28	0.72	2.06	0.15
48	2.43	13	2.55	5	0.65	2.27	0.13
49	2.04	37	2.18	26	0.82	2.00	0.15
50	2.47	11	2.39	13	0.70	0.82	0.36
51	2.01	42	2.08	38	0.88	0.45	0.50
52	1.74	56	1.63	56	0.97	0.95	0.32
53	2.46	12	2.44	10	0.74	0.06	0.79
54	2.26	20	2.16	29	0.80	0.98	0.32
55	2.32	17	2.36	14	0.74	0.21	0.64
56	2.08	33	2.18	26	0.76	1.23	0.26
57	2.18	27	2.12	37	0.75	0.51	0.47
58	1.89	47	1.89	51	0.83	0.00	0.98
59	2.49	8	2.40	12	2.73	1.00	0.31
60	2.21	24	2.31	18	0.74	1.33	0.24
61	2.16	29	2.22	22	0.77	0.46	0.49
62	2.03	40	2.22	22	0.73	4.79	0.02
63	2.04	37	1.95	46	0.95	0.66	0.41
64	2.40	14	2.44	10	0.66	0.27	0.60
65	1.96	45	2.12	35	0.75	3.20	0.07
66	2.24	22	2.22	22	0.76	0.05	0.81
67	2.29	18	2.15	33	0.83	2.03	0.15
68	2.33	15	2.25	21	0.76	0.91	0.33
69	2.65	3	2.56	4	0.60	1.43	0.23
70	2.63	4	2.64	3	0.64	0.01	0.89
71	2.12	31	2.07	40	0.86	0.20	0.65
72	2.25	21	2.33	16	0.77	0.77	0.38
Ave. $\bar{X}$	2.12		2.13				

Mean based on scale of 0-1-2-3.
*df = 1, 284 N = 286
Overall F = 2.56 Level of Sig. = <0.0001 df = 61, 224

to the over-all difference between teachers and principals they may warrant further investigation as possible causes of difference of opinion between teachers and principals concerning individualized teaching activities.

To further illustrate these possible differences in perceptions and expectations an inspection of the mean for the ten significant activities may indicate the direction of the differences and provide a better understanding of what further study might be expected to reveal. Activity 15 referred to keeping a personal file on the student and was given a mean score of 1.79 by teachers and 2.16 by principals. The consequent rank of the activity by teachers was 52 compared to 29 by principals. On the basis of mean scores this might be interpreted to mean that principals held this activity to be more important than teachers. Activity 18 was concerned with observing the student to identify his characteristics. The teacher mean score was 2.59 which ranked it 6th compared to the principal mean score of 2.34 for a rank of 15th. In this case on the basis of mean score it might be expected upon further study that teachers would rate this activity as more important than principals would. Activities 23 and 24 were both rated higher in importance by principals than by teachers. Mean scores of 2.05 and 2.01 respectively for principals and 1.74 and 1.79 for teachers indicated the possibility of major differences of opinion on this aspect of teacher role. Activity 23 referred to developing cooperatively with students the goals of instruction and 24 was related to providing study guides for students. Activity 32, instructing student in the use of audio-visual equipment, received a mean score of 1.85 by teachers and 1.60 from principals which indicated that this activity

may have been considered more important to teachers than to principals. Activity 35 dealing with providing duplicating equipment for student use received a teacher mean score of 1.28 and a principal mean score of 1.52 which indicated principals considered this activity to be more important than teachers. An indication of the relative importance this activity had in the over-all listing of activities is given by its rank of 60th by teachers and by principals. Activities 38 and 41 tended to be rated higher by teachers than by principals. Teacher mean scores of 2.03 and 2.29 respectively were reported while principal mean scores of 1.73 and 2.11 respectively were given which indicated the direction of differences here is in favor of teachers associating more importance with these activities. Activity 38 was concerned with letting students use school equipment at home and activity 41 referred to setting up simulated work experience for students. The last two significant activities (46 and 62) referred to designing group instruction that would lead to independent study and utilizing assessment results to emphasize a student's progress had mean scores which indicated principals attached more importance to the activity than did teachers. Principal mean scores of 2.19 and 2.22 respectively were reported compared with teacher mean scores of 1.99 and 2.03 respectively.

An inspection of these means indicated only one activity, in which a significant difference occurred, was located above the mean score for teachers and principals while five activities were below the mean score and the remaining four activities differed around the mean score. It appeared that teachers and principals differed more often on lower priority activities than on the higher priority ones.

Once again these activities may not have been the only contributors to the significant differences in priority ratings of principals and teachers, but they may give an indication of what specific kinds of activities lead to differences of opinions between teachers and principals.

Teacher Comparisons

In addition to comparisons between the composite teacher and principal groups several comparisons were made within the teacher and principal groups. This portion of the chapter will deal with the five teacher variables of years of experience, high school enrollments, eleventh and twelfth grade class sizes, total student loads and academic education. The determination of whether or not a significant difference existed within any of these teacher variables was identified by the use of the one-way analysis of variance test with the <0.05 level of significance used to determine when difference existed. In reporting the results of this test the over-all level of significance for all 61 individualized instruction activities was reported and also the level of significance for each of the 61 individualized instruction activities was reported.

Teacher Years of Experience Comparisons. The first objective under teacher comparisons is: To compare inexperienced vocational agriculture teachers' perceptions with experienced teachers' perceptions of their role in individualized instruction. This objective is responded to in the following discussion. Considering all 61 individualized instruction activities at once a significant difference occurred between the response of vocational agriculture teachers with

varying levels of experience (Table 30). The difference was significant at <0.01 level. Interpreting this it means that teachers of different experience levels responded differently to the individualized instruction questionnaire. The teacher experience groups were made up of 35 teachers with less than 3 years experience, 42 teachers with 3-6 years of experience and 79 teachers with more than 6 years of teaching experience for a total of 156 responses. These three groups of teachers were apparently not in agreement over the importance of the total group of individualized instruction activities presented in the questionnaire.

Areas of Conflict. In attempting to delineate some of the areas which may have contributed to the over-all significant difference seven activities (17, 23, 34, 41, 51, 60 and 68) were found significant at <0.05 level. These activities did not account for all the difference but may have been important contributors to this difference and further more they may be areas in which further study would need to be done to isolate the differences. The first four of these activities (17, 23, 34 and 41) appeared to be of more importance to less experienced teachers than to more experienced ones. These activities were concerned with diagnosing how each student learns best (17), developing cooperatively with students the performance goals expected for them (23), maintaining an open curriculum file for student use (34), and arranging for simulated work experience for students when they cannot be placed in real work situations (41). Mean scores for teachers with more than 6 years teaching experience tended to be lower than mean scores for teachers with less than 3 years experience. The middle experience group,

Table 30.--Mean, Rank, Standard Deviation and Level of Significance For 61 Individualized Instruction Activities as Perceived by Teachers With Varying Levels of Experience

Activity No.	Years of Experience <3 (n=35) Mean	Rank	3-6 (n=42) Mean	Rank	>6 (n=79) Mean	Rank	SD	F*	Level of Sig.
12	2.63	7	2.51	8	2.42	10	0.70	1.11	0.33
13	1.91	47	1.78	55	1.86	49	0.85	0.24	0.78
14	1.49	59	1.27	59	1.48	59	0.94	0.78	0.45
15	1.83	50	1.63	58	1.86	49	0.95	0.78	0.45
16	1.00	61	0.85	61	1.04	61	0.95	0.51	0.59
17	2.34	21	1.88	49	1.90	47	0.87	3.63	0.02
18	2.54	13	2.61	6	2.59	5	0.63	0.11	0.89
19	2.74	1	2.71	1	2.72	2	0.55	0.03	0.96
20	1.80	53	1.88	49	1.72	55	0.88	0.43	0.64
21	2.51	15	2.59	7	2.43	9	0.62	0.85	0.42
22	2.46	18	2.15	29	2.16	27	0.71	2.34	0.09
23	1.86	49	1.95	42	1.58	57	0.81	3.20	0.04
24	1.69	56	1.93	43	1.75	54	0.86	0.86	0.42
25	2.69	3	2.68	2	2.63	3	0.61	0.13	0.87
26	2.69	3	2.68	2	2.56	7	0.61	0.82	0.44
27	2.09	36	2.09	35	2.00	39	0.79	0.26	0.77
28	2.66	6	2.51	8	2.59	5	0.63	0.50	0.60
29	1.89	48	1.80	54	1.94	45	0.77	0.39	0.67
30	2.09	36	2.17	26	2.10	30	0.71	0.16	0.84
31	1.74	55	2.10	33	1.89	48	0.74	2.22	0.11
32	1.60	58	1.90	46	1.95	44	1.00	1.51	0.22
33	1.63	57	1.90	46	1.77	53	0.96	0.76	0.46
34	2.49	17	2.17	26	2.06	34	0.85	2.96	0.05
35	1.31	60	1.10	60	1.35	60	1.00	0.91	0.40
36	2.03	41	2.27	22	2.22	19	0.83	0.86	0.42
37	2.20	31	2.41	14	2.34	15	0.76	0.76	0.46
38	1.94	45	1.83	53	2.18	25	0.91	2.16	0.11
39	2.02	43	2.02	38	2.10	30	0.87	0.14	0.86
40	2.14	33	2.37	18	2.05	35	0.84	1.89	0.15
41	2.60	8	2.20	25	2.20	21	0.75	3.85	0.02
42	2.23	28	2.15	29	2.15	28	0.89	0.10	0.90
43	2.00	44	1.88	49	1.82	51	0.90	0.46	0.62
44	1.80	53	1.66	56	1.54	58	1.05	0.72	0.48

(Continued)

Table 30.—(Continued)

Activity No.	Years of Experience <3 (n=35) Mean	Rank	3-6 (n=42) Mean	Rank	>6 (n=79) Mean	Rank	SD	F*	Level of Sig.
45	2.31	24	2.05	36	1.96	41	0.85	2.08	0.12
46	2.09	36	1.93	43	1.99	40	0.86	0.32	0.72
47	2.11	34	1.98	41	2.05	35	0.74	0.33	0.71
48	2.46	18	2.39	16	2.44	8	0.66	0.11	0.89
49	2.03	41	2.24	24	1.94	45	0.90	1.54	0.21
50	2.60	8	2.51	8	2.38	13	0.63	1.61	0.20
51	1.94	45	1.66	56	2.20	21	0.86	5.43	0.005
52	1.83	50	1.88	49	1.63	56	0.97	1.02	0.36
53	2.54	13	2.51	8	2.39	12	0.75	0.61	0.54
54	2.29	26	2.32	19	2.22	19	0.80	0.24	0.78
55	2.51	15	2.27	22	2.27	16	0.73	1.53	0.21
56	2.23	28	2.00	40	2.05	35	0.78	0.89	0.41
57	2.23	28	2.15	29	2.18	25	0.75	0.11	0.89
58	2.09	36	1.90	46	1.80	52	0.83	1.46	0.23
59	2.60	8	2.51	8	2.42	10	0.70	0.85	0.42
60	2.31	24	2.44	13	2.04	38	0.75	4.27	0.01
61	2.26	27	2.15	29	2.13	29	0.76	0.36	0.69
62	2.17	32	2.05	36	1.96	41	0.73	1.00	0.36
63	2.06	40	1.93	43	2.08	33	0.92	0.36	0.69
64	2.57	11	2.32	19	2.38	13	0.63	1.63	0.19
65	1.83	50	2.02	38	1.96	41	0.78	0.60	0.54
66	2.40	20	2.10	33	2.23	17	0.80	1.34	0.26
67	2.34	21	2.39	16	2.23	17	0.79	0.64	0.52
68	2.57	11	2.41	14	2.20	21	0.70	3.62	0.02
69	2.69	3	2.68	2	2.62	4	0.57	0.23	0.79
70	2.74	1	2.66	5	2.57	1	0.62	0.98	0.37
71	2.11	34	2.17	26	2.09	32	0.87	0.11	0.88
72	2.34	21	2.29	21	2.19	24	0.75	0.58	0.56

Mean based on scale of 0-1-2-3.
*df = 2, 153 N = 156
Overall F = 1.713 Level of Sig. = <0.0005 df = 122, 184

3-6 years teaching experience, had mean scores for activities 17, 34 and 41, which were similar to the more experienced group but on activity 23 they were similar to the mean score of the low experience group.

Activity 51 concerning the removal of the teacher from small group activities also appeared to lack convergence of opinion between the teacher groups. Based on mean scores the middle group of teachers, 3-6 years experience, thought this activity to be less important than did low experience teachers, and less important than did high experience teachers. The high experience teachers apparently gave the highest priority rating to this activity of the three groups responding.

