

SECONDARY CLASSROOM TEACHERS' AWARENESS,
PERCEPTION, AND ATTITUDE TOWARD READING IN THE
CONTENT AREAS

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ABSTRACT

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By

Janet Easton Antcliff Haque

The major purpose of this study was to survey and describe the existing situation within a selected school district in terms of reading awareness, perception and attitude and the present influence of the reading teacher and factors associated with the same, the results of which would provide a base upon which to objectively construct future inservice programs in reading in the content areas. Another purpose of this study was to develop a valid and reliable instrument which could be used to survey teachers' attitudes toward reading in the content areas.

The methodological procedure consisted of the measurement of the dependent variable, attitude, and 15 independent variables, derivation of empirical hypotheses, followed by statistical measures used to test the hypotheses, and development of the instrument, which was tested for its reliability and validity, for measurement of attitudes toward reading. Data was collected from six secondary schools, three of which had reading consultants,

and three of which did not have reading consultants, in Lansing School District, Lansing, Michigan.

The findings described the setting of the study in terms of total numbers of respondents (N=148) from each school and four subject areas, the respondents years of teaching experience, the number of courses in reading the respondents had taken and the number of inservices in reading in which the respondents had participated.

The majority of respondents were unable to define both reading in the content area (90 percent) and remedial reading (88.5 percent). It was found that (98.6 percent) utilized a number of reading strategies that varied with the content area. Mathematics teachers were found to be the least familiar with reading objectives and incorporated fewer reading skills into lesson plans than the other three content area disciplines. English teachers were found to be the most familiar with reading objectives, to use reading objectives, to incorporate more reading skills into lesson plans, and science teachers were found to name more reading skills used most frequently in lesson plans as compared to the other three content area disciplines.

Teachers in schools with reading consultants perceived his role significantly different than teachers in schools without reading consultants. Reading consultants were perceived as functioning in a variety of ways by the teachers in their buildings. The majority of

teachers perceived a need for inservice in reading (87.2 percent), perceived the instructional material as inadequately meeting the reading level needs of their students (70.27 percent), and perceived a need for help in planning for reading instruction within their classes (85.8 percent). The teachers' perception of adequacy of instructional material was significantly different in schools with reading consultants and schools without reading consultants.

The respondent teachers of this study were found to have had a more positive than negative attitude toward reading. The mean attitude score was 76.966, which was almost 11 points above the dividing point (66) of positive and negative attitudes. Twenty-two respondents had very positive attitudes toward reading, and none of the teachers had extremely negative attitudes, although 13 teachers were classified as having negative attitudes toward reading. By having positive attitudes toward reading, the respondents viewed themselves as responsible for reading instruction within their own classes, as responsible for teaching concept development, and library and reference skills. They also perceived as important to use more than one reading level textbook in their classes, to know the reading level of their texts, to determine the reading level of new instructional material before purchasing it, and that it was important to offer reading



to all students in the secondary schools, not just the poorer readers.

Ten of the 15 independent variables were found to have a positive and significant correlation with attitude. These variables were courses in reading, inservice in reading, utilization of reading strategies, familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts, use of Secondary Reading Objectives, incorporation of reading skills into lesson plans, reading skills used most frequently, role perception of the reading teacher, need perception for inservice in reading, and need perception for help in planning. Almost all the independent variables were intercorrelated with one or more independent variables. In "prediction analysis," six variables were found to contribute 46.20 percent of the variation in attitude toward reading. They were utilization of reading strategies, need perception for inservice in reading, courses in reading, familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts, need perception for help in planning for reading instruction, and reading skills used most frequently in lesson plans.



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1976



DEDICATED
TO
THE LOVING MEMORY OF MY FATHER
EARL JOHN ANTCLIFF



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CHAPTER I

INTRODUCTION

The Problem

The use of reading as a tool for learning in the secondary schools is an inescapably observed phenomena. However, the understanding of the process involved in reading in the content areas by content teachers is admittedly lacking as revealed not only by the teachers themselves, but also evidenced by studies done in the area.¹ By definition, content area reading is reading for purpose, giving meaning to and understanding what is read. Through the reading of content material, the student learns, educes ideas and solves given problems.² The process of reading involves circular steps (circular, because at each reading level, the process must be repeated) that include word analysis, vocabulary, comprehension on the literal, inferential, analysis and

¹Harold L. Herber, "Reading in the Content Areas: A District Develops Its own Personnel," Journal of Reading, Vol. 13, No. 8, May, 1970, pp. 587-592.

²Horst G. Taschow, "Reading in the Subject Matter Areas," ERIC #46669, December 1970, p. 1. (Reading can occur without giving meaning to or understanding what is read.)



synthesis levels, of which the latter leads to the development of concepts.³ The syntheses of ideas in any subject matter are the concepts of that discipline. Concepts, therefore, are the core of the subject matter. Reading is intrinsically involved in content area subjects for it is the process of thinking that is involved in the development of the disciplines' ideas. Inherent in the students' ability to comprehend and synthesize the ideas of a given discipline is the teachers' competency in teaching the process involved in the development of those ideas. Writers in the field of reading have reported that teachers are not equipped to teach their students the process involved in learning,⁴ and furthermore, that teachers do not view the instruction of the reading and thinking process as their responsibility.⁵ In addition,

³George H. Henry, Teaching Reading as Concept Development: Emphasis on Affective Thinking, International Reading Association Publication, 1974, p. 9. (One can equate this to the field theories of educational psychology.)

⁴Josephine C. Mosby, "Planning Remedial Reading Services in a Secondary School," International Reading Association Conference Proceedings, Vol. 13, Part 1, April 1968, pp. 176-181; Thomas F. McDonald, "An All School Secondary Reading Program," Journal of Reading, Vol. 14, No. 8, May 1971, pp. 68-71; Richard Smith, Bernice Bragstad, Karl Hesse, "Teaching Reading in the Content Areas: An Inservice Model," Journal of Reading, Vol. 13, No. 6, March 1970, pp. 421-428; and many more.

⁵Marian A. Wright, "Classroom Teacher + Reading Consultant = Successful Inservice Education," Teachers, Tangibles, Techniques: Comprehension of Content Area Reading, B.S. Schulwitz, ed., International Reading Association Publication, 1975, pp. 68-73.



classroom teachers have been reported as apathetic toward the entire situation. This apathy is the result of a complex mixture of issues involving occupational selection, preservice indoctrination, ego defensiveness, curriculum traditions and professional training.⁶ Teachers expect that students entering the secondary schools will have the skills necessary to understand the concepts and ideas involved in their respective subjects, as well as the ability to read at various levels of complexity without any help from them whatsoever.⁷ Furthermore, secondary teachers are reported to think of reading in the secondary schools as remedial, i.e., the reteaching of skills the student should have mastered by the end of the third grade, or at least, by the end of the fifth grade.⁸ Teachers are not cognizant that reading in the secondary schools is not a separate subject, but rather, that it is an inherent part of the learning process of the subject area classes.⁹

⁶Walter Hill, "Characteristics of Secondary Reading: 1940-1970," 20th National Reading Conference Yearbook, pp. 20-29.

⁷Stella Minton, "In-Service Training Emphasis," ERIC #ED055728, April, 1971, pp. 1-10.

⁸Eugene B. Grant, "Elements in an Adequate High School Reading Improvement Program," ERIC #ED034653, May, 1969, pp. 1-10.

⁹M. Jerry Weiss, "Developing a Content Reading Program for An Inner City High School," 19th National Reading Conference Yearbook, Part 2, 1970, pp. 237-240.



Professional educators have long been aware of the situation. In 1961, Mary Austin and a team of researchers undertook a study sponsored by the Carnegie Foundation and Harvard University which had as its purpose the investigation of how colleges and universities were preparing teachers for reading instruction. They were to make specific recommendations, one of which was that all secondary teachers be required to take a basic course in reading instruction. This recommendation was based on the recognition that the development of reading skills past the elementary grades were essential for the success in junior and senior high schools, and that secondary teachers were not prepared to guide the necessary skill development.¹⁰ The failure of colleges and universities to as yet require a course in reading for graduation requirements of secondary teachers is a disturbing indication that our teacher preparation institutions still do not understand the need for continual development of reading within each content area discipline. Because of this preservice deficit in secondary teachers, it has become difficult and costly for school districts to rectify the situation. It is difficult because secondary teachers have assumed the position that they are only responsible for the content of their discipline, not the

¹⁰ Mary C. Austin, et. al., The Torchlighters: Tomorrow's Teachers of Reading, Cambridge: Harvard University Press, 1961.



process involved in understanding the content. It is costly in terms of the money involved per pupil in the remedial reading classroom situation, and costly in terms of the wasted human potential in terms of students who could but have not mastered the reading skills inherent in understanding their subject matter ideas.¹¹ In a study done by Watson, the findings suggested that students who leave elementary school with uncorrected reading problems stand a greater chance of dropping out of school than students who are reading at a normal level when leaving elementary school.¹² In a parallel study, Hoyt and Blackmore found that the discrepancy between expected achievement and reading achievement began to widen at about the fourth or fifth grade. The researchers believed that the reason for this discrepancy was inherent in the quality of instruction pupils receive in the intermediate school grades.¹³ In spite of the evidence that reading instruction is necessary in the secondary schools, teachers have a negative attitude toward it, as Kennedy

¹¹Mariam Schleich, "Groundwork for Better Reading in Content Areas," Journal of Reading, Vol. 15, No. 2, November, 1971, pp. 119-126.

¹²R.L. Watson, "Early Identification of High School Dropouts," in Reading and Inquiry, J.A. Figural, editor, Proceedings of the International Reading Association, 1965, Vol. 10, pp. 163-171.

¹³Jeanne Hoyt and Dorothy Blackmore, "Fifth-Seventh Grades: A Comparison of Their Reading Achievement in Grades 1-7," Journal of Educational Research, Vol. 53, pp. 163-171.

states, which in part is due to preservice training, and in part due to the well-intentioned slogan "Every Teacher is a Teacher of Reading," which subject matter teachers view as a challenge to their disciplinary interests. In addition, the reading specialist who attempts to help the classroom teacher with the reading instruction in his discipline will soon be aware of the antagonism that the teacher has because of his preservice indoctrination emphasis on content only, his lack of preparation in the teaching of reading, and the threat he views the reading specialist to be to his teaching ability. In his ignorance of the reading process, the classroom teacher also thinks that reading will detract from the amount of time he has to teach his content.¹⁴ Myths such as these are prolific among secondary teachers, and the time has come to correct them somehow.¹⁵ While it may be the major responsibility of the reading teacher to develop the initial understanding of reading skills, it is just as surely the responsibility of the subject matter teacher to teach his subject in such a way that there is ample

¹⁴Larry D. Kennedy, "Problems and Progress in Junior High Reading Programs," National Association Secondary School Principals Bulletin, December, 1972, pp. 82-89.

¹⁵Ruthellen Crews, "More Myths on the Teaching of Reading," Journal of Reading, Vol. 15, No. 6, March 1972, pp. 411-415.

opportunity for students to use and be reinforced in the various skills that they have been taught.¹⁶

To correct the preservice deficit in training of reading instruction, the secondary schools have been forced to provide basic teacher training as well as continuous inservice for employed teachers. The impetus for reading improvement comes from parents, administrators, as well as conscientious teachers.¹⁷ As a result, the role of the secondary reading teacher has changed from a remedial reading teacher to that of a reading consultant, i.e., a teacher who helps classroom teachers become aware of reading instruction as part of their classroom lessons, and incorporates various reading skills and strategies into their lesson plans. Hesse, Smith and Nettleton¹⁸ report that it is extremely important that classroom teachers and school administrators have a clear understanding of what a reading consultant can do to help teachers with the reading instruction within their subject areas. Robinson and Smith define the major role of the secondary reading consultant as "highly individualized

¹⁶J. Louis Cooper, "The Reading Program Spans the Total Curriculum," ERIC #ED015824, May, 1967, pp. 1-12.

¹⁷Mariam Schlich, op. cit.

¹⁸Karl D. Hesse, Richard J. Smith, Aileen Nettleton, "Content Teachers Consider the Role of the Reading Consultant," Journal of Reading, Vol. 17, No. 3, December, 1973, pp. 210-215.

teaching of classroom teachers based on diagnostic study of teachers' unique problems and needs."¹⁹ The first step in this diagnosis is to determine each teacher's awareness of and attitude toward reading problems.

Purpose of the Study

As described in the problem, because of the pre-service deficit in training secondary teachers in reading, school districts have been forced to provide inservice to their secondary teachers in reading in the content area concepts, skills, study skills, and teaching strategies to assure that their students have systematic and continuous reading instruction throughout elementary and secondary education. However, as the Review of the Literature substantiates in Chapter II of this thesis, no attempt has been made to comprehensively survey the existing situation for factors such as teachers' definition of reading, the perceived role of the reading teacher as a means of providing help with reading instruction to teachers, the content area teachers' receptivity to and need for inservice in reading in the content areas, as well as their attitude toward reading in the content areas, and the influence of the reading teacher on these factors.

¹⁹Richard D. Robinson, Beverly J. Smith, "Secondary Consultant: Remedial Teacher of Content Teachers," Journal of Reading, Vol. 16, No. 6 March 1973, pp. 440-443.

The Literature supports the position that these factors must be determined before reading consultants and administrators can constructively approach content area teachers in creating and expanding secondary reading in the content area programs. Therefore, the major purpose of this study was to survey and describe the existing situation within a selected school district in terms of content area teachers' awareness, receptivity to and attitudes toward reading in the content areas and the present influence of the reading teacher on the factors in order to provide an objective data base upon which to build constructive inservice programs.

A secondary purpose of this study was to develop a valid and reliable instrument which could be used to survey teachers' attitudes toward reading in the content areas. As evidenced in the Review of the Literature, Chapter II, even though the need for such an instrument is supported, little work had been done in this area.

Research Questions

In this study, the investigator answered the following research questions:

1. Whom do secondary classroom teachers view as responsible for reading instruction within their building?



2. Do classroom teachers understand the concepts of reading in the content areas and remedial reading?
3. Are secondary classroom teachers aware of the services that a reading consultant can offer them to help them with reading within their classrooms?
4. Do secondary classroom teachers use the services of the reading consultant within their building?
5. Do secondary classroom teachers utilize reading skills in their content area lesson plans?
6. To what extent are classroom teachers aware of various reading strategies such as SQ3R, Marginal Guides, Study Guides, Vocabulary Building Techniques, etc.?
7. Are the classroom teachers satisfied with the instructional materials provided to them to teach their classes?
8. How many secondary classroom teachers have had courses or a course in reading instruction?
Do they incorporate what they learned from the course in their lessons?
9. Have secondary classroom teachers attended inservice sessions in reading in the content areas?

10. How many years of experience has the secondary classroom teacher had in teaching? Do these years of experience influence their perception of reading instruction?
11. What is the attitude of secondary content area teachers toward content area reading?

Definition of Terms

The investigator viewed the following terms to be pertinent to the area of study:

1. TEACHER: The secondary classroom teacher of the content area disciplines of language arts/English, social studies, science, and mathematics in grades seven through twelve is the teacher of this study.

2. READING TEACHER/READING CONSULTANT: The secondary teacher who has been trained in the expertise of reading skill development, and the process of reading as a thinking and problem solving endeavor. This person has been hired by the school district into the designated role of helping classroom teachers with reading instruction in their various disciplines.

3. CONTENT AREA READING: The content area reading process of learning and thinking that begins with

word analysis and vocabulary development and extends through four levels of comprehension (literal, inferential, analytical, and synthesis) to the combination of ideas called concepts that are the core of the subject matter disciplines. Content area reading also includes the development of study skills and study strategies.

4. REMEDIAL READING: Remedial reading is the reteaching of basic reading skills such as phonics, and word recognition, beginning levels of comprehension and beginning levels of study skills that are usually mastered by the normal reading ability student by the end of the third grade, or at least by the end of the fifth grade of elementary school.

5. ATTITUDES: Attitudes are defined as a personal disposition to react in a given manner (either positively or negatively) to certain persons, objects or concepts. Attitudes have cognitive, affective and behavioral components. While attitudes are subject to change, their directions and strengths remain enduring long enough to justify treating them as personality traits.

6. INSERVICE: Inservice is the on-the-job training of professional teachers in such topical areas as content area reading, learning theory, etc.

7. TEACHING EXPERIENCE: The number of years the classroom teacher has been certified to be teaching and

has been employed in the capacity of a teacher is teaching experience.

8. COURSES IN READING: The formal university-offered courses in reading teachers have taken.

9. INSERVICE TRAINING EXPERIENCE: The number of reading inservice opportunities in which the classroom teacher has attended and participated.

10. READING STRATEGIES: The techniques of facilitating the growth of reading skills in students, i.e., study guides, marginal guides, SQ3R, techniques for building vocabulary competence, etc., are reading strategies.

11. INCORPORATION OF CONTENT AREA READING INTO CONTENT AREA LESSON PLANS: Utilization of reading skills to facilitate the content of the lesson plan.

12. ROLE PERCEPTION OF THE READING CONSULTANT: The role of the secondary reading consultant as described by the secondary content area classroom teacher which is based on the teacher's knowledge of the role tasks of the reading consultant.

13. NEEDS PERCEPTION: The teacher's perceived need of help to plan for reading instruction in his class, more adequate materials to teach reading, and inservice training in reading instruction.

14. PRESENCE OF A READING CONSULTANT WITHIN THE SCHOOL BUILDING: Whether or not a teacher has been hired with the specific purpose of helping classroom teachers

with reading instruction in their classrooms is defined as the presence of a reading consultant within a school building.

Assumptions of the Study

On the basis of Review of the Literature, regarding content area reading, assumptions of teacher inservice training in reading, the role of the reading consultant in the secondary school building, and attitudes of content area teachers toward reading instruction, the following assumptions were developed for this study:

1. That content area reading is a process of thinking and learning which incorporates word analysis, vocabulary, four levels of comprehension (literal, inferential, analytical and synthesis) which lead to the concept development, or the synthesis of ideas, which is the core of the subject matter discipline.
2. That secondary classroom teachers have measurable attitudes toward content area reading.
3. That assessment and description of attitudes of content area classroom teachers will be beneficial to the development of a comprehensive content area reading program.
4. That variables selected for this study can be quantitatively measured, and their degree of association, if any, toward attitudes of content area teachers can be statistically determined.

5. That the presence of a reading consultant in the secondary school will make a significant difference in the attitudes of content teachers toward reading instruction.

6. That a study of this nature can best be done through the techniques used in this study.

7. That all the respondents will answer the instrument developed for this study honestly.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The main functions of the review of the literature are to determine what work (both theoretical and empirical) has already been done, to assist in the delineation of the problem area, to provide a basis for the theoretical framework, to provide insight into methods and procedures, to suggest operational definitions of major concepts, and to provide a basis for interpretation of the findings. Therefore, to fulfill these functions in this study, the Literature reviewed here has been categorized into four main areas: (1) definition of content area reading, (2) assumptions in teacher inservice training in reading, (3) the role of the reading consultant, and (4) teacher attitudes toward reading: instruments, findings and conclusions.

Definition of Content Area Reading

Content area reading is readily broken down into six parts, according to Robinson and Thomas.¹ The act

¹H. Alan Robinson, Ellen L. Thomas, Fusing Reading Skills and Content, International Reading Association Publication, 1969, pp. 1-10.

of reading is the ability to recognize words, assign meaning to the printed symbol, literally comprehend the statements, interpret those statements, evaluate the statements and finally, to assimilate the statements from the printed material. Assimilation is the part of the reading act in which the student makes use of his reading. The content teacher in any discipline has much to do with the act of assimilating, for it is here that the student acquires skills and concepts as well as attitudes derived from his reading.² The skills involved in the act of reading which cut across all of the content area disciplines are: (1) the ability to survey material, to set purposes for reading, and to determine an appropriate technique for the reading of any given piece of material; (2) the ability to handle graphic and illustrative materials; and (3) the ability to locate, comprehend and combine information from a variety of library resources.³ Therefore, both the act of reading, and the skills involved in the act of reading cut across content area divisions. Basically, the task is the same in all areas, i.e., showing students how to get into a printed page, how to derive meaning from that page, and how to know when they have

²Ibid., p. 10.

³Ibid., p. 11.

gotten the most from it without wasting any more time on it.⁴

Content area reading is further defined by Taschow as "the reader reads for purpose, thinks, gives meaning to, and understands (what is read) so that through reading content matter he gainfully learns, educes ideas, and/or solves given problems."⁵ Reading can never be isolated from the subject, for reading is a process that facilitates the understanding of ideas of the content area subject matter. Without subject matter, there is no reading. Taschow gives some basic principles which he views as essential to subject area reading instruction: The student must be ready to accomplish the tasks involved in assimilating the complexity of ideas in the subject area. Therefore, he needs adequate skill preparation for the particular level of abstraction and the relationship. He must have relevant background experiences to assimilate the vocabulary or concepts of the discipline. Because of these student needs, the teacher must build each hierarchical level of the students' experience. The reading of a particular discipline must be purposeful, i.e., directed toward an end task.⁶

⁴Ibid., p. 15.

⁵Horst G. Taschow, op. cit., p. 1.

⁶Ibid., pp. 2-9.

Ireland reiterates the idea of purposeful reading, when he states that a common definition for reading is "the meaningful interpretation of verbal symbols."⁷

The question is, however, how much meaning is meaningful?

"The amount of meaning children derive from a printed page greatly depends on their purpose for reading, which is related to their experience and motivation . . .

(therefore) . . . the teacher must clearly state the purpose for which he wants the children to read until they can set their own purposes."⁸

Continuing the theme of deriving meaning from the printed page, Dinnan states that in order for a sentence, paragraph, story, or set of facts to be meaningful to the student, he must have the ability to critically analyze them, and apply them to the world around him. Therefore, reading must be thought of in terms of critical analysis, which may be defined as a way of organizing data into a meaningful set of ideas with which one can analyze events or data through the thinking process.⁹ He also emphasizes that "the content areas have been sorely neglecting this

⁷Robert J. Ireland, "Let's Throw Out Reading!," The Reading Teacher, Vol. 26, No. 6, March, 1973, p. 584.

⁸Ibid.

⁹James A. Dinnan, "Critical Analysis Versus Critical Reading," National Reading Conference Yearbook, No. 19, Part 1, 1970, p. 107.

process and have become nothing but a reproduction of facts without any analysis whatsoever."¹⁰

Henry achieves still another level of abstraction in reading with his theory of reading as not only analysis of one work, or the separating into segments for a purpose, but that reading is also synthesis, or the joining of two or more works for a purpose. The act of synthesis is concept development.¹¹ Only after the reader has separated the ideas can he join them together with meaning. To conceptualize theoretically is to discover relations and to invent a structure for these relations. "Reading for concept development is the exercise of joining, excluding, selecting and implying within written symbols--that is, within syntax, rhetoric and literary form."¹² He applies this theory to the spiral curriculum of elementary, middle school, high school and college. The important aspect of his models on these various levels of abstraction is that in synthesis of concept development, or the joining of two or more works, the element of commonality is different than either of the individual works separately and he indicates this area by labeling it as "X."¹³

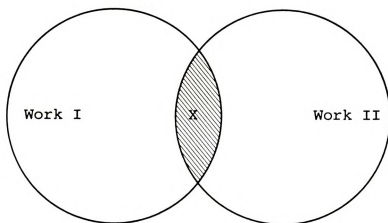
¹⁰Ibid.

¹¹Georgy H. Henry, Teaching Reading as Concept Development: Emphasis on Affective Thinking, International Reading Association Publication, 1974, p. 9.

¹²Ibid., pp. 15-16.

¹³Ibid., p. 58.

EXAMPLE OF SYNTHESIS



In other words, when synthesizing, the student invents, discovers or appreciates an additional element.

To derive meaning from content area material, students need to have an adequate vocabulary, to comprehend what is written, and strategies for "attacking" the printed material which are called study skills. Reading comprehension is defined by Karlin as learning to establish purposes for reading, developing word competency, searching for surface and deeper meaning, and evaluating information and ideas gained through reading. It is also learning to locate, master and retain information.¹⁴ Recognizing relationships of ideas, both on the literal and inferential level are measures of comprehension. "To read inferentially is to draw conclusion,

¹⁴Robert Karlin, "Developing Comprehension Skills in the High School Student," Teachers, Tangibles and Techniques: Comprehension of Content Area Reading, Bonnie Smith Schulwitz, editor, International Reading Association Publication, 1975, pp. 108-116.

to make generalization, to sense relationships, to predict outcomes, to realize the author's purpose."¹⁵ The third and fourth levels of comprehension, already mentioned are critical reading and analysis, and concept development or synthesis.

Vocabulary development is essential to comprehension of content material on any of the four levels of comprehension, mentioned above. "If teachers in every subject area concerted their efforts toward student understanding of terms within each discipline, students would stand a much better chance of developing good vocabularies."¹⁶ Herber, in Success with Words . . . In Social Studies, English, Science and Math, states that continual exposure to words helps to clarify the concept behind it.¹⁷ In other words, vocabulary building lead to concept building, i.e., it is a synthesis of separate word meanings into an idea. Throughout Herber's book on vocabulary, he uses exercises in critical thinking leading to vocabulary building. Content teachers, therefore, can make use of learned vocabulary to build the ideas of their subject matter. Once this is accomplished, work can be

¹⁵Ibid., p. 114.

¹⁶E.L. Dale, Jerry L. Milligan, "Techniques in Vocabulary Development," Reading Improvement, Vol. 7, No. 1, Spring, 1970, p. 1.

¹⁷Herald L. Herber, Success With Words . . . In Social Studies, English, Science and Math, Scholastic Book Services, 1973, p. 7.

begun on the interrelationship of these ideas. Crawford further states that "throughout his reading experience, an individual tends to read about things more or less familiar to him. Each new bit of reading increases his fund of ideas, gives him wider experiences . . . all of which builds up certain ability to infer meaning."¹⁸

Study skills and content reading is confusing to many because study skills are not part of the actual reading process. For this reason, they are often linked with the word "and". This phenomenon is clarified, again by Herber, when he says that "though reading can be performed without the process of study, studying generally assumes the ability to read."¹⁹ The skills required for comprehending and in study operate together. The study skills for reading and thinking may be divided into three areas: the receptive area, or simple intake of ideas; the reflective area, or reaction to details of study; and the expressive area, or the organization of knowledge gained through reception and reflection. Study skills are important in content area reading because, according to Viox, "each subject demands a different type of reading

¹⁸Earle E. Crawford, "Teaching Essential Reading Skills--Vocabulary," Improving Reading in Secondary Schools, L.E. Hafner, ed., MacMillan Company, N.Y., 1967., p. 138.

¹⁹Herald L. Herber, "Developing Study Skills in Secondary Schools: An Overview," Developing Study Skills in Secondary Schools, H.L. Herber, ed., International Reading Association Publication, 1965, p. 2.

and study methods."²⁰ Therefore, one cannot make a teacher, let us say, of English, responsible for the methods of study needed in science, mathematics, or social studies. Each discipline has its own approach to its reception, reaction and expression. Robinson concurs by saying "a secondary school reading and/or study program simply cannot exist as a dichotomous curriculum--a strand in which reading and study strategies are first taught before application in the content areas . . . Teaching, learning and application must take place simultaneously where and when needed . . . Again, reading is a process, or perhaps processes, but not a subject."²¹ He further divides study into skills and strategies. Skills are the tools for contending with the written message: locating relevant details, making inference, noting a graphical pattern, recognizing interrelationships among words. Strategies are steps toward completion of a particular task: slow cautious reading, leading to differentiation of the overall concept or introductory remarks from the specific steps toward the overall concept, recognition of the sequence of each step in this process.²²

²⁰Ruth G. Viox, Evaluating Reading and Study Skills in the Secondary Classroom, International Reading Association Publication, 1968, p. 1.

²¹H. Alan Robinson, Teaching Reading and Study Strategies: The Content Areas, Allyn and Bacon, Inc., N.Y., 1975, p. 4.

²²Ibid., p. 5.

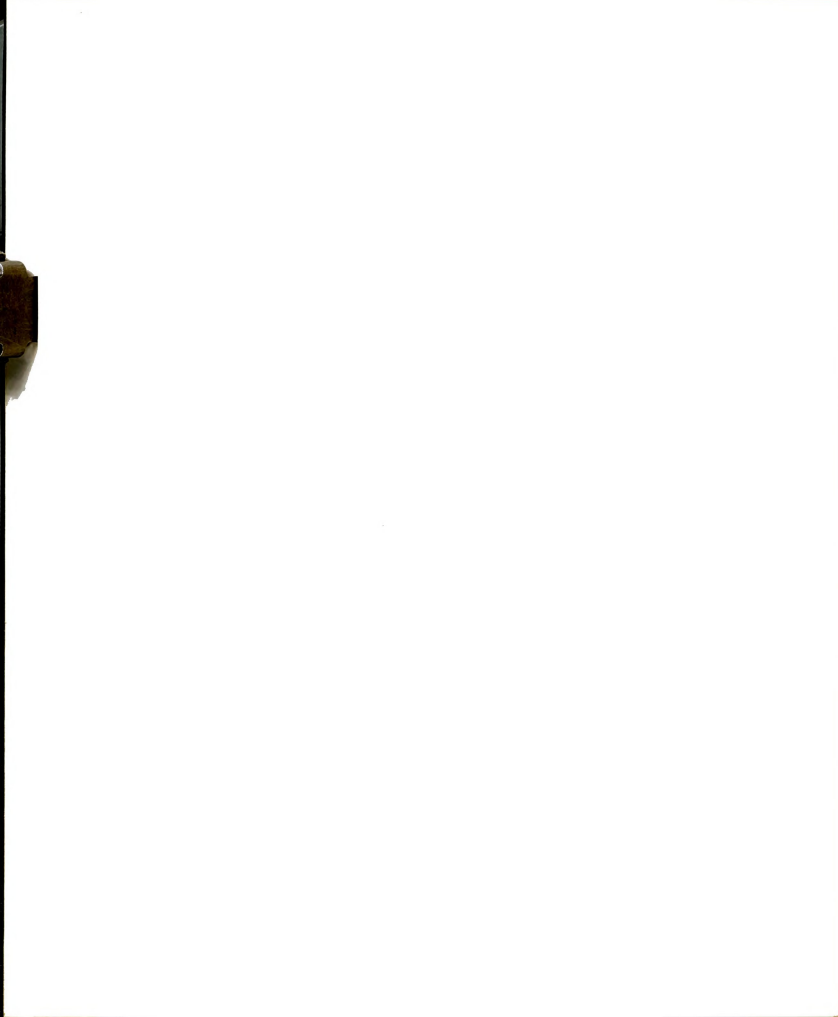


The degree of emphasis placed on reading in a particular school depends on the type of objectives that have been established for the curriculum. If the emphasis is on what a student learns, then reading will consist of literal comprehension and recall of facts. If the objectives emphasize how students learn, reading instruction will tend to emphasize critical reading, the ability to collect and collate materials from a variety of sources, a broadened taste, and a wider interest in reading materials.²³

Concerning the reading curriculum, Herber states the difference between a reading class and a content area class: "There is a definite difference between teaching reading in a content class and in a reading class. When this distinction is made clear, confusion fades, and the content teachers are more inclined to engage in 'reading instruction,' to the benefit of their students . . ."²⁴ The reading class curriculum consists of a definite set of reading skills, and the reading teacher's obligation to teach these skills. He teaches these skills in a logical, sequential manner, he diagnoses and determines the needs of his students, and then he prescribes lessons

²³ Robinson and Thomas, op. cit., p. 14.

²⁴ Harold L. Herber, Teaching Reading in the Content Areas: English, Social Studies, Mathematics, Science, Prentice Hall, N.J., 1970, p. 9.



that will enhance skill area development for each student. He has no concern for content of material he uses for the teaching of these skills, as long as it is interesting to the student. On the other hand, the content class curriculum consists of ideas, which have order and definite relationships. They also have sequence, which is based on logic, study, and experience. The sequence is determined by either a curriculum guide or a textbook.²⁵ The reading skills a content teacher would use depend primarily on the concepts/ideas he teaches. In addition, reading skills which the content teacher employs are the evaluation or assimilation steps of the reading process. The content teacher is not concerned with the teaching of reading as the reading teacher is, and therefore, the misunderstood phrase, "every teacher is a teacher of reading" is rejected by content teachers, for in no way is it relevant to the type of reading instruction which they conduct in their classrooms.²⁶

Assumptions in Teacher Inservice Training

In the prior section, Herber stated that differences existed between the reading class curriculum and the curriculum of the content area class involving reading instruction. To say that "every teacher is a teacher of

²⁵Ibid.

²⁶Ibid., p. 11.

reading" is rejected by content area teachers until they understand the differences in the reading curriculums of their classes versus a reading class. Once this is understood, hostility toward reading ceases. When reviewing the literature on in-service training for classroom teachers in content area reading, the investigator noticed that all of the articles on the topic had based their inservice programs on premises or assumptions they believed to be true of the classroom teachers' experiences, background (undergraduate/graduate training). Perhaps the reading experts reporting these assumptions have found these premises/assumptions to be valid through observation of content area classes, or from having these teachers as students in university classes. The literature did not report how these conclusions were derived. Lawrence G. Moburg studied inservice training programs in reading reports that "the research reports themselves were of varying quality: while several investigators were conscientious in reporting sufficient data, others omitted so much information . . . that one can place little faith in their reports."²⁷ Investigators of inservice programs have not adhered to the principles and basic standards of empirical research. Few of the inservice programs reported in the literature permit replication.

²⁷ Lawrence G. Moburg, Inservice Teacher Training in Reading, International Reading Association Publication, 1972, p. 29.

The investigator wished to report the assumptions or premises the reading experts have made concerning the position, behavior and knowledge of classroom teachers of content disciplines toward reading instruction in their various areas. Wright,²⁸ McDonald,²⁹ and Smith, Bragstad, and Hesse³⁰ report that classroom teachers in the secondary schools do not feel responsible for reading instruction. They feel that legitimately the teaching of reading belongs to the elementary teachers. Mosby,³¹ Katrien,³² Hill,³³ Courtney,³⁴ McDonald,³⁵ Wiggins,³⁶ Smith, Bragstad, and

²⁸Marian A. Wright, op. cit.

²⁹Thomas F. McDonald, op. cit.

³⁰Richard Smith, Bernice Bragstad, Karl Hesse, op. cit.

³¹Josephine C. Mosby, op. cit.

³²Robert M. Katrien, "Conducting an Inservice Reading Program at the Secondary Level: Grades 7-12," ERIC #ED0 23558, Summer, 1968, pp. 1-48.

³³Walter Hill, op. cit.

³⁴Brother Leonard Courtney, "Meeting Special Reading Needs in the Content Area Classroom," ERIC #ED032997, 1968, pp. 1-13.

³⁵McDonald, op. cit.

³⁶Phyllis W. Wiggins, "The Reading Teacher: Heart of the Curriculum," Journal of Reading, Vol. 15, No. 7, April, 1972, pp. 482-484.

Hesse,³⁷ and Herber³⁸ report that secondary content area teachers feel inadequate in providing reading instruction in their classes. Therefore, they need additional expertise. This does not mean that they are lacking in competence, but that their perspective needs to be altered from solely teaching of the content of their disciplines to the process involved in the students' ability to comprehend the ideas involved in that subject area. Content teachers also maintain an apathetic position toward teaching of reading. Hill³⁹ reports that this apathy has been cited in the literature for three decades. He adds that the problem is complex involving issues of occupational selection, preservice indoctrination, ego defensiveness, curriculum traditions and professional training. As Moburg⁴⁰ stated that inservice programs have been varying in quality, Hill states that in addition to that, the situation existing in the secondary schools have not been realistically assessed. This apathy could logically be derived from two other assumptions made in the literature: Minton⁴¹ reports that secondary teachers expect that

³⁷Smith, Bragstad, and Hesse, op. cit.

³⁸Harold L. Herber, "Reading in the Content Areas: A District Develops Its Own Personnel," Journal of Reading, Vol. 13, No. 8, May, 1970, pp. 587-592.

³⁹Walter Hill, op. cit.

⁴⁰Lawrence G. Moburg, op. cit.

⁴¹Stella Minton, op. cit.



students entering the junior and senior high schools will possess adequate reading skills, and Hill⁴² and Grant⁴³ report that secondary teachers view reading instruction in secondary buildings to be primarily remedial in nature, rather than the developmental program of content area reading.

Given the information cited on the previous pages, assumptions concerning what the experts wish the impact of the inservice to be or to result in will now be described: Smith and Otto,⁴⁴ Sawyer and Taylor,⁴⁵ Decarlo and Cleland,⁴⁶ Otto,⁴⁷ Katrein,⁴⁸ Minton,⁴⁹ Courtney,⁵⁰

⁴²Walter Hill, op. cit.

⁴³Eugene B. Grant, op. cit.

⁴⁴Richard J. Smith, Wayne Otto, "Changing Teacher Attitudes Toward Teaching Reading in the Content Areas," Journal of Reading, Vol. 12, No. 4, January, 1969, pp. 299-304.

⁴⁵R. Sawyer, L.B. Taylor, "Evaluating Teacher Effectiveness in Reading Instruction," Journal of Reading, Vol. 11, March, 1968, pp. 415-418.

⁴⁶M.R. Decarlo, D.C. Cleland, "A Reading Inservice Education Program for Teachers," The Reading Teacher, Vol. 22, November, 1968, pp. 163-169.

⁴⁷Wayne Otto, Inservice Education to Improve Reading Instruction, International Reading Association Publication, 1973, p. 6.

⁴⁸Robert M. Katrien, op. cit., p. 31.

⁴⁹Stella Minton, op. cit.

⁵⁰Brother Leonard Courtney, "Are We Really Improving Reading in the Content Fields?," International Reading Association Proceedings, Vol. 13, Part 2, pp. 19-34.



Smith, Bragstad, and Hesse,⁵¹ and Herber⁵² all report that the major objective of inservice is to increase awareness of the process of reading instruction on the secondary level, i.e., the concepts involved in content area reading.

In the initial inservice experience . . . some basic teaching principles were . . . demonstrated. Particular emphasis was placed upon . . . the fact that reading instruction should be an integral part of content instruction. Considerable time was devoted to the comprehension process, methods of guiding students . . . (through) . . . the required materials . . . the structure of lessons, . . . ways to teach the technical vocabulary . . . to help them acquire concepts . . . (as well as) . . . methods for reinforcing and extending knowledge of concepts were investigated.⁵³

Weiss⁵⁴ and Herber⁵⁵ also state that an outcome of teacher inservice training in reading instruction should be the realization that reading is not a separate subject in the secondary schools, but a process that is part of the content area curriculum.

The time has come to realize that reading is not a separate subject. Too much time has been spent in trying to develop reading centers, . . .

⁵¹R. Smith, B. Bragstad, K. Hesse, op. cit.

⁵²Harold L. Herber, "Reading in the Content Areas: A District Develops Its Own Personnel," op. cit.

⁵³Ibid., p. 590.

⁵⁴M. Jerry Weiss, op. cit.

⁵⁵Harold L. Herber, "Reading in the Content Areas: A District Develops Its Own Personnel," op. cit.

and we now know that "tactics" have failed to product . . . (results) . . . for the inner city youth in our secondary schools.⁵⁶

If awareness is gained by teachers in the idea that reading is not a separate subject in the secondary schools, inservice programs need to provide additional information to help the classroom teacher provide for the reading instruction of students within the classroom itself. Smith, Bragstad, and Hesse⁵⁷ report that teachers are not familiar with standardized reading test procedures, as well as informal tests, and cannot analyze test results. Schirmer and NaVarre,⁵⁸ Minton,⁵⁹ and Herber,⁶⁰ follow by saying that teachers need knowledge and practice in identifying and correcting reading problems within the classroom. Kasdon and Kelly,⁶¹ Otto,⁶² Minton,⁶³ and

⁵⁶M. Jerry Weiss, op. cit., p. 237.

⁵⁷Richard Smith, Bernice Bragstad, and Karl Hesse, op. cit.

⁵⁸G. Schirmer, G.B. NaVarre, "Evaluating a Summer Seminar." Journal of Reading, Vol. 12, January, 1969, pp. 299-304.

⁵⁹Stella Minton, op. cit.

⁶⁰Harold L. Herber, "Reading in the Content Areas: A District Develops Its Own Personnel," op. cit.

⁶¹L.M. Kasdon, D. Kelly, "Simulation: In-service Education for Teachers of Reading," Journal of Experimental Education, Vol. 38, Fall, 1969, pp. 79-86.

⁶²Wayne Otto, op. cit.

⁶³Stella Minton, op. cit.

Herber,⁶⁴ say that teachers need more awareness of the students varying instructional levels within the classroom. When they have achieved this awareness, they need to increase their knowledge of instructional methods and procedures (Heilman,⁶⁵ Otto,⁶⁶ Smith, Bragstad, and Hesse,⁶⁷ and Herber⁶⁸), as well as knowledge of instructional materials which incorporate reading strategies (Minton⁶⁹). Heilman,⁷⁰ Katrein,⁷¹ Hill,⁷² and Courtney,⁷³ state that a basic ingredient in an inservice program in reading is to familiarize classroom teachers with the professional literature in reading, and knowledge of research.

⁶⁴Harold L. Herber, "Reading in the Content Areas: A District Develops Its Own Personnel," op. cit.

⁶⁵A.W. Heilman, "Effects of an Intensive Inservice Reading Program on Teacher Classroom Behavior and Pupil Reading," The Reading Teacher, Vol. 19, May, 1966, pp. 622-626.

⁶⁶Wayne Otto, op. cit.

⁶⁷R. Smith, B. Bragstad, K. Hesse, op. cit.

⁶⁸Harold L. Herber, "Reading in the Content Areas: A District Develops Its Own Personnel," op. cit.

⁶⁹Stella Minton, op. cit.

⁷⁰A.W. Heilman, op. cit.

⁷¹Robert M. Katrien, op. cit.

⁷²Walter Hill, op. cit.

⁷³Brother Leonard Courtney, "Meeting Special Reading Needs in the Content Area Classroom," op. cit.

Outcomes of inservice programs in reading are changes in teacher attitude toward reading instruction (Smith and Otto,⁷⁴ Minton,⁷⁵ and Grant⁷⁶). The assumption is that changes in teacher attitudes toward reading instruction will effect higher pupil achievement (Morrill,⁷⁷ and Heilman⁷⁸). Because of methodological errors, however, Morrill's study is inconclusive, and Heilman's findings were that change in teacher attitudes did not result in higher pupil achievement, but the results favored the pupil in nine out of ten cases. Smith and Otto⁷⁹ report that their course, which had as the intention the changing of teacher attitudes toward reading instruction, did not result in changes in attitudes, even though the teachers mastered the reading concepts presented in the course. The authors rationalize this phenomenon by saying that "perhaps the inventory (used to pre and post test teacher attitudes) is insufficiently sensitive to attitudinal

⁷⁴R. Smith, W. Otto, op. cit.

⁷⁵Stella Minton, op. cit.

⁷⁶Eugene B. Grant, op. cit.

⁷⁷K.A. Morrill, "A Comparison of Two Methods of Reading Supervision," The Reading Teacher, Vol. 19, May, 1966, pp. 617-621.

⁷⁸A.W. Heilman, op. cit.

⁷⁹R. Smith, W. Otto, op. cit.

changes,"⁸⁰ and they suggest further work in the area. Further discussion of attitudes of classroom teachers has been presented in another section of this review.

Additional outcomes, cited by Otto,⁸¹ include clarification of roles of all participants involved in planning and implementing the school reading program. A total, developmental reading program must have the total commitment and support of the classroom teacher, the principal, the superintendent, the curriculum supervisor, the reading consultant, from within the district and from within the individual building, consultants from outside the district contracted for inservice sessions, as well as policy support from the Board of Education and the parents of students. Together, these people can act to clarify problems and suggest and implement solutions to the district's reading problems.

The Role of the Reading Consultant

Enlarging on the theme of total commitment of all participants involved in a reading program which emphasizes content area reading, called developmental reading, Hesse, Smith and Nettleton⁸² report that it is extremely

⁸⁰Richard Smith, Wayne Otto, op. cit., p. 304.

⁸¹Wayne Otto, op. cit.

⁸²Karl D. Hesse, Richard J. Smith, with Aileen Nettleton, op. cit.



important to working relationships that both the classroom teachers and the school administrators have a clear idea of what a reading consultant can do to help classroom teachers with reading instruction within the classroom structure. Robinson and Smith⁸³ define the major role of the secondary reading consultant as "highly individualized teaching of classroom teachers based on diagnostic study of teachers' unique problems and needs."⁸⁴ According to the authors, the reading consultant, when working with teachers, bases his instruction on diagnosis, i.e., he starts from what the teachers know, selects the appropriate material, and secures motivation. A first step in diagnosis is to determine each teacher's awareness of and attitude toward reading problems. The authors give a model which indicates four areas of response from the reading consultant, depending on the level at which the secondary teacher is operating. The four response areas are described as follows: (1) Frustration Level: When the secondary content teacher attempts to teach ideas in a content area with no consideration of students' reading abilities and problems, the consultant can bring awareness of reading problems. (2) Complaint Level: When the secondary teacher regards reading skills as an elementary school problem, the reading consultant can maintain a

⁸³Richard D. Robinson, Beverly J. Smith, op. cit.

⁸⁴Ibid., p. 440.

positive attitude toward reading on the secondary level.

(3) Experimental Level: The content teacher does experimentation with various methods and materials. He puts efforts to learn more about reading problems and ways of coping with them. At this stage, the consultant can bring understanding and expertise in inservice programs, class visitations and the like. (4) Problem-Solving Level: At this level, the content teacher tries to solve problems by making assignments and teaching effectively in the content areas. The role of the consultant at this level is to support, encourage and continue to help this teacher.

The various aspects of the role of a secondary reading consultant are numerous. Much of the literature in this area overlaps, with one contributor perhaps adding a slight variation of the function from the other contributors. Therefore, the investigator has attempted to categorize all the various aspects of the role as follows:

A reading consultant helps to measure the ability of each student within the building to determine if he can read the material the classroom teacher assigns.⁸⁵ He appraises the students' abilities to read which includes

⁸⁵Hesse, Smith, Nettleton, op. cit.

selecting the test⁸⁶ and planning for testing.⁸⁷ Part of the reading consultant's role is also devising a system for evaluating the school's reading program,⁸⁸ and determining validity and reliability of selected formal and informal instruments used in assessing reading competencies.⁸⁹ Once the tests are selected, based on the purpose for which they are to be used, the consultant administers the test, diagnoses individuals and large groups according to skill needs, communicates this information to the appropriate persons, and keeps records of each student's reading tests.⁹⁰ After testing, the consultant compiles and interprets profiles of standardized (as well as individual diagnostic, both formal and

⁸⁶Mary Ann Debrick, "Guidelines for Reading Instruction in the Secondary School," ERIC #ED052904, 1968, pp. 1-19.

⁸⁷E.L. Thomas, "The Role of the Reading Consultant," Fusing Reading Skills and Content, H.A. Robinson, E.L. Thomas, eds., International Reading Association Publication, 1969, pp. 47-61.

⁸⁸Mary Ann Debrick, op. cit.; H. Thomas Fillmer, "Roles of the Reading Teacher," Reading in the Middle School, Gerald G. Duffy, ed., International Reading Association Publication, 1974, pp. 46-56.

⁸⁹H. Thomas Fillmer, Ibid.

⁹⁰Hesse, Smith, Nettleton, op. cit.; Marian A. Wright, op. cit.; Mary Ann Debrick, op. cit.; H. Thomas Fillmer, op. cit.; Richard J. Smith, M. Bernice Bragstad, "Providing Field Experiences for Prospective Consultants," Journal of Reading, December, 1970, Vol. 14, No. 3, pp. 163-166.

informal, and group informal) reading test scores for the classes of the content areas teachers.⁹¹ The reading consultant also plans a record keeping system to keep track of each pupil's progress.⁹² The record keeping system allows the consultant to evaluate the reading program continuously in the light of pupil performance.⁹³

In some schools, the reading consultant runs a reading center. In this center, he provides two or three hours of instruction in reading per week to various individuals or small groups who have been identified as seriously disabled readers.⁹⁴ He also teaches reading classes for college preparatory students and students with good basic skills,⁹⁵ and offers classes in efficient reading for teachers so they might improve their reading speed.⁹⁶ Within the center, the consultant can set up and operate a study skills center where students can get individual help with their reading assignments,⁹⁷ teaches

⁹¹H. Thomas Fillmer, op. cit.

⁹²Ibid.

⁹³Ibid.

⁹⁴Hesse, Smith, Nettleton, op. cit.

⁹⁵Ibid.

⁹⁶Ibid.

⁹⁷Ibid.

word analysis and basic comprehension skills to low level readers,⁹⁸ plans with students a reading program that meets specific objectives arrived at cooperatively by the teacher and pupil,⁹⁹ and plans and supervises an attractive area loaded with paperback books where students can come and read for pleasure.¹⁰⁰ From this center, the reading consultant also provides teachers with workbooks, kits and other instructional material that students can work through independently to improve their general vocabulary and comprehension,¹⁰¹ evaluates most common techniques, hardware, and materials used in reading instruction,¹⁰² and in general, acts as a manager of a reading resource center.¹⁰³

Beginning to offer teachers services, the consultant might offer to teach reading skills needed for effective use of the school library¹⁰⁴ either from within the center, or within the classroom of the content area teachers. He might also help the teacher to locate or

⁹⁸H. Thomas Fillmer, op. cit.

⁹⁹Ibid.

¹⁰⁰Hesse, Smith, Nettleton, op. cit.

¹⁰¹Ibid.; H. Thomas Fillmer, op. cit.; Richard J. Smith, M. Bernice Bragstad, op. cit.

¹⁰²H. Thomas Fillmer, op. cit.

¹⁰³Ibid.

¹⁰⁴Marian Wright, op. cit.

construct phonograph records, audio-tapes, pictures, filmstrips that will give poor readers the information they need without requiring them to read,¹⁰⁵ and locates and provides suitable materials¹⁰⁶ that teach the same basic concept for poorer readers within the classroom that the adequate readers have for their lessons. Along this line, the reading consultant is able to give the classroom teacher suggestions for helping students master the vocabulary they encounter in the content area reading assignments,¹⁰⁷ aid in constructing questions that will lead students to comprehend, analyze and evaluate materials the classroom teacher assigns,¹⁰⁸ helps the classroom teacher to develop lesson plans incorporating levels of comprehension to meet the wide range of abilities usually found in any one classroom,¹⁰⁹ offers suggestions to the classroom teacher for individualizing assignments according to students' abilities and interests,¹¹⁰ prescribes individualized reading activities for pupils,¹¹¹ and

¹⁰⁵Hesse, Smith, and Nettleton, op. cit.

¹⁰⁶Marian Wright, op. cit.

¹⁰⁷Hesse, Smith and Nettleton, op. cit.

¹⁰⁸Ibid.

¹⁰⁹Marian Wright, op. cit.

¹¹⁰Hesse, Smith and Nettleton, op. cit.; H. Thomas Fillmer, op. cit.

¹¹¹H. Thomas Fillmer, Ibid.

presents methods of individualized instruction.¹¹² The reading consultant can also assist teachers in developing learning strategies that incorporate study skills that are unique to each content area,¹¹³ assist in selecting and sequencing class activities related to reading that will aid the student in developing the concepts of the course.¹¹⁴ The reading consultant can also identify and list the reading skills that students will need to have if they are to be successful in the various subject areas,¹¹⁵ and incorporate those skills into content courses of study.¹¹⁶ He can present to regular classes techniques students can use to improve the reading skills needed in those classes,¹¹⁷ assist by teaching sequences of appropriate reading lessons that are based on the materials assigned in the content area class,¹¹⁸ and discuss with the classroom teacher the reasons why certain students appear to remain poor readers in spite of extra

¹¹²Marian Wright, op. cit.

¹¹³M. Bernice Bragstad, "The Role of the Secondary Reading Consultant," ERIC #ED051985, December, 1970, pp. 1-9; E.L. Thomas, op. cit.

¹¹⁴Hesse, Smith, and Nettleton, op. cit.

¹¹⁵Ibid.

¹¹⁶E.L. Thomas, op. cit.

¹¹⁷Hesse, Smith, and Nettleton, op. cit.

¹¹⁸Ibid.

help they have received.¹¹⁹ The reading consultant can assist content area teachers in creating learning situations in which students can apply the reading skills taught in language arts classes to other disciplines,¹²⁰ help plan instructional practices that cause students to note the logical organization of reading material assigned in the content area classes,¹²¹ help plan instruction that teaches students to infer ideas that are not directly stated in the material read,¹²² and help teachers conceive of reading as a thinking process, i.e., how the mind comprehends and remembers new material.¹²³ The reading consultant can also aid the classroom teacher in setting up classroom situations in which students can work together in pairs or small groups on reading materials the teachers assigned,¹²⁴ help the classroom teacher to construct exercises that teach students to vary their rates of reading according to the material assigned and their purpose for reading it,¹²⁵ aid the classroom teacher in

¹¹⁹ Ibid.

¹²⁰ Ibid.

¹²¹ Ibid.

¹²² Ibid.

¹²³ M. Bernice Bragstad, op. cit.

¹²⁴ Hesse, Smith, Nettleton, op. cit.

¹²⁵ Ibid.

helping his students see the relationship between their listening and their reading,¹²⁶ and work with the teacher in developing ways to help students utilize their background experiences to understand what they read.¹²⁷ In addition, the consultant should be able to assist the classroom teacher in setting up writing assignments, such as summarizing, that will cause the students to attend to the organization of the material read, aiding the student in comprehension and retention,¹²⁸ discuss with the teacher ways to use oral reading in the class so that the best interests of both good and poor readers are served,¹²⁹ and also, work directly with the classroom teacher to formulate activities aimed specifically at the disabled reader.¹³⁰

In addition to setting up and maintaining a testing center, a reading resource center, and helping various content area teachers with reading instruction within their class, or planning with them for reading instruction prior to their class, the reading consultant can also act as a reading resource person for the individual secondary building in a variety of ways: as a resource

¹²⁶Ibid.

¹²⁷Ibid.

¹²⁸Ibid.

¹²⁹Ibid.

¹³⁰M. Bernice Bragstad, op. cit.



person, the consultant can list books at various readability levels to be used in the content area classes (or that are used in the classes), display games, literature and hardware designed to improve particular reading skills, with demonstration lessons for development of word attack, vocabulary, comprehension, study of flexibility skills,¹³¹ conduct inservice sessions that will give all teachers a better understanding of the reading process and how to teach reading,¹³² sit in classes to help determine the effectiveness of the content area teachers teaching of reading in his subject area,¹³³ develop a sensitivity to teacher needs and create ways to meet them,¹³⁴ draw out teachers deepest concerns,¹³⁵ and plan the annual budgetary need for the reading program, allowing for a current cash fund for immediate "special need material."¹³⁶ In addition, the reading teacher must collect, analyze and interpret research data from many different areas. He must help in planning and evaluating

¹³¹M. Bernice Bragstad, op. cit.; E.L. Thomas, op. cit.

¹³²Mary Ann Debrick, op. cit.

¹³³Hesse, Smith and Nettleton, op. cit.; E.L. Thomas, op. cit.

¹³⁴Marian Wright, op. cit.

¹³⁵E.L. Thomas, op. cit.

¹³⁶Mary Ann Debrick, op. cit.



reading activities in the content areas, i.e., he must facilitate in any way he can and assume a leadership and persuasive role resulting in a total developmental reading program.

As one can see, the roles are many and varied. The tasks of a reading teacher may have some but not all of these role functions.

Teacher Attitudes Toward Reading:
Instruments, Findings and
Conclusions

As discussed in the beginning of the foregoing section of the review of the literature, the first step in the process of creating a developmental or content area reading program was the diagnosis of teacher attitudes toward reading instruction. The investigator, therefore, has searched and found eight descriptive papers, which contain five instruments, one of which is a modification of one of the remaining four instruments. Three of the articles contain follow-up studies of the use of one instrument in various ways. The papers describe the instruments, the findings and the conclusions, and only one or two contain descriptions of the methodology. The purpose of this section is to review those eight papers.

In 1967, Arthur Olson conducted a survey of attitudes of junior and senior high content area teachers toward reading instruction. He also surveyed their principals' perceptions of the teachers' effectiveness in

providing reading instruction in their respective classes. The sample population was 585, and contained teachers of English, social studies, science, mathematics, business, vocational arts, and foreign language. The respondents were given a checklist of 20 practices relating to reading in the content areas and were asked to indicate the extent they utilized the practice in the following way: (1) almost always, (2) most of the time, (3) sometimes, (4) seldom or never. The findings were as follows: female teachers felt they almost always used materials suited to the reading levels of their students. Male teachers were less positive, but felt that they also did a good job. The principals felt that the teachers were much less effective in selecting materials to meet the reading levels of their students than the teachers themselves did. Over half of the female teachers felt they taught the reading skills needed for their content areas adequately "almost always," while the male teachers indicated that they taught them adequately on a less frequent basis. The principals felt that the teachers did not do as adequate a job as the teachers did. The teachers also indicated that they generally did not provide other reading materials for those students who could not read the textbook. Contradictions in the responses were numerous. In spite of the fact that teachers reported that materials were almost always suited to the reading levels of the students, little or no provision was made for those who

could not read the textbook. Findings from another item indicated that teachers were not as positive as they reported on a previous item concerning the reading level of the material they used. They reported that they received the information on the reading level of the material they used from the publisher of that material.¹³⁷

Lee Kolzow described another survey she used to determine attitudes of community college teachers toward reading in the content areas. Again, she mentioned that the first step in creating an environment for content area reading was the assessment of the audience--their background and readiness. In order to accomplish this task, an attitudinal survey was constructed using 20 open-ended questions on a population of 68. The results of the survey indicated that the mood and readiness of teachers had to be dealt with before they were ready to accept and assume responsibility for reading instruction. The general trend of the results were as follows: (1) the majority of the faculty felt that if a student could not read the text, he should either quit school, take a different course, or sign up for a remedial reading course. (2) The teaching of reading belongs in grade school or in a remedial reading class. (3) The reading instruction should

¹³⁷ Arthur V. Olson, "Attitude of High School Content Area Teachers Toward the Teaching of Reading," ERIC #ED015851, December, 1967, pp. 1-9 (paper presented at the 1967 National Reading Conference).



have been completed by the fifth grade; with 20 percent it should have been completed by the third grade. (4) All teachers in the population felt that the reading teacher is a needed position, though few of those teachers would want the job. (5) The average amount of time the teachers demanded reading from their students was 75 percent of the course. (6) Most teachers chose their textbooks according to the content and the attractiveness of the presentation. (7) The teaching of reading is something that almost all the teachers indicated they knew nothing about, or that it belonged in grade school. (8) Reading is something that they, themselves, loved, enjoyed, and couldn't get enough of. (9) The feelings teachers had toward students who couldn't read the text ranged from sympathy (the most frequent response) to intolerance (mentioned only a few times).¹³⁸

Eunice Askov, in 1970, reported "The Reading Teacher Survey," an instrument developed to measure the attitudes of elementary teachers toward individualizing reading instruction. To obtain the responses of teachers as actual as they believed, the semantic differential scale of Osgood, Suci, and Tannenbaum was adopted. According to the authors, the semantic differential method is indirect, gets actual responses, the intent of

¹³⁸ Lee Kolzow, "Reading in the Content Areas in the Two Year College . . ." Journal of Reading, Vol. 16, No. 1, 1972, pp. 46-49.

the instrument is not apparent, and it has the advantage that the respondents don't fear revealing personal feelings. The final format of the instrument contained 11 statements and seven scales. The statements consisted of examples of classroom situations, illustrating instructional procedures that would grow out of assumptions of individualized reading instruction. The six rating scales consisted of adjectives picked from the adjectives used in the literature to describe individualized instruction. One additional scale provided a continuum of agreement-disagreement. The estimates of reliability or internal consistency of the instrument conducted on the responses of experienced teachers was .93. The scale had two limitations, according to the author: (1) the strenuous influences of the test administrator was one limitation. If the instrument was administered by a well-liked reading consultant, the scores might tend to be higher than if a person not directly concerned with the reading program administered it. (2) Another limitation exists in interpreting the scores. A score on any attitude inventory may not be considered as a true indication of behavior. A score on this instrument indicates only how the teachers say they would react to the given stated example if they were applied in their classrooms. The instrument does not provide information concerning procedures actually

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being employed during reading instruction in the classrooms.¹³⁹

Richard Smith and Wayne Otto, in 1969, reported an attitudinal survey, used as a pre and post test, developed to measure secondary teachers attitudes toward reading instruction. The authors decided to experiment with a personally taught university reading improvement course, rather than experimenting on an inservice population. The population of the course consisted of 19 junior and senior high school teachers who met together for seven consecutive Monday evenings. The first and seventh sessions were used for pre and post testing. The inventory consisted of 14 statements on a Likert continuum. The results on examination of each attitude item indicated no changes in attitudes of teachers. The authors admit that the instrument was perhaps insensitive to attitudinal changes.¹⁴⁰

Wayne Otto, 1969, described the same instrument referred to in the foregoing paper by Richard Smith and Wayne Otto, in another paper, published the same year. The instrument was designed to measure direction and

¹³⁹ Eunice N. Askov, "Assessing Teachers' Attitudes Toward Individualizing Reading Instruction," Nineteenth Yearbook of National Reading Conference, 1970, pp. 23-28.