Providing relatively frequent assessments of student progress (60) was another activity on which teachers disagreed. Teachers with 3-6 years experience rated this the highest while teachers with less than 3 years experience tended to rate it in this direction and teachers with more than 6 years experience tended to rate it lower in importance than did the other two groups. Activity 68 related to helping school officials focus public attention on the student's accomplishments and needs appeared to be of greater importance to less experienced teachers than it was to more experienced teachers.

An inspection of the mean and resultant rank of these activities by teachers with different levels of experience indicates that four of the seven activities were in the top half of the ranking scale. Of the remaining three only one was totally below the mean for all activities (2.12) while the other two had at least one teacher experience group considerably above the mean. Generally, it can be concluded that disagreement among teachers with varying levels of experience tended to be more often associated with activities that were of considerable importance.

As a supplemental aid in identifying the priority ratings and rank assigned to specific activities by the various teacher experience groups Tables 34, 35 and 36 of Appendix F have the 61 individualized instruction activities ranked in order from high to low for each group. Table 34 contains the priority ratings and rank for the 61 activities as perceived by teachers with less than 3 years teaching experience. Table 35 contains the priority ratings and rank for these activities as perceived by teachers with 3-6 years experience and Table 36 includes the figures on priority ratings and rank as perceived by teachers with more than 6 years experience. Years of teaching experience appeared to be an important factor which may have influenced the teacher in his interpretation of how he perceived his role in individualized instruction.

High School Enrollment Comparisons. The second objective under teacher comparisons was to compare perceptions of vocational agriculture teachers from schools with small enrollments with perceptions of vocational agriculture teachers from schools with large enrollments in regard to their role in individualized instruction. Three different groups of teachers were identified in this comparison. Teachers from schools with less than 301 students in grades nine through twelve were in group one or small schools. Teachers from schools with enrollments of 301-600 were in group two or middle-sized schools and teachers from schools with student bodies of over 600 students were in group three or large schools. On the basis of the one-way analysis of variance test for significant difference no difference in response was identified between any of the groups of teachers representing the various school

sizes. Table 37 Appendix F contains data which identifies the mean for each group, the standard deviation, the F-statistic and the level of significance for each activity as well as the over-all statistics for all 61 individualized instruction activities. The size of the high school apparently did not affect the teachers' perceptions of their role in individualized instruction, thus the number of students which attended any one school appeared not to be a determining factor in the teacher's role perception.

Class Size Comparisons. The third objective under teacher comparisons was to compare perceptions of vocational agriculture teachers who have small classes with perceptions of vocational agriculture teachers who have large classes in regard to their role in individualized instruction. Four teacher groups based on the average class size of their eleventh and twelfth grade classes were designated for this comparison. Twenty-two teachers taught classes of less than 13 students and 61 teachers taught classes of 13-18 students. In the larger class sizes there were 54 teachers with classes of 19-24 students and 19 teachers who taught over 24 students in their eleventh and twelfth grade classes.

On the basis of the one-way analysis of variance statistical test for significant difference between these groups of teachers it was found that a difference did exist and was significant at <0.02 level (Table 31). Apparently teachers who worked with different size classes at the eleventh and twelfth grade level had divergent perceptions of their role in individualized instruction.

Areas of Conflict. To further isolate some of these differences and to point out some possible areas where a more detailed study might

Table 31.--Mean, Rank, Standard Deviation and Level of Significance For 61 Individualized Instruction Activities as Perceived By Teachers With Varying Eleventh and Twelfth Grade Class Sizes

Activity No.	Average Class Size <13 (n=22) Mean	Rank	13-18 (n=61) Mean	Rank	19-24 (n=54) Mean	Rank	>24 (n=19) Mean	Rank	SD	F*	Level of Sig.
12	2.09	28	2.62	6	2.50	8	2.53	8	0.69	3.13	0.02
13	1.64	51	1.83	52	1.94	49	1.89	40	0.85	0.70	0.55
14	1.27	59	1.35	59	1.61	59	1.32	60	0.93	1.11	0.34
15	1.45	57	1.82	53	2.02	43	1.47	57	0.94	2.71	0.04
16	0.55	61	1.10	61	1.00	61	1.05	61	0.94	1.93	0.12
17	2.05	31	2.07	35	2.00	47	1.68	53	0.88	0.93	0.42
18	2.55	7	2.70	4	2.52	7	2.47	10	0.63	1.08	0.35
19	2.77	1	2.78	1	2.65	2	2.68	2	0.55	0.65	0.58
20	1.73	45	1.87	50	1.80	55	1.53	55	0.87	0.75	0.52
21	2.55	7	2.47	14	2.43	11	2.68	2	0.62	0.87	0.45
22	2.23	23	2.32	20	2.19	32	2.05	34	0.72	0.72	0.53
23	1.55	54	1.92	49	1.63	58	1.74	49	0.82	1.65	0.19
24	1.36	58	1.93	48	1.78	56	1.79	46	0.85	2.40	0.06
25	2.68	2	2.75	3	2.57	4	2.58	5	0.60	0.91	0.43
26	2.41	12	2.78	1	2.56	6	2.53	8	0.60	2.69	0.04
27	1.77	42	2.00	41	2.19	32	2.11	26	0.78	1.54	0.20
28	2.59	4	2.58	8	2.47	4	2.63	4	0.63	0.03	0.98
29	1.86	39	1.78	55	2.02	43	1.89	40	0.77	0.89	0.44
30	1.91	37	2.08	33	2.20	29	2.21	19	0.71	1.04	0.37
31	1.73	45	2.03	39	1.81	54	2.00	35	0.74	1.36	0.25
32	1.59	53	1.87	50	2.06	40	1.58	54	1.00	1.71	0.16
33	1.64	51	1.72	56	1.91	51	1.74	49	0.96	0.56	0.63
34	2.32	16	2.15	30	2.20	29	2.11	26	0.87	0.26	0.85
35	1.14	60	1.15	60	1.43	60	1.42	58	1.00	0.99	0.39
36	2.00	34	2.25	23	2.31	19	1.84	45	0.82	2.01	0.11
37	2.36	15	2.27	21	2.37	15	2.37	15	0.77	0.21	0.88
38	2.32	16	1.95	47	1.87	52	2.42	12	0.90	2.62	0.05
39	1.68	49	1.98	44	2.20	29	2.37	15	0.85	2.91	0.03
40	1.73	45	2.23	25	2.23	25	1.89	40	0.82	3.61	0.01
41	2.41	12	2.25	23	2.33	17	2.16	22	0.76	0.47	0.70

(Continued)

Table 31.--(Continued)

Activity No.	Average Class Size: ≤13 (n=22) Mean	Rank	13-18 (n=61) Mean	Rank	19-24 (n=54) Mean	Rank	>24 (n=19) Mean	Rank	SD	F*	Level of Sig.
42	2.09	28	2.17	27	2.17	36	2.26	17	0.89	0.12	0.94
43	1.50	56	1.82	53	2.15	37	1.74	49	0.88	3.30	0.02
44	1.55	54	1.52	58	1.83	53	1.53	55	1.05	1.00	0.39
45	1.77	42	2.00	41	2.22	26	2.16	22	0.85	1.66	0.17
46	1.73	45	2.00	41	2.06	40	2.11	26	0.85	0.91	0.43
47	1.86	39	2.07	35	2.19	32	1.79	46	0.73	1.88	0.13
48	2.59	4	2.42	15	2.39	12	2.42	12	0.66	0.50	0.68
49	1.95	36	2.07	35	2.02	43	2.11	26	0.91	0.12	0.94
50	2.32	16	2.48	12	2.46	10	2.58	5	0.63	0.60	0.61
51	1.77	42	2.05	38	2.06	40	1.95	37	0.89	0.62	0.59
52	1.91	37	1.65	57	1.76	57	1.79	46	0.98	0.40	0.74
53	2.41	12	2.52	10	2.50	8	2.21	19	0.75	0.87	0.45
54	2.14	26	2.33	18	2.26	21	2.16	22	0.80	0.44	0.72
55	2.45	11	2.33	18	2.33	17	2.11	26	0.73	0.78	0.50
56	2.14	26	2.17	27	2.02	43	1.89	40	0.78	0.73	0.53
57	2.23	23	2.22	26	2.19	32	2.00	35	0.75	0.43	0.72
58	1.86	39	1.97	45	2.00	47	1.37	59	0.81	3.08	0.02
59	2.55	7	2.52	10	2.39	12	2.58	5	0.70	0.53	0.65
60	2.05	31	2.67	5	2.22	26	2.16	22	0.77	0.47	0.70
61	2.27	19	2.13	31	2.24	22	1.89	40	0.75	1.16	0.32
62	2.00	34	1.97	45	2.09	38	2.11	26	0.73	0.35	0.78
63	2.09	28	2.12	32	1.94	49	1.95	37	0.92	0.40	0.74
64	2.55	7	2.40	16	2.35	16	2.42	12	0.64	0.47	0.70
65	1.68	49	2.02	40	2.09	38	1.74	49	0.76	2.16	0.09
66	2.18	25	2.27	21	2.22	26	2.21	19	0.81	0.07	0.97
67	2.27	19	2.35	17	2.31	19	2.11	26	0.79	0.47	0.70
68	2.27	19	2.48	12	2.24	22	2.26	17	0.71	1.29	0.27
69	2.59	4	2.67	5	2.63	3	2.74	1	0.58	0.25	0.85
70	2.64	3	2.58	8	2.74	1	2.47	10	0.62	1.07	0.36
71	2.05	31	2.08	33	2.24	22	1.95	37	0.87	0.68	0.56
72	2.27	19	2.17	27	2.39	12	2.11	26	0.75	1.10	0.35

Mean based on scale of 0-1-2-3.
*df = 3, 152 N = 156
Overall F = 1.293 Level of Sig. = <0.02 df = 183, 273

be focused to identify the specific differences there were eight activities (12, 15, 26, 38, 39, 40, 43 and 58) that were significant at <0.05 level. A complete breakdown of these eight activities and the other 53 is presented in Table 31. Included in Table 31 are the mean and rank for each activity for each teacher group and the standard deviation, the F-statistic and level of significance for each of the 61 activities.

The first two (12 and 15) of the eight significant activities were in the role area of "analyzer of individual differences." The first dealt with holding individual conferences with students while the second was concerned with keeping a personal file on each student. On activity 12 the mean score tends to show that teachers with less than 13 students in class rated this activity to be of lesser importance than did teachers of the larger three class sizes. For activity 15 teachers with less than 13 students and those with more than 24 tended to rate the activity low while the middle two groups rated the activity considerably higher. Activity 26 concerning out-of-school study arrangements was rated highest by teachers with class sizes of 13-18 students and lowest by teachers of less than 13 students. The next three activities (38, 39 and 40) were located in the teacher role area of "arranger of instructional facilities." They in turn were concerned with arranging for students to use school equipment at home (38), arranging for students to conduct away-from-school activities (39), and arranging facilities for work experience for students (40). On the basis of mean scores it appeared that teachers of small classes, less than 13 students, and teachers of large classes, over 24 students, were most in favor of activity 38. Activity 39 tended to be more important for teachers who had large

classes than it did for those who had smaller classes and activity 40 appeared on the basis of mean scores to be most important for teachers of medium sized classes, 13-18 students and 19-24 students.

Activity 43 apparently caused some divergence of opinion as did activity 58. The first was concerned with utilizing large groups for certain purposes while the latter pertained to providing a study guide to the student for independent study. The mean score for activity 43 tended to indicate teachers of small classes considered the activity least important while teachers of classes from 19-24 students rated it higher than any other group. Activity 58 received a low rating from teachers with classes over 24 students and a somewhat higher rating from the other three groups.

The apparent disagreements over the priorities that should be given to certain individualized instruction activities by teachers of various class sizes were primarily over activities of medium importance. In two cases a high-rated activity was disputed and in two cases low-rated activities were disputed. Also a slight tendency developed for teachers of larger classes to rate the disputed activities higher than did teachers of smaller classes. In view of these disagreements and the possibility of others it is probable that class size was an important factor in teachers' perceptions of their role in individualized instruction.

As further clarification of the rank order of the 61 individualized instruction activities for each teacher group based on class size, Tables 38, 39, 40 and 41 are presented in Appendix F. Table 38 contains the priority ratings and rank from high to low of the 61 individualized instruction activities as perceived by teachers with eleventh and twelfth

grade class sizes of less than 13 students. Table 39 contains this data for teachers with class sizes of 13-18 students, Table 40 includes the data for class sizes of 19-24 students and Table 41 incorporates the priority ratings and rank order of the individualized instruction activities as perceived by teachers with eleventh and twelfth grade class sizes of more than 24 students.

Student Load Comparisons. Teacher comparison number four had as its major objective to compare perceptions of vocational agriculture teachers who have small student loads with perceptions of vocational agriculture teachers who have large student loads in regard to their role in individualized instruction. In this particular comparison the teachers were grouped on the basis of total student load per day which included vocational agriculture as well as non-vocational agriculture students. Sixty four teachers had small student loads or less than 76 students. A total of 70 teachers reported student loads of 76-100 while 17 teachers met with 101-125 students per day. Large student loads of more than 125 students were reported by 5 teachers.

To compare the responses of these teacher groups the one-way analysis of variance test was employed once again. On the basis of this statistical test there was no apparent difference in the response levels of the four groups identified for this test (Table 42, Appendix F). Apparently student load was not an important factor affecting the teachers' perception of their role in individualized instruction. In addition to the over-all statistics for the individualized instruction activities Table 42 contains data which refers to the mean of each activity for each teacher group and also identifies the standard deviation, the F-statistics and the level of significance for each activity.

Academic Education Comparisons. The fifth and last objective under teacher comparisons was stated: To compare perceptions of vocational agriculture teachers who have minimum academic education with those who have higher levels of academic preparation in regard to their role in individualized instruction. For this particular test four groups based on academic preparation were identified among teachers. The first group was comprised of 70 vocational agriculture teachers with the bachelor of science degree. The second group was made up of 31 teachers with the master's degree while a third group of 54 teachers had obtained the master's plus additional credits. A fourth group included 4 teachers who had received the specialist or Ph.D. degree.

The statistical test applied to make the determination of whether or not a significant difference existed in the responses of the teacher groups was the one-way analysis of variance. The results of this test indicated that no significant difference was identifiable between the various groups (Table 43, Appendix F). Again as in the case of student load the academic preparation of teachers appeared not to be related to teacher response regarding their perception of the teacher's role in individualized instruction. In addition to this over-all test statistic, Table 43 contains figures which represent the mean of each activity for each teacher group, the standard deviation, F-statistics and the level of significance for each activity.

Principal Comparisons Tested

The final section of this chapter presents the findings relative to the three principal variables of school size based on enrollments, academic education completed and years of experience in education.

Specifically the three objectives under principal comparisons responded to in this section were: (1) To compare expectations of principals from low enrollment schools with expectations of principals from high enrollment schools in regard to the teacher's role in individualized instruction; (2) To compare expectations of principals who have minimum academic preparation with expectations of principals who have higher academic preparation in regard to the teacher's role in individualized instruction, and (3) To compare expectations of principals who have few years of experience in education with expectations of principals who have considerable experience in education in regard to the teacher's role in individualized instruction. To compare the various levels within each principal variable the one-way analysis of variance statistical test was used and the <0.05 level of significance was established to identify differences. In reporting the data the mean for each activity in each level within the variable was given along with the standard deviation (SD) the F-statistics, and the level of significance for each activity. An over-all F-statistic and level of significance was reported which reflected the difference, if any, when considering all 61 individualized instruction activities at one time. A total of 130 principals responded to each of the activities.

School Size Comparisons. The first principal comparison to be tested had as its major objective to compare expectations of principals from low enrollment schools with the expectations of principals from high enrollment schools in regard to the teacher's role in individualized instruction. There were three levels or groups of principals identified for this test. Twenty-eight principals made up the small school group

which represented schools with less than 301 students in grades 9-12. The medium sized school group contained 59 principals who were from schools which had 301 to 600 students enrolled and there were 43 principals from large schools that had more than 600 students in grades nine through twelve.

The one-way analysis of variance test resulted in an F-statistic that indicated there were no significant differences between the responses of any of the three levels or groups of principals as they were identified for this test (Table 44, Appendix F). Apparently the size of the high school based on student enrollment was not a factor which significantly affected the principals' expectations which they held for the teacher's role in individualized instruction.

Academic Education Comparisons. The principal comparison for academic education had as the main objective to compare expectations of principals who have minimum academic preparation with expectations of principals who have higher academic preparation in regard to the teacher's role in individualized instruction. There were four groups of principals in this comparison, the first of which included 12 individuals who had only the bachelor's degree. The second group was comprised of 36 principals who had obtained the master's degree while a third group represented 77 principals with master's plus credits level of education. The last group included 5 individuals with the specialist or Ph.D. degree.

Based on the results of the one-way analysis of variance test for significance there were no significant differences observed in the responses of any of the four principal groups identified for this test

(Table 45, Appendix F). It appeared that variations in academic preparation of principals were not significant aspects of the principals' expectations which they held for the teacher's role in individualized instruction.

Years of Experience Comparison. The objective for the principal comparison of years of experience was to compare expectations of principals who have few years of experience in education with expectations of principals who have considerable experiences in education in regard to the teacher's role in individualized instruction. Three levels of experience were identified, the first one represented 5 principals who had less than 3 years of educational experience. The second level referred to 15 principals with 3-6 years experience and the third level contained 110 principals with more than 6 years of educational experience (Table 46, Appendix F).

The statistical test involving the use of the one-way analysis of variance test resulted in a determination of no significant difference in the responses of any of the principal experience groups to the individualized instruction activities. This suggests that the years of educational experience of principals did not significantly affect the principals' expectations held for the teacher's role in individualized instruction.

CHAPTER V

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS RELATIVE TO THE TEACHER'S ROLE IN INDIVIDUALIZED INSTRUCTION

The study focused on identifying the priority vocational agriculture teachers and their principals associated with selected activities related to the teacher's role in individualized instruction. From these priority ratings a determination of agreement and disagreement between various groups of vocational agriculture teachers and principals was made for the priority they assigned to the selected individualized instruction activities. The population for the study consisted of the vocational agriculture teachers of Michigan and the principals of the schools where these teachers worked.

Findings

Ratings of Individualized Instruction Activities

The 61 individualized instruction activities were rated by teachers and principals using a scale of 0-1-2-3. Zero equaled low priority or importance and 3 equaled high priority or importance in individualized instruction. The numbers one and two represented something more than zero and something less than three respectively. On the basis of mean scores the activities and role areas were ranked in order of importance for teachers and principals and for significant sub-groups within the two main groups. The important findings of this section are summarized as follows:

1. The teachers' priority ratings for the 61 individualized instruction activities ranged from very high to low on the four point scale.
2. The principals' expectation ratings for the 61 individualized instruction activities ranged from very high to low on the four point scale.
3. Both teachers and principals rated the following nine individualized instruction activities in the top 20 percent based on the priority rating scale. They were 19, 25, 69, 70, 26, 28, 12, 59 and 53. In addition teachers rated activities 18, 21 and 50 in the top 20 percent and principals rated activities 48, 21 and 64 in this group.* (See Table 5, Page 62 for list of teacher rated activities and Table 17, Page 83 for list of principal rated activities)
4. Both teachers and principals rated the following seven individualized instruction activities in the bottom 20 percent based on the priority rating scale. They were 16, 35, 14, 44, 52, 33 and 32. In addition teachers rated activities 23, 20, 15, 24 and 13 in the bottom 20 percent and principals rated activities 38, 43, 45, 58 and 17 in this group.* (See Table 6, Page 64 for list of teacher rated activities and Table 18, Page 85 for list of principal rated activities)
5. Teachers and principals separated the nine role areas into three groups of importance—high, medium and low based on the average means for all activities within the role area. The role area mean is in parentheses.

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*No significant break occurred in the rank order of activities so an arbitrary 20% cutoff level was used.

A. The high importance role area according to teachers and principals was:

1. Communicator of information to significant others.
   (Teacher mean = 2.37, Principal mean = 2.33)

B. The medium importance role areas according to teachers and principals were:

1. Supervisor of independent study and experiences.
   (Teacher mean = 2.20, Principal mean = 2.18)
2. Provider of small group instruction and experiences.
   (Teacher mean = 2.17, Principal mean = 2.20)
3. Arranger of instructional facilities.
   (Teacher mean = 2.17, Principal mean = 2.08)
4. Planner of courses, units and lessons.
   (Teacher mean = 2.17, Principal mean = 2.24)
5. Analyzer of student progress.
   (Teacher mean = 2.14, Principal mean = 2.21)

C. The low importance role areas according to teachers and principals were:

1. Analyzer of individual differences.
   (Teacher mean = 1.98, Principal mean = 2.02)
2. Provider of instructional materials and media.
   (Teacher mean = 1.94, Principal mean = 1.97)
3. Provider of large group instruction and experiences.
   (Teacher mean = 1.94, Principal mean = 1.91)

6. Teachers and principals varied the priority ratings of activities within each role area.

Agreement and Disagreement Over Priority Ratings for Individualized Instruction Activities

A level of 0.05 was established as the significance level for determining disagreement of groups in response to the 61 individualized instruction activities. Failure to achieve a 0.05 level of significance using the one-way analysis of variance statistical test for difference resulted in the assumption that agreement between groups was realized. The important findings relative to agreement and disagreement between groups are summarized as follows.*

1. Teachers and principals differed significantly in their priority ratings of individualized instruction activities when all 61 activities were considered. They also differed significantly on ten separate individualized instruction activities. These were 15, 18, 23, 24, 32, 35, 38, 41, 46 and 62. In six of the ten activities principals indicated a higher priority than did the teachers.
2. Teachers of varying levels of experience differed significantly in their priority ratings for individualized instruction activities when all 61 activities were considered. They also differed significantly on seven activities. These were 17, 23, 34, 41, 51, 60 and 68. No common direction of difference was recognizable between the experience groups.
3. Teachers of various class sizes differed significantly on the priority ratings the various groups assigned to the 61 individualized instruction activities when considering all activities at once. They also differed significantly

*See Appendix C, Page 146 for a description of activities.

on eight separate individualized instruction activities. They were 12, 15, 26, 38, 39, 40, 43 and 58. No common direction of difference was recognizable between the various groups based on class size.

4. Teachers from schools of varying enrollments, with various student loads and with various levels of academic education were in agreement concerning the priority ratings assigned to 61 individualized instruction activities when considering all activities at once.
5. Principals from various school sizes, with various levels of academic education and with various years of experience were in agreement concerning the priority ratings for 61 individualized instruction activities when considering all activities at once.

Conclusions

Conclusions as a result of this study are:

1. The ratings assigned to individualized instruction teacher-role activities by teachers and principals provide a list of those activities considered most important on down to those of least importance.
2. Teachers and principals, as groups, differed significantly in their views on the importance of individualized instruction activities when the activities were analyzed collectively. This lack of agreement was found primarily in low rated activities.

3. The experience level of teachers based on number of years taught was a significant factor in the determination of priority ratings for individualized instruction activities. Although disagreement occurred no common direction of disagreement was apparent between the low, medium and high experience groups, but they tended to disagree over activities of fairly high importance to teachers.
4. The size of class taught by the teachers was a significant factor in the determination of the priority ratings for individualized instruction activities. Although disagreement occurred no common direction of disagreement was apparent between the four groups of teachers based on class size and disagreement tended to be spread out over a range of activities.
5. The enrollment of the high school, the student load of the teacher, and the level of academic preparation of teachers were not significant factors in the priority ratings assigned to individualized instruction activities by teachers.
6. The enrollment of the high school, the academic education of principals and the years of experience of principals were not significant factors in the assigning of priority ratings to individualized instruction activities by principals.

Generalizations From Study

Generalization of the findings and conclusions presented here to other areas of vocational education should be considered only after considerations are made for the nature of the new population and the nature

of the instructional role which is generalized. If similarities of these two considerations exist then the results may be useful to formulate ideas for understanding these areas and to develop further study. The selection of individualized instruction activities from the literature was on their importance as an individualized teaching activity and they were not selected from any one field or area of teaching. The literature reviewed and reported also reflected the general area of instruction rather than being confined to specific subject or program fields. As a result of this, the instrument may be applicable to other areas of instruction and the activities may also be common to other or all areas of instruction.

Recommendations

The suggested uses of the study as described in Chapter I have been more definitely established. They were to:

1. Provide educators with information on teachers' priorities for individualized instruction.
2. Provide educators with information on principals' priorities for individualized instruction.
3. Provide educators with a "bench mark" in time to indicate the present level of perceptions and the level of expectations for utilizing individualized instruction techniques.
4. Provide teacher educators with a basis for making a determination as to the content of a teacher education program that emphasizes the individualized instruction approach.
5. Provide an instrument to interpret teachers' perceptions

and principals' expectations in regard to the teachers' responsibility concerning individualized instruction.