¹⁴⁰ Richard J. Smith, Wayne Otto, "Changing Teacher Attitudes Toward Teaching Reading in the Content Areas," Journal of Reading, Vol. 12, No. 4, 1969, pp. 299-304.



intensity of teachers' attitudes toward the teaching of reading in the content areas of secondary school. It consisted of 14 statements, seven positive, seven negative, arranged in a Likert-type format, as described by Edwards in Techniques of Attitude Construction (1957). The respondents were asked to answer on a five response continuum, from strongly agree to strongly disagree.

A-priori weights of one integer difference were assigned in descending order to the responses for positive items and in ascending order to the same responses for negative items, thus a high score would indicate a more positive attitude than a low score. The intent of the inventory was to reflect teachers' perceptions of (a) their role in the teaching of reading, (b) the role of the reading specialist at the secondary level, (c) their preparation and ability to teach reading, and (d) the actual task of teaching reading skills. RAVE (Reciprocal Averages Computer Program), developed by Baker, was used to obtain a reliability estimate for the inventory. Reliability co-efficient was .848 with initial weights and .857 with optimal weights. The inventory was given to 87 teachers, 38 at the junior high and 49 at the senior high. Data was collected from the entire population. The participants responded anonymously, and reliability co-efficients were high for each group. The findings reflected a willingness and enthusiasm to accept responsibility for



teaching reading in the content areas. Teachers also recognized the need for continuing the teaching of reading at the secondary level, but felt the need for more training in the teaching of reading. Based on a small sample, the study needs replication with more secondary teachers if the findings are to stand. If the results are correct, reading people can worry less about selling secondary teachers on content reading and go about helping them accomplish the task.¹⁴¹

A follow up study to the one just described done by Otto in 1969, was done by Smith, Hesse and Otto in 1970. They felt that because the population in the 1969 study was too small, further study was needed. They used the same attitudinal inventory as already described on a population of 90 junior high teachers from social studies, mathematics, English and science content areas. Answers to the following questions were sought: (1) Will the attitude inventory developed by Smith and Otto retain its high reliability with a different population? (2) Will the attitudes of junior high school teachers in the Madison System be similar to the attitudes of teachers sampled in the Smith-Otto study? (3) Will there be differences in the responses of teachers from the different

¹⁴¹Wayne Otto, "Junior and Senior High School Teachers' Attitudes Toward Reading in the Content Areas," 18th National Reading Conference Yearbook, 1969, pp. 49-54.

content areas represented? and (4) Will there be differences in the responses of teachers exposed to different kinds of in-service experiences regarding the teaching of reading in the content areas? They found that the survey was reliable with another population (Madison teachers--.84, Other teachers--.83). English teachers showed the most positive attitudes; science teachers showed the least positive attitudes. Neither population, however, could be classified as having negative attitudes. Out of five different junior high schools, the results from one school showed a negative attitude response, with a 40 median, when 43 median would be bordering on positive response. The study was done to obtain more information on an area that has little investigation. The findings of this study are not offered as conclusive evidence; they are presented as trends and guidelines for further investigation. The findings must be regarded with caution, for too many variables were uncontrolled and the samples of the study were too small.¹⁴²

Another study on attitudes of secondary teachers toward content area reading instruction was done by Beverly Hudson in 1973. She used the instrument developed by Smith and Otto in 1969, but made some improvements on

¹⁴²Richard J. Smith, Karl Hesse, Wayne Otto, "Factors Influencing Junior High Teachers' Attitudes Toward Teaching Reading in the Content Areas," 19th National Reading Conference Yearbook, pp. 177-183.

it. The population was divided into two groups: Group A consisted of high school teachers in an inner city system who had the services of a reading consultant for two years; Group B consisted of ten teachers who made up the social studies department of a suburban school who had no services of a reading consultant. Three questions formed the basis of the study: (1) Do teachers who do not have the services of a reading consultant immediately available to them view the responsibility for the teaching of reading differently than those teachers who do have the services of a reading consultant? (2) If teachers recognize a need for content teachers to be involved in the teaching of reading, do they feel they need assistance? (3) Has the active presence of a reading consultant in any way changed the views of social studies teachers toward the teaching of reading in the content areas? The literature reviewed for this study suggested that while some teachers felt they were attempting to incorporate the development of reading skills into content, not all were convinced that an adequate job was being done. Some teachers felt ill-equipped or pressured by lack of time to incorporate the reading skills into content teaching. Reading experts, for numerous reasons, felt that the content teachers were the logical people to develop reading skills within their disciplines. They also felt that content teachers must develop an awareness of their role in

developing reading as a thinking process. The findings of the study indicated that the number of years of teaching experience has little to do with the teachers' attitude toward reading in the content areas. Both Group A and Group B accepted the idea that the content teacher should share in the teaching of reading. Both groups also felt they needed assistance with reading instruction, and they indicated that the teaching of reading does not interfere with the course objectives. Group A seemed to be more fully aware that teachers giving reading assignments should teach students how to read what is assigned. Findings also indicated that the teachers felt that reading could be taught without specific materials designed for that purpose, and that content teachers were probably more competent to teach reading skills for their subject area than are special reading teachers. Conclusions were that studies like this need to be conducted on a larger scale with larger populations and more content areas.¹⁴³

Summary

The Review of the Literature contained four sections upon which the theoretical and empirical framework

¹⁴³Beverly S. Hudson, "An Assessment of the Attitudes of Secondary Level Teachers Toward Incorporating Reading Skills with Content," ERIC #ED105446, September 1975.

for the study was constructed. This framework helped to define the problem, determine the research questions and assumptions of the study, devise the instrument, and helped in interpretation of the findings of this study. The first section of this chapter determined a definition of content area reading, which is primarily concerned with the process of building a hierarchy of skills to the level of abstraction of concepts or principles of the content area discipline. The second section discussed the assumptions or premises of reading inservices. This section described the premises of what the teachers already knew about reading and what was needed to build a content area reading program. The third section gave a complete picture of all the various tasks and dimensions of the role of the reading consultant. The reading teacher may function in any combination of the roles described in that section. The last section gave a complete description of what work has been done to measure and assess the attitudes of teachers toward reading. On the basis of this review it was felt necessary to develop a valid and reliable attitude scale for this study. Lastly, upon the basis of this review of literature this investigator formulated the assumptions and hypotheses for this study which are described in the chapter on Methodology.

CHAPTER III

METHODOLOGY

Purpose of the Study

The major purpose of this survey was to find out, in Lansing School District, Lansing, Michigan, secondary content area teachers' awareness and understanding of the concepts of reading, familiarity with and the extent of utilization of secondary reading objectives, reading skills, and reading strategies, their perception of the role of reading teachers, their perceived need for in-service training in reading and help in planning for reading instruction in their classes, their perception of the adequacy of the instructional material provided to them to teach their classes, their attitude toward reading and the present influence of the reading teacher. The study also attempted to find out significant relationships, if any, between the factors selected for this study and the teachers' attitudes. A secondary purpose of this study was to develop a valid and reliable instrument to measure teacher attitudes toward reading.

With these purposes in mind, this chapter describes the design and procedure used in this study, i.e.,

it contains statements of hypotheses, description of the population and selection of respondents, design, dependent and independent variables, instrumentation and data collection procedure, and statistical techniques used to analyze the data.

Hypotheses

On the basis of the review of the literature, research questions and assumptions, as well as the purpose of this study, the following null hypotheses were formulated to be tested at the .05 level of significance:

- H₁: The presence or absence of a reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on understanding of remedial reading.
- H₂: The presence or absence of a reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on understanding of content area reading.
- H₃: The presence or absence of a reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on utilization of reading strategies.
- H₄: The presence or absence of a reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on familiarity with secondary reading objectives.
- H₅: The presence or absence of a reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers or use of secondary reading objectives.

- H₆: The presence or absence of a reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on incorporation of reading skills.
- H₇: The presence or absence of a reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on reading skills used in lessons.
- H₈: The presence or absence of a reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on role perception of the reading teacher.
- H₉: The presence or absence of a reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on perception of need for inservice in reading.
- H₁₀: The presence or absence of a reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on perception of adequacy of reading material.
- H₁₁: The presence or absence of a reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on perception of need for help in planning for reading instruction.
- H₁₂: The presence or absence of a reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on attitude toward reading instruction.
- H₁₃: There will not be any positive correlation between the attitude scores of secondary classroom teachers and their scores on independent variables: (i) presence or absence of reading consultant within school building, (ii) years of teaching experience, (iii) number of courses taken in reading,

(iv) number of inservice, (v) understanding of remedial reading, (vi) understanding of content area reading, (vii) utilization of reading strategies, (viii) familiarity with secondary reading objectives, (ix) use of secondary reading objectives, (x) incorporation of reading skills, (xi) reading skills used in lessons, (xii) role perception of the reading consultant, (xiii) perception of need for inservice in reading, (xiv) perception of adequacy of reading material and (xv) perception of need for help in planning for reading instruction.

H₁₄: There will not be any contribution of independent variables taken together toward accounting for the variation in the scores on attitude of secondary classroom teachers toward reading.

Location of the Study

The selected location of this study was six secondary schools of Lansing School District: three junior high schools and three senior high schools, out of the total of nine secondary buildings. Lansing was chosen for this study because of the ease in conducting the study: the investigator was the Secondary Reading Consultant to that district, which permitted immediate access to and cooperation from the central administration of that district, the building administrators within the secondary buildings selected for the study, and the teachers within the selected secondary buildings. Also, the results of the study were timely and immediately applicable within the district to further the development of the secondary reading program. However, the

investigator hoped that the selection of this district would not limit generalization of this study to other school districts.

Selection of Respondents

Within the structure of the nine secondary school buildings of Lansing School District, Lansing, Michigan, the professional staff consisted of the principal, three assistant principals, teachers, counselors and reading consultants. Of the nine buildings, six had reading consultants and three did not have reading consultants. To match the populations of buildings with reading consultants with those which did not have reading consultants, and also to match junior high schools with junior high schools and a senior high school with a senior high school, the following schools were selected:

Table 1.--Possible and Exact Number of Content Area Teacher Respondents by School.

With Reading Consultants	Possible	Exact	Without Reading Consultants	Possible	Exact
Sexton High School	27	27	Hill Senior High School	26	16
D. Rich Junior High School	42	33	W. French Junior High School	35	20
Otto Junior High School	41	26	Pattengill Junior High School	46	26
TOTAL	110	76	TOTAL	107	62

The senior high school with a reading consultant was selected over the other two which also have reading consultants because it evidenced a matching population to the one high school without a reading consultant. The junior high schools with and without reading consultants were also chosen on the basis of matching populations. No other criteria of selection of respondents were used. However, the exact number of teacher respondent studies is described in Table 1.

Within the schools the content area classroom teachers of English, social studies, science and mathematics were chosen as the actual respondents of the instrument. These teachers were chosen over content area teachers of other disciplines for the following reasons: Most all students within the secondary buildings must take various courses in these content areas. The inservice emphasis for reading in the content areas has incorporated the academic disciplines of English, social studies, science and mathematics over vocational education, physical education, the fine arts, foreign language, and special education. The total number of possible and exact number of respondents is described in Table 2.

Design and Variables

The major purpose of this study was to survey and describe the existing situation within a selected school district in terms of content area teachers' awareness

Table 2.--Possible and Exact Number of Content Area
Teacher Respondents by Subject Area.

Subject Area Discipline	Possible	Exact
English	64	50
Social Studies	55	28
Mathematics	54	44
Science	43	26

of, receptivity to, and attitude toward reading in the content areas, and the influence of the reading teacher. In order to accomplish this, the investigator chose several variables, indicated in the literature, as being pertinent factors to this study. It is appropriate here to present the variables selected for the purpose of this survey, and also, a scheme showing the hypothesized relationship between the responses of secondary classroom teachers with and without the reading consultant in their schools. Even though hypotheses are of secondary interest, description being the main purpose in this study, the investigator thought it would be of interest to find out, if in fact, relationships discussed in the review of the literature also existed in the selected location of this study.

The following is the list of variables used to describe the situation as it existed at the time of this study:

Teaching Experience
 Courses in Reading Instruction
 Inservice Training Experience in Reading
 Understanding of Remedial Reading
 Understanding of Content Area Reading
 Utilization of Reading Strategies
 Familiarity with Secondary Reading Objectives
 Use of Secondary Reading Objectives
 Incorporation of Reading Skills
 Reading Skills Used in Lessons
 Role Perception of the Reading Consultant
 Perception of Need for Inservice in Reading
 Perception of Adequacy of Reading Material
 Perception of Need for Help in Planning for
 Reading Instruction
 Teachers' Attitudes Toward Reading Instruction
 Presence or Absence of Reading Teacher in the
 School Building
 Content Area Discipline of Respondent Teachers

The scheme showing dependent and independent variables selected to study the hypothesized associations among them is as follows in Table 3.

The scheme for studying the hypothesized differences between the scores (in parentheses) on the variables under investigation of the secondary classroom teachers in schools with and without reading consultants is shown in Table 4.

The above two schemes were developed on the basis of hypothesized relationships based on the review of literature. The investigator decided, however, also to analyze the data in terms of significant differences, if any, between the scores of selected variables across the variable-content area disciplines--of the respondent teachers. The following table (Table 5) indicates the scheme for one-way analysis of variance.

Table 3.--Hypothesized Relationship Among Variables.

Independent Variables	Dependent Variable
Teaching Experience	Teacher Attitude Toward Reading
Courses in Reading Instruction	
Inservice Training Experience in Reading	
Understanding of Remedial Reading	
Understanding of Content Area Reading	
Utilization of Reading Strategies	
Familiarity with Secondary Reading Objectives	
Use of Secondary Reading Objectives	
Incorporation of Reading Skills	
Reading Skills Used in Lessons	
Role Perception of the Reading Teacher	
Perception of Need for Inservice in Reading	
Perception of Adequacy of Reading Material	
Perception of Need for Help in Planning for Reading Instruction	
Presence or Absence of Reading Teacher in the School	

Table 4.--Hypothesized Relationship Between Content
Teacher Respondents' Scores in School Group I
and School Group II.

<u>GROUP I</u>	<u>GROUP II</u>
Secondary Classroom Teachers With Reading Consultants in Their Schools	Secondary Classroom Teachers Without a Reading Consultant in Their Schools
Understanding of Remedial Reading (High)	(Low)
Understanding of Content Area Reading (High)	(Low)
Utilization of Reading Strategies (High)	(Low)
Familiarity with Secondary Reading Objectives (High)	(Low)
Use of Secondary Reading Objectives (High)	(Low)
Incorporation of Reading Skills (High)	(Low)
Role Perception of Reading Teacher (High)	(Low)
Perception of Need for Help in Planning for Reading Instruction (High)	(Low)
Perception of Adequacy of Reading Material (Low)	(High)
Perception of Need for Help in Planning for Reading Instruction (High)	(Low)
Teachers' Attitudes Toward Reading Instruction (High)	(Low)

Table 5.--List of Variables Entered for One-Way Analysis of Variance with Variable-Content Area Disciplines of the Respondent Teachers.

Variables Entered

Understanding of Remedial Reading
 Understanding of Content Area Reading
 Utilization of Reading Strategies
 Familiarity with Secondary Reading Objectives
 Use of Secondary Reading Objectives
 Incorporation of Reading Skills
 Reading Skills Used in Lessons
 Role Perception of Reading Teacher
 Perception of Need for Inservice in Reading
 Perception of Adequacy of Reading Material
 Perception of Need for Help in Planning for Reading Instruction
 Attitude Toward Reading

Instrumentation

Measurement of Independent Variables

To identify important factors pertaining to attitude of content area teachers toward reading, a list of 16 variables were prepared on the basis of existing literature and discussion with selected persons involved in working with content area teachers. The list is as follows:

School
 Subject Area
 Years of Teaching Experience
 Number of Courses Taken in Reading
 Number of Inservices in Reading
 Definition of Remedial Reading
 Concept of Content Area Reading
 Number of Utilization of Reading Strategies



Familiarity with Secondary Reading Objectives
for Social Studies, Science, Mathematics and
Language Arts

Use of Secondary Reading Objectives

Incorporation of Reading Skills

Reading Skills Used Most Frequently in Lesson
Plans

Role Perception of the Reading Teacher

Need Perception for Inservice in Reading

Perception of Adequacy of Instructional Materials
Used to Teach Classes

Need Perception for Help in Planning for Reading
Instruction in Content Area Classes

To measure the first five variables, categories of anticipated responses were written, so that the respondent could easily check the category which described his experiences. To measure the "Definition of Remedial Reading" and the "Concept of Content Area Reading," statements were taken from the Review of the Literature and written to be either true or false. In both cases, according to the Literature, only four statements appropriately described both concepts. The respondent was asked to differentiate between the true and false statements by checking the appropriate space provided for each response. To measure "Number of Reading Strategies Used," a list of strategies was taken from the Review of the Literature. The respondent was then asked to check any number of strategies he used in his lessons. To measure "Familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts," "Use of Secondary Reading Objectives," and incorporation of "Reading Skills into Lesson Plans," space was

provided for the respondent to either indicate "yes" or "no" to the questions "Are you familiar with . . .," "Do you use . . .," and "Do you incorporate . . ." To measure "Reading Skills Used Most Frequently in Lesson Plans," space was provided for the respondent to write the exact skills he used. To measure "Role Perception of the Reading Consultant," a list of statements was taken from the Review of the Literature, carefully selected to describe all the various categories of functions the reading teacher might perform. The respondent was then asked to check as many statements he thought would appropriately describe the reading teacher's role in his building, i.e., he could check as many as all 11 statements or no statements at all. To measure "Need Perception for Inservice in Reading," "Perception of Adequacy of Instructional Material" and "Need Perception for Help in Planning for Reading Instruction," the respondent was asked to check the space provided for only one of the following responses: most of the time, frequently, sometimes or never.

Pretest of Independent Variables.--The portion of the instrument developed to measure the independent variables was then pretested for clarity of instructions and format by 15 teachers at Waverly West Junior High School, Waverly School District, Lansing, Michigan. They indicated no problems with the items written to measure the independent variables.

Measurement of the Dependent
Variable: Attitude

Collection of Items.--By a cursory perusal of all available and relevant literature on attitudes of content area teachers toward reading, by discussions with various persons in the field of reading, and by persons working with content area teachers within the selected school district in this study, a comprehensive list of 30 items pertaining to attitudes toward reading was prepared. These items were edited with great care to make them simple, observable and representative of only one basic idea.

Item Selection.--These 30 items were then sent to 66 judges to be rated for their final inclusion in the instrument. This was done for content validation purposes, which is basically judgmental in nature. For content validation, the items must be studied by "other competent judges," i.e., other than the investigator, and each item must be weighed in terms of its representiveness of the universe of attitudes toward reading. Therefore, 66 persons were asked to judge the 30 items in terms of their importance. Scores were given to each item on a five-point rating scale. The scores assigned to various categories of the scale were:

Most important	5
Very important	4
Important	3
Less important	2
Least important	1

As a basis for rejecting those items which were less relevant, use was made of item analysis as suggested by Edwards.¹⁴⁴ The score of each individual on the scale was computed by summing the scores of the individual item response. The frequency distribution of scores based upon the responses to all items was obtained. Then, following Edwards,¹⁴⁵ the 25 percent of the subjects with the highest total scores and also the 25 percent with the lowest total scores were taken, assuming that these two groups provided criterion groups in terms of which to evaluate the individual statements or items. For evaluating the responses of the high and low groups to the individual items, critical ratio was worked out by using the following formula:

$$t = \frac{\bar{X}_H - \bar{X}_L}{\sqrt{\frac{\sum (\bar{X}_H - \bar{X}_H)^2 + \sum (\bar{X}_L - \bar{X}_L)^2}{n(n-1)}}$$

where,

$$\sum (\bar{X}_H - \bar{X}_H)^2 = \sum X_H^2 - \frac{(\sum X_H)^2}{n}$$

¹⁴⁴Allen L. Edwards, Techniques of Attitude Scale Construction, New York: Appleton, Century, Crofts, Inc., 1957.

¹⁴⁵Ibid.



and

$$\Sigma (\bar{X}_L - \bar{X}_L)^2 = \Sigma X_L^2 - \frac{(\Sigma X_L)^2}{n}$$

$nH = nL = n$, as was the case, for the same percentage of the total number of subjects for the high and low groups was taken. The critical ratio values were calculated for each of the 30 items which had been introduced to the 66 judges. Likewise, the t values were computed all 30 items. These are shown in Appendix I. The critical value for eight items were found to be non-significant, and hence they were excluded from the final list. The values of t for the other 22 items were found to be significant at the .05 level, indicating that any one of them differentiated significantly between high and low groups and were retained in the final list. Of the 22, 11 were favorable and 11 were unfavorable.

Validity of the Attitude Scale.--As the items of the source attitude toward reading scale was selected on the basis of t values which were significant, it means that the items had high discriminating values. Moreover, as the items of the reading attitude scale were drawn from a list of items of experts' opinions, it is assumed that the scale of this study measured what it was intended to measure. Therefore, the scale was taken as a valid measure of the desired dimension. This validity is termed content validity, and is a validity by assumption.

Predictive Validity.--To support the findings of variation in attitude toward reading, the investigator received written statements from each of the six reading teachers or consultants of the six schools selected for this study. They testified to the fact that, prior to administration of the final instrument, variation in attitudes of content area teachers existed in their respective buildings.

Preliminary Reliability of the Original Scale.--Preliminary Reliability was done on the original 30 items sent to the judges for rating of importance for inclusion in the final scale. This reliability measure yielded .85 reliability on the 30 items.

Reliability of the Final Instrument.--Split-half reliability was computed from the scores received from the 148 respondents in the study on the 22 items included in the final attitude toward reading portion of the final instrument. The reliability was found to be .85 using this method.

Scoring of the Final Attitude Scale.--Each item of the scale was provided with five response categories. These were "Very Strongly Agree," "Strongly Agree," "Agree," "Disagree," "Strongly Disagree," providing the summated rating scale or the Likert-type scale, which is



a set of attitude items, all of which are considered of approximately equal attitude value, and to each of which the subjects respond with degrees of agreement or disagreement or a continuum of intensity. The idea of this scale is to place the respondent somewhere on an agreement continuum.¹⁴⁶ The scoring of the positive items was done as "Very Strongly Agree"--5, "Strongly Agree"--4, "Agree"--3, "Disagree"--2, "Strongly Disagree"--1. The scoring of the negative items was done as "Very Strongly Agree"--1, "Strongly Agree"--2, "Agree"--3, "Disagree"--4, "Strongly Disagree"--5. The total scores of the respondent on the scale was obtained by adding the scores over all the individual items. The range of scores may vary from 22 to 110.

Final Instrument

The final instrument used in this study is found in Appendix II.

Data Collection Procedure

When the instrument was ready to be distributed to the selected respondents, the investigator obtained permission to conduct the study from Lansing School District's Committee on Dissertation Studies (see Appendix III). The instruments were then given to the Assistant

¹⁴⁶Fred N. Kerlinger, Foundations of Behavioral Research, New York: Holt, Rinehart and Winston, 1964.

Principals for Instruction of each of the six buildings selected for this study. They, in turn, distributed and collected the instruments, in various ways, from their teachers of English, Social Studies, Mathematics and Science. The investigator, then, collected the instruments from the Assistant Principals for Instruction.

Statistical Measures Used

The statistical measured used, in order to analyze the data in line with the stated purpose and hypotheses of the study, were as follows:

Means, standard deviations and percentages were used to describe the setting (in terms of numbers and categories of respondents, their teaching experience, reading courses taken by them and extent of inservice), extent of understanding of the concepts of reading, extent of utilization of secondary reading objectives and reading strategies, role perception and perception of need for materials and help in reading instruction, and the attitude toward reading.

To test the hypothesized differences between the scores on the selected variables, as mentioned in hypotheses 1 through 12, t-test was used. The obtained values of t were tested for significance at .05 level of significance.

To test the difference, if any, within and between the four groups of content area discipline teacher

respondents on their scores on the selected variables (shown in Table 5) one-way analysis of variance and Duncan's Multiple-Range Test were computed. The calculated F values and the differences between the means range were tested at .05 level of confidence for their significance.

To test hypothesis number 13 to determine the degree of association of attitude scores with the scores of the selected independent variables correlation coefficients were computed. Also to detect the inter-correlations between any two independent variables the zero-order correlations were worked out.

For testing the 14th hypothesis, concerning the relationship of independent variables when taken together with the attitude toward reading, multiple regression and multiple correlation analysis were made. The details of tests for significance of regression and multiple correlation coefficients and other such statistics needed for the prediction of attitude toward reading appear at appropriate places in the chapter on Findings.

CHAPTER IV

FINDINGS

Introduction

This chapter describes the findings of the investigation, which are divided into eight parts:

1. The first part is "the setting of the study," which describes the respondents of the survey in terms of frequency, percentages, mean scores and standard deviation of schools, subject areas, years of teaching experience, courses taken in reading, and the number of inservices in which the respondents reported having participated.
2. The second part of the findings is "teachers' understanding of the concepts of reading," i.e., the teachers' definitions of remedial reading and their concepts of reading in the content areas. These are reported in terms of frequency, percentages, mean scores, standard deviation, t values which show the differences between the schools of Group I and Group II, and, F values which show the differences among content area teacher respondents.

3. The third part is "utilization of reading strategies" reported by the teacher respondents, which are described in terms of frequency, percentages, mean scores, standard deviation, t values which show the differences between the schools of Group I and Group II, and, F values and Duncan's Multiple Range Test which show the differences among content area teacher respondents.

4. The fourth part of the findings is "incorporation of reading skills," i.e., familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics, and Language Arts, the use of the Secondary Reading Objectives, incorporation of reading skills into lesson plans, and the reading skills reported to be used most frequently in lessons by the teacher respondents. These are described in terms of frequency, percentages, mean scores, standard deviation, t values which show the differences existing between school Groups I and II, and, F values and Duncan's Multiple Range Test which show the differences among content area teacher respondents.

5. The fifth part of this chapter describes the "role perception of the reading consultant" in terms of frequency, percentages, mean scores, standard deviation, t values which indicate the differences between the schools of Group I and II, and F values which show the differences among content area teacher respondents.



6. The sixth part of the findings of this investigation concern "need perception," i.e., teachers' perceived need for inservice in reading, teachers' perceived adequacy of the instructional material provided to them to teach their classes, and the respondents' perceived need for help in planning for reading instruction in their classes. These findings are reported in terms of frequency, percentages, mean scores, standard deviation, t values which show the differences between schools of Group I and II, and, F values and Duncan's Multiple Range Test which show differences among content area teacher respondents.

7. The seventh part of this chapter describes "teacher attitudes toward reading." These are reported by frequency, percentages, mean scores, standard deviation, by t values which show differences between schools in Groups I and II, and, by F values and Duncan's Multiple Range Test, which show differences among content area teacher respondents.

8. The eighth and last part of the chapter on findings in this investigation reports the (a) degree of association between attitude of the teachers and selected independent variables, (b) the intercorrelation between all the variables selected for multiple regression and multiple correlation analysis, and, (c) the "prediction



analysis" findings, which are about the association between independent and dependent variables.