Additional Recommendations for Use of the Findings

In reference to the above predetermined uses and in light of additional understandings gained from the research it is recommended that:

1. Teacher educators interested in developing individualized instruction in vocational agriculture use the priority ratings assigned to various individualized instruction activities by vocational agriculture teachers and their principals and by the various subgroups as a basis for identifying present teacher understandings of individualized instruction. The use of these data will help teacher educators develop a realistic understanding of the level of acceptance by vocational agriculture teachers and their principals of individualized instruction.
2. Teacher in-service education programs developed to improve the vocational agriculture teachers' capabilities in individualized instruction should be organized so that appropriate emphasis is given to both high and low priority individualized instruction activities.
3. Since certain low rated activities may be essential to the successful development of individualized instruction it is recommended that teacher in-service education programs in the area of individualized instruction attempt to change teacher attitude toward incorporation of these activities into the program.

Recommendations for Further Study

It is recommended that:

1. Areas of disagreement between various groups be further explored to determine the extent, the direction and the relationship they may have to each other.
2. The instrument used in the study be changed to include a scale range of more than four divisions for future studies since the standard deviation for each activity indicated a possible topping-out effect for high-ranked activities.
3. Although the activities were selected as being important from the literature and the jury of experts agreed, a further study is needed to redefine and identify the total number of individualized instruction activities that are important parts of the teacher role.
4. A study should be undertaken to identify the relative importance of the individualized instruction activities as viewed by experts in the field of individualized instruction.
5. Studies should be undertaken in other areas besides agricultural education to determine the teacher's role for all instructional fields in connection with individualized instruction.
6. A study should be conducted with teachers who have been involved in teaching and working with individualized instruction to identify their perceptions of individualized instruction activities and then compare these perceptions to those identified in this study.

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APPENDICES

APPENDIX A

JURY MEMBERS

Jury Members

Dr. Raymond Clark
Professor of Education
Michigan State University
East Lansing, Michigan 48823

Mr. Russell G. Merrell, Director
Western States Small Schools Project
Salt Lake City, Utah 84111

Mr. Edwin P. Hildebrand, Director
Western States Small Schools Project in Colorado
State Department of Education
535 State Office Building
Denver, Colorado 80203

Dr. C. M. Lindvall
Professor of Education
Learning Research and Development Center
University of Pittsburgh
Pittsburgh, Pennsylvania 15213

Mr. Kenneth Lindsay
Title III Coordinator
Utah State Board of Education
1400 University Club Building
Salt Lake City, Utah 84111

Dr. Patricia Cianciola
Associate Professor of Education
Michigan State University
East Lansing, Michigan 48823

APPENDIX B

LETTER OF INSTRUCTIONS TO JURY

Michigan State University
East Lansing, Michigan 48823
July 23, 1969

Dear

Enclosed is a copy of the individualized instruction questionnaire which you have agreed to evaluate. Also enclosed is a stamped self-addressed envelope for your convenience in returning the evaluation.

The purpose of your evaluation should be to determine if the statements presented in the questionnaire are actually the activities that make up the role of the teacher in individualizing instruction. Specifically your evaluation should concern itself with:

1. The appropriateness of the activity in individualizing instruction.
2. The clarity of the statements.
3. The assignment of each activity to the main category. (Nine categories are identified with several activities in each)
4. The addition or deletion of any activities from the list presented.

Part I of the questionnaire concerns itself with background data and you need not evaluate this. Part II contains the 68 statements of activities which I wish to have evaluated. It is perfectly acceptable to do any note writing or commenting on the questionnaire or if you prefer, any other convenient method is acceptable. I would like to make one other request and that is to fill out the attached sheet concerning the biographical data on yourself for my information and also to assure you proper credit in reporting the results of this study.

I greatly appreciate your willingness to evaluate this questionnaire and look forward to your comments and suggestions for improvement.

Sincerely,

Roger Lambert
301K Erickson Hall
Agricultural Education

RL:lcl

Enc.

APPENDIX C

QUESTIONNAIRE

INDIVIDUALIZED INSTRUCTION QUESTIONNAIRE

Instructions for Completion of Questionnaire.

The questionnaire is designed to establish the priority that teacher activities related to individualized instruction should be given when using the individualized instructional method of teaching.

Respond to every item regardless of whether or not it is currently incorporated into your school's instructional program. The response scale is described below.

Mark the blank (0-1-2-3) on the answer sheet that indicates the priority you associate with each activity. Assume each activity may apply to any grade level of high school vocational agriculture instruction.

Low Priority

0. A teaching activity you believe to be a "low priority item". i.e. It has questionable value and/or importance in individualizing instruction.

1. A teaching activity you believe to be above 0 in priority but is closer to 0 than to 3.

2. A teaching activity you believe to be below No. 3 in priority but is closer to 3 than to 0.

High Priority

3. A teaching activity you believe to be a "high priority item". i.e. It is of the highest value and/or most importance in individualizing instruction.

Nine selected teacher role areas are suggested for individualizing instruction.

1. Analyzer of individual differences.
2. Planner of courses, units and lessons.
3. Provider of instructional material and media.
4. Arranger of instructional facilities.
5. Provider of large group instruction and experiences.
6. Provider of small group instruction and experiences.
7. Supervisor of independent study experiences.
8. Analyzer of student progress.
9. Communicator of information to significant others.

Each role area has several activities listed under it which may contribute to the fulfillment of that role. Please consider the role area that the activity is associated with when making your priority rating.

Sample Entry.	Low Priority			High Priority
1. Provider of Community Services:				
1. Allows student to work on community projects during class.	0	1	2	3
2. Stresses community service in lectures.	0	1	2	3
3. Frees students from school for community projects.	0	1	2	3
4. Arranges for small groups to study community needs.	0	1	2	3

Use a No. 2 (soft lead) pencil.

Part I. Background Data. PUT ALL ANSWERS ON ANSWER SHEET. Answers 1-4 are already completed for data processing.

5. Total school enrollment in grades 9-12: (0) up to 300, (1) 301-600, (2) 601 or more
6. Number of daytime vocational agriculture students per instructor: (0) 36 or less, (1) 37-70, (2) More than 70
7. Average class size for 11th and 12th grade vocational agriculture classes: (0) 12 or less, (1) 13-18, (2) 19-24, (3) 25 or more
8. Total average student load for vocational agriculture instructor: (0) 75 or less, (1) 76-100, (2) 101-125, (3) 126 or more
9. Percent of time vocational agriculture instructor spends in agricultural instruction: (0) 50% or less, (1) 51-75%, (2) 76-99%, (3) 100%
10. Your highest academic degree completed: (0) B.S., (1) M.S., (2) M.S. plus credits, (3) specialist or doctorate
11. Your total years of experience in education: (0) 2 or less, (1) 3-6, (2) 7 or more

Part II. Teacher Activities Rating Scale	Low Priority			High Priority
Analyzer of Individual Differences.				
12. Holds individual conferences with students to discuss problems, past achievements, and plans.	0	1	2	3
13. Seeks clues from cumulative records, test scores, and past achievement that will provide help in identifying student's characteristics and needs.	0	1	2	3

	Low Priority			High Priority
14. Collects autobiographies, anecdotal records, and other information from students to help assess their differences.	0	1	2	3
15. Keeps a personal file on each student's achievements, actions, interests, and problems.	0	1	2	3
16. Uses placement tests to determine the appropriate levels of entrance into courses for each student.	0	1	2	3
17. Diagnoses how each student learns best.	0	1	2	3
18. Observes student's actions in class, in small groups, and in independent work to help identify his characteristics.	0	1	2	3
19. Discusses career goals with individual students.	0	1	2	3
Planner of Courses, Units and Lessons.				
20. Develops course materials cooperatively with students.	0	1	2	3
21. Incorporates various kinds of learning activities into courses to accommodate different learning styles.	0	1	2	3
22. Allows for different rates of learning in developing course materials.	0	1	2	3
23. Develops cooperatively with students the performance goals and outcomes expected for them from the course or units.	0	1	2	3
24. Provides study guides that lead the student from one learning experience to another.	0	1	2	3
25. Incorporates laboratory activities that complement the classroom work.	0	1	2	3
26. Incorporates out-of-school learning experiences into a student's study program. i.e. work experience, job placement, visitations, etc.	0	1	2	3
27. Designs curriculum to allow for self-instruction.	0	1	2	3
Provider of Instructional Materials and Media.				
28. Maintains an up-to-date supply of texts, bulletins and magazines for student use.	0	1	2	3
29. Prepares instructional materials needed by individual students.	0	1	2	3

	Low Priority			High Priority
30. Locates instructional material for student use when it is not available through the school library.	0	1	2	3
31. Assists students in preparation of instructional material for their own use.	0	1	2	3
32. Instructs students in how to operate audio-visual equipment for independent or small group study. i.e. tape recorders, slide projectors, movie projectors, overhead projectors.	0	1	2	3
33. Arranges for students to secure the use of tapes, movies, slides, transparencies, and other audio-visual materials for their study programs.	0	1	2	3
34. Maintains a curriculum file, open to the students of articles, bulletins, study guides, newsletters, and charts.	0	1	2	3
35. Makes available facilities and assistance whereby students can duplicate work for distribution, photograph projects or events, and print pictures.	0	1	2	3
<u>Arranger of Instructional Facilities</u>.				
36. Modifies classroom seating to accommodate groups or other variations in class arrangement.	0	1	2	3
37. Makes available laboratory space for individuals and/or teams to carry out projects.	0	1	2	3
38. Arranges for students to use selected school equipment at home and away from the school for educational purposes. i.e. shop equipment, special tools and apparatus.	0	1	2	3
39. Arranges for students to conduct away from school study, i.e. visitations, interviews, observations, etc. undertaken away from school.	0	1	2	3
40. Arranges with the parent, the business or the industry the proper facilities for a student to obtain work experience.	0	1	2	3
41. Arranges simulated work experience situations for students who cannot be placed in real work situations. i.e. shop experiences, land laboratories, etc.	0	1	2	3
<u>Provider of Large Group Instruction and Experiences</u>.				
42. Conducts large groups on tours and field trips.	0	1	2	3

	Low Priority			High Priority
43. Utilizes large groups as audiences for reports, speeches and presentations of activities developed in small groups or through independent study.	0	1	2	3
44. Utilizes large group assemblies to collect and disseminate necessary information. i.e. announcements, filling out reports, gathering personal data for records, testing, etc.	0	1	2	3
45. Provides large groups with factual course content information of common interest to all.	0	1	2	3
46. Designs group instruction so that it ultimately leads to small group and/or independent study activities.	0	1	2	3
Provider of Small Group Instruction and Experiences.				
47. Orients students to small group learning methods.	0	1	2	3
48. Varies the schedule to accommodate a variety of of learning activities. i.e. discussions, projects, inquiries, visits.	0	1	2	3
49. Participates actively in certain small group activities.	0	1	2	3
50. Arranges time at the "opportune moment" for worthwhile activities to take place. i.e. Does not put good ideas for discussion or projects off to some future time.	0	1	2	3
51. Removes himself physically from certain small group activities.	0	1	2	3
52. Reacts within groups as an equal.	0	1	2	3
53. Accepts contributions from all group participants as being worthwhile.	0	1	2	3
Supervisor of Independent Study Experiences.				
54. Orients students to independent study techniques and tools.	0	1	2	3
55. Arranges independent study for individuals as they exhibit the need, interest and maturity for it.	0	1	2	3
56. Assists student in assessing progress and in planning supporting and/or advanced study programs.	0	1	2	3

	Low Priority			High Priority
57. Helps student arrange for use of instructional materials, equipment or facilities needed for his study program.	0	1	2	3
58. Makes available a study guide that helps the student organize his independent learning activities.	0	1	2	3
59. Helps student accept responsibility for his own learning.	0	1	2	3
Analyzer of Student Progress.				
60. Provides relatively frequent assessments of student progress.	0	1	2	3
61. Measures progress in terms of previously stated performance objectives.	0	1	2	3
62. Utilizes assessment results to emphasize the student's progress, strengths and accomplishments.	0	1	2	3
63. Avoids using evaluative results to emphasize a student's inadequacies and shortcomings.	0	1	2	3
64. Helps student understand and accept his achievements.	0	1	2	3
65. Assists student in utilizing evaluative data in planning future study programs.	0	1	2	3
66. Helps student develop an accurate self-appraisal.	0	1	2	3
Communicator of Information to Significant Others.				
67. Relates students' needs for changes in school policies and practices that affect learning to the administration.	0	1	2	3
68. Assists school officials in focusing public attention on students' accomplishments and needs.	0	1	2	3
69. Seeks from school officials the required facilities, equipment and materials needed for learning to take place.	0	1	2	3
70. Makes the arrangements with school officials for activities not regularly scheduled. i.e. trips, visits, projects, etc.	0	1	2	3
71. Arranges evaluative conferences between parents, student, employer and teacher.	0	1	2	3
72. Helps parents understand and accept student's achievements.	0	1	2	3

APPENDIX D

COVER LETTERS

Michigan State University
East Lansing, Michigan 48823
September 22, 1969

Dear Fellow Agricultural Educator:

Interest and work in helping vocational agriculture teachers to individualize their instruction is currently an important consideration of the agricultural education staff at Michigan State University. As an outgrowth of individualized instruction projects by Dr. Raymond Clark and Dr. O. Donald Meaders I have developed a supplemental study designed to identify the teacher role in individualizing instruction. The data collected from this study will be used for my dissertation and for future planning and development of in-service education programs for vocational agriculture teachers in Michigan.

I am asking your cooperation and approximately twenty minutes of your time to complete the enclosed questionnaire. Your principal will receive a similar questionnaire in order to facilitate a comparison of teacher responses with those of principals in the state of Michigan. Responses from all individuals and schools will be kept confidential. No school or individual will be identified in the reporting of the data nor will any direct comparisons be made of individuals from any particular school.

A stamped self-addressed envelope is enclosed for your convenience in returning the completed questionnaire. Please put all answers on the enclosed data processing score sheet, using a number 2 (soft lead) pencil to mark the blanks. Answers 1-4 are already filled in; these are identification numbers for data processing and computer analysis. The directions for completing the questionnaire are on the following page.

Your time and thought in answering this questionnaire will be greatly appreciated.

Sincerely,

Roger Lambert
Agricultural Education

RL:lcl

Enc.

P.S. Please return only the score sheet in the stamped envelope provided.

Michigan State University
East Lansing, Michigan 48823
September 22, 1969

Dear Fellow Educator:

Interest and work in helping vocational agriculture teachers to individualize their instruction is currently an important consideration of the agricultural education staff at Michigan State University. As an outgrowth of individualized instruction projects by Dr. Raymond Clark and Dr. O. Donald Meaders I have developed a supplemental study designed to identify the teacher role in individualizing instruction. The data collected from this study will be used for my dissertation and for future planning and development of in-service education programs for vocational agriculture teachers in Michigan.

I am asking your cooperation and approximately twenty minutes of your time to complete the enclosed questionnaire. Your vocational agriculture instructor will receive a similar questionnaire in order to facilitate a comparison of teacher responses with those of principals in the state of Michigan. Responses from all individuals and schools will be kept confidential. No school or individual will be identified in the reporting of the data nor will any direct comparisons be made of individuals from any particular school.

A stamped self-addressed envelope is enclosed for your convenience in returning the completed questionnaire. Please put all answers on the enclosed data processing score sheet, using a number 2 (soft lead) pencil to mark the blanks. Answers 1-4 are already filled in; these are identification numbers for data processing and computer analysis. The directions for completing the questionnaire are on the following page

Your time and thought in answering this questionnaire will be greatly appreciated.

Sincerely,

Roger Lambert
Agricultural Education

RL:lcl

Enc.

P.S. Please return only the score sheet in the stamped envelope provided.

Michigan State University
East Lansing, Michigan 48823
October 31, 1969

Dear Sir:

The Individualized Instruction questionnaire which was mailed to you on September 26 has not been received by our office. Perhaps it has been misplaced and forgotten about in the rush to conduct the everyday activities of the school. Enclosed you will find another questionnaire which I am hopeful you will find time to complete.

As you probably know, this research project is an outgrowth of the Individualized Instruction project by Dr. Raymond Clark which developed individualized instruction units for Michigan Agricultural teachers and a project conducted by Dr. O. Donald Meaders, which involves the training of teachers to use these units effectively. This latter project is an area in which additional information is needed and this is the reason for the survey. Needless to say, you as teachers and principals, are the only people who can provide the kind of answers that are needed in this project.

A stamped self-addressed envelope is enclosed for your convenience in returning the completed questionnaire. Please put all answers on the enclosed data processing score sheet, using a number 2 (soft lead) pencil to mark the blanks. Answers 1-4 are already filled in; these are identification numbers for data processing and computer analysis. The directions for completing the questionnaire are on the following page.

Your time and thought in answering this questionnaire will be greatly appreciated. (It takes about 15-20 minutes to complete.)

Sincerely,

Roger Lambert
Research Assistant
Individualized Instruction Project

RL:jt

Enclosure

P.S. Please return only the score sheet in the stamped envelope provided.

APPENDIX E

REMINDER COMMUNICATIONS

(Reminder Card)

Dear Educator:

Your participation in the Individualized Instruction Project survey is greatly appreciated. Your judgments concerning individualized instruction are essential to planning teacher education programs.

If you have not yet mailed in your response sheet please do so without further delay.

Thank you.

Roger Lambert
Agricultural Education

Michigan State University
East Lansing, Michigan 48823
October 17, 1969

Gentlemen:

I am pleased to inform you of the excellent cooperation received from vocational agriculture teachers and high school principals in regard to the Individualized Instruction Research Project underway at Michigan State University. As of this date over 110 vo-ag instructors and a like number of high school principals have responded to the research questionnaire.

It is hoped the information provided by people like yourself, who are actually on the firing line in education, will result in new and improved teacher in-service programs. These programs, based on information supplied by you, will be designed to up-grade the instructor's knowledge and understanding of how to meet the needs of the individual through individualizing instruction.

I am sure all of you as educators are vitally interested and concerned with the individual and with doing a better job of making education relevant to him. I would like to invite you to make a significant contribution to this end by completing the green research questionnaire on individualized instruction which I mailed to you recently. Only by obtaining results from all participants of this research project can it be hoped that more desirable teacher education can be provided in the area of individualized instruction.

Your contribution to this research project is important and is greatly appreciated by those of us in teacher education.

Sincerely,

Roger Lambert
Assistant Director
Individualized Instruction Project

RL:jt

P.S. If you have replaced the individual the questionnaire was addressed to, please feel free to fill it out in his absence.

Michigan State University
East Lansing, Michigan 48823
November 5, 1969

Dear Educator:

I am very pleased to inform you that nearly 80% of the vocational agriculture teachers and principals in Michigan have responded to the individualized questionnaire. This is an excellent response and indicates the great interest educators have in improving instruction through greater individualization and attention to student needs.

I would like to encourage you to spend a few minutes to fill out this important and useful questionnaire. I am sure you are aware of the use of this information in improving classroom instruction for Michigan agricultural teachers.

Once again I invite you to become a part of this research endeavor by promptly completing the individualized instruction questionnaire which was mailed to you last week.

Sincerely,

Roger Lambert
Assistant Director
Individualized Instruction Project

P.S. If for some reason you feel you should not complete the questionnaire, please return the blank score sheet with a note to that effect in the return envelope provided.

RL:ag

APPENDIX F

STATISTICAL TABLES

Table 32.--Teacher Ratings and Rank of 61 Individualized Instruction Activities

Activity No.	Mean	Rank	SD	Activity No.	Mean	Rank	SD
19	2.72	1	0.55	30	2.12	31	0.71
25	2.66	2	0.59	71	2.12	31	0.85
69	2.65	3	0.57	56	2.08	33	0.78
70	2.63	4	0.61	39	2.06	34	0.87
26	2.62	5	0.62	45	2.06	34	0.84
18	2.59	6	0.63	27	2.05	36	0.79
28	2.58	7	0.63	63	2.04	37	0.92
12	2.49	8	0.70	47	2.04	37	0.72
21	2.49	8	0.63	49	2.04	37	0.88
59	2.49	8	0.70	62	2.03	40	0.72
50	2.47	11	0.62	38	2.03	40	0.91
53	2.46	12	0.75	51	2.01	42	0.88
48	2.43	13	0.66	17	2.00	43	0.88
64	2.40	14	0.64	46	1.99	44	0.86
37	2.33	15	0.73	65	1.96	45	0.75
68	2.33	15	0.72	31	1.91	46	0.74
55	2.32	17	0.73	58	1.89	47	0.82
67	2.29	18	0.80	29	1.89	47	0.76
41	2.29	18	0.75	43	1.87	49	0.89
54	2.26	20	0.80	13	1.86	50	0.85
72	2.25	21	0.75	32	1.85	51	1.00
66	2.24	22	0.80	24	1.79	52	0.87
22	2.23	23	0.72	15	1.79	52	0.96
60	2.21	24	0.76	20	1.79	52	0.87
34	2.19	25	0.86	33	1.77	55	0.95
36	2.19	25	0.83	52	1.74	56	0.98
57	2.18	27	0.75	23	1.74	56	0.82
42	2.17	28	0.88	44	1.63	58	1.06
40	2.16	29	0.84	14	1.43	59	0.94
61	2.16	29	0.75	35	1.28	60	1.00
				16	0.99	61	0.95

Mean based on scale of 0-1-2-3.
N = 156

Table 33.—Principal Ratings and Rank of 61 Individualized Instruction Activities

Activity No.	Mean	Rank	SD	Activity No.	Mean	Rank	SD
25	2.71	1	0.55	15	2.16	29	0.78
19	2.65	2	0.59	54	2.16	29	0.81
70	2.64	3	0.66	67	2.15	33	0.89
69	2.56	4	0.63	39	2.13	34	0.82
48	2.55	5	0.64	65	2.12	35	0.74
28	2.52	6	0.63	41	2.11	36	0.76
12	2.50	7	0.69	57	2.12	37	0.76
26	2.48	8	0.76	40	2.08	38	0.92
21	2.47	9	0.61	51	2.08	39	0.88
53	2.44	10	0.73	71	2.07	40	0.87
64	2.44	10	0.68	30	2.05	41	0.75
59	2.40	12	0.76	29	2.05	41	0.75
50	2.39	13	0.77	23	2.05	41	0.74
55	2.36	14	0.76	24	2.01	44	0.85
18	2.34	15	0.73	31	1.96	45	0.75
37	2.33	16	0.71	63	1.95	46	0.98
72	2.33	16	0.80	13	1.95	46	0.86
60	2.31	18	0.72	27	1.94	48	0.78
22	2.30	19	0.71	20	1.91	49	0.73
34	2.29	20	0.76	17	1.90	50	0.91
68	2.25	21	0.81	58	1.89	51	0.85
66	2.22	22	0.73	45	1.88	52	0.86
62	2.22	22	0.74	33	1.84	53	0.82
61	2.22	22	0.80	43	1.78	54	0.82
46	2.19	25	0.74	38	1.73	55	0.89
56	2.18	26	0.74	52	1.63	56	0.97
49	2.18	26	0.69	32	1.60	57	0.91
47	2.17	28	0.72	44	1.58	58	0.88
42	2.16	29	0.84	14	1.58	58	0.87
36	2.16	29	0.83	35	1.52	60	0.93
				16	1.08	61	0.91

Mean based on scale of 0-1-2-3.
N = 130

Table 34.--Rank Order and Priority Ratings of 61 Individualized Instruction Activities as Perceived by Teachers With Less Than 3 Years Teaching Experience

Activity No.	Mean	Rank	Activity No.	Mean	Rank
19	2.74	1	37	2.20	31
70	2.74	1	62	2.17	32
25	2.69	3	40	2.14	33
26	2.69	3	47	2.11	34
69	2.69	3	71	2.11	34
28	2.66	6	27	2.09	36
12	2.63	7	30	2.09	36
41	2.60	8	46	2.09	36
50	2.60	8	58	2.09	36
59	2.60	8	63	2.06	40
64	2.57	11	36	2.03	41
68	2.57	11	49	2.03	41
18	2.54	13	39	2.02	43
53	2.54	13	43	2.00	44
21	2.51	15	38	1.94	45
55	2.51	15	51	1.94	45
34	2.49	17	13	1.91	47
22	2.46	18	29	1.89	48
48	2.46	18	23	1.86	49
66	2.40	20	15	1.83	50
17	2.34	21	52	1.83	50
67	2.34	21	65	1.83	50
72	2.34	21	20	1.80	53
45	2.31	24	44	1.80	53
60	2.31	24	31	1.74	55
54	2.29	26	24	1.69	56
61	2.26	27	33	1.63	57
42	2.23	28	32	1.60	58
56	2.23	28	14	1.49	59
57	2.23	28	35	1.31	60
			16	1.00	61

Mean based on scale of 0-1-2-3.
n = 35

Table 35.—Rank Order and Priority Ratings of 61 Individualized Instruction Activities as Perceived by Teachers With 3-6 Years Teaching Experience