Part I, The Setting

Out of a total of 110 possible teacher respondents from the school in Group I (Sexton High School, Rich Junior High School, Otto Junior High School) the actual number of teachers who responded were 86, or 78 percent of the total possible sample population. Out of a possible 107 teacher respondents in Group II, (Hill High School, French Junior High School, Pattengill Junior High School) 62 teachers responded, or 57 percent of the total possible sample population. Table 6 shows the frequency and percentages of responses from schools in Group I and Group II:

Table 6.--Frequency of Content Area Teacher Respondents by School.

Schools With Reading Consultants		Schools Without Reading Consultants	
Group I	Frequency	Group II	Frequency
Sexton High School	27	Hill High School	16
Rich Junior High School	33	French Junior High School	20
Otto Junior High School	26	Pattengill Junior High School	26
TOTAL	82	TOTAL	62

The total population responding in this survey is 148 teachers in the content areas of English, Social Studies, Mathematics and Science. Table 7 shows the frequency and percentages of respondents by subject area:

Table 7.--Frequency and Percentage of Content Area Teacher Respondents by Subject Area.

Subject Area Discipline	Frequency	Percentage
English	50	33.8
Social Studies	28	18.9
Mathematics	44	29.7
Science	26	17.6

Teacher respondents were asked to indicate their years of teaching experience as part of this study.

Table 8 shows the frequency and percentage of the teacher respondents experience in teaching in terms of years.

Table 8.--Frequency and Percentage of Respondents Years of Teaching Experience.

Years of Teaching	Frequency	Percentage
1. Under five years	27	18.2
2. Up to ten years	55	37.2
3. Up to fifteen years	28	18.9
4. Fifteen years or more	38	25.7



As may be seen from the table that 55 (37.2 percent) teachers had up to ten years of teaching experience, followed by 38 (25.7 percent) teachers who had 15 or more years of experience.

When asked to report the number of university offered courses the 148 teachers had taken, 89 (60.1 percent) reported having taken no courses in reading and 59 teachers reported having had between one and more than three courses in reading. The mean score for university-offered courses taken in reading was less than one class, or .865. Table 9 shows the frequency, percentage and mean score of university-offered courses taken in reading by the 148 responding content area teachers.

Table 9.--Frequency, Percentage, Mean and Standard Deviation of University-Offered "Courses in Reading" Taken By the Teacher Respondents.

Number of Courses	Frequency	Percentage
0. No course in Reading	89	60.1
1. One course only	28	18.9
2. Two courses	10	6.8
3. Three courses	4	2.7
4. More than three courses	17	11.5

mean number of courses = .865
S.D. = 1.343

Teachers in this study reported having participated in more inservices in reading as a group, than they reported having taken university-offered reading courses. The mean score for inservices was slightly more than one per teacher, or 1.323. A smaller percentage of the population indicated having participated in no inservices than they reported when asked about having taken university offered courses in reading. Table 10 shows the frequency, percentage mean score and standard deviation of reported participation in inservices in reading:

Table 10.--Frequency, Percentage, Mean and Standard Deviation of Respondents Participation in Inservices in Reading.

In-service	Frequency	Percentage
0. No In-service	48	32.4
1. One In-service	39	26.4
2. Two In-services	32	21.6
3. Three In-services	12	8.1
4. More than three In-services	17	11.5

Mean of In-services = 1.399

S.D. = 1.323



Part II, Teachers Understanding of the
Concepts of Reading

This part of the Findings Chapter is divided into two sub-sections--definition of remedial reading and understanding of the concept of reading in the concept areas.

Remedial Reading

To test this variable, respondents were asked to check "true" or "false" to the appropriate statement, of which there were nine total. To correctly define remedial reading, achieving a total possible score of nine, the respondent had to indicate that the "true" statements were true, and the "false" statements were false. Of the nine statements, only four were correct: (1) remedial reading is the reteaching of basic skills, (2) remedial reading is diagnosis and prescription of severely disabled readers, (3) remedial reading is a separate subject in the secondary school, and (4) remedial reading is concerned only with the teaching of reading skills. Table 11 shows the total number of correct responses obtained by teachers in the definition of remedial reading portion of the instrument. As one can see, only four teachers of 148 were able to correctly differentiate between the true and false statements to obtain a maximum score of nine. Thirteen teachers were able to respond with 80 percent accuracy.

Table 11.--Frequency and Percentages of Total Scores on "Definition of Remedial Reading" as Obtained from Respondents.

Number of Correct Responses	Frequency of Respondents Giving Correct Response	Percentage
9	4	2.7
8	13	8.8
7	19	12.8
6	47	31.8
5	41	27.7
4	14	9.5
3	6	4.1
2	2	1.4
1	2	1.4

To test the null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on understanding the concept of remedial reading," t test was done using the mean scores of School Group I and School Group II¹⁴⁷ obtained from the total scores of teacher responses to the definition of remedial reading. As Table 12 indicates, the difference in the mean scores of the two groups was not significant, therefore, the null hypothesis was accepted.

¹⁴⁷From this point onward in the Findings, Schools of Group I are equal to Sexton, Otto and Rich, or schools with reading consultants, and Schools of Group II are equal to Hill, French and Pattengill, or schools without reading consultants.

Table 12.--Mean Scores on "Definition of Remedial Reading" as Obtained from Respondents in the Two Groups of School.

Schools	Frequency	Mean	t value
With Reading Consultant	86	5.70	.32
Without Reading Consultant	62	5.62	

To find out the differences between the scores of the four subject matter, or content area teachers on "Definition of Remedial Reading," F test was used. As one may see in Table 13, the differences between the four groups of content area teachers were not significant.

Table 13.--Analysis of Variance for the Scores on "Definition of Remedial Reading" as Obtained from Respondents Belonging to the Four Content Area Disciplines of English, Social Studies, Mathematics and Science.

Source	DF	S. Squares	Mean Squares	F
Between Groups	3	7.751	2.583	1.75
Within Groups	144	316.680	2.199	
Total	147	324.431		

Content Area Reading

In the second part of the section concerning understanding of reading, the teachers were asked to give their concept of reading in the content areas by checking true or false to ten statements. Only four of the ten statements were true, i.e., the combination of ideas that form concepts, word recognition, literal and inferential comprehension, and critical analysis and problem-solving. Table 14 shows the total number of correct responses obtained by teachers in their understanding of the concept of reading in the content areas. As one can see, no one could correctly define content area reading with 100 percent accuracy, and only one-tenth of the respondent population could define it with 80 percent accuracy.

Table 14.--Frequency and Percentages of Teachers' Total Correct Score on the Concept of Reading in the Content Areas.

Observe Number of Correct Responses	Frequency of Respondents Giving Correct Response	Percentage
9	2	1.4
8	2	1.4
7	11	7.4
6	25	16.9
5	56	13.8
4	45	30.4
3	5	3.4
2	0	0
1	1	.7
0	1	.7

To test the null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on understanding the concept of reading in the content areas," t-test was done using the mean scores of School Group I and School Group II obtained from the total scores of teacher responses to the definition of content area reading. As Table 15 indicates, the difference between the mean scores was not significant, and therefore, the null hypothesis was accepted.

Table 15.--Mean Scores on "Definition of Content Area Reading" as Obtained from Respondents in the Two Groups of Schools.

Schools	Frequency	Mean	t value
With Reading Consultant	86	5.00	.23
Without Reading Consultant	62	4.95	

To find out the differences between the scores of the four content area teachers on "Concept of Reading in the Content Areas," F test was used. As one may see in Table 16, the differences between the four groups of content area teachers was not significant.

Table 16.--Analysis of Variance for the Scores on "Concept of Reading in the Content Areas" as Obtained from Respondents Belonging to the Four Content Area Disciplines of English, Social Studies, Mathematics and Science.

Source	D.F.	S. Squares	Mean Squares	F
Between Groups	3	4.531	1.510	.987
Within Groups	144	220.408	1.530	
Total	147	224.939		

Part III, Utilization of Reading Strategies

To test "Utilization of Reading Strategies," teachers were asked to check any number of the strategies listed in the questionnaire which they used most frequently. Table 17 shows the frequency and percentages of each of the items, as either checked or not checked by the respondents. The frequency of response is interesting, especially when one notes that only 87 teachers test for vocabulary, out of 148 respondents 14 teachers do not make purposeful assignments (one wonders what they do assign!), 17 teachers do not discuss their lessons, either before or after the assignment is read, and 25 teachers do not ask any questions of students concerning the assignment. From the investigator's viewpoint, reading strategies are mostly just good teaching strategies!

Table 17.--List of Strategies, Checked or Not Checked by Respondent Teachers.

Reading Strategies	Frequency Checked	Not Checked	% Checked	Not Checked
SQ3R	21	127	14.2	85.8
Vocabulary Tests	87	61	58.8	41.2
Discussion of Lessons	131	17	88.5	11.5
Applying Content to Students Experience	115	33	77.7	22.3
Use of Study Guides	83	65	56.1	43.9
Lesson Plans on Three Levels	41	107	27.7	72.3
Making Purposeful Assignments	134	14	90.5	9.5
Employing Questioning Strategies	123	25	83.1	16.9

Table 18 indicates the total scores received by the respondent population. To obtain a total score of eight, the respondent had to have checked all eight strategies, as used most frequently. Each respondent had an opportunity to check any number of strategies.

To test the null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on utilization of reading strategies," t-test was done using the mean scores of School Group I and School Group II obtained from the

Table 18.--Frequency and Percentage of Total Scores of "Utilization of Reading Strategies" as Indicated by the Teacher Respondents.

Total Score of Eight Possible Strategies Used	Frequency	Percentage
8	6	4.1
7	24	16.2
6	34	23.0
5	35	23.6
4	23	15.5
3	9	6.1
2	10	6.8
1	5	3.4
0	2	1.4

total scores of teachers responses on the utilization of reading strategies (Table 16). Table 19 shows that the t value was not significant, therefore, the null hypothesis was accepted.

Table 19.--Mean Scores on "Utilization of Reading Strategies" as Obtained from Respondents in the Two Groups of Schools.

Schools	Frequency	Mean	t value
With Reading Consultant	86	5.51	1.28
Without Reading Consultant	62	4.77	

.05 level of significance ($t = 1.67$)

To find out the differences between the scores of the four content area teachers on "Utilization of Reading Strategies" F test was used. As one can see in Table 24, the variance was significant.

Table 20.--Analysis of Variance for the Scores on "Utilization of Reading Strategies" as Obtained From Respondents Belonging to the Four Content Area Disciplines of English, Social Studies, Mathematics and Science.

Source	D.F.	S. Squares	Mean Squares	F
Between Groups	3	138.001	46.000	20.382*
Within Groups	144	324.991	2.256	
Total	147	462.992		

.05 level of confidence ($F = 2.67$)

To find out differences between the mean scores of the respondents pertaining to the four content areas, Duncan's Multiple Range Test was used at the .05 level of significance. As may be seen in Table 21, teachers of mathematics mean scores were significantly different from the other three groups of teachers, as indicated in the two groups of subsets.

Table 21.--Duncan: Difference and Rank Order of Groups of Content Teachers on "Utilization of Reading Strategies."

Group	Mathematics	Science	English	Social Studies
Mean	(3.52)	(5.34	5.68	5.75)



Part IV "Incorporation of Reading Skills"

This part of the findings is divided into four sections: familiarity with the Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts, use of the Secondary Reading Objectives, incorporation of reading skills into lessons, and reading skills used most frequently in lesson plans.

Familiarity With Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts

To test Familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts, teachers were asked to check "yes" or "no" to the question. Table 22 gives the frequency and response of the number of teachers indicating that, yes, they were familiar with the Secondary Reading Objectives, and no, they were not familiar with the Secondary Reading Objectives.

Table 22.--Frequency and Percentage of Yes and No Response to "Familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts."

	Frequency		Percentage	
	Yes	No	Yes	No
Familiarity	90	58	60.8	39.2

To test the null hypothesis, "the presence or absence of the reading consultant within the school building will not make any significant difference between the mean scores of secondary classroom teachers on familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts," t test was done using the mean scores obtained from teachers in School Group I and School Group II. Table 23 shows that the t value was not significant, therefore, the null hypothesis was accepted.

Table 23.--Mean Scores on "Familiarity with Secondary Reading Objectives" as Obtained From Respondents in Two Groups of Schools.

Schools	Frequency	Mean	t value
With Reading Consultant	86	.65	1.26
Without Reading Consultant	62	.54	

To find out the differences between the scores of the four content area teachers on "Familiarity with Secondary Reading Objectives," F test was used. As one can see in Table 24, the F value was significant.

To find out significant difference between the mean scores of the respondents pertaining to the four content areas, Duncan's Multiple Range Test was used at

Table 24.--Analysis of Variance for the Scores on
"Familiarity with Secondary Reading Objectives"
 as Obtained from Respondents Belonging to the
 Four Content Area Disciplines of English, Social
 Studies, Mathematics and Science.

Source	D.F.	S. Squares	Mean Squares	F
Between Groups	3	5.343	1.781	8.571*
Within Groups	144	29.926	.207	
Total	147	35.269		

the .05 level of significance. As may be seen in Table 25, differences were found, as mathematics and science teachers were treated as equal, science and social studies teachers were treated as equal, and English teachers were treated as significantly different than the other two subsets. All total, Duncan's test reported three subsets to be significantly different at the .05 level.

Table 25.--Duncan: Difference and Rank Order of Groups of
 Content Area Teachers on "Familiarity with
 Secondary Reading Objectives."

Group	(Mathematics	Science)	(Science	Social Studies)	(English)
Mean	(	.36	.57)	(.57	.60) (.84)

Use of Secondary Reading Objectives

Once teachers indicated whether or not they were familiar with the Secondary Reading Objectives for Social

Studies, Science, Mathematics and Language Arts, teachers were asked to indicate if they used them when they responded yes in the previous item, that they were familiar with them. The frequency and percentage of yes and no responses obtained from teacher respondents is indicated in Table 26.

Table 26.--Frequency and Percentage of "Use of Secondary Reading Objectives" as Obtained from Respondents.

	Frequency		Percentage	
	Yes	No	Yes	No
Use	71	77	48.0	52.0

As one can see, the frequency of the use of Secondary Reading Objectives and the frequency of Familiarity with Secondary Reading Objectives was different. Nineteen teachers who indicated they were familiar with them indicated that they did not use them.

To test the null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on the use of Secondary Reading Objectives," t test was done using the mean scores obtained from teachers in School Group I and School Group II. Table 27 shows the t value was not significant, therefore, the null hypothesis was accepted.

Table 27.--Mean Scores on "Use of Secondary Reading Objectives" as Obtained from Respondents in Two Groups of Schools.

Schools	Frequency	Mean	t value
With Reading Consultant	86	.51	.91
Without Reading Consultant	62	.43	

To find out the differences between the scores of the four content area teachers on "Use of Secondary Reading Objectives," F test was used. As one can see in Table 28, the F value was significant.

Table 28.--Analysis of Variance for the Scores on "Use of Secondary Reading Objectives" as Obtained from Respondents Belonging to the Four Content Area Disciplines of English, Social Studies, Mathematics and Science.

Source	D.F.	S. Squares	Mean Squares	F
Between Groups	3	6.389	2.129	10.040*
Within Groups	144	30.549	.212	
Total	147	36.938		

To find out significant difference between the mean scores of the respondents pertaining to the four content areas, Duncan's Multiple Range Test was used at the .05 level of significance. As may be seen in Table 29,

significant differences were found, as mathematics and science teachers are treated as equal, science and social studies teachers are treated as equal and social studies and English teachers are treated as equal. All total, Dunan's test reported three subsets of teachers to be significantly different at the .05 level.

Table 29.--Duncan: Difference and Rank Order of Groups of Content Area Teachers on "Use of Secondary Reading Objectives."

Group	(Math-Science)	(Science-Social Studies)	(Social Studies-English)
Mean	(.20 .42)	(.42 .53)	(.53 .72)

Incorporation of Reading Skills into Lesson Plans

To test this variable, teachers were asked to indicate "yes" or "no" to whether or not they incorporated reading skills into their lessons. This was done, because the investigator thought that even though the teachers may not be familiar and use Secondary Reading Objectives, they still might not use reading skills in their lessons. As Table 30 shows, 103 teachers responded that they did incorporate reading skills into their lessons, even though only 71 teachers said they used the Secondary Reading Objectives.

To test the null hypothesis, "the presence or absence of the reading consultant within the school

Table 30.--Frequency and Percentage of Teacher Response to "Incorporation of Reading Skills into Lesson Plans."

	Frequency		Percentage	
	Yes	No	Yes	No
Incorporation of Reading Skills	103	45	69.6	30.4

building will not make any difference between the mean scores of secondary classroom teachers on the incorporation of reading skills into lesson plans," t test was done using the mean scores obtained from teachers in School Group I and School Group II. As Table 31 indicates, the t value was not significant, therefore the null hypothesis was accepted.

Table 31.--Mean Scores on "Incorporation of Reading Skills into Lesson Plans" as Obtained from Respondents in Two Groups of Schools.

Schools	Frequency	Mean	t value
With Reading Consultant	86	.73	1.14
Without Reading Consultant	62	.64	

To find out the differences between the scores of the four content area teachers on "Incorporation of Reading Skills into Lesson Plans," F test was used. As



one can see in Table 32, the F value was significant.

Table 32.--Analysis of Variance for the Scores on "Incorporation of Reading Skills into Lesson Plans," as Obtained from Respondents Belonging to the Four Content Area Disciplines of English, Social Studies, Mathematics, and Science.

Source	D.F.	S. Squares	Mean Squares	F
Between Groups	3	6.168	2.056	11.774*
Within Groups	144	25.148	.174	
Total	147	31.316		

To find out significant differences between the mean scores of the respondents pertaining to the four content areas, Duncan's Multiple Range Test was used at the .05 level of significance. As may be seen in Table 37, mathematics teachers were significantly different from English, science and social studies teachers. Duncan, therefore, reported two subsets.

Table 33.--Duncan: Difference and Rank Order of Groups of Content Area Teachers on "Incorporation of Reading Skills into Lesson Plans."

Groups	(Mathematics)	(English	Science	Social Studies)
Mean	(.386)	(.800	.807	.892)



Reading Skills Used Most
Frequently in Lesson
Plans

In this section of the survey instrument, respondents were asked to list in an open-ended format the reading skills they used most frequently in their lessons. The investigator then scored the responses in terms of categories of skills, i.e., vocabulary and comprehension skills. The score range was from zero to four in both vocabulary and comprehension. These scores were then calculated resulting in a total score for this item of the survey. Table 34 shows the number of Named Vocabulary Skills (0-4), the number of Named Comprehension Skills (0-4), and the Total Score received by respondents for this item.

Table 34.--Frequency and Percentage of Named Vocabulary Skills, Named Comprehension Skills, and Total Score of "Reading Skills Used Most Frequently in Lesson Plans," as Obtained from Teacher Respondents.

Score	Named Vocabulary Skills		Named Comprehension Skills		Total of Named Reading Skills Used in Lessons	
	Freq.	%	Freq.	%	Freq.	%
0	92	62.2	90	60.8	77	52.0
1	43	29.1	22	14.9	20	13.5
2	11	7.4	17	11.5	13	8.8
3	1	.7	15	10.1	15	10.1
4	1	.7	4	2.7	23	15.5

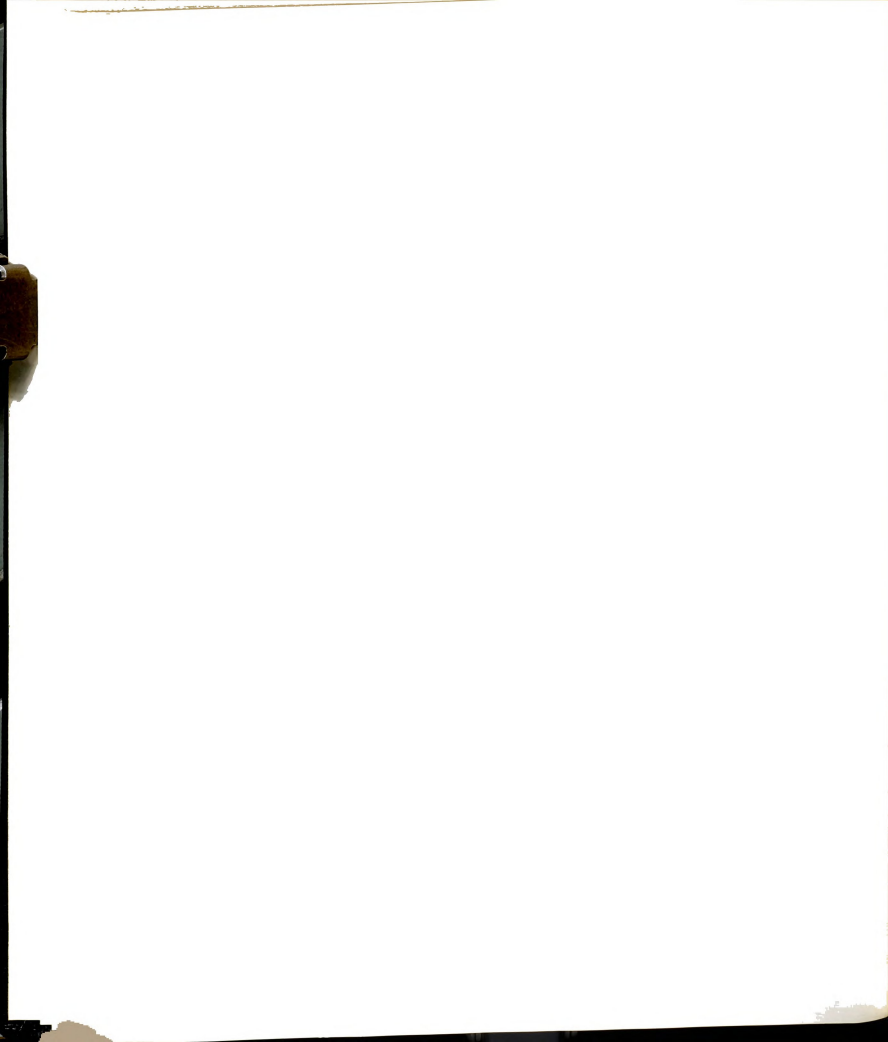
To interpret the total score section of this table, a score of four, for example, could be achieved by having named one vocabulary skill and three comprehension skills, or any combination there-of. The investigator mentioned this only because the figures are confusing if read from left to right line, only.

To test the null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on reading skills used most frequently in lesson plans," t test was done using the mean scores obtained from the total scores from teachers in School Group I and School Group II. As Table 35 indicates, the t value was not significant, and therefore, the null hypothesis was accepted.

Table 35.--Mean Scores on "Reading Skills Used Most Frequently in Lesson Plans" as Obtained from Respondents in Two Groups of Schools.

Schools	Frequency	Mean	t value
With Reading Consultant	86	1.25	.18
Without Reading Consultant	62	1.20	

To find out the differences between the scores of the four content area teachers on "Reading Skills Used



Most Frequently in Lesson Plans," F test was used. As one can see in Table 36, the F value was significant.

Table 36.--Analysis of Variance for the Scores on "Reading Skills Used Most Frequently in Lesson Plans" as Obtained from Respondents Belonging to the Four Content Area Disciplines of English, Social Studies, Mathematics and Science.

Source	D.F.	S. Squares	Mean Squares	F
Between Groups	3	50.467	16.822	8.122*
Within Groups	144	298.255	2.071	
Total	147	348.722		

To find out differences between the mean scores of the respondents pertaining to the four content areas, Duncan's Multiple Range Test was used at the .05 level of significance. As may be seen in Table 37, mathematics teachers were significantly different from social studies, English and science teachers, making two subsets.

Table 37.--Duncan: Difference and Rank Order of Groups of Content Area Teachers on "Reading Skills Used Most Frequently in Lesson Plans."

Group	(Mathematics)	(Social Studies	English	Science)
Mean	(.34)	(1.53	1.64	1.65)

Part V Role Perception of the Reading
Consultant

For this section of the survey, teachers were given a list of role tasks, taken from the Review of the Literature, and asked whether or not they perceived the reading teacher in their building as functioning in any one or all of the 11 tasks listed. Table 38 shows the frequency and percentage of the responses given by the teachers in the survey.

The items checked by each respondent were then summed, to result in the Total Score for "role perception of the reading consultant." Table 39 shows the frequency of those teachers who checked 11 to no role tasks in the survey.

To test the null hypothesis, "the presence or absence of the reading consultant with the school building will not make any difference between the mean scores of secondary classroom teachers on role perception of the reading teacher," t test was done using the mean scores obtained from the total scores from teachers in School Group I and School Group II. As Table 40 shows, the t value was significant at the .05 level and therefore, the null hypothesis was rejected and the alternative hypothesis was accepted.

To find out the differences between the scores of the four content area teachers on "Role Perception of the

Table 38.--Frequency and Percentage of Teachers' Response to Individual Items Concerning Whether or Not Teachers Perceived the Reading Teacher Performing Individual Role Tasks.

Descriptive Items of Role	Frequency		Percentage	
	Yes	No	Yes	No
The reading teacher helps small numbers of severely disabled readers learn to read	117	31	79.1	20.9
The reading teacher runs a study skills center where individual students can get help with their assignments from content area classes	80	68	54.1	45.9
The reading teacher helps college preparatory students to read more efficiently	57	91	38.5	61.5
The reading teacher suggests various materials to the classroom teacher to help with special problems of reading within the classroom	96	52	64.9	35.1
The reading teacher provides teachers with workbooks, kits, and other instructional material so that the students can work independently to improve their vocabulary and comprehension	65	83	43.9	56.1
The reading teacher tests all the students in the building to determine the reading levels, and provides content area teachers with profiles of reading levels of students for the teachers' classes.	59	89	39.9	60.1
The reading teacher provides inservice to classroom teachers on various reading concepts and strategies	85	63	57.4	42.6

Table 38.--Continued.

Descriptive Items of Role	Frequency		Percentage	
	Yes	No	Yes	No
The reading teacher helps the classroom teacher to conceive of reading as a thinking process, i.e., how the mind comprehends and remembers new material. . .	60	88	40.5	59.5
The reading teacher helps classroom teachers with planning of instructional practices that cause students to note the logical organization of reading material assigned in content area classes.	50	98	33.8	66.2
The reading teacher assists the classroom teacher by teaching sequences of appropriate reading lessons that are based on the materials assigned in content area classes .	43	105	29.1	70.9
The reading teacher works directly with the classroom teacher to formulate activities aimed at the disabled reader	73	75	49.3	50.7

Table 39.--Frequency and Percentage of Respondents'
Total Scores on "Role Perception of the
Reading Teacher."

Number of Role Tasks Perceived	Frequency of Respondents Reporting (N = 148)	Percentage
11 All Role Tasks	16	10.8
10 Role Tasks	8	5.4
9 Role Tasks	5	3.4
8 Role Tasks	12	8.1
7 Role Tasks	9	6.1
6 Role Tasks	13	8.8
5 Role Tasks	13	8.8
4 Role Tasks	16	10.8
3 Role Tasks	16	10.8
2 Role Tasks	18	12.2
1 Role Task	17	11.5
0 No Role Task	5	3.4

Mean = 5.189

S.D. = 3.347

Table 40.--Mean Scores on "Role Perception of the Reading
Consultant" as Obtained by Respondents from
Two Groups of Schools.

Schools	Frequency	Mean	t value
With Reading Consultants	86	5.90	3.17*
Without Reading Consultant	62	4.19	

Reading Teacher," F test was used. As one can see in Table 41, the F value was not significant.

Table 41.--Analysis of Variance for the Scores on "Role Perception of the Reading Teacher" as Obtained from Respondents Belonging to the Four Content Area Disciplines of English, Social Studies, Mathematics and Science.

Source	D.F.	S. Squares	Mean Squares	F
Between Groups	3	73.126	24.375	2.231
Within Groups	144	1573.576	10.927	
Total	147	1646.702		

Part VI Need Perception

This section of the findings is divided into three subsections: (1) need perception for inservice in reading, (2) perception of adequacy of instructional material used to teach classes, and (3) need perception for help in planning for reading instruction.

Need Perception for Inservice in Reading

Respondents were asked to indicate whether they felt the need for inservice in reading, by checking one of the following responses provided for them: most of the time, frequently, sometimes or never. Table 42 shows the frequency, percentage, mean and standard deviation of their response.

Table 42.--Frequency, Percentage, Mean and Standard Deviation on "Need Perception for Inservice in Reading" as Obtained from Respondents.

Intensity of Perceived Need	N = 148 Frequency	Percentage
Most of the time need inservice (3)	17	11.5
Frequently Need inservice (2)	34	23.0
Sometimes need inservice (1)	78	52.7
Never need inservice (0)	19	12.8
Mean = 1.331		
S.D. = .844		

To test the null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on need perception for inservice in reading," t test was done using the mean scores from teachers in School Group I and School Group II. As Table 43 shows, the t value was not significant at the .05 level, and therefore, the null hypothesis was accepted.

To find out the differences between the scores of the four content area teachers on "Need Perception for Inservice in Reading," F test was used. As one can see in Table 44, the F value was significant.

Table 43.--Mean Scores on "Need Perception for Inservice in Reading" as Obtained from Respondents in Two Groups of Schools.

Schools	Frequency	Mean	t value
With Reading Consultant	86	1.37	.69
Without Reading Consultant	62	1.27	

Table 44.--Analysis of Variance for the Scores on "Need Perception for Inservice in Reading," as Obtained from Respondents Belonging to the Four Content Areas of English, Social Studies, Mathematics and Science.

Source	D.F.	S. Squares	Mean Squares	F
Between Groups	3	6.638	2.212	3.247*
Within Groups	144	98.139	.681	
Total	147	104.777		

To find out significant differences between the mean scores of the respondents pertaining to the four content areas, Duncan's Multiple Range Test was used at the .05 level of significance. As may be seen in Table 45, mathematics and science teachers were treated as equal, and science, English and social studies teachers were treated as equal, thus dividing the content areas into two subsets.

Table 45.--Duncan: Difference and Rank Order of Groups of Content Area Teachers on "Need Perception for Inservice in Reading."

Group	(Mathematics	Science)	(Science	English	Social Studies)
Mean	(1.02	1.34)	(1.34	1.46	1.57)

Perceived Adequacy of Instructional Material Provided to Teach Classes

Respondents were asked to indicate whether they felt the instructional material provided to them to teach their classes adequately met the reading level needs of their students. They indicated their response to this by checking one of four answers provided to them: most of the time, frequently, sometimes or never. Table 46 shows the frequency, percentage, mean and standard deviation of their response.

Table 46.--Frequency, Percentage, Mean and Standard Deviation on "Perceived Adequacy of Instructional Material" as Obtained from Respondents.

Reading Material Adequacy	N = 148 Frequency	Percentage
Most of the time adequate (3)	44	29.8
Frequently adequate (2)	30	20.3
Sometimes adequate (1)	67	45.3
Never adequate (0)	7	4.7

Mean = 1.757

S.D. = .952

To test the null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on perception of adequacy of instructional material provided to teach classes," t test was done using the mean scores from teachers in School Group I and School Group II. As Table 47 shows, the t value was significant at the .05 level and therefore, the null hypothesis was rejected and the alternative hypothesis was accepted.

Table 47.--Mean Scores on "Perception of Adequacy of Instructional Material Provided to Teach Classes" as Obtained from Respondents in Two Groups of Schools.

Schools	Frequency	Mean	t value
With Reading Consultant	86	1.58	2.69*
Without Reading Consultant	62	2.00	

To find out the differences between the scores of the four content area teachers on "Perception of Adequacy of Instructional Material Provided to Teach Classes," F test was used. As one can see in Table 48, the F value was not significant.

Table 48.--Analysis of Variance for the Scores on "Perception of Adequacy of Instructional Material Provided to Teach Classes" as Obtained from Respondents Belonging to the Four Content Areas of English, Social Studies, Mathematics and Science.

Source	D.F.	S. Squares	Mean Squares	F
Between Groups	3	5.744	1.914	2.163
Within Groups	144	127.498	.885	
Total	147	133.242		

Need Perception for Help
in Planning for Reading
Instruction

Respondents were asked to indicate whether they felt the need for help in planning for reading instruction in their classes. They indicated their response to this by checking one of four answers provided to them: most of the time, frequently, sometimes or never. Table 49 shows the frequency, percentage, mean and standard deviation of their response.

To test the null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on need perception for help in planning for reading instruction," t test was done using the mean scores from teachers in School Group I and School Group II. As Table 50 indicates, the t value was

Table 49.--Frequency, Percentage, Mean and Standard Deviation on "Need Perception for Help in Planning for Reading Instruction" as Obtained from Respondents.

Intensity of Need for Help	N = 148 Frequency	Percentage
Most of the time need help (3)	8	5.4
Frequently need help (2)	27	18.2
Sometimes need help (1)	89	60.1
Never need help (0)	24	16.2

Mean = 1.128

S.D. = .740

not significant at the .05 level and therefore, the null hypothesis was accepted.

Table 50.--Mean Scores on "Need Perception for Help in Planning for Reading Instruction" as Obtained from Respondents in Two Groups of Schools.

Schools	Frequency	Mean	t value
With Reading Consultant	86	1.19	1.34
Without Reading Consultant	62	1.03	

To find out the differences between the scores of the four content area teachers on "Need Perception for Help in Planning for Reading Instruction," F test was



used. As one can see in Table 51, the F value was significant.

Table 51.--Analysis of Variance for the Scores on "Need Perception for Help in Planning for Reading Instruction" as Obtained from Respondents Belonging to the Four Content Areas of English, Social Studies, Mathematics, and Science.

Source	D.F.	S. Squares	Mean Squares	F
Between Groups	3	6.954	2.318	4.535*
Within Groups	144	73.606	.511	
Total	147	80.560		

To find out differences between the mean scores of the respondents pertaining to the four content areas, Duncan's Multiple Range Test was used at the .05 level of significance. As may be seen in Table 52, mathematics and science teachers were treated as equal and science, English and social studies teachers were treated as equal, thus dividing the content areas into two subsets.

Table 52.--Duncan: Difference and Rank Order of Groups of Content Area Teachers on "Need Perception for Help in Planning for Reading Instruction."

Group	(Mathematics	Science)	(Science	English	Social Studies)
Mean	(.84	1.03)	(1.03	1.28	1.39)

Part VII Attitudes of Content Area
Teachers Toward Reading

Respondents were asked to indicate the intensity of their feelings toward reading by checking "Very Strongly Agree," "Strongly Agree," "Agree," "Disagree," and "Strongly Disagree" to the 22 attitude statements of the instrument used in this study. The frequency and percentage of response to the statements is shown in Table 53.

As reported in the Methodology Chapter, the attitude items were appropriately scored for negative items and positive items (the negative and positive items are shown in Table 53). Once scored, the individual response scores were summed, to formulate the total score each respondent received for the 22 attitude items. Table 54 shows the frequency, percentage, mean, mode, standard deviation and range of the total scores received by the 148 respondents. The possible total score range was from 22 (extremely negative) to 110 (extremely positive).

To test the null hypothesis, "the presence or absence of the reading consultant with the school building will not make any difference between the mean scores of secondary classroom teacher on attitude toward reading," t test was done using the mean scores from teachers in School Group I and School Group II. As Table 61 indicates, the t value was not significant at the .05 level, and therefore, the null hypothesis was accepted.

TABLE 53.--Frequency, Percentages, and Mean Scores of Teachers' Responses to Individual Attitude Statements. "Very Strongly Agree (VSA); "Strongly Agree" (SA); "Agree" (A); "Disagree" (D); and "Strongly Disagree" (SD).

Opinion Statements		VSA	SA	A	D	SD	Mean
1. Students who have difficulty reading the text in my course should go the reading center to learn to read.	(N)	8 5.4%	15 10.1%	48 32.4%	70 47.3%	7 4.7%	3.358
2. The teaching of reading is the responsibility of the elementary school, only, rather than the secondary school.	(N)	0 0.0%	11 7.4%	13 8.8%	67 45.3%	57 38.5%	4.149
3. The teaching of concept development is part of reading instruction, and should not be taught in my classes.	(N)	0 0.0%	5 3.4%	19 12.8%	80 54.0%	44 29.7%	4.101
4. The reading teacher should help students who cannot read the text for my class within my classroom.	(P)	4 2.7%	10 6.8%	39 26.4%	76 51.4%	19 12.8%	2.351
5. The teaching of reading is the sole responsibility of the reading teacher.	(N)	0 0.0%	2 1.4%	8 5.4%	85 57.4%	53 35.8%	4.277
6. Teaching library and reference skills to my class is not my responsibility.	(N)	2 1.4%	9 6.1%	23 15.5%	63 42.6%	51 34.5%	4.027
7. Every secondary teacher is responsible for teaching reading in his subject area.	(P)	27 18.2%	10 13.5%	71 48.0%	23 15.5%	7 4.7%	3.250
8. The determination of reading levels of students in my classes does not require the help of the reading teacher.	(N)	0 0.0%	2 1.4%	37 25.0%	96 64.9%	13 8.8%	3.811
9. The reading teacher helps me to determine the reading levels of my students.	(P)	7 4.7%	16 10.8%	84 56.8%	16 10.8%	7 4.7%	2.892
10. Reading instruction need only be offered to poorer readers in the secondary schools.	(N)	1 0.7%	2 1.4%	24 16.2%	86 58.1%	35 23.6%	4.027
11. Teachers need the help of the reading teacher in selecting instructional materials.	(P)	6 4.1%	19 12.8%	95 64.2%	19 12.8%	6 4.1%	3.020
12. The services of the reading teacher are not desired to plan lessons to teach the reading required in my classes.	(N)	2 1.4%	16 10.8%	58 39.2%	64 43.2%	8 5.4%	3.405
13. It is important to know the reading level of my textbook.	(P)	38 27.7%	25 16.9%	75 50.1%	9 6.1%	1 0.7%	3.608
14. As a secondary teacher, I should know how to teach phonics.	(N)	6 4.1%	4 2.7%	71 48.0%	61 41.2%	6 4.1%	3.385
15. It is important to teach reading in my classes.	(P)	14 9.5%	19 12.8%	73 49.3%	41 27.1%	1 0.7%	3.027
16. Classroom teachers are not responsible for teaching reading.	(N)	1 0.7%	9 6.1%	34 23.0%	71 48.0%	33 22.3%	3.851
17. The reading level of new textbooks should be determined before purchasing them.	(P)	56 37.8%	39 26.4%	50 33.8%	2 1.4%	1 0.7%	3.993
18. If our school had a reading teacher, I would ask her/him to help me with reading in my classes.	(P)	7 4.7%	18 12.2%	83 56.1%	38 25.7%	2 1.4%	2.932
19. It is important to use more than one reading level textbook in my classes.	(P)	16 10.8%	26 17.6%	69 46.6%	35 23.6%	2 1.4%	3.218
20. Knowing how to teach my students to read is useful to me in my classes.	(P)	16 10.8%	27 18.2%	82 55.4%	21 14.2%	2 1.4%	3.230
21. Teaching reading in my classes is a waste of my teaching time.	(N)	3 2.0%	7 4.7%	20 13.5%	78 52.7%	40 27.0%	3.980
22. Reading as a thinking tool interests me, and I want to know more about it.	(P)	18 12.2%	23 15.5%	86 58.1%	20 13.5%	1 0.7%	3.250

(P) = Positive Statement

(N) = Negative Statement



Table 54.--Frequency, Percentage, Mean, Mode, Standard Deviation and Range of Total Scores as Obtained from Respondents on "Content Teachers Attitude Toward Reading."

Score	Frequency	Percentage
56	1	.7
57	2	1.4
59	1	.7
60	3	2.0
64	2	1.4
65	2	1.4
66	2	1.4
67	4	2.7
68	5	3.4
69	5	3.4
70	9	6.1
71	4	2.7
72	11	7.4
73	6	4.1
74	8	5.4
75	8	5.4
76	6	4.1
77	7	4.7
78	6	4.1
79	4	2.7
80	3	2.0
81	6	4.1
82	7	4.7
83	4	2.7
84	2	1.4
85	4	2.7
86	1	.7
87	3	2.0
88	4	2.7
89	2	1.4
91	4	2.7
92	2	1.4
93	3	2.0
94	2	1.4
95	1	.7
97	1	.7
98	1	.7
100	1	.7
102	1	.7
Range = 22-110	N = 148	100.0

Mean = 76.966; S.D. = 9.170; Range = 46.000

Table 55.--Mean Scores on "Teacher Attitude Toward Reading" as Obtained from Respondents in Two Groups of Schools.

Schools	Frequency	Mean	t value
With Reading Consultant	86	77.63	1.05
Without Reading Consultant	62	76.03	

To find out the differences between the scores of the four content area teachers on "Attitude Toward Reading," F test was used. As one can see in Table 56, the F value was highly significant.

Table 56.--Analysis of Variance for the Scores on "Teacher Attitude Toward Reading" as Obtained from Respondents Belonging to the Four Content Areas of English, Social Studies, Mathematics and Science.

Source	D.F.	S. Squares	Mean Squares	F
Between Groups	3	3745.563	1248.521	20.868*
Within Groups	144	8615.268	59.828	
Total	147	12360.831		

To find out differences between the mean scores of the respondents pertaining to the four content areas, Duncan's Multiple Range Test was used at the .05 level of significance. As may be seen in Table 57,



mathematics teachers were significantly different than science and social studies teachers and both of those subsets were significantly different than social studies and English teachers, thus dividing the four content areas onto three subsets.

Table 57.--Duncan: Difference and Rank Order of Groups of Content Area Teachers on "Teacher Attitude Toward Reading."

Group	(Mathematics)	(Science-Social Studies)	(Social Studies-English)
Mean	(69.68)	(76.73 80.19)	(80.17 81.70)

Part VIII Association, Intercorrelation,
"Prediction Analysis"

In order to study the relationship between attitude scores of respondent teachers and their scores on other independent variables mentioned in the chapter on Methodology, zero-order correlation coefficient was computed. The computed values of zero-order correlation coefficients between attitude and the independent variables are presented in Table 58.

As may be seen from the table, ten (10) out of the total fifteen (15) independent variables were positively and significantly associated, at .05 level of confidence, with the attitude of the respondent teachers. The null hypothesis, that attitude scores will not be associated with the scores of each of the 15 independent



Table 58.--Zero-Order Correlation Coefficients Between
Attitude Scores and Other Variables.

Other Variables	r Values
Schools	-.050
Teaching Experience	-.129
Courses in Reading	.305*
Inservice in Reading	.287*
Definition of Remedial Reading	-.106
Concept of Content Area Reading	-.050
Strategies Used	.519*
Familiarity with <u>Secondary Reading Objectives</u>	.357*
Use of <u>Secondary Reading Objectives</u>	.309*
Incorporation of Reading Skills	.346*
Reading Skills used Most Frequently	.394*
Role Perception/Reading Teacher	.211*
Need Perception/Inservice	.330*
Perception/Adequacy of Material	-.045
Need Perception/Help in Planning	.287*

*Significant at .05 Probability Level ($r = .174$)

variables, was rejected, and the alternative hypothesis was accepted. The data, therefore, supports the original assumption about the association between attitude scores and some of the independent variables selected for this study.



The inter-correlations of the selected variables with each one of them are presented in Table 59.

As it may appear from the table that the coefficients of correlation which were found significant at .05 level of confidence between various variables are listed below (the sign +/- indicates the kind of association):

- (1) Groups of schools with role perception of Reading Teacher (-)
- (2) Courses in reading
 - with Familiarity with Secondary Reading Objectives (+)
 - with Use of Secondary Reading Objectives (+)
 - with Strategies used (+)
 - with Incorporation of Reading Skills (+)
 - with Reading Skills Used (+)
- (3) Inservice in reading
 - with strategies used (+)
 - with familiarity with reading objectives (+)
 - with use of secondary reading objectives (+)
 - with incorporation of reading skills (+)
 - with reading skills used (+)
- (4) Strategies used
 - with familiarity with Secondary Reading Objectives (+)
 - with use of Secondary Reading Objectives (+)

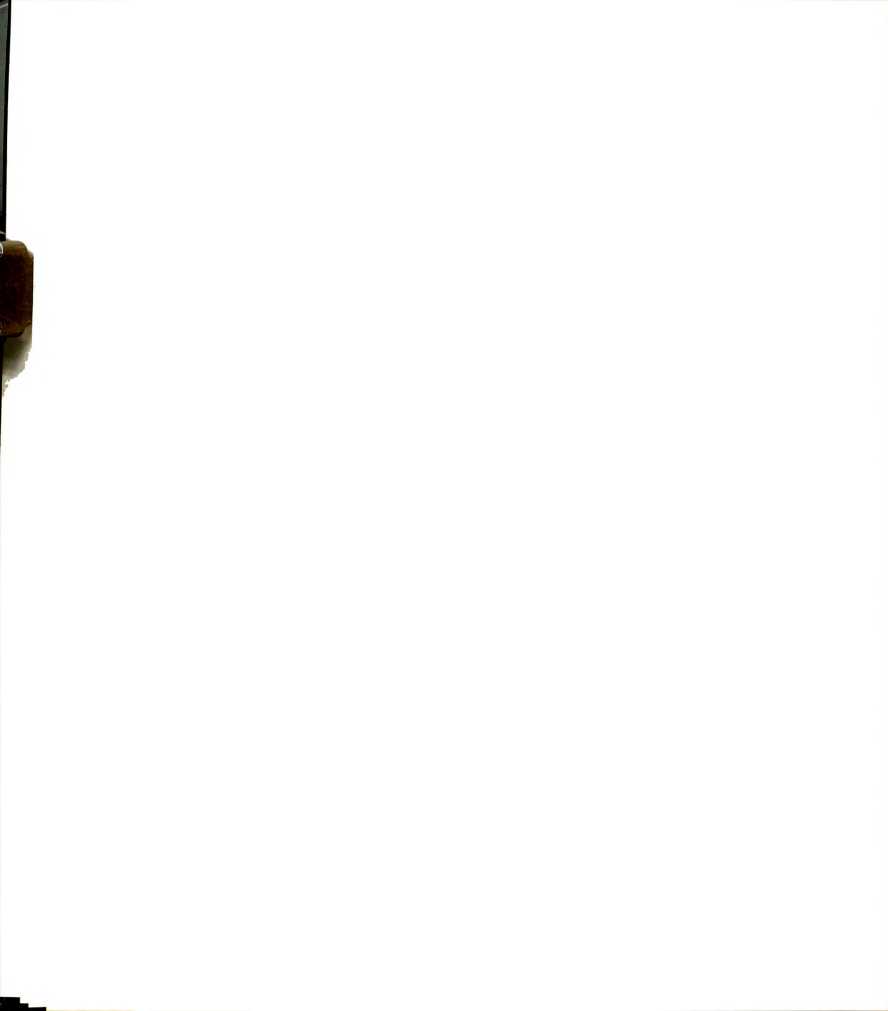


TABLE 59.--Zero-order Inter-correlations Among Independent Variables ($X_1 - X_{15}$).

	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	X_{13}	X_{14}
X_2	.023													
X_3	-.039	.111												
X_4	-.115	-.003	.294*											
X_5	-.061	-.077	.029	-.051										
X_6	.002	-.017	-.026	.054	.103									
X_7	-.125	-.145	.176*	.247*	-.091	.015								
X_8	-.099	.054	.177*	.326*	-.016	.054	.341*							
X_9	-.058	.011	.167	.304*	.018	.103	.294*	.770*						
X_{10}	-.039	-.091	.130	.222*	-.015	.012	.504*	.341*	.399*					
X_{11}	-.005	-.005	.143	.200*	-.097	-.008	.525*	.295*	.345*	.522*				
X_{12}	-.250*	-.065	.114	.084	.045	-.012	.173	.116	.140	.024	.030			
X_{13}	-.030	-.026	-.068	.057	.037	-.052	.113	.036	.024	.015	-.008	.146		
X_{14}	.159	.118	-.015	.045	-.075	.088	-.053	.027	-.024	-.014	-.062	-.085	-.001	
X_{15}	-.083	-.142	-.023	.065	-.091	-.123	.109	-.047	-.057	.055	.026	.256*	.475*	-.177*

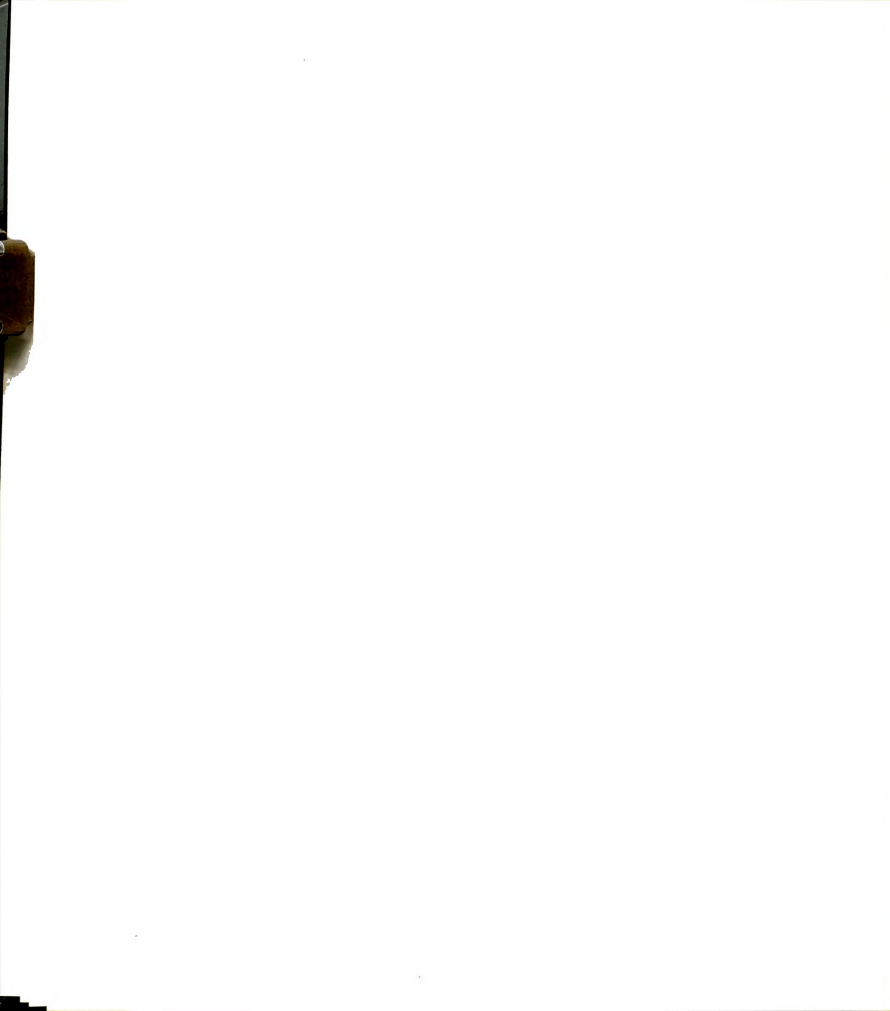
X_1 = Schools
 X_2 = Teaching Experience
 X_3 = Courses in Reading
 X_4 = Inservices in Reading
 X_5 = Definition of Remedial Reading
 X_6 = Concept of reading in the Content Areas
 X_7 = Reading Strategies Used
 X_8 = Familiarity with Secondary Reading Objectives for Content Areas
 X_9 = Use of Secondary Reading Objectives for Content Areas
 X_{10} = Incorporation of Reading Skills
 X_{11} = Reading Skills Used Most Frequently
 X_{12} = Perception of Role of Reading Teacher
 X_{13} = Perception of Need for Inservice in Reading
 X_{14} = Perception of Adequacy of Reading Material
 X_{15} = Perception of Need for Help in Planning for Reading Instruction

* Significant at .05 Probability Level ($r = .174$)

- with incorporation of reading skills (+)
- with reading skills used (+)
- (5) Familiarity with Reading Objectives
 - with use of Secondary Reading Objectives (+)
 - with incorporation of Reading Skills (+)
 - with reading skills used (+)
- (6) Use of Secondary Reading Objectives
 - with incorporation of reading skills (+)
 - with reading skills used (+)
- (7) Incorporation of Reading Skills
 - with reading skills used (+)
- (8) Role Perception of Reading Teacher
 - with need perception/help in planning (+)
- (9) Need Perception for Inservice
 - with need perception/help in planning (+)
- (10) Perception of Adequacy of Material
 - with need perception/help in planning (-)

The variables, namely, Teaching Experience, Definition of Remedial Reading, and Concept of Content Area Reading were not found to be associated with any variable.

The significant inter-correlation coefficient, between various variables described above indicated that the factors affecting the attitude of respondent teachers were not independent of each other. On the



contrary, a factor affecting the attitude toward reading was itself significantly influenced by other factors.

"Prediction Analysis"

Findings related to the content to which attitude of respondent teachers toward reading can be predicted or explained have been presented in this part. The statistical techniques of step-wise multiple regression and multiple correlation were used to determine the combined effect of selected variables in predicting attitude toward reading. The predictive power of each multiple regression equation was evaluated with the help of multiple correlation coefficient (R) and square of multiple correlation coefficient (R^2). The square of multiple correlation (R^2) represents the proportion of the total variation of the dependent variable explained by the independent variables.

The predictive power of multiple regression equation was evaluated for statistical significance with the help of analysis of variance test (F values).

In the last section, the findings indicated that ten out of the total 15 independent variables were associated with attitude at .05 level of significance. These ten variables were fitted in the step-wise multiple regression equation. The results of the step-wise multiple regression are presented in Table 60.



Table 60.--Summary Table of Step-wise Multiple Regression Analysis: Relationship Between Attitude of Secondary School Teachers Toward Reading Instruction and the Independent Variables.

Step	Independent Variable Entered	R Square	R Square Change	Overall F
1	Reading Strategies Used	.26952	.26952	53.869*
2	Need Perception for Inservice	.33932	.06979	37.235*
3	Courses in Reading	.39822	.05890	31.762*
4	Familiarity with Secondary Reading Objectives	.42548	.02727	26.476*
5	Need perception for help in planning	.44490	.01941	22.761*
6	Reading skills used	.46206	.01716	20.184*

*Significant at $\alpha = .05$

The regression equation was included after six variables or steps only because the F level or tolerance level was not sufficient for further inclusion of other variables. As may be seen that six independent variables explained significant variation, in the attitude toward reading, up to the extent of 46.20 percent. The multiple-correlation value is the correlation between the actual and the predicted attitude toward reading. The multiple correlation values obtained by the prediction of attitude was tested for significance with the calculated F value at



each step. As the table indicates each of the six F values are highly significant at .05 level of confidence.

The results shown in the table also indicate a rank order of the amount of predicted change by each of the six independent variables. It was found that reading strategies used contributed by itself 26.95 percent or almost 27 percent variation in the attitude toward reading. Other most important variables in the results were need perception for inservice in reading, courses taken in reading, familiarity with secondary reading objectives, need perception for help in planning, and reading skills used by the respondent teachers.

On the basis of the results obtained and findings presented in this section, the null hypothesis that the independent variables taken together will not contribute toward accounting for variation in attitude toward reading, was rejected, and the alternative hypothesis was accepted. The multiple correlation values of six variables were found to be significant as indicated by F values. Thus, the data supported the original assumption and refuted the null hypothesis.

CHAPTER V

DISCUSSION

This chapter explains the findings reported in Chapter IV. The reader will find discussion on what the findings highlight, and reasons for any particular result obtained. This chapter is presented in the following order:

(1) findings on "teachers' definitions of remedial reading, and concepts of reading in the content areas;"

(2) findings on "utilization of reading strategies;"

(3) findings on "incorporation of reading skills" which include familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts, use of Secondary Reading Objectives, incorporation of reading skills and, reading skills named by teacher respondents;

(4) findings on "role perception of the reading teacher;"

(5) findings on "need perception," or need perception for inservice in reading, perception of adequacy of reading material provided to teach classes, and need perception for help in planning for reading instruction;

(6) findings on "teachers' attitude toward reading;"

(7) findings on the degree of association between attitude scores of teachers and selected independent variables, the intercorrelation between all the variables selected for multiple regression and multiple correlation analysis, and "prediction analysis" findings.

Part I: Teachers' Definitions of Remedial
Reading and Concepts of Reading in the
Content Areas

Remedial Reading

In Chapter IV, the frequency and percentages of total scores on "Definition of Remedial Reading" showed that only four teachers were able to correctly define remedial reading and only 13 teachers were able to define it with 80 percent accuracy. The null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on understanding the concept of remedial reading" was supported. In addition, the analysis of variance between the scores of the four content area teachers was not significant.



The explanation of these findings on definition of remedial reading was that, in fact, the majority of the teacher respondents could not define remedial reading. As one respondent wrote on his questionnaire, "If the purpose of this survey is to find out if we know what reading is, you are right, we do not." With the majority of the population unable to define remedial reading, it was quite reasonable that no differences would exist between the two groups of schools and no variation would exist between the four groups of content area teachers.

One can infer from these findings that the majority of the population in this survey did not understand what the remedial reading curriculum consists of and even though they may have had inservices or courses in reading, this particular concept was not defined for them. As Herber¹⁴⁸ states, confusion often exists between the reading class curriculum and the content area reading curriculum. Once this confusion is cleared up, content area reading is usually accepted as necessary instruction within the content area class.

Content Area Reading

In Chapter IV, the frequency and percentages of total scores on "Concept of Reading in the Content Areas"

¹⁴⁸Harold L. Herber, Teaching Reading in the Content Areas, op. cit.

showed that none of the teacher respondents could accurately define reading in the content areas, and only one-tenth of the teachers could define the concept with 80 percent accuracy. The null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on understanding the concept of reading in the content areas" was supported. In addition, the analysis of variance between the scores of the four content area teachers was not significant.

The explanation of these findings on concept of reading in the content areas was that, in fact, the teachers of this survey did not have a conceptual or philosophical framework concerning reading in the content areas and that, whether a reading teacher was in the building or not, little attention had been given to the importance of understanding the concept of reading in the content areas, much less of understanding the difference between content area reading curriculum and remedial reading curriculum. One can progress in segments of an area like reading, without appropriately defining it or its role in the school curriculum, but it seems very logical that the progress would be very slight and not significant unless a conceptual and philosophical framework was given and understood. As Otto¹⁴⁹ suggested,

¹⁴⁹Wayne Otto, Inservice Education to Improve Reading Instruction, op. cit.

one of the important outcomes of inservice was the appropriate clarification of roles and concepts involved in the total school reading program.

Part II: Utilization of Reading Strategies

In Chapter IV, the frequency and percentages of total scores on "Utilization of Reading Strategies" varied considerably, with the majority of teachers reporting use of between four and seven of the strategies mentioned in the instrument. Strategies were one segment of the teaching of study skills, as mentioned by Robinson¹⁵⁰ in the Literature, i.e., they are the steps used in completion of the task and of course, they vary with the task. Strategies are the methodology of reading, i.e., they direct the presentation of the material so that the end objective is met. The purpose of inclusion of strategies in the instrument was to determine familiarity with and use of the very basic ones, not to determine what strategies are appropriate to each content area.