Activity No.	Mean	Rank	Activity No.	Mean	Rank
19	2.71	1	57	2.15	29
25	2.68	2	61	2.15	29
26	2.68	2	31	2.10	33
69	2.68	2	66	2.10	33
70	2.66	5	27	2.09	35
18	2.61	6	45	2.05	36
21	2.59	7	62	2.05	36
12	2.51	8	39	2.02	38
53	2.51	8	65	2.02	38
59	2.51	8	56	2.00	40
28	2.51	8	47	1.98	41
50	2.51	8	23	1.95	42
60	2.44	13	24	1.93	43
37	2.41	14	63	1.93	43
68	2.41	14	46	1.93	43
48	2.39	16	32	1.90	46
67	2.39	16	33	1.90	46
40	2.37	18	58	1.90	46
54	2.32	19	17	1.88	49
64	2.32	19	20	1.88	49
72	2.29	21	43	1.88	49
36	2.27	22	52	1.88	49
55	2.27	22	38	1.83	53
49	2.24	24	29	1.80	54
41	2.20	25	13	1.78	55
30	2.17	26	44	1.66	56
34	2.17	26	51	1.66	56
71	2.17	26	15	1.63	58
22	2.15	29	14	1.27	59
42	2.15	29	35	1.10	60
			16	0.85	61

Mean based on scale of 0-1-2-3.
n = 42

Table 36.—Rank Order and Priority Ratings of 61 Individualized Instruction Activities as Perceived by Teachers With More Than 6 Years Teaching Experience

Activity No.	Mean	Rank	Activity No.	Mean	Rank
19	2.72	1	39	2.10	30
25	2.63	2	71	2.09	32
69	2.62	3	63	2.08	33
18	2.59	4	34	2.06	34
28	2.59	4	40	2.05	35
70	2.57	6	47	2.05	35
26	2.56	7	56	2.05	35
48	2.44	8	60	2.04	38
21	2.43	9	27	2.00	39
12	2.42	10	46	1.99	40
59	2.42	10	45	1.96	41
53	2.39	12	62	1.96	41
50	2.38	13	65	1.96	41
64	2.38	13	32	1.95	44
37	2.34	15	29	1.94	45
55	2.27	16	49	1.94	45
66	2.23	17	17	1.90	47
67	2.23	17	31	1.89	48
36	2.22	19	13	1.86	49
54	2.22	19	15	1.86	49
41	2.20	21	43	1.82	51
51	2.20	21	58	1.80	52
68	2.20	21	33	1.77	53
72	2.19	24	24	1.75	54
38	2.18	25	20	1.72	55
57	2.18	25	52	1.63	56
22	2.16	27	23	1.58	57
42	2.15	28	44	1.54	58
61	2.13	29	14	1.48	59
30	2.10	30	35	1.35	60
			16	1.04	61

Mean based on scale of 0-1-2-3.
n = 79

Table 37.—Mean, Standard Deviation and Level of Significance for 61 Individualized Instruction Activities as Perceived by Teachers From Schools of Varying Enrollments

Activity No.	School Enrollments <301 (n=35) Mean	301-600 (n=42) Mean	>600 (n=79) Mean	SD	F*	Level of Sig.
12	2.57	2.54	2.38	0.70	0.94	0.39
13	1.80	1.86	1.88	0.85	0.09	0.90
14	1.17	1.50	1.48	0.93	1.47	0.23
15	1.87	1.85	1.67	0.95	0.63	0.53
16	0.57	1.12	1.04	0.93	3.89	0.02
17	1.77	2.09	2.00	0.88	1.46	0.23
18	2.60	2.59	2.58	0.63	0.01	0.98
19	2.67	2.73	2.75	0.55	0.22	0.80
20	1.93	1.82	1.65	0.87	1.07	0.34
21	2.53	2.47	2.48	0.63	0.10	0.90
22	2.33	2.27	2.17	0.72	0.27	0.76
23	1.73	1.69	1.83	0.82	0.42	0.65
24	1.70	1.88	1.71	0.86	0.75	0.46
25	2.70	2.68	2.62	0.60	0.22	0.79
26	2.63	2.53	2.75	0.61	2.03	0.13
27	1.97	2.03	2.13	0.79	0.48	0.61
28	2.60	2.55	2.62	0.63	0.15	0.85
29	1.53	1.86	2.13	0.74	6.33	0.002
30	1.90	2.15	2.19	0.70	1.78	0.17
31	1.93	1.86	1.96	0.75	0.27	0.76
32	1.77	1.77	2.02	1.00	1.06	0.34
33	1.57	1.74	1.92	0.96	1.36	0.25
34	2.23	2.15	2.23	0.87	0.17	0.83
35	0.93	1.47	1.21	0.98	3.39	0.03
36	2.33	2.11	2.21	0.83	0.81	0.44
37	2.50	2.27	2.31	0.76	0.99	0.37
38	2.00	1.97	2.12	0.92	0.37	0.68
39	1.87	2.08	2.13	0.87	0.94	0.39
40	2.17	2.09	2.25	0.84	0.51	0.59
41	2.23	2.28	2.33	0.76	0.14	0.86
42	2.07	2.16	2.23	0.88	0.32	0.72
43	1.70	1.85	2.00	0.89	1.09	0.33
44	1.27	1.58	1.90	1.03	3.73	0.02

(Continued)

Table 37.—(Continued)

Activity No.	School Enrollments <301 (n=35) Mean	301-600 (n=42) Mean	>600 (n=79) Mean	SD	F*	Level of Sig.
45	1.80	2.08	2.19	0.84	2.05	0.13
46	1.93	1.96	2.06	0.86	0.27	0.76
47	2.07	2.00	2.10	0.74	0.27	0.76
48	2.43	2.43	2.42	0.66	0.00	0.99
49	2.03	2.12	1.92	0.90	0.72	0.48
50	2.43	2.46	2.50	0.64	0.11	0.89
51	2.20	1.96	1.96	0.89	0.87	0.41
52	1.70	1.84	1.63	0.97	0.69	0.50
53	2.40	2.46	2.50	0.76	0.16	0.84
54	2.27	2.31	2.17	2.79	0.45	0.63
55	2.53	2.26	2.29	0.73	1.59	0.20
56	2.13	2.08	2.06	0.79	0.08	0.91
57	2.10	2.26	2.12	0.75	0.75	0.47
58	1.90	1.89	1.88	0.83	0.00	0.99
59	2.37	2.45	2.61	0.70	1.43	0.24
60	2.10	2.23	2.23	0.77	0.34	0.70
61	2.23	2.05	2.27	0.75	1.41	0.24
62	1.80	2.09	2.08	0.72	1.90	0.15
63	2.23	1.96	2.04	0.92	0.94	0.39
64	2.27	2.42	2.44	0.65	0.77	0.46
65	2.00	1.99	1.90	0.77	0.22	0.80
66	2.17	2.30	2.19	0.80	0.40	0.67
67	2.43	2.27	2.23	0.79	0.65	0.52
68	2.30	2.36	2.31	0.72	0.13	0.87
69	2.53	2.65	2.71	0.57	0.90	0.40
70	2.57	2.58	2.73	0.62	1.05	0.34
71	1.90	2.14	2.21	0.86	1.27	0.28
72	2.00	2.26	2.38	0.74	2.55	0.08

Mean based on scale of 0-1-2-3.
*df = 2, 153 N = 156
Overall F = 0.960 Level of Sig. = < 0.59 df = 122, 186

Table 38.—Rank Order and Priority Ratings of 61 Individualized Instruction Activities as Perceived by Teachers With Eleventh and Twelfth Grade Class Sizes of Less Than 13 Students

Activity No.	Mean	Rank	Activity No.	Mean	Rank
19	2.77	1	17	2.05	31
25	2.68	3	60	2.05	31
70	2.64	3	71	2.05	31
28	2.59	4	36	2.00	34
48	2.59	4	62	2.00	34
69	2.59	4	49	1.95	36
18	2.55	7	30	1.91	37
21	2.55	7	52	1.91	37
59	2.55	7	29	1.86	39
64	2.55	7	47	1.86	39
55	2.45	11	58	1.86	39
26	2.41	12	27	1.77	42
41	2.41	12	45	1.77	42
53	2.41	12	51	1.77	42
37	2.36	15	20	1.73	45
34	2.32	16	31	1.73	45
38	2.32	16	40	1.73	45
50	2.32	16	46	1.73	45
61	2.27	19	39	1.68	49
67	2.27	19	65	1.68	49
68	2.27	19	13	1.64	51
72	2.27	19	33	1.64	51
22	2.23	23	32	1.59	53
57	2.23	23	23	1.55	54
66	2.18	25	44	1.55	54
59	2.14	26	43	1.50	56
56	2.14	26	15	1.45	57
12	2.09	28	24	1.36	58
42	2.09	28	14	1.27	59
63	2.09	28	35	1.14	60
			16	0.55	61

Mean based on scale of 0-1-2-3.
n = 22

Table 39.--Rank Order and Priority Ratings of 61 Individualized Instruction Activities as Perceived by Teachers With Eleventh and Twelfth Grade Class Sizes of 13-18 Students

Activity No.	Mean	Rank	Activity No.	Mean	Rank
19	2.78	1	61	2.13	31
26	2.78	1	63	2.12	32
25	2.75	3	30	2.08	33
18	2.70	4	71	2.08	33
60	2.67	5	17	2.07	35
69	2.67	5	47	2.07	35
12	2.62	6	49	2.07	35
28	2.58	8	51	2.05	38
70	2.58	8	31	2.03	39
53	2.52	10	65	2.02	40
59	2.52	10	27	2.00	41
50	2.48	12	45	2.00	41
68	2.48	12	46	2.00	41
21	2.47	14	39	1.98	44
48	2.42	15	58	1.97	45
64	2.40	16	62	1.97	45
67	2.35	17	38	1.95	47
54	2.33	18	24	1.93	48
55	2.33	18	23	1.92	49
22	2.32	20	20	1.87	50
37	2.27	21	32	1.87	50
66	2.27	21	13	1.83	52
36	2.25	23	15	1.82	53
41	2.25	23	43	1.82	53
40	2.23	25	29	1.78	55
57	2.22	26	33	1.72	56
42	2.17	27	52	1.65	57
56	2.17	27	44	1.52	58
72	2.17	27	14	1.35	59
34	2.15	30	35	1.15	60
			16	1.10	61

Mean based on scale of 0-1-2-3.
n = 61

Table 40.—Rank Order and Priority Ratings of 61 Individualized Instruction Activities as Perceived by Teachers With Eleventh and Twelfth Grade Class Sizes of 19-24 Students

Activity No.	Mean	Rank	Activity No.	Mean	Rank
70	2.74	1	39	2.20	29
19	2.65	2	22	2.19	32
69	2.63	3	27	2.19	32
25	2.57	4	47	2.19	32
28	2.57	4	57	2.19	32
26	2.56	6	42	2.17	36
18	2.52	7	43	2.15	37
12	2.50	8	62	2.09	38
53	2.50	8	65	2.09	38
50	2.46	10	32	2.06	40
21	2.43	11	46	2.06	40
48	2.39	12	51	2.06	40
59	2.39	12	15	2.02	43
72	2.39	12	29	2.02	43
37	2.37	15	49	2.02	43
64	2.35	16	56	2.02	43
41	2.33	17	17	2.00	47
55	2.33	17	58	2.00	47
36	2.31	19	13	1.94	49
67	2.31	19	63	1.94	49
54	2.26	21	33	1.91	51
61	2.24	22	38	1.87	52
68	2.24	22	44	1.83	53
71	2.24	22	31	1.81	54
40	2.23	25	20	1.80	55
45	2.22	26	24	1.78	56
60	2.22	26	52	1.76	57
66	2.22	26	23	1.63	58
30	2.20	29	14	1.61	59
34	2.20	29	35	1.43	60
			16	1.00	61

Mean based on scale of 0-1-2-3.
n = 54

Table 41.--Rank Order and Priority Ratings of 61 Individualized Instruction Activities as Perceived by Teachers With Eleventh and Twelfth Grade Class Sizes of More Than 24 Students

Activity No.	Mean	Rank	Activity No.	Mean	Rank
69	2.74	1	62	2.11	26
19	2.68	2	67	2.11	26
21	2.68	2	72	2.11	26
28	2.63	4	22	2.05	34
25	2.58	5	31	2.00	35
50	2.58	5	57	2.00	35
59	2.58	5	51	1.95	37
12	2.53	8	63	1.95	37
26	2.53	8	71	1.95	37
18	2.47	10	13	1.89	40
70	2.47	10	29	1.89	40
38	2.42	12	40	1.89	40
48	2.42	12	56	1.89	40
64	2.42	12	61	1.89	40
37	2.37	15	36	1.84	45
39	2.37	15	24	1.79	46
42	2.26	17	47	1.79	46
68	2.26	17	52	1.79	46
30	2.21	19	23	1.74	49
53	2.21	19	33	1.74	49
66	2.21	19	43	1.74	49
41	2.16	22	65	1.74	49
45	2.16	22	17	1.68	53
54	2.16	22	32	1.58	54
60	2.16	22	20	1.53	55
27	2.11	26	44	1.53	55
34	2.11	26	15	1.47	57
46	2.11	26	35	1.42	58
49	2.11	26	58	1.37	59
55	2.11	26	14	1.32	60
			16	1.05	61