As mentioned by the investigator in the Findings, reading strategies are usually just good teaching strategies. The high variation of reported use of strategies, and the fact that the null hypothesis "the presence or absence of the reading consultant within the school

¹⁵⁰H. Alan Robinson, op. cit.

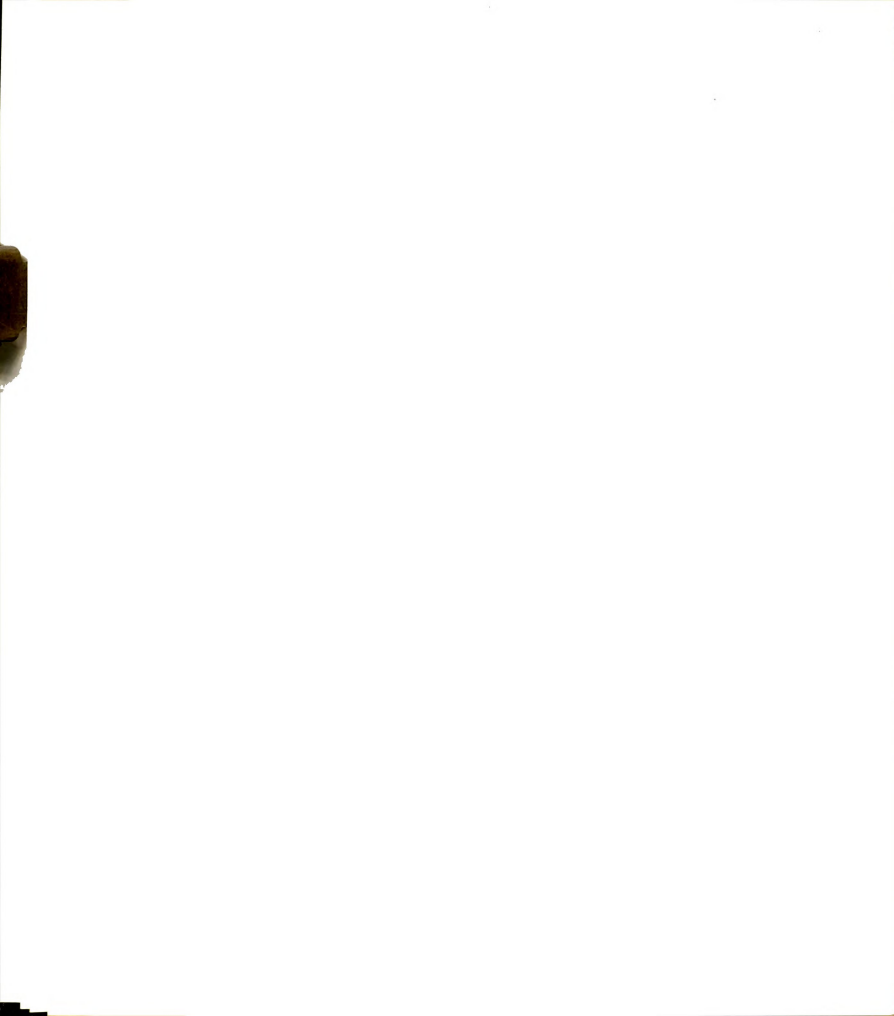


building will not make any difference between the mean scores of secondary classroom teachers on utilization of reading strategies" was supported, can be interpreted as meaning that whether or not a reading teacher was in the building made no difference in utilization of the reading strategies mentioned in groups of schools. However, the analysis of variance indicates that the difference between the scores of secondary classroom teachers was highly significant, as it should be, for the steps toward the completion of a task in English, for example, would be very different from steps toward completion of a task in mathematics. Duncan's Multiple Range Test, in fact, indicated that mathematics was significantly different than science, English and social studies.

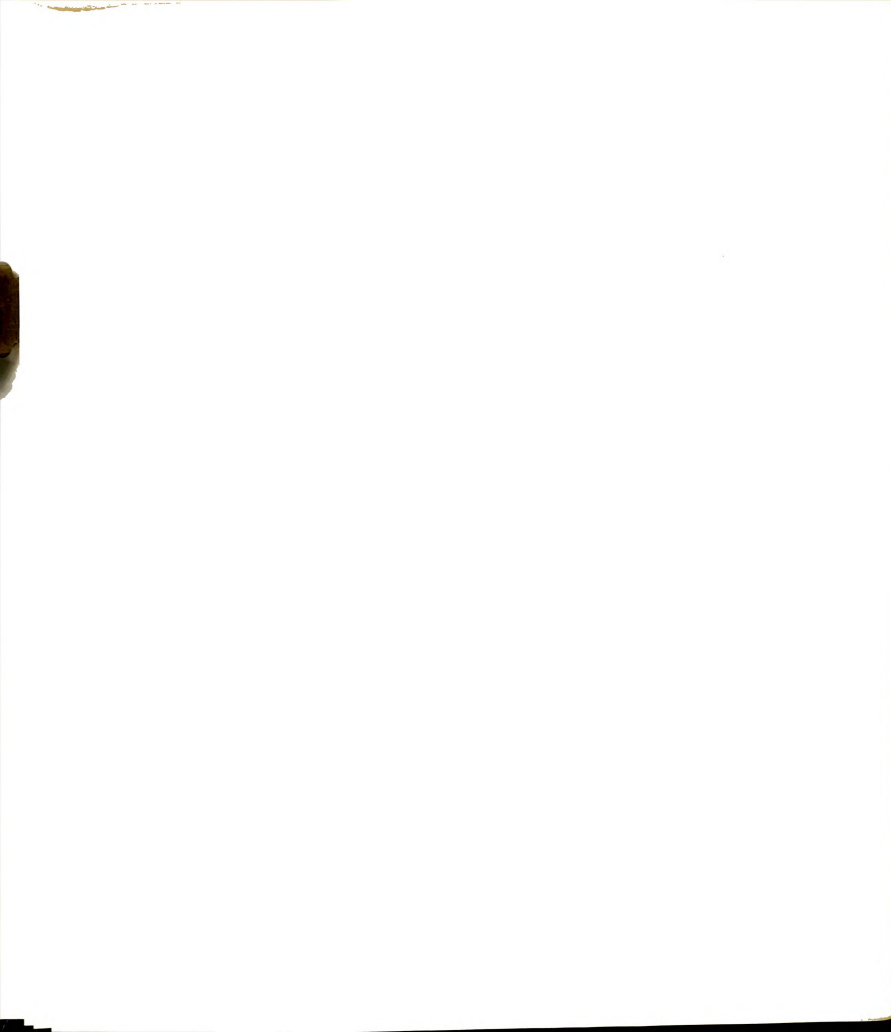
Part III: Incorporation of Reading Skills

Familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts

In Chapter IV, 90 teachers said they were familiar with Secondary Reading Objectives for Social Studies, Science, Mathematics, and Language Arts. The null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on familiarity with Secondary Reading Objectives for Social



Studies, Science, Mathematics and Language Arts" was accepted. In the analysis of variance, however, between the scores of teachers of four content areas, the results were significant. Duncan's Multiple Range Test showed that mathematics and science were treated as equal, science and social studies were treated as equal, and English was significantly different from the other two subsets. As one can see, no difference existed between the two groups of schools. This could be interpreted as meaning that dissemination of the objectives came from another source: English, for example, apparently found the reading skills for Language Arts applicable to their content area and therefore, told other English teachers of their worth. Perhaps, too, because of the emphasis on objective-based instruction in Language Arts curriculum, English teachers were more ready to receive the objectives. Social studies and science were the next most receptive groups to the Secondary Reading Objectives. Mathematics teachers were the least familiar with the Secondary Reading Objectives. This was due, perhaps, to the fact that they developed their own objectives for mathematics before Secondary Reading Objectives were developed and, as a result, were too involved in their own objective package to accept additional input. The mathematics objectives developed within the selected school district were sadly lacking in reading emphasis, i.e., they failed to emphasize the importance of



story problems, for example. This was disturbing for the requirements for mathematics have been dropped, which means that only students who wish to take courses in the subject are doing so. This is a sad commentary, for mathematics offer logic in thinking that is necessary for the average person to solve even the most common everyday problems.

Use of Secondary Reading Objectives

In Chapter IV, only 71 teachers said that they used the Secondary Reading Objectives, as compared to 90 teachers who indicated that they were familiar with them. The null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on the use of Secondary Reading Objectives, was supported. However, the differences between the scores of the four content area teachers was significant. and Duncan's Multiple Range Test indicated that mathematics and science were treated as equal, science and social studies were treated as equal and social studies and English were treated as equal. Again, as Herber¹⁵¹ suggested, once teachers have identified reading skills, they need to know how to use them. English showed a higher

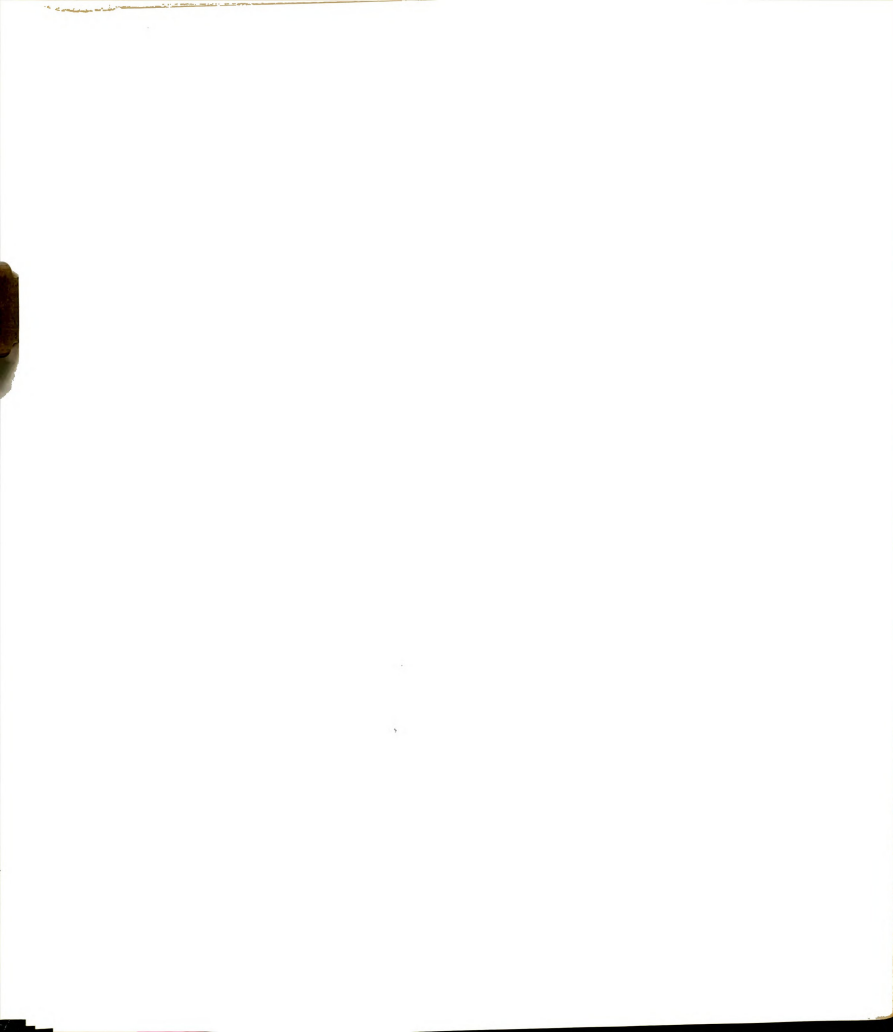
¹⁵¹Harold L. Herber, Teaching Reading in the Content Areas, op. cit.



mean score of usage than social studies, and then science and last, mathematics. This might indicate the groups with which the reading teacher has worked. It might also indicate that English teachers were significantly more aware of reading skills and therefore had found ways to use them. It may also indicate that the reading skills designed for mathematics, science and social studies were not as useful as the reading skills written for Language Arts.

Incorporation of Reading Skills into Lesson Plans

In Chapter IV, 103 teachers stated that they incorporated reading skills into their lesson plans, even though only 71 teachers said they used the Secondary Reading Objectives. The investigator believed that perhaps this resulted because of the use of the word "skill" rather than "objective." Teachers of this school district have been negatively receptive to the word "objective" even though in this case the words "objective" and "skill" are identical in meaning. In other words, perhaps the title of the booklet needs to be changed. The null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on the incorporation of reading skills into lesson plans" was supported. However, the differences between the scores of



teachers in four content area disciplines were highly significant. Duncan's Multiple Range Test showed a significant difference between mathematics and the three groups of English, science and social studies. Social studies with this variable, had the highest mean score, even though not significantly different from science and English. Perhaps the teachers believed that the skills they were using were reading skills, then actually they were not. Therefore, it appeared reading skills need to be emphasized and reemphasized and further discussion with the classroom teachers is needed on this topic.

Reading Skills Used Most Frequently in Lesson Plans

In Chapter IV, the frequency and percentage of named "reading skills used most frequently in lesson plans" was reported. Only 71 teachers named between one and four reading skills, even though 103 teachers reported incorporation of reading skills into lessons. The investigator noted that some teachers mentioned other things that could not be classified as reading skills, or skills of any kind and therefore could not be counted. This demonstrated that, in fact, the majority of the population in this survey were unfamiliar with reading skills to the extent that, when asked, that they were unable to name even one. The null hypothesis, "the presence or absence of the reading consultant within the school building will



not make any difference between the mean scores of secondary classroom teachers on reading skills used most frequently in lesson plans" was supported. The analysis of variance indicated that there was significant difference between the scores of the four groups of content area teachers. Duncan's Multiple Range Test grouped mathematics (with the lowest mean score) as being significantly different from social studies, English and science. The investigator noted that throughout this section on reading skills, mathematics teachers have consistently achieved the lowest mean score. Science teachers as a group, named more reading skills of either vocabulary or comprehension than the other three content areas.

Part IV: Role Perception of the Reading Teacher

In Chapter IV, frequency and percentages of individual responses to 11 role tasks were given. As can be seen, the majority of the responses indicated that the reading teacher helps small numbers of severely disabled readers learn to read, whereas, only 43 teachers indicated that the reading teacher helps them to plan appropriate reading lessons for the classroom. Seventy-three teachers reported that the reading teacher works with the classroom teacher to formulate activities aimed at the disabled reader, and 85 teachers reported that the reading teacher provides inservice to classroom teachers. However, the

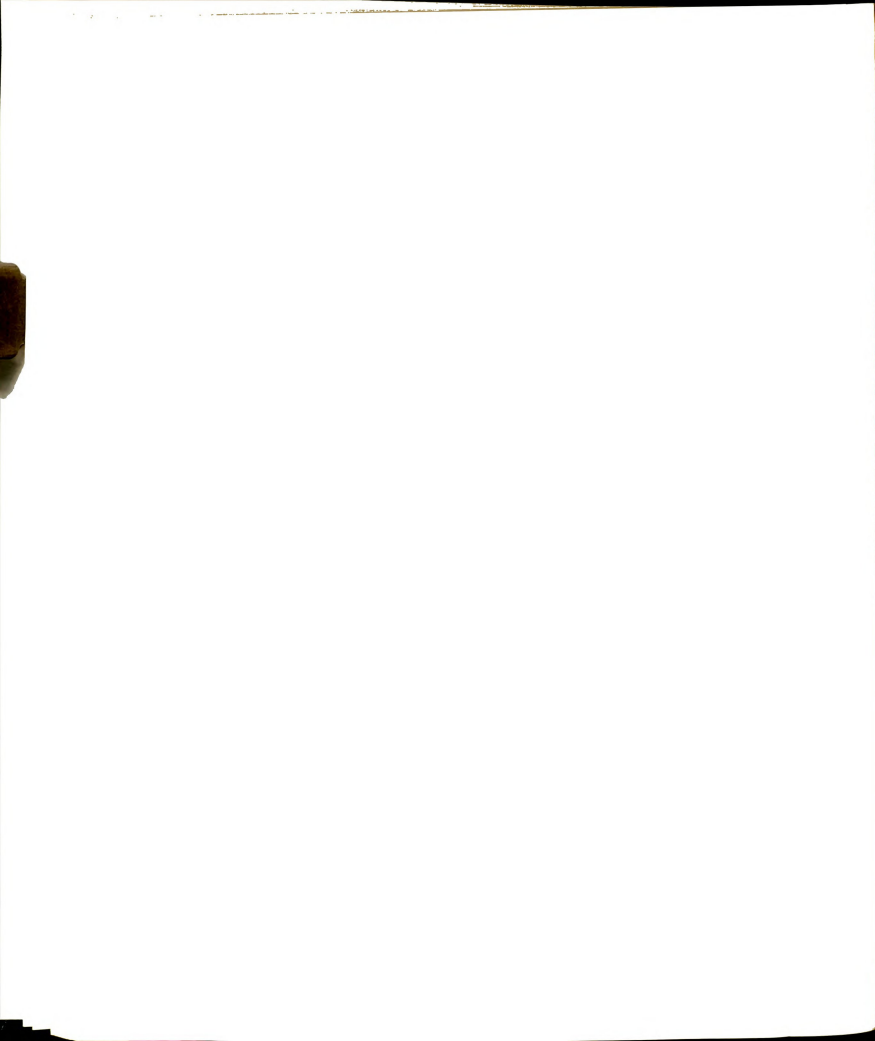


mode of response in the total scores was two role tasks mentioned, with the next frequency of high response at three role tasks, four role tasks and all 11 role tasks. This indicated that each reading teacher in every building operated in a different fashion. This was supported in the Literature section on "Role of the Reading Consultant." The null hypothesis, "the presence or absence of the reading consultant will not make any difference between the mean scores of secondary classroom teachers on role perception of the reading teacher" was not supported, indicating to the reader, that, in fact, in buildings where a reading consultant was assigned to work with classroom teachers, he/she was perceived as functioning in that manner. The analysis of variance indicated that no difference in perception existed in the content area disciplines.

Part V: Need Perception

Need Perception for Inservice in Reading

In Chapter IV, in frequency and percentages of responses were given, the mode of response from 78 teachers was they sometimes needed inservice, with the next highest frequency of response from 34 teachers being that they frequently needed inservice. Only 19 teachers said that they never needed inservice and 17



teachers said that they needed inservice most of the time. The investigator can definitely state that the majority of the population wanted to know more about reading, and even though they perhaps could not define it, they recognized the need for improving the reading skills of the students in their classes. The perception of need for inservice did not differ significantly between the two groups of schools, and therefore, the null hypothesis "the presence or absence of a reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on need perception for inservice" was supported. This meant that even in buildings without reading consultants, teachers felt the need to know more about reading instruction. This was supportive data to the presence of additional reading consultants within a school building. The analysis of variance between the scores of the four content area teachers on need perception for inservice was significant. Duncan's Multiple Range Test indicated that mathematics and science differed significantly from science, English and social studies in this need perception. Mathematics, perhaps, had the highest frequency of saying "never" to the need for inservice in reading.



Perception of Adequacy of
Instructional Material
Provided to Teach
Classes

In Chapter IV, the frequency and percentages of response to the question "do you feel the instructional material provided to you adequately meet the reading levels of your students," the mode of response with 67 teachers was that the material was only infrequently meeting the needs of the students. Forty-four teachers reported that the material met the needs of their students most of the time, 30 reported that it was frequently adequate, and seven reported that it was never adequate. The null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on perception of adequacy of instructional material provided to teach classes" was not supported. Analysis of variance resulted in no significant difference between the scores of teachers in the four content areas. Duncan's Multiple Range Test, however, showed that science and social studies were different from social studies, English and mathematics. The reason, perhaps for these results was that in buildings where reading teachers helped teachers with materials, as indicated in role perception, the reading teachers helped the teachers to adjust the materials to



the reading levels of the students. Social studies textbooks and science textbooks used in this district, too, are very difficult, i.e., far above the reading level of the students using them. The fact that the majority of teachers stated that the materials only sometimes met the reading levels of the students may be that the majority of the material used was written on a difficult reading level.

Need Perception for Help in
Planning for Reading
Instruction

As indicated in Chapter IV, the frequency and percentages of response to need perception indicated that the mode of response with 89 teachers reporting, was that they sometimes felt the need for help. Twenty-seven reported that the needed help frequently, only eight said they needed help most of the time, and 24 said they never needed help. The null hypothesis "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of the secondary classroom teachers on need perception for help in planning for reading instruction" was supported. Analysis of variance indicated significant difference between the mean scores of teachers in four content area disciplines, and Duncan's Multiple Range Test indicated that mathematics and science were significantly



different from science, English and social studies. This finding indicated that teachers in buildings without reading consultants also sometimes need help in planning for reading instruction. The groups of teachers who perceive the need for most help are science, social studies and English, with mathematics teachers perceptions of need for help being little or never. Even so, the majority of the population felt that they needed help in planning for reading instruction, and this need was evident whether the reading consultant was present in the building or not. The investigator thought that this was supportive evidence for having additional reading consultants in every building.

Part VI: Teachers' Attitudes Toward Reading

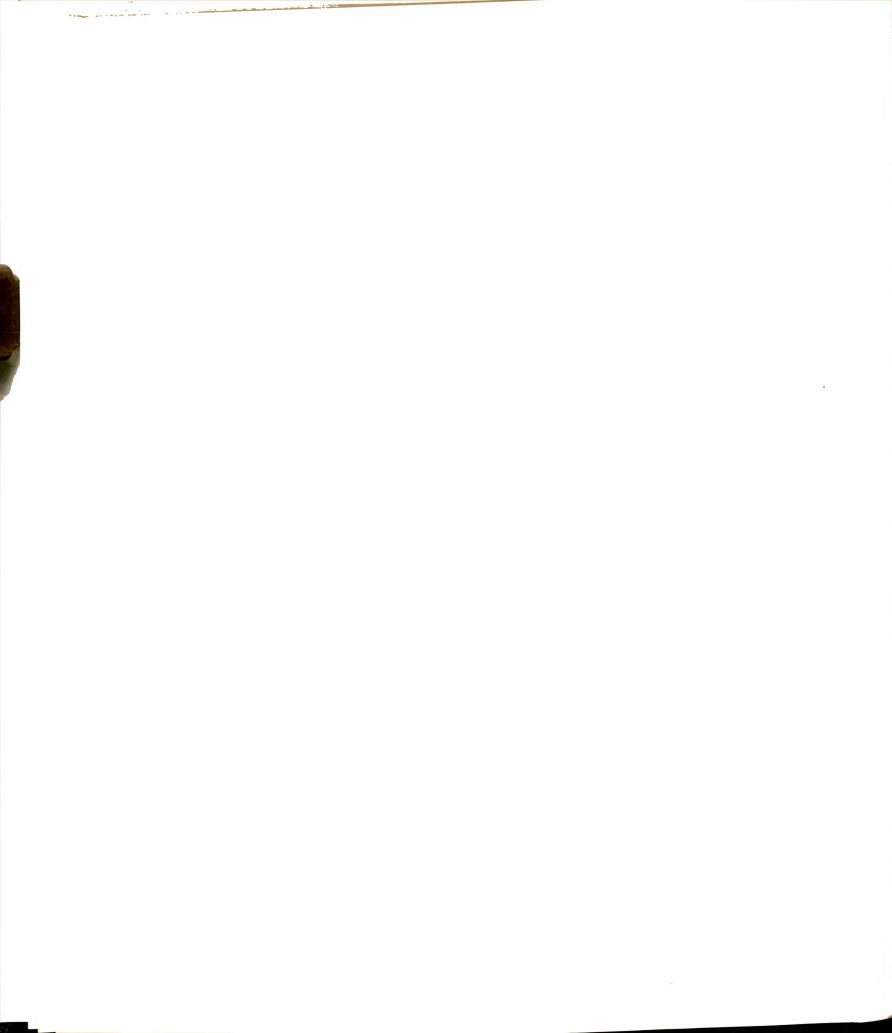
As indicated from the individual response items, the majority of teachers responded negatively to negative statements and positively to positive statements. Exceptions to this were the results from the following statements: (1) "The reading teacher should help students who cannot read the text for my class within my classroom," which was a positive statement to which the majority of teachers disagreed. In other words, they did not want the reading teacher in their classrooms. (2) "The services of the reading teacher are not desired to plan lessons to teach the reading required in my classes," which was a



negative statement, to which the majority of respondents agreed. Thus, as indicated by the attitude statement, the majority did not want the reading teacher to help plan lessons, even though in the need perception for help in planning, the majority indicated that they felt the need for help. (3) With item 18, however, they contradicted the previous statement by agreeing that "If our school had a reading teacher, I would ask her/him to help me with reading in my classes." The difference in the two statements was the word "plan." Perhaps this meant that they did not wish to plan for reading instruction, but wished that the reading teacher would, first, do the planning for them, and then, help them with it in their classes. This was perfectly possible because the literature indicated that teachers felt insecure planning for reading instruction, and that they needed more knowledge to do so.¹⁵²

As indicated in Table 54, in Chapter IV, the total scores of the respondents were more positive than negative. The point of the attitude scale that differentiated between positive and negative attitudes was "66." The mean for the respondents total scores on attitude was 76.966. Thirteen teachers out of a population sample of

¹⁵²Josephine C. Mosby, op. cit.; Robert M. Katrien, op. cit.; Walter Hill, op. cit.; Leonard Courtney, op. cit.; Thomas F. McDonald, op. cit.; Phyllis W. Wiggins, op. cit.; Smith, Bragstad and Hesse, op. cit.



148, therefore, had negative attitudes. Twenty-two respondents of the population had indicated very positive attitudes, or scores above "88." No one had extremely negative attitudes, or scores below "44."

The null hypothesis, "the presence or absence of the reading consultant within the school building will not make any difference between the mean scores of secondary classroom teachers on attitude toward reading" was supported. This finding contradicted the study done by Beverly Hudson,¹⁵³ who found that the reading teacher made a difference in attitudes toward reading. Perhaps this was true in this study because teachers in the buildings without reading consultants had taken courses or attended inservices, which could have equalized the mean attitude scores of both groups of schools.

The analysis of variance between scores of teachers of the four content areas was significant. Duncan's Multiple Range Test indicated that mathematics significantly differed from two other subsets of science and social studies, and social studies and English respectfully. Thus, mathematics teachers had the lowest mean scores on attitude toward reading, English teachers had the highest attitudes toward reading, and social

¹⁵³Beverly Hudson, op. cit.



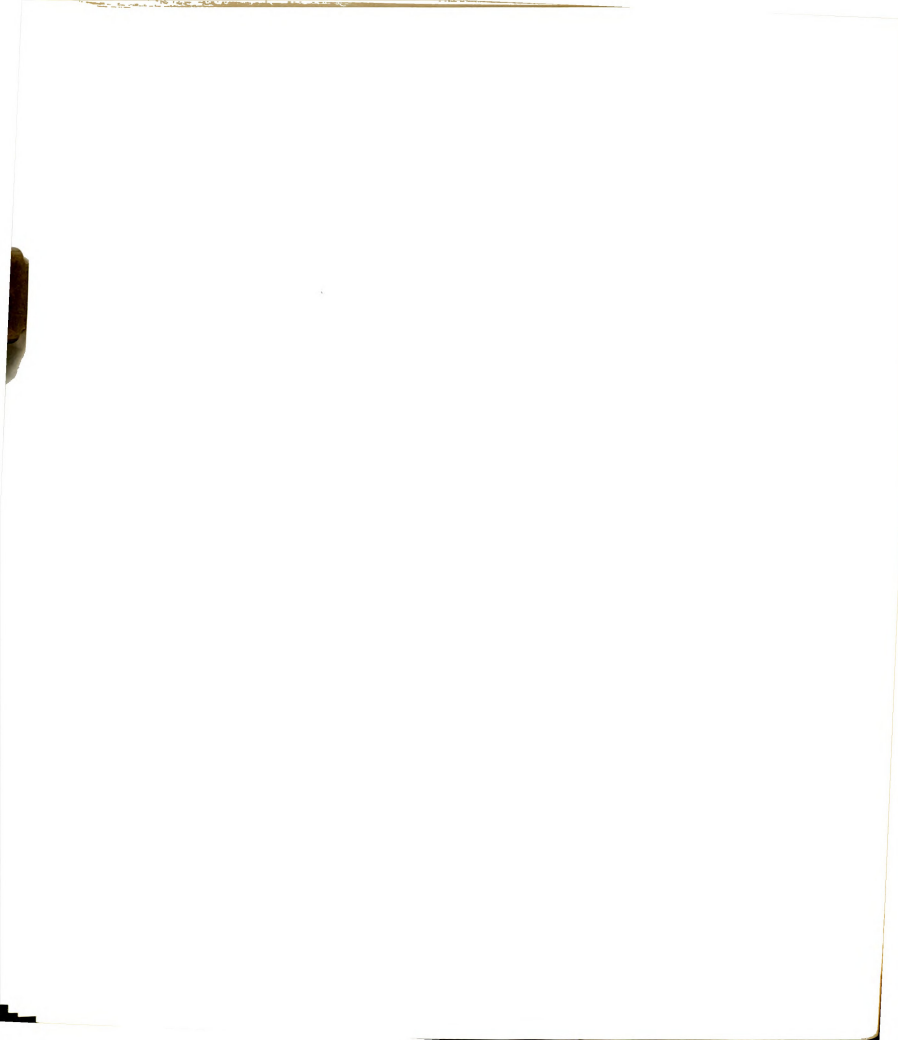
studies and science teachers had positive attitudes, but not as positive as English teachers as a group. This finding contradicted the findings of Smith, Hesse, and Otto,¹⁵⁴ who said that science teachers had the lowest attitude toward reading.