Mean based on scale of 0-1-2-3.
n = 19

Table 42.--Mean, Standard Deviation and Level of Significance for 61 Individualized Instruction Activities as Perceived by Teachers with Varying Student Loads

Activity No.	Student Load of <75 (n=64) Mean	76-100 (n=70) Mean	101-125 (n=17) Mean	>125 (n=5) Mean	SD	F*	Level of Sig.
12	2.38	2.61	2.47	2.40	0.70	1.33	0.26
13	1.88	1.89	1.88	1.20	0.85	1.02	0.38
14	1.39	1.46	1.53	1.20	0.94	0.21	0.88
15	1.84	1.79	1.76	1.40	0.96	0.34	0.79
16	0.97	1.00	1.00	1.00	0.95	0.01	0.99
17	1.98	2.04	1.12	1.20	0.88	1.53	0.20
18	2.50	2.66	2.59	2.80	0.63	0.88	0.45
19	2.73	2.71	2.71	2.80	0.55	0.05	0.98
20	1.88	1.81	1.41	1.60	0.87	1.35	0.26
21	2.47	2.52	2.41	2.40	0.63	0.23	0.87
22	2.16	2.33	2.18	2.00	0.72	0.84	0.47
23	1.77	1.76	1.47	2.20	0.82	1.15	0.32
24	1.72	1.83	1.82	2.00	0.87	0.29	0.83
25	2.67	2.61	2.94	2.20	0.59	2.38	0.07
26	2.63	2.60	2.71	2.60	0.62	0.13	0.93
27	1.98	2.09	2.24	1.80	0.79	0.66	0.57
28	2.53	2.64	2.59	2.40	0.63	0.48	0.69
29	1.83	1.90	2.12	1.80	0.76	0.66	0.57
30	2.06	2.14	2.12	2.40	0.71	0.41	0.74
31	1.84	2.03	1.76	1.60	0.74	1.25	0.29
32	1.80	1.89	2.12	1.20	1.00	1.18	0.31
33	1.64	1.83	2.18	1.20	0.95	2.10	0.10
34	2.13	2.26	2.29	1.80	0.86	0.67	0.56
35	1.19	1.36	1.41	1.00	1.00	0.54	0.65
36	2.20	2.17	2.35	1.60	0.83	1.06	0.36
37	2.44	2.33	2.24	1.20	0.73	4.43	0.005
38	2.02	1.93	2.41	2.20	0.91	1.32	0.26
39	2.02	2.13	2.12	1.40	0.87	1.17	0.32
40	2.25	2.13	2.12	1.60	0.84	1.01	0.38
41	2.34	2.19	2.59	2.00	0.75	1.67	0.17
42	2.28	2.09	2.18	1.80	0.88	0.83	0.47
43	1.89	1.87	2.00	1.20	0.89	1.05	0.37
44	1.61	1.61	1.76	1.60	1.06	0.10	0.95

(Continued)

Table 42.--(Continued)

Activity No.	Student Load of <75 (n=64) Mean	76-100 (n=70) Mean	101-125 (n=17) Mean	>125 (n=5) Mean	SD	F*	Level of Sig.
45	1.97	2.03	2.59	2.00	0.84	2.51	0.06
46	2.06	1.93	2.06	1.60	0.86	0.64	0.58
47	2.17	1.96	2.18	1.20	0.72	3.47	0.01
48	2.34	2.51	2.47	2.20	0.66	0.95	0.41
49	2.02	2.13	2.12	0.80	0.88	3.55	0.01
50	2.36	2.47	2.76	2.80	0.62	2.36	0.07
51	1.98	1.93	2.47	1.80	0.88	1.84	0.14
52	1.67	1.76	1.94	1.80	0.98	0.35	0.78
53	2.55	2.44	2.35	2.00	0.75	1.02	0.38
54	2.22	2.27	2.35	2.20	0.80	0.14	0.93
55	2.30	2.33	2.47	2.00	0.73	0.57	0.63
56	1.98	2.16	2.18	2.00	0.78	0.63	0.59
57	2.20	2.10	2.41	2.20	0.75	0.82	0.48
58	1.89	1.86	2.18	1.40	0.82	1.29	0.27
59	2.48	2.50	2.59	2.00	0.70	0.91	0.43
60	2.11	2.19	2.47	2.80	0.76	2.06	0.10
61	2.20	2.06	2.35	2.40	0.75	1.03	0.37
62	1.98	1.97	2.47	2.00	0.72	2.35	0.07
63	2.02	2.06	2.18	1.60	0.92	0.52	0.66
64	2.50	2.26	2.59	2.40	0.64	2.15	0.09
65	1.94	1.97	2.24	1.20	0.75	2.44	0.06
66	2.25	2.17	2.47	2.20	0.80	0.63	0.59
67	2.30	2.27	2.41	2.00	0.80	0.36	0.77
68	2.34	2.37	2.34	2.00	0.72	0.52	0.66
69	2.59	2.64	2.82	2.80	0.57	0.82	0.48
70	2.63	2.54	2.88	3.00	0.61	2.00	0.11
71	2.03	2.17	2.41	1.40	0.85	2.15	0.09
72	2.22	2.20	2.53	2.40	0.75	0.99	0.39

Mean based on scale of 0-1-2-3.
*df = 3, 152 N = 156
Overall F = 1.064 Level of Sig. = <0.31 df = 183, 276

Table 43.—Mean, Standard Deviation and Level of Significance for 61 Individualized Instruction Activities as Perceived by Teachers With Varying Levels of Academic Education

Activity No.	Academic Education: B.S. (n=70) Mean	M.S. (n=31) Mean	M.S. + Credits (n=54) Mean	Specialist or Ph.D. (n=4) Mean	SD	F*	Level of Sig.
12	2.60	2.55	2.29	2.75	0.69	2.18	0.09
13	1.90	1.80	1.84	1.75	0.86	0.11	0.94
14	1.41	1.45	1.41	1.75	0.94	0.17	0.91
15	1.77	1.97	1.73	1.75	0.96	0.44	0.72
16	0.96	0.90	1.04	1.50	0.95	0.53	0.65
17	2.19	1.77	1.92	1.50	0.87	2.30	0.07
18	2.51	2.74	2.59	2.75	0.63	1.02	0.38
19	2.74	2.87	2.61	2.75	0.54	1.53	0.20
20	1.84	1.74	1.69	2.50	0.87	1.22	0.30
21	2.53	2.52	2.41	2.50	0.63	0.36	0.77
22	2.33	2.16	2.16	2.00	0.72	0.82	0.48
23	1.87	1.58	1.61	2.50	0.81	2.61	0.05
24	1.84	1.80	1.73	1.50	0.87	0.33	0.80
25	2.69	2.77	2.55	2.75	0.60	1.00	0.39
26	2.70	2.61	2.49	3.00	0.61	1.68	0.17
27	2.13	1.81	2.10	2.00	0.79	1.27	0.28
28	2.59	2.61	2.55	2.75	0.63	0.16	0.92
29	1.89	2.03	1.84	1.50	0.76	0.76	0.51
30	2.13	2.16	2.06	2.25	0.71	0.20	0.89
31	1.86	1.97	1.96	1.75	0.75	0.31	0.81
32	1.77	2.00	1.92	1.25	1.00	0.92	0.42
33	1.71	1.93	1.78	1.25	0.96	0.77	0.51
34	2.30	2.03	2.14	2.25	0.86	0.78	0.50
35	1.21	1.26	1.35	1.75	1.00	0.48	0.69
36	2.21	2.16	2.16	2.25	0.84	0.06	0.97
37	2.29	2.26	2.43	2.25	0.76	0.47	0.69
38	1.81	2.29	2.12	2.50	0.90	2.68	0.04
39	2.00	1.97	2.18	2.25	0.87	0.58	0.62
40	2.19	2.23	2.08	2.25	0.85	0.25	0.85
41	2.41	2.03	2.25	2.50	0.75	1.97	0.12

(Continued)

Table 43.—(Continued)

Activity No.	Academic Education: B.S. (n=70) Mean	M.S. (n=31) Mean	M.S. + Credits (n=54) Mean	Specialist or Ph.D. (n=4) Mean	SD	F*	Level of Sig.
42	2.24	1.97	2.18	2.25	0.88	0.70	0.55
43	2.01	1.68	1.82	1.50	0.89	1.35	0.25
44	1.76	1.45	1.61	1.00	1.05	1.12	0.34
45	2.21	1.84	2.04	1.50	0.84	2.07	0.10
46	2.07	1.83	1.96	2.00	0.86	0.54	0.65
47	2.06	2.06	2.02	2.00	0.74	0.03	0.99
48	2.43	2.42	2.45	2.25	0.66	0.11	0.94
49	2.19	1.97	1.88	2.00	0.90	1.18	0.31
50	2.60	2.35	2.39	2.00	0.62	2.35	0.07
51	1.87	2.10	2.12	2.25	0.89	1.00	0.39
52	1.79	1.71	1.73	1.50	0.98	0.14	0.93
53	2.43	2.39	2.55	2.50	0.76	0.37	0.77
54	2.27	2.29	2.22	2.25	0.80	0.07	0.97
55	2.34	2.23	2.33	2.50	0.74	0.27	0.84
56	2.11	2.00	2.14	1.50	0.78	0.96	0.41
57	2.21	2.16	2.18	1.75	0.75	0.49	0.68
58	1.99	1.71	1.90	1.50	0.83	1.09	0.35
59	2.51	2.23	2.57	3.00	0.69	2.45	0.06
60	2.26	2.22	2.18	1.50	0.76	1.26	0.28
61	2.23	2.06	2.14	2.00	0.76	0.42	0.73
62	2.07	1.87	2.08	2.00	0.73	0.63	0.59
63	1.99	2.00	2.14	2.00	0.92	0.28	0.83
64	2.46	2.29	2.39	2.25	0.65	0.54	0.65
65	2.04	1.84	1.96	1.50	0.76	1.00	0.39
66	2.26	2.26	2.24	1.75	0.80	0.50	0.67
67	2.30	2.32	2.27	2.00	0.80	0.20	0.89
68	2.43	2.23	2.29	2.00	0.72	0.97	0.40
69	2.69	2.48	2.69	2.75	0.57	1.05	0.37
70	2.70	2.48	2.63	2.50	0.62	0.91	0.43
71	2.11	2.03	2.22	1.50	0.86	0.99	0.39
72	2.33	2.29	2.15	1.75	0.74	1.14	0.33

Mean based on scale of 0-1-2-3.
*df = 3, 152 N = 156
Overall F = 0.947 Level of Sig. = <0.65 df = 183, 276

Table 44.—Mean, Standard Deviation and Level of Significance for 61 Individualized Instruction Activities as Expected by Principals From Schools of Varying Enrollments

Activity No.	School Enrollments <301 (n=28) Mean	301-600 (n=59) Mean	>600 (n=43) Mean	SD	F*	Level of Sig.
12	2.25	2.56	2.58	0.68	2.36	0.09
13	1.75	1.97	2.07	0.86	1.18	0.30
14	1.46	1.63	1.58	0.87	0.32	0.71
15	2.07	2.17	2.21	0.79	0.26	0.76
16	1.11	1.00	1.19	0.91	0.52	0.59
17	1.75	1.86	2.04	0.92	0.95	0.38
18	2.39	2.32	2.32	0.73	0.09	0.90
19	2.50	2.64	2.74	0.59	1.43	0.24
20	1.75	1.90	2.02	0.72	1.19	0.30
21	2.29	2.54	2.49	0.60	1.71	0.18
22	2.21	2.22	2.47	0 71	1.69	0.18
23	2.07	2.03	2.07	0.75	0.03	0.96
24	1.86	2.05	2.05	0.75	0.54	0.58
25	2.61	2.76	2.70	0.55	0.77	0.46
26	2.29	2.59	2.44	0.75	1.64	0.19
27	1.71	2.02	1.98	0.78	1.49	0.22
28	2.57	2.53	2.49	0.64	0.14	0.86
29	1.93	2.02	2.16	0.74	0.91	0.40
30	2.04	2.08	2.02	0.75	0.09	0.91
31	1.82	2.02	1.98	0.75	0.65	0.52
32	1.61	1.51	1.72	0.91	0.67	0.51
33	1.61	1.81	2.02	0.81	2.25	0.10
34	2.18	2.25	2.42	0.77	0.95	0.38
35	1.61	1.63	1.30	0.93	1.66	0.19
36	2.00	2.19	2.23	0.83	0.70	0.49
37	2.21	2.31	2.44	0.71	0.91	0.40
38	1.64	1.76	1.74	0.90	0.17	0.83
39	2.07	2.20	2.07	0.82	0.41	0.65
40	1.96	2.03	2.21	0.93	0.70	0.49
41	1.96	2.07	2.26	0.76	1.36	0.25
42	2.25	2.20	2.05	0.86	0.59	0.55
43	1.61	1.78	1.91	0.82	1.12	0.32
44	1.29	1.61	1.72	0.87	2.19	0.11