Part VII: Associations, Intercorrelations and "Prediction Analysis"

Associations Between Attitude of Teachers and Selected Independent Variables

The null hypothesis that "attitude scores will not be associated with the scores of each of the 15 independent variables" was not supported. Ten of the 15 variables were found to be significantly correlated with attitude. They were (1) courses in reading, (2) inservice in reading, (3) utilization of reading strategies, (4) familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts, (5) use of Secondary Reading Objectives, (6) incorporation of reading skills into lesson plans, (7) reading skills used most frequently, (8) role perception of the reading teacher, (9) need perception for inservice in reading and (10) need perception for help in planning for reading instruction. The five variables not significantly correlated with attitude toward reading were (1) schools, (2) teaching

¹⁵⁴Smith, Hesse and Otto, op. cit.

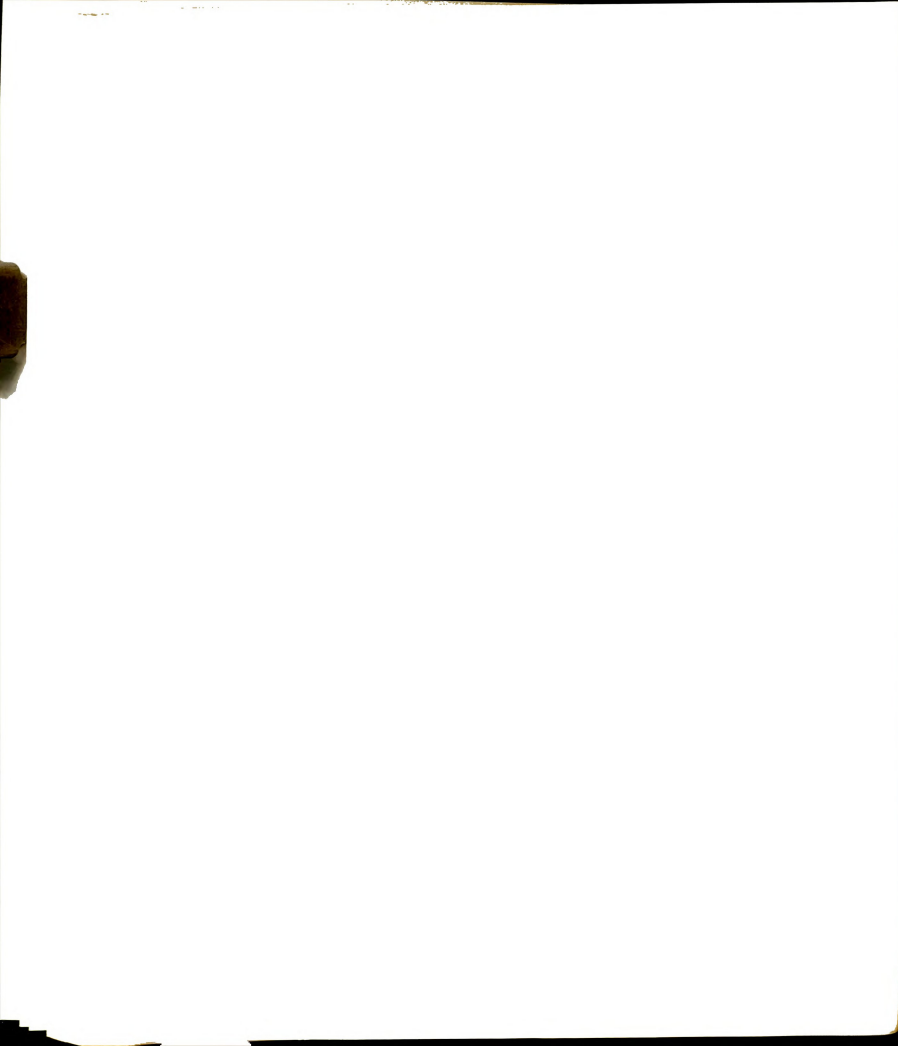


experience, which supports the findings of Hudson,¹⁵⁵ (3) definition of remedial reading, which resulted from lack of variation in the total scores (the teachers as a group could not define remedial reading), (4) concept of reading in the content areas, which also resulted in lack of variation of the total scores (only one tenth of the population could define it with 80 percent accuracy), and (5) perception of adequacy of instruction material (which also resulted in lack of variation of scores (the majority of teachers reported that the material met the reading needs of their students only "sometimes").

The significant association between attitude and courses in reading was positive, indicating that as courses in reading increased, so did the attitude of the teachers. The same positive association resulted between inservice in reading and attitude. In other words, the more inservice the person had, the more positive his attitude toward reading.¹⁵⁶ A significant and positive correlation was also found with utilization of strategies in reading. The more strategies a teacher used the more positive his attitude toward reading. Familiarity with Secondary Reading Objectives, use of reading objectives, incorporation of reading skills into lesson plans,

¹⁵⁵Beverly Hudson, op. cit.

¹⁵⁶Richard Smith and Wayne Otto, op. cit; Stella Minton, op. cit.; and Eugene B. Grant, op. cit.



and the ability to name reading skills all resulted in a positive, significant association with attitude. In other words, the more familiar the teacher was with reading objectives, the more positive his attitude, the more the respondent used reading objectives, the more positive his attitude, the more the teacher incorporated reading skills into lesson plans, the more positive his attitude, and the more skills respondents could name as using frequently in lessons, the more positive his attitude. The literature supports these positive associations.¹⁵⁷ Positive association was also found between the role perception of the reading teacher and attitude. In other words, the more tasks the teachers perceived the reading teacher to be performing, the higher their attitude toward reading. Hesse, Smith and Nettleton's findings¹⁵⁸ supported this finding. Need perception for inservice in reading, and need perception for help in planning for reading instruction also had a positive association with attitude toward reading. In other words, the more the respondent perceived he needed inservice in

¹⁵⁷ Richard Smith and Wayne Otto, op. cit.; R. Sawyer and L.D. Taylor, op. cit.; Decarlo and Cleland, op. cit.; Otto, op. cit.; Robert M. Katrien, op. cit.; Stella Minton, op. cit.; Leonard Courtney, op. cit.; Richard Smith, Bernice Bragstad, Karl Hesse, op. cit.; Harold L. Herber, op. cit.

¹⁵⁸ Karl D. Hesse, Richard J. Smith, Aileen Nettleton, op. cit.



reading, the more positive his attitude toward reading, and the more the teacher felt he needed planning for reading instruction, the more positive his attitude toward reading.

Intercorrelations Between
Selected Independent
Variables

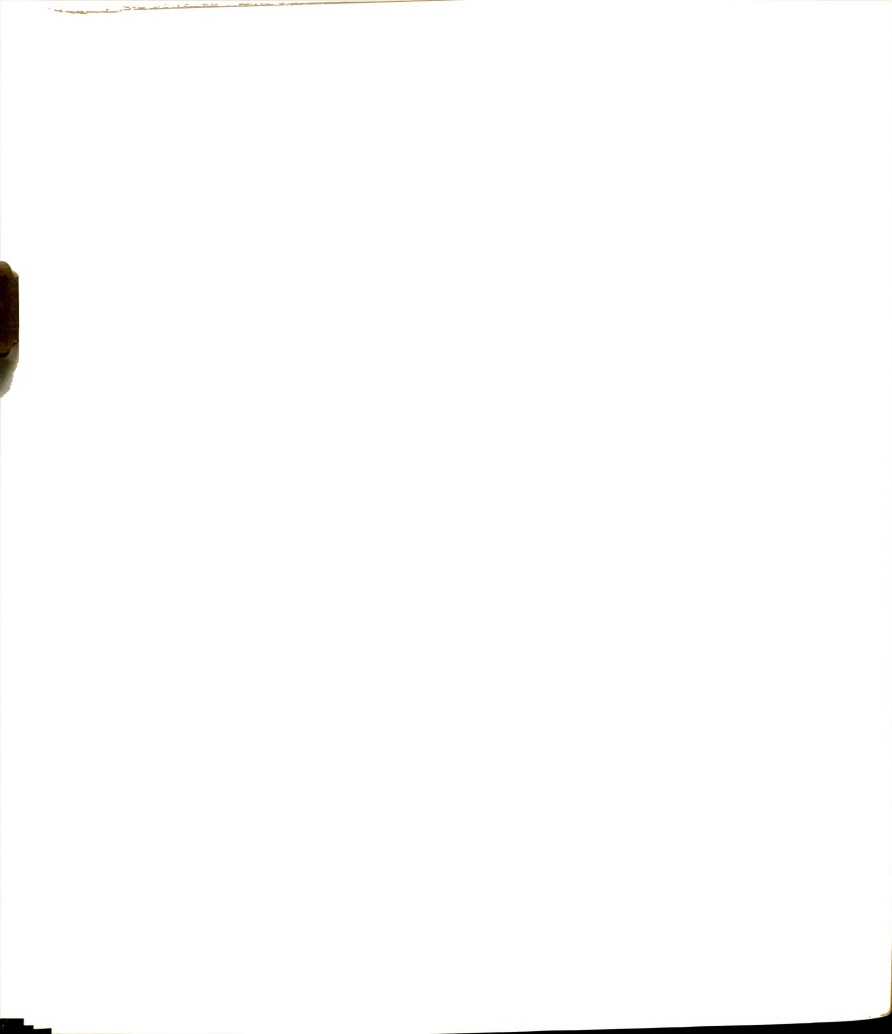
As reported in Table 59 of the Findings Chapter, groups of schools had a negative correlation with the role perception of the reading teacher. This was because schools with reading consultants were scored as "1," and schools without reading consultants were scored as "2." As the total score of the role perception went up, the score reduced to "1," or schools with reading consultants. As the total score of the role perception of the reading teacher went down, the score of the school went up to "2." In other words, teachers in schools with reading consultants had higher total scores on role perception of the reading teacher than teachers in schools without reading consultants. Both courses in reading and inservice in reading showed positive correlations with familiarity with Secondary Reading Objectives, use of Secondary Reading Objectives, utilization of reading strategies, incorporation of reading skills, and reading skills used in lesson plans. This was interpreted as meaning that inservice and courses provided awareness and



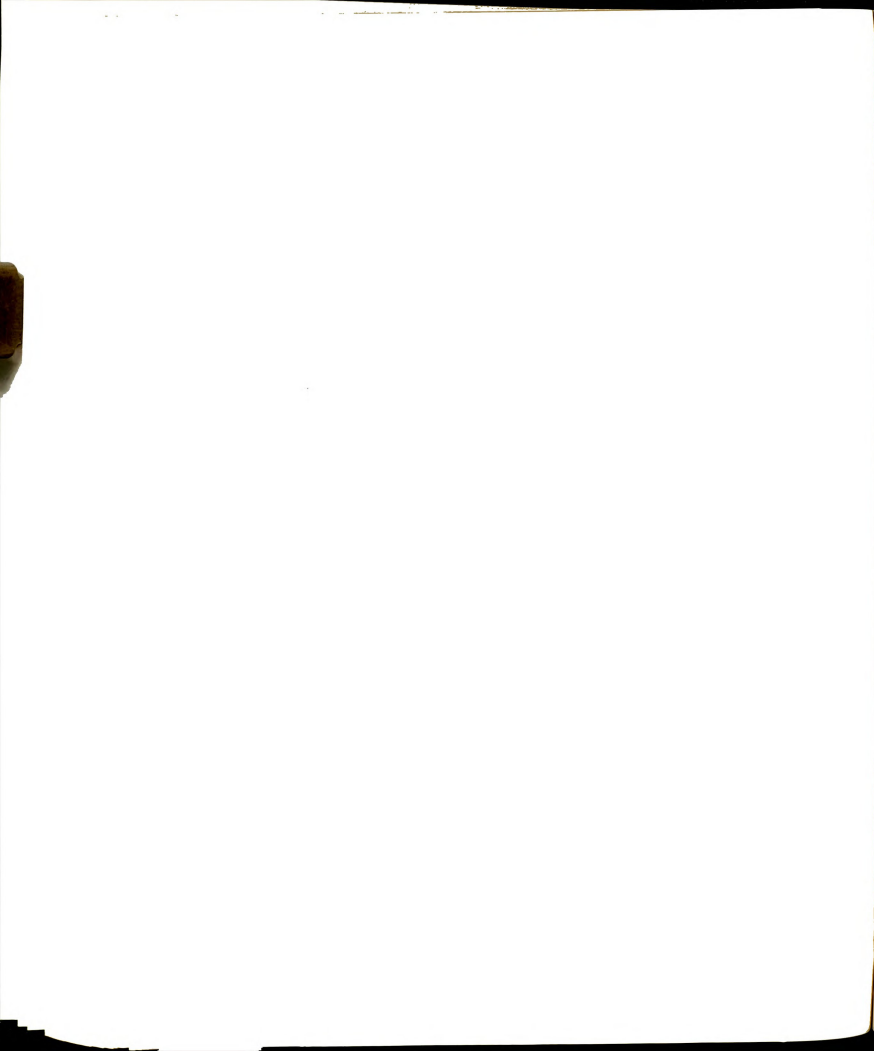
use of these aspects of reading instruction. Other interesting results were that the role perception of the reading teacher was positively and significantly correlated with need perception for help in planning for reading instruction, need perception in inservice was significantly and positively correlated with need perception for inservice in reading, and perception of adequacy of material was negatively correlated with need perception for help in planning. By these correlations, one can see the motivation behind the scores from respondent teachers. High role perception of the reading teacher was due to need for help in planning for reading instruction. Need perception for planning for reading instruction motivated the respondent to indicate a need for inservice. And low perception of the adequacy of the instructional material correlated with a high need perception for help in planning. The results were logical and interesting.

"Prediction Analysis"

The null hypothesis that "the independent variables taken together will not contribute toward accounting for variation in attitude toward reading" was not supported. This resulted because six variables contributed significantly toward variation in teachers' attitudes toward reading. These variables were (1) utilization of reading strategies, which had the highest contribution toward



attitude, (2) need perception for inservice, (3) courses in reading, (4) familiarity with Secondary Reading Objectives, (5) need perception for help in planning, and (6) reading skills used most frequently in lessons. In other words, when strategies used by classroom teachers is increased, for example, an increase in attitude also exists. The six variables are in order of their importance in contributing toward attitude of classroom teachers toward reading. Taken together, these variables account for 46.20 percent of the variation in attitude. Other variables that contribute up to 100 percent variation in attitude of classroom teachers have not been found. This study, however, was the first of its kind to find any variables that contribute toward variation of attitudes of classroom teachers toward reading.



CHAPTER VI

SUMMARY AND CONCLUSIONS

This chapter is divided into three parts: (1) the summary of the study, (2) the conclusions and practical implications of the study, based on the research questions and assumptions, and (3) suggestions for further research.

Summary

Because of lack of preservice training in reading instruction of teachers of secondary education, school districts have been forced to provide inservice to their secondary teachers in reading in the content area concepts, skills, study skills, and teaching strategies to assure that their students would have systematic and continuous reading instruction throughout elementary and secondary education. This study attempted to comprehensively survey the existing situation for teachers' awareness, perceptions and attitudes toward reading as a means of obtaining information on which to plan, develop, create and expand secondary reading in the content area programs. The major purpose of this study was to survey and describe the existing situation within a selected



school district in terms of reading awareness, perception and attitude, as well as the present influence of the reading teacher, the results of which would provide a base upon which to objectively construct future inservice programs in reading in the content areas. Another purpose of this study was to develop a valid and reliable instrument which could be used to survey teachers' attitudes toward reading in the content areas.

Reading in the content areas has been defined as the process of learning and thinking that begins with word analysis and vocabulary development and extends through four levels of comprehension (literal, inferential, analytical and synthesis) to the combination of ideas called concepts which form the core of the subject area disciplines. Content area reading also included the development of study skills and study strategies as an adjunct to the process, i.e., they were associated with the process, but were not involved directly with the process.

The methodological procedure consisted of the measurement of the dependent variable, attitude, and 15 independent variables, derivation of hypotheses, followed by statistical measures used to test the hypotheses, and development of the instrument, which was tested for its reliability and validity, for measurement of attitudes toward reading. Data was collected from six



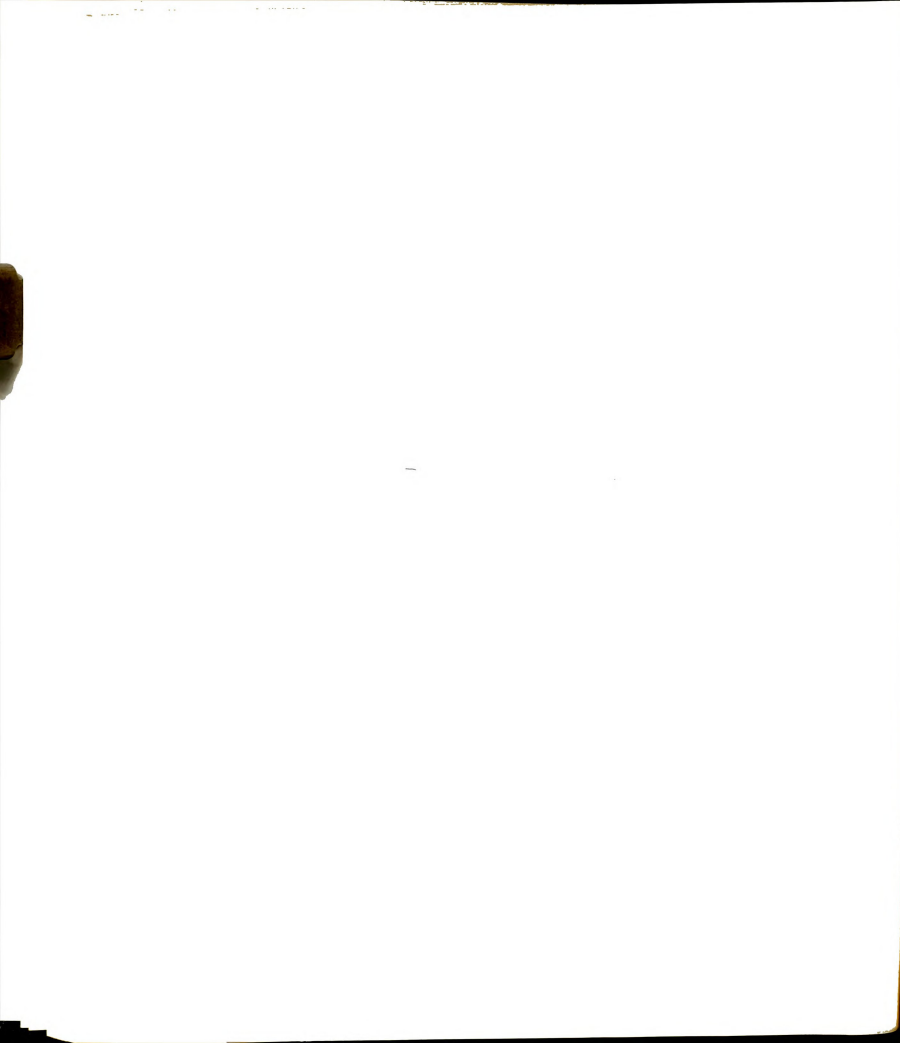
secondary schools, three of which had reading consultants, and three of which did not have reading consultants, in Lansing School District, Lansing, Michigan.

Summary of Findings

The first part of the findings described the setting of the study in terms of total numbers of respondents (N = 148) from each school and each subject area, the respondents years of teaching experience, the number of courses in reading the respondents had taken, and the number of inservices in reading in which the respondents had participated.

The second part of the findings described teachers' understanding of the concepts of remedial reading and reading in the content areas. The results were that the majority of respondent teachers were unable to define both reading in the content areas (90 percent) and remedial reading (88.5 percent).

The third part of the findings described teachers' utilization of the reading strategies. The results indicated that the majority of the population (98.6 percent) utilized a number of reading strategies that varied significantly with the content area in which they taught. Content areas utilizing the strategies from most to least were social studies, English, science, and mathematics, respectively.



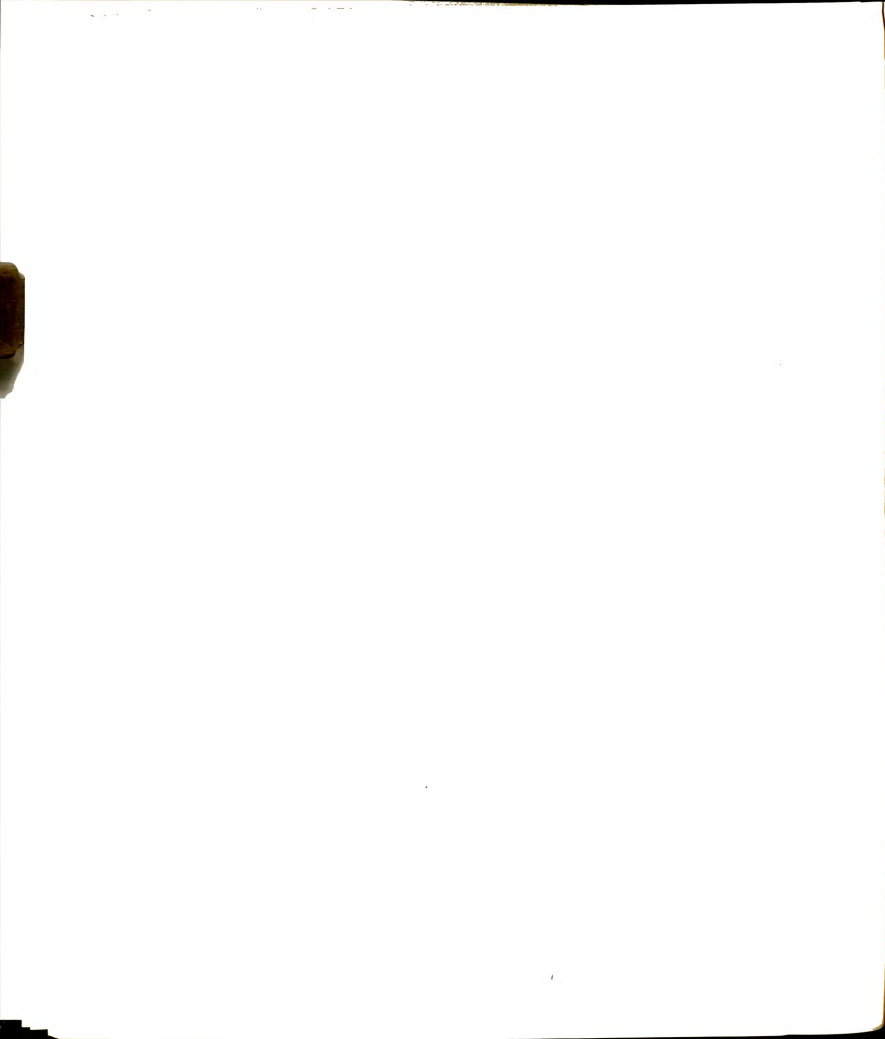
The fourth part of the findings described teachers' incorporation of reading skills. The results indicated that the familiarity, use, incorporation and reading skills used most frequently in lesson plans differed significantly among the four content areas of English, social studies, mathematics and science. Mathematics teachers were found to be the least familiar with reading objectives, mathematics and science teachers were found to use reading objectives the least, and mathematics teachers were found to incorporate fewer reading skills into lesson plans and to name reading skills used most frequently in lesson plans less than the other three content area disciplines. English teachers were found to be the most familiar with reading objectives, to use reading objectives, to incorporate more reading skills into lesson plans, and science teachers were found to name more reading skills used most frequently in lesson plans as compared to the other three content area disciplines.

The fifth part of the findings described teachers' perception of the role of the reading teacher within their school building. Teachers in schools with reading consultants perceived his role significantly different than teachers in schools without reading consultants. Reading consultants were perceived as functioning in a variety of ways by the teachers in their buildings.



The sixth part of the findings described teachers' need perception for inservice in reading, teachers' perception of the adequacy of instruction material provided to them to teach their classes in terms of meeting the reading level needs of their students, and their need perception for help in planning for reading instruction within their classes. The results indicated that the majority of teachers perceived a need for inservice in reading (87.2 percent), perceived the instructional material as inadequately meeting the reading level needs of their students (70.27 percent), and perceived a need for help in planning for reading instruction within their classes (85.8 percent). The teachers' perception of adequacy of instructional material was significantly different in schools with reading consultants and schools without reading consultants.

The seventh part of the findings described teachers' attitudes toward reading instruction. The results of the study indicated that the respondent teachers had a more positive than negative attitude toward reading. The mean attitude score was 76.966, which was almost 11 points above the dividing point (66) of positive and negative attitudes. Twenty-two respondents had very positive attitudes toward reading, and none of the teachers had extremely negative attitudes, although 13 teachers were classified as having negative attitudes



toward reading. By having positive attitudes toward reading, the respondents viewed themselves as responsible for reading instruction within their own classes, as responsible for teaching concept development, and library and reference skills. They also perceived as important to use more than one reading level textbook in their classes, to know the reading level of their texts, to determine the reading level of new instructional material before purchasing it, and that it was important to offer reading to all students in the secondary schools, not just the poorer readers. The respondents, of course, had varying intensity of attitudes on all the items.

The eighth part of the findings described the degree of association between attitude scores of respondents and scores of selected independent variables, the intercorrelation between all variables selected for multiple regression and multiple correlation analysis, and, the "prediction analysis" findings. Ten of the 15 independent variables were found to have a positive and significant correlation with attitude. These variables were courses in reading, inservice in reading, utilization of reading strategies, familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts, use of Secondary Reading Objectives, incorporation of reading skills into lesson plans, reading skills used most frequently, role perception of the



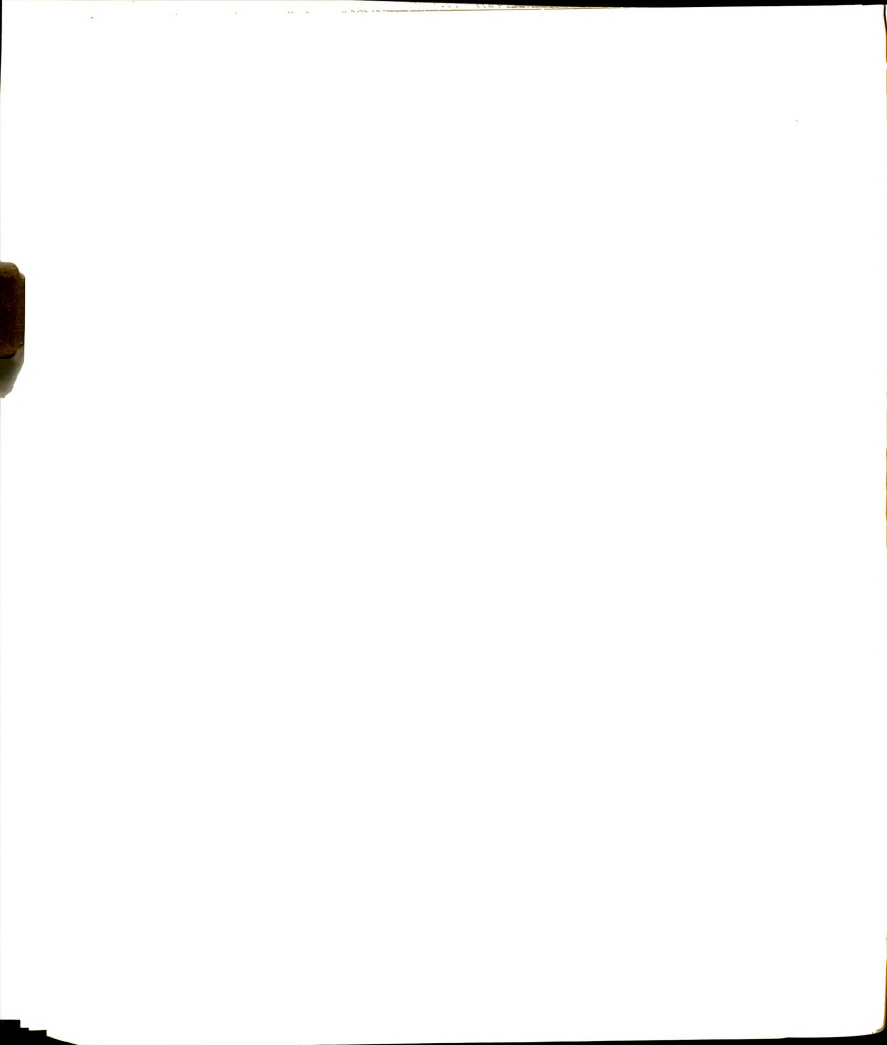
reading teacher, need perception for inservice in reading, and need perception for help in planning. Almost all the independent variables were intercorrelated with one or more independent variables. In "prediction analysis," six variables were found to contribute 46.20 percent of the variation in attitude toward reading. They were utilization of reading strategies, need perception for inservice in reading, courses in reading, familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts, need perception for help in planning for reading instruction, and reading skills used most frequently in lesson plans.

Conclusions and Practical Implications

Based on the findings of this study, the investigator concluded the following:

(1) The majority of teacher respondents in this study viewed themselves to be responsible for the reading instruction in their classes.