(Continued)

Table 44.—(Continued)

Activity No.	School Enrollments <301 (n=28) Mean	301-600 (n=59) Mean	>600 (n=43) Mean	SD	F*	Level of Sig.
45	1.75	1.93	1.91	0.86	0.44	0.64
46	2.18	2.17	2.23	0.77	0.08	0.91
47	2.25	2.08	2.23	0.71	0.75	0.47
48	2.50	2.56	2.56	0.64	0.09	0.91
49	2.07	2.24	2.16	0.71	0.52	0.59
50	2.32	2.46	2.35	0.77	0.39	0.67
51	2.00	2.10	2.09	0.88	0.13	0.87
52	1.61	1.74	1.49	0.96	0.89	0.41
53	2.50	2.44	2.40	0.73	0.17	0.84
54	2.04	2.14	2.28	0.81	0.80	0.44
55	2.36	2.29	2.47	0.75	0.67	0.51
56	2.04	2.20	2.26	0.74	0.77	0.46
57	2.07	2.15	2.09	0.76	0.13	0.87
58	1.57	1.86	2.14	0.82	4.05	0.01
59	2.43	2.46	2.30	0.76	0.53	0.58
60	2.18	2.42	2.23	0.72	1.44	0.24
61	2.14	2.17	2.35	0.80	0.80	0.45
62	2.25	2.12	2.35	0.73	1.23	0.29
63	1.89	1.92	2.02	0.98	0.20	0.81
64	2.43	2.44	2.44	0.68	0.00	0.99
65	2.14	2.03	2.23	0.74	0.89	0.41
66	2.14	2.24	2.23	0.73	0.17	0.83
67	2.04	2.17	2.19	0.89	0.27	0.75
68	2.00	2.44	2.14	0.80	3.43	0.03
69	2.36	2.64	2.58	0.63	2.00	0.13
70	2.50	2.73	2.60	0.66	1.19	0.30
71	1.89	2.19	2.02	0.87	1.16	0.31
72	2.21	2.34	2.40	0.80	0.43	0.64

*Mean based on scale of 0-1-2-3.
*df = 2, 127 N = 130
Overall F = 0.853 Level of Sig. = <0.81 df = 122, 134

Table 45.—Mean, Standard Deviation and Level of Significance for 61 Individualized Instruction Activities as Expected by Principals With Varying Levels of Academic Education

Activity No.	Academic Education: B.S. (n=12) Mean	M.S. (n=36) Mean	M.S. + Credits (n=77) Mean	Specialist or Ph.D. (n=5) Mean	SD	F*	Level of Sig.
12	2.42	2.55	2.48	2.60	0.70	0.18	0.90
13	1.83	2.00	1.97	1.60	0.86	0.40	0.75
14	1.58	1.58	1.58	1.40	0.88	0.07	0.97
15	1.75	2.31	2.19	1.60	0.77	2.48	0.06
16	1.33	1.14	1.04	0.80	0.92	0.55	0.64
17	2.25	1.86	1.88	1.60	0.92	0.77	0.50
18	2.75	2.33	2.27	2.40	0.72	1.50	0.21
19	2.91	2.67	2.62	2.20	0.58	1.84	0.14
20	1.92	1.89	1.95	1.60	0.73	0.33	0.80
21	2.50	2.44	2.51	2.00	0.61	1.10	0.34
22	2.25	2.33	2.35	1.40	0.70	2.87	0.03
23	1.67	2.25	2.06	1.40	0.73	3.32	0.02
24	1.67	2.28	1.96	1.60	0.84	2.34	0.07
25	2.92	2.83	2.65	2.20	0.53	3.06	0.03
26	2.58	2.58	2.42	2.40	0.76	0.49	0.68
27	2.00	2.06	1.90	1.60	0.78	0.67	0.57
28	2.83	2.64	2.45	2.00	0.62	2.88	0.03
29	2.25	2.08	2.03	1.60	0.74	0.94	0.42
30	2.00	2.08	2.06	1.80	0.75	0.23	0.87
31	2.17	2.11	1.91	1.20	0.73	2.71	0.04
32	1.83	1.64	1.57	1.20	0.91	0.62	0.60
33	2.08	1.75	1.86	1.60	0.82	0.63	0.59
34	2.42	2.25	2.34	1.60	0.76	1.59	0.19
35	1.75	1.81	1.39	0.80	0.92	2.93	0.03
36	2.00	2.36	2.12	1.80	0.83	1.23	0.30
37	2.50	2.36	2.31	2.00	0.72	0.60	0.61
38	2.08	1.75	1.71	1.00	0.88	1.77	0.15
39	2.08	2.22	2.09	2.20	0.82	0.23	0.87
40	2.17	2.08	2.04	2.40	0.93	0.27	0.84
41	2.17	2.19	2.08	1.80	0.77	0.47	0.70

(Continued)

Table 45.—(Continued)

Activity No.	Academic Education: B.S. (n=12) Mean	M.S. (n=36) Mean	M.S. + Credits (n=77) Mean	Specialist or Ph.D. (n=5) Mean	SD	F*	Level of Sig.
42	2.42	2.25	2.08	2.20	0.86	0.71	0.54
43	2.17	1.78	1.75	1.40	0.82	1.26	0.29
44	2.08	1.58	1.51	1.40	0.87	1.58	0.19
45	2.17	1.75	1.91	1.80	0.86	0.75	0.51
46	2.42	2.06	2.23	2.00	0.76	0.89	0.44
47	2.33	2.08	2.21	1.80	0.71	0.89	0.44
48	2.67	2.58	2.51	2.60	0.64	0.29	0.83
49	2.33	2.25	2.09	2.60	0.70	1.30	0.27
50	2.67	2.31	2.43	1.80	0.76	1.72	0.16
51	2.67	2.08	1.99	2.00	0.86	2.14	0.09
52	2.17	1.55	1.58	1.40	0.96	1.44	0.23
53	2.58	2.44	2.43	2.20	0.73	0.33	0.79
54	2.42	2.14	2.15	2.00	0.81	0.47	0.70
55	2.25	2.39	2.36	2.40	0.76	0.10	0.95
56	2.08	2.14	2.23	2.00	0.75	0.32	0.80
57	1.83	2.25	2.08	2.40	0.76	1.21	0.30
58	1.75	1.86	1.90	2.40	0.84	0.72	0.53
59	2.33	2.50	2.38	2.20	0.76	0.36	0.77
60	2.50	2.33	2.29	2.00	0.72	0.61	0.60
61	2.25	2.08	2.29	2.20	0.80	0.52	0.66
62	2.42	2.22	2.22	1.80	0.74	0.81	0.48
63	2.08	2.00	1.90	2.00	0.99	0.18	0.90
64	2.58	2.56	2.39	2.00	0.67	1.36	0.25
65	2.00	2.11	2.14	2.20	0.75	0.14	0.93
66	2.17	2.28	2.22	1.80	0.72	0.64	0.58
67	2.33	2.08	2.16	2.00	0.89	0.27	0.83
68	2.42	2.25	2.23	2.00	0.82	0.32	0.80
69	2.42	2.58	2.60	2.20	0.63	0.84	0.47
70	2.92	2.56	2.62	2.80	0.67	0.98	0.40
71	2.08	2.06	2.10	1.60	0.87	0.51	0.66
72	2.58	2.39	2.29	2.00	0.80	0.82	0.48

Mean based on scale of 0-1-2-3.
*df = 3, 126 N = 130
Overall F = 1.005 Level of Sig. = <0.48 df = 183, 198

Table 46.—Mean, Standard Deviation and Level of Significance for 61 Individualized Instruction Activities as Expected by Principals with Varying Levels of Experience

Activity No.	Years of Experience <3 (n=5) Mean	3-6 (n=15) Mean	>6 (n=110) Mean	SD	F*	Level of Sig.
12	2.80	2.33	2.51	0.69	0.90	0.40
13	2.20	1.87	1.95	0.86	0.27	0.75
14	2.00	1.53	1.56	0.87	0.61	0.54
15	2.00	1.87	2.20	0.78	1.37	0.25
16	1.60	1.07	1.06	0.91	0.82	0.44
17	1.80	2.07	1.88	0.92	0.29	0.74
18	2.60	2.20	2.35	0.73	0.58	0.55
19	2.40	2.53	2.67	0.59	0.80	0.44
20	1.80	2.00	1.90	0.73	0.17	0.83
21	2.20	2.40	2.49	0.61	0.64	0.52
22	2.00	2.07	2.35	0.71	1.44	0.24
23	1.60	1.87	2.10	0.74	1.60	2.20
24	1.60	1.87	2.05	0.85	0.87	0.42
25	2.80	2.73	2.70	0.55	0.09	0.90
26	2.60	2.53	2.46	0.76	0.12	0.88
27	2.00	1.60	1.98	0.78	1.59	0.20
28	3.00	2.60	2.49	0.63	1.66	0.19
29	2.20	2.07	2.04	0.75	0.11	0.88
30	2.40	2.07	2.04	0.75	0.56	0.57
31	2.00	2.00	1.95	0.75	0.03	0.97
32	1.60	1.47	1.62	0.91	0.18	0.83
33	1.80	1.60	1.87	0.82	0.72	0.48
34	2.80	2.40	2.25	0.76	1.36	0.25
35	2.20	1.53	1.48	0.93	1.40	0.25
36	1.80	2.07	2.19	0.83	0.63	0.53
37	2.40	2.00	2.37	0.71	1.81	0.16
38	2.00	2.00	1.68	0.89	1.06	0.34
39	2.20	2.33	2.10	0.82	0.54	0.57
40	2.60	2.00	2.06	0.92	0.85	0.42
41	2.00	1.80	2.15	0.76	1.46	0.23
42	2.00	2.67	2.10	0.84	3.04	0.05
43	1.80	2.07	1.75	0.82	0.99	0.37
44	2.00	1.67	1.55	0.88	0.72	0.48

(Continued)

Table 46.—(Continued)

Activity No.	Years of Experience <3 (n=5) Mean	3-6 (n=15) Mean	>6 (n=110) Mean	SD	F*	Level of Sig.
45	2.20	1.93	1.86	0.86	0.38	0.67
46	2.60	1.67	2.25	0.74	4.73	0.01
47	2.40	2.07	2.17	0.72	0.41	0.66
48	2.60	2.47	2.55	0.64	0.14	0.86
49	2.60	1.80	2.21	0.69	3.22	0.04
50	2.80	2.40	2.37	0.77	0.72	0.48
51	2.20	1.93	2.09	0.88	0.26	0.77
52	2.00	1.67	1.61	0.97	0.39	0.67
53	2.40	2.33	2.45	0.73	0.18	0.82
54	2.40	2.13	2.15	0.81	0.22	0.79
55	2.20	2.47	2.35	0.76	0.25	0.77
56	2.20	2.00	2.21	0.74	0.51	0.59
57	2.00	2.13	2.13	0.76	0.06	0.94
58	2.00	1.73	1.91	0.85	0.32	0.72
59	2.00	2.40	2.42	0.76	0.71	0.49
60	2.60	2.27	2.30	0.72	0.43	0.64
61	2.20	2.33	2.21	0.80	0.15	0.85
62	2.60	2.20	2.21	0.74	0.67	0.51
63	2.20	1.93	1.94	0.98	0.17	0.84
64	2.60	2.53	2.41	0.68	0.33	0.71
65	1.80	2.07	2.15	0.74	0.55	0.57
66	2.00	2.27	2.22	0.73	0.25	0.77
67	2.60	2.27	2.11	0.89	0.88	0.41
68	2.40	2.47	2.21	0.81	0.74	0.47
69	2.60	2.60	2.55	0.63	0.04	0.95
70	3.00	2.60	2.61	0.66	1.85	0.16
71	2.40	2.13	2.05	0.87	0.43	0.64
72	2.60	2.13	2.35	0.80	0.75	0.47

Mean based on scale of 0-1-2-3.
*df = 2, 127 N = 130
Overall F = 0.976 Level of Sig. =<0.55 df = 122, 134