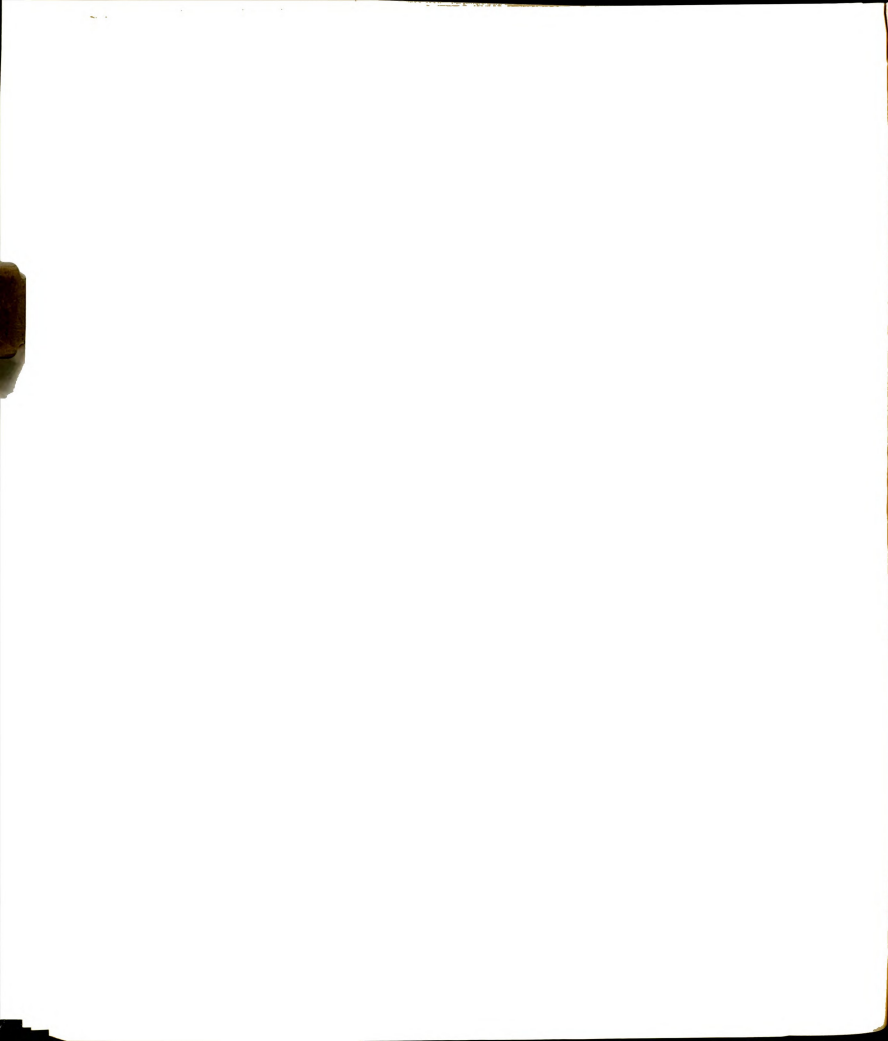
(2) Reading consultants were found in only three of the buildings of the schools selected for this study. However, findings indicated that reading consultants would be welcome in all the buildings. These findings were reported in the need perception for inservice in reading results, in which the majority of teachers indicated that they felt the need for inservice, the



need perception for help in planning for reading instruction results, which again indicated that a reading consultant was needed by the majority stating a need for help within the school building, by the majority response received on the attitude item "If our school had a reading teacher, I would ask her/him to help me with reading in my classes," and by the majority of the respondents indicating that they want to know more about reading instruction, as indicated by the findings on the attitude statement "Reading as a thinking tool interests me and I want to know more about it."

(3) The results of this study indicate that teacher respondents of this study did not understand the concepts of remedial reading and content area reading. Therefore, the investigator concluded that more attention should be given to developing a conceptual and philosophical framework on which to build a total reading program. As Herber¹⁵⁹ stated, the reading class curriculum and the content area curriculum are two distinct curricula, and are often confused. The role of the reading class curriculum and the role of the content area curriculum need clarification. Once these two curricula are specified, the role of content area reading is more positively accepted.

¹⁵⁹Harold L. Herber, Reading in the Content Areas, op. cit.



(4) Based on the results of this study, teacher respondents were very well aware of the types of services, or lack of services, the reading teacher/consultant within the building provided. Significant difference between the two groups of schools, i.e., schools with a reading consultant and schools without a reading consultant, were found in the perception of the role of the reading teacher.

(5) In those buildings where a reading consultant was provided to work with teachers on reading instruction for their classes, the teachers indicated that they did, in fact, use the services of the reading teacher in a variety of ways: (1) by using suggestions made by the reading teacher for various materials to be used with the problem readers in the classroom, (2) by trying various kits, workbooks and other instructional material specifically designed to increase certain reading skills, (3) by using the testing services offered by the reading teachers, (4) by attending inservices in reading given by the reading teacher, (5) by having the reading teacher help them to conceptualize reading as a thinking process, by having the reading teacher help them plan for instruction within their classes, (6) by having the reading teacher teach certain reading lessons within their classrooms that are based on the content lessons, and (7) by having the reading teacher work with them to help



formulate activities specifically designed for the disabled reader.

(6) The findings of this study indicated that the majority of teachers (69.59 percent) were incorporating reading skills into their lesson plans. However, as indicated by other kinds of questions, some of these teachers were unable to name the reading skills they were using, or if they did name them, they were indicating other kinds of things rather than reading skills. Therefore, the investigator concluded that teachers need further clarification on what reading skills are, and then, help in incorporating them into their lesson plans.

(7) The findings of this study indicated that the teacher respondents were aware of reading strategies. The most frequently used reading strategies reported by teachers in this study were making purposeful assignments, discussion of lessons before and after reading, employing questioning strategies, and applying content to students' experience. Only half of the population indicated use of vocabulary tests and study guides. More emphasis, therefore, should be placed on the understanding of vocabulary as part of the comprehension process. As Herber states in Success With Words, "If teachers in every subject area concerted their efforts toward understanding the terms within each discipline, students would stand a much better

chance of developing good vocabularies."¹⁶⁰ He also stated that vocabulary building leads to concept building, which is the heart of the content area discipline.

(8) The findings of this study indicated that teachers' perception of adequacy of instructional material was low. The majority of the respondents felt that the material did not adequately meet the needs of their students' reading levels. This means that careful consideration be given to the readability of instructional material before purchasing it. All but three of the respondents of this survey indicated that they thought the readability of instructional material should be determined before purchasing it. Readability of instructional material has been emphasized in the school district of this study for the last three years, which helped to make teachers aware of the level of difficulty of the material, as compared to the reading levels of the students.

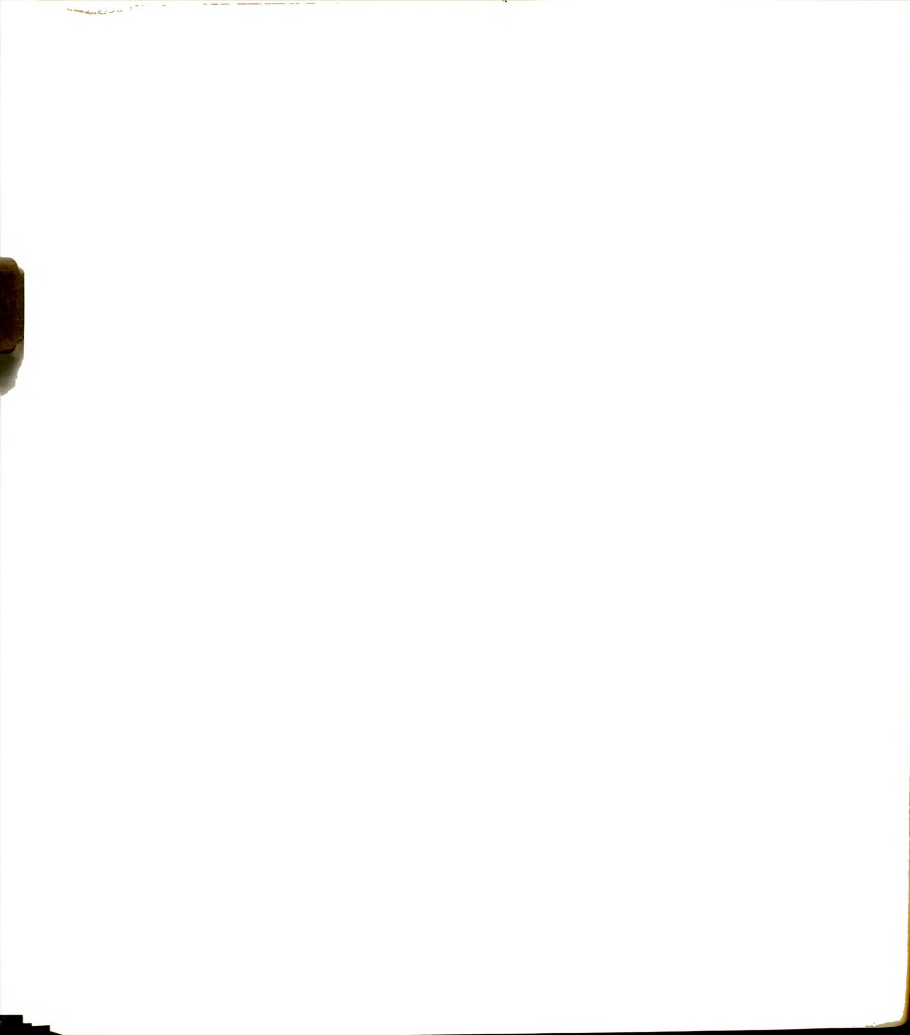
(9) Fifty-nine teachers indicated that they had taken from one to more than three courses in reading. From the results of the intercorrelation of independent variables, courses in reading were significantly and positively correlated with familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts, use of those Secondary Reading

¹⁶⁰ Harold L. Herber, Success With Words, op. cit.



Objectives, utilization of reading strategies in lesson plans, incorporation of reading skills into lesson plans, and reading skills named as most frequently used in lesson plans. Therefore, teachers who have had courses in reading did use what they learned from those courses in the reading instruction planning and lessons they use in their classrooms. They also possessed a more positive attitude toward reading as a result of courses in reading.

(10) Of the 148 respondents in this survey, 131 had participated in between one and more than three inservices in reading. This represented approximately 89 percent of the population (88.5 percent). From the results of the intercorrelation of independent variables, significantly and positively correlated with inservices in reading are utilization of reading strategies, familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts, use of Secondary Reading Objectives, incorporation of reading skills into lesson plans, and reading skills named as most frequently used in lesson plans. Therefore, the intercorrelations of variables shows that inservice correlated significantly with the same variables as courses in reading. Inservice was also positively and significantly correlated with attitude toward reading. In other words, the more inservices teachers participated in, the more positive was their attitudes toward reading.



(11) The results of the study indicated that years of teaching experience did not influence teachers' perception of reading or their attitude toward reading. Of the respondent teachers, 27 had less than five years of teaching experience, 55 had between five and ten years of teaching experience, 28 had between ten and 15 years of teaching experience, and 38 had more than 15 years of teaching experience.

(12) The findings of this study indicated that the respondent teachers had a more positive than negative attitude toward reading. The mean attitude score was 76.966, which was almost 11 points above the dividing score of "66," between positive and negative attitudes. Twenty-two respondents had very positive attitudes toward reading, and none of the respondents had extremely negative attitudes, even though 13 teachers in the survey were classified as having negative attitudes toward reading.

(13) The results of the study indicated that a successful means of measuring attitudes toward reading had been developed, validated, and implemented. Ten of the 15 independent variables used in the instrument were found to be positively and significantly correlated with attitude toward reading. Of those ten, six were found to significantly contribute 46.20 percent of the variation in attitude. The ten variables found to be significantly and positively correlated with attitude were courses in

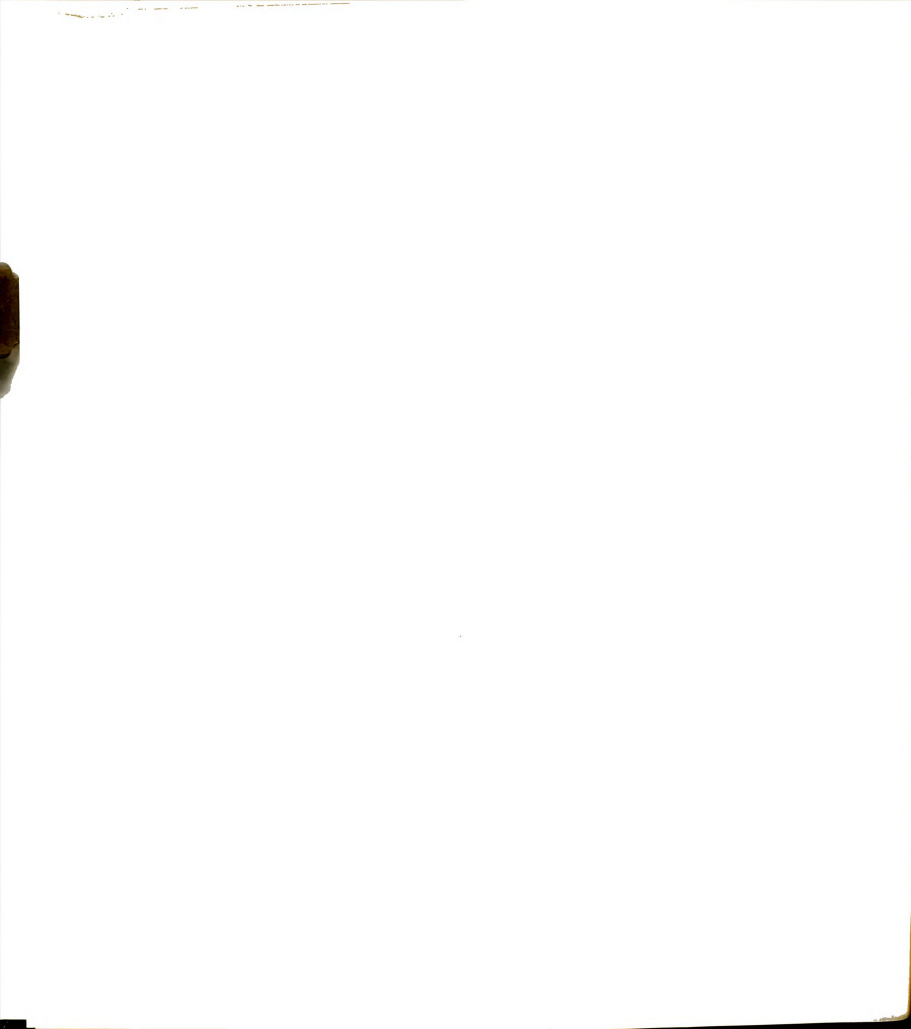


reading, inservice in reading, utilization of reading strategies, familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts, use of Secondary Reading Objectives, incorporation of reading skills into lesson plans, reading skills used most frequently in lesson plans, the role perception of the reading teacher, need perception for inservice in reading, and need perception for help in planning for reading instruction in the classroom. Those variables found to contribute significantly toward variation in attitude scores were utilization of reading strategies, need perception for inservice in reading, courses in reading, familiarity with Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts, need perception for help in planning for reading instruction in the content area classes, and reading skills used most frequently in lesson plans.

(14) The results of this study indicated very definite directions for the planning, development and implementation of a total school reading program.

(15) The variables included in this study were quantitatively measured, and their degree of association of content area teachers' attitudes toward reading were quantitatively measured.

(16) The findings of this study indicated that the presence of the reading consultant within the school



building made a significant difference in content area teachers' perception of the role of the reading teacher, and content area teachers' perception of the adequacy of instructional material provided to teach their classes in meeting the reading level needs of their students. In schools with reading consultants, the reading teacher was perceived as beneficial in helping teachers in a variety of ways with content area reading instruction for their classes. In schools with reading consultants, the perception of the adequacy of instructional material meeting the needs of students' reading levels was low. In other words, the material was perceived as having to be modified to accommodate the range of reading levels of students in content area classes. The reading teacher, however, did not make a difference in the attitudes of content area teachers, however, because perhaps, they worked primarily with only one or two disciplines rather than all four. The reading teacher also did not make a difference in concepts of remedial reading and content area reading, utilization of reading skills, need perception for inservice or help in planning for reading. The variance was found not to exist in schools, but in content areas.

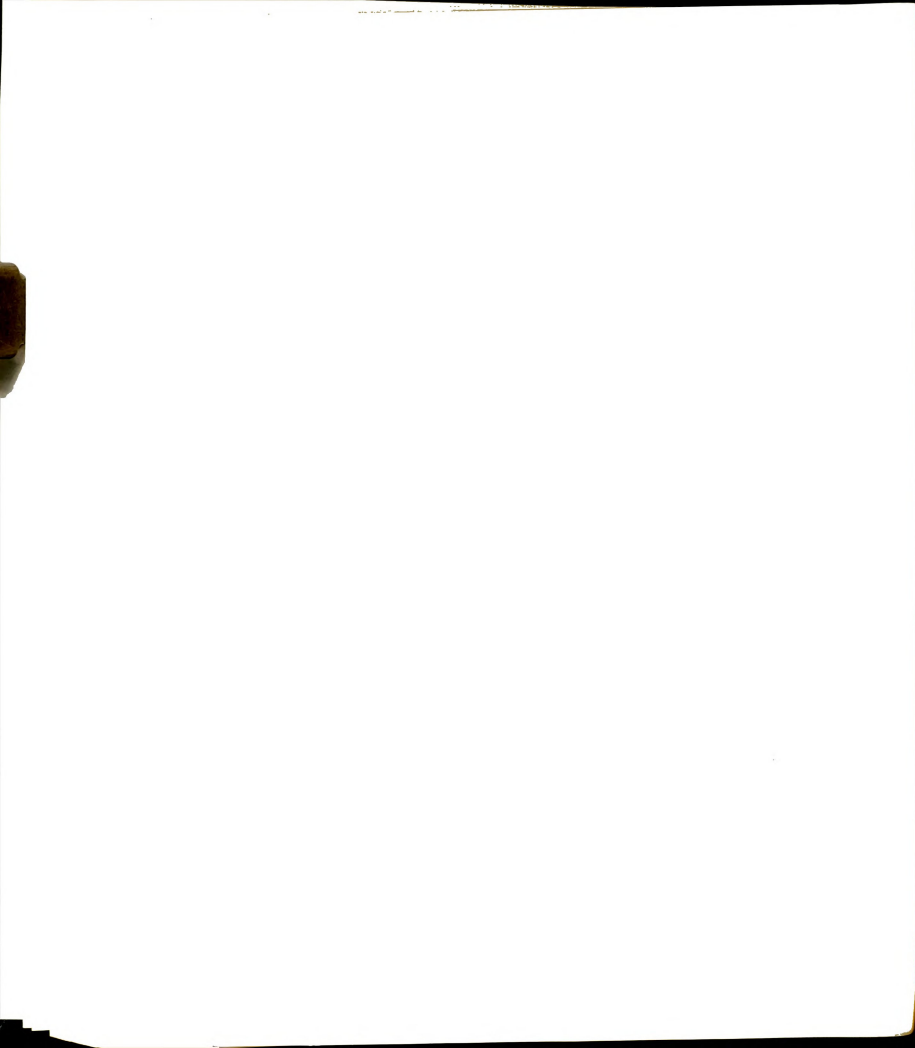


Recommendations for Further Research

(1) This study was the first of its kind to be conducted on content area teachers' attitudes toward reading and factors associated with attitude. Therefore, no guidelines existed from which to measure the content area teachers' attitudes. An instrument was developed in this study to measure attitudes and tests of validity and reliability were done. As a result of use of sophisticated statistical procedures, six variables were found that contributed 46.20 percent of the variation in attitude. Studies need to be conducted to find the additional variables that account for the rest of the variation in attitude toward reading.

(2) Studies need to be conducted on how the reading concepts can be effectively communicated to the teacher respondents. Once their awareness, receptivity and attitude were determined, the most effective ways of communicating to them the knowledge that results determined they needed and wanted must be known.

(3) Studies need to be conducted on the organizational structure of the schools to determine why, for example, the teachers of mathematics, as a group, were the least aware of reading concepts and skills, were the least receptive to help in reading instruction via insert or the reading teacher and had the least positive attitudes toward reading.



(4) Surveys need to be conducted to find instructional material written for the various content areas that meets both the range of reading levels of students on the secondary level and the content requirements of the discipline.

(5) Because of the limitations of population size, this study needs to be replicated in other school districts with other content area disciplines.

(6) The investigator thinks that to provide balance in the agreement/disagreement continuum of the attitude scale, future researchers should add "very strongly disagree" at the end of the continuum, or delete "very strongly agree" from the beginning of the continuum. This might enhance the reliability and validity of the scale.

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APPENDICES



APPENDIX I

Item Analysis (t Values) of Attitude Statements as Rated by Judges.

Opinion Statements	t Values
1. Students who have difficulty reading the text in my course should go to the reading center to learn to read.	2.825*
2. The teaching of reading is the responsibility of the elementary school, rather than the secondary school.	3.333
3. It is the responsibility of the student to know the vocabulary of his subject areas, without my help.	2.196
4. The teaching of concept development is part of reading instruction, and should not be taught in my classes.	3.169*
5. Students who can't read the text in my class should get help from the reading teacher.	4.700**
6. The teaching of reading is the responsibility of the reading teacher.	4.700**
7. Teaching library and reference skills to my class is not my responsibility.	6.448**
8. The teaching of reading skills can be incorporated into lesson plans without interferring with the teaching of content in a class.	1.875
9. Every secondary teacher is responsible for teaching reading in his subject area.	7.692**
10. The help of the reading teacher would enhance the effectiveness of my teaching in my classes.	1.705
11. Reading should be regarded as a separate subject in the secondary schools.	0.242
12. The teaching of reading in my class will help students to achieve better grades on examinations.	0.633
13. The determination of reading levels of students in my class does not require the help of the reading teacher.	2.678*
14. The reading teacher helps me to determine the reading levels of my students.	7.833**
15. Reading instruction need only be offered to poorer readers in the secondary schools.	4.729**
16. Teachers need the help of the reading teachers in selecting materials.	10.272**



Item Analysis (t Values) of Attitude Statements as Rated by Judges
(continued).

Opinion Statements	t Values
17. The services of reading teachers are not desired to plan my lessons to teach the reading required in my classes.	15.384**
18. It is important to know the reading level of my textbook.	3.605**
19. As a secondary teacher, I should know how to teach phonics.	3.333*
20. It is important to teach reading in my class.	2.600*
21. Secondary teachers need help to teach reading.	1.740
22. Secondary teachers are not responsible for teaching reading.	2.916*
23. The reading level of new textbooks should be determined before purchasing them.	3.766**
24. Reading improves critical thinking and critical analysis.	2.142
25. If our school had a reading teacher, I would ask her/him to help me with reading in my classes.	6.227**
26. It is important to know the previous experiences of my students to teach them my subject.	2.246
27. It is important to use more than one reading level textbook in my classes.	5.172**
28. Teaching reading in my class is a waste of my teaching time.	5.645**
29. Knowing how to teach my students to read is useful to me in my classes.	13.630**
30. Reading as a thinking tool interests me, and I want to know more about it.	4.032**

* Significant at .05 level of probability (t = 2.365)

** Significant at .01 level of probability (t = 3.499)



APPENDIX II



Dear Teacher:

The purpose of the following questionnaire is to find out teachers' opinions and reactions towards content area reading, remedial reading, reading instruction and how the role of the reading teacher is perceived. The questionnaire is divided into two parts: The first part asks for basic information about you and your organization of teaching. The second part presents a set of opinion statements and you are to indicate how much you agree or disagree with each statement. Your responses in this questionnaire will be treated as confidential. For this reason, to avoid confusion, please do not write your name on this questionnaire.

Thank you very much for your cooperation.



QUESTIONNAIRE:

1. Please write the name of your school _____.
2. Please indicate the subject area you are teaching by checking one of the following:
 - 2.1 _____ English
 - 2.2 _____ Social Studies
 - 2.3 _____ Mathematics
 - 2.4 _____ Science
3. How long have you been teaching? Check one area:
 - 3.1 _____ under five years
 - 3.2 _____ up to ten years
 - 3.3 _____ up to fifteen years
 - 3.4 _____ fifteen years or more
4. Please indicate how many university-offered courses in reading you have taken:
 - 4.1 _____ no course in reading
 - 4.2 _____ one course only
 - 4.3 _____ two courses
 - 4.4 _____ three courses
 - 4.5 _____ more than three courses.
5. Please indicate how many inservices in reading instruction you have attended:
 - 5.1 _____ no inservice in reading instruction
 - 5.2 _____ one inservice in reading instruction
 - 5.3 _____ two inservices in reading instruction
 - 5.4 _____ three inservices in reading instruction
 - 5.5 _____ more than three inservices in reading instruction
6. Please indicate how you would define remedial reading on the secondary level by checking true or false in the appropriate column:
 - 6.1 TRUE _____ FALSE _____ Remedial reading is the reteaching of basic skills such as phonics and alphabetizing.
 - 6.2 TRUE _____ FALSE _____ Remedial reading is the diagnosis and prescription of severely disabled readers.
 - 6.3 TRUE _____ FALSE _____ Remedial reading is a subject taught at the secondary level.



6. 6.4 TRUE ☐ FALSE ☐ Speed reading is part of a remedial reading class curriculum.
- 6.5 TRUE ☐ FALSE ☐ Teaching of varying reading rates is part of the remedial reading class curriculum.
- 6.6 TRUE ☐ FALSE ☐ Remedial reading classes are concerned with the content rather than the skills used in the materials of the reading class.
- 6.7 TRUE ☐ FALSE ☐ The teaching of spelling is not part of the remedial reading class curriculum.
- 6.8 TRUE ☐ FALSE ☐ In the remedial reading class, the student is retaught history lessons he has failed to pass in his history class.
- 6.9 TRUE ☐ FALSE ☐ The remedial reading class is concerned only with the teaching of reading skills.
7. Please indicate your concept of reading in the content areas on the secondary level by checking true or false in the appropriate column:
- 7.1 TRUE ☐ FALSE ☐ The combination of ideas that form concepts are part of the reading process in content area classes at the secondary level.
- 7.2 TRUE ☐ FALSE ☐ Study skills are part of the reading process in content area classes at the secondary level.
- 7.3 TRUE ☐ FALSE ☐ Learning how to use the library is part of the reading process in content area classes at the secondary level.
- 7.4 TRUE ☐ FALSE ☐ Word recognition is part of the reading process in content area classes at the secondary level.
- 7.5 TRUE ☐ FALSE ☐ In content area classes at the secondary level, the reading process includes literal and inferential comprehension of meaning.
- 7.6 TRUE ☐ FALSE ☐ In content area classes on the secondary level, the reading process includes critical analysis and problem-solving.
- 7.7 TRUE ☐ FALSE ☐ The teaching of phonics is part of the reading process in content area classes on the secondary level.
- 7.8 TRUE ☐ FALSE ☐ Learning how to outline a textbook is part of the reading process in the content area classes at the secondary level.



- 7 7.9 TRUE ☐ FALSE ☐ Writing is part of the reading process in content area classes at the secondary level.
- 7.10 TRUE ☐ FALSE ☐ Researching a topic of interest in the library is part of the reading process in content area classes at the secondary level.
8. Please indicate the strategies you use most frequently in your lessons to help your students to read the material you require in your classes by checking any number of the following:
- 8.1 ☐ SQ3R
- 8.2 ☐ Vocabulary Tests
- 8.3 ☐ Discussion of lessons before and after reading
- 8.4 ☐ Applying content of lessons to students' experiences
- 8.5 ☐ Use of Study Guides
- 8.6 ☐ Designing lessons on at least three levels of comprehension
- 8.7 ☐ Making purposeful assignments
- 8.8 ☐ Employing questioning strategies that allow students to think and respond to a concept with varying opinion answers.
9. Are you familiar with the Secondary Reading Objectives for Social Studies, Science, Mathematics and Language Arts provided to you for your discipline?
- 9.1 ☐ yes
- 9.2 ☐ no
10. If the answer to question '9' is yes, do you use these objectives to teach your class?
- 10.1 ☐ yes
- 10.2 ☐ no
11. Do you incorporate reading skills into your lesson plans?
- 11.1 ☐ yes
- 11.2 ☐ no
12. If the answer to question '11' is yes, please indicate the reading skills you use most frequently in your lessons:
- 12.1 _____
- 12.2 _____
- 12.3 _____
- 12.4 _____

13. Please indicate your perception of the role of the reading teacher in your building by checking any number of the following responses:
- 13.1 ☐ The reading teacher helps small numbers of severely disabled readers learn to read.
 - 13.2 ☐ The reading teacher runs a study skills center where individual students can get help with their assignments from content area classes.
 - 13.3 ☐ The reading teacher helps college preparatory students to read more efficiently.
 - 13.4 ☐ The reading teacher suggests various materials to the classroom teacher to help with special problems of reading within the classroom.
 - 13.5 ☐ The reading teacher provides teachers with work-books, kits, and other instructional material so that the students can work independently to improve their vocabulary and comprehension.
 - 13.6 ☐ The reading teacher tests all the students in the building to determine the reading levels, and provides content area teachers with profiles of reading levels of students for the teachers' classes.
 - 13.7 ☐ The reading teacher provides inservice to classroom teachers on various reading concepts and strategies.
 - 13.8 ☐ The reading teacher helps the classroom teacher to conceive of reading as a thinking process, i.e., how the mind comprehends and remembers new material.
 - 13.9 ☐ The reading teacher helps classroom teachers with planning of instructional practices that cause students to note the logical organization of reading material assigned in content area classes.
 - 13.10 ☐ The reading teacher assists the classroom teacher by teaching sequences of appropriate reading lessons that are based on the materials assigned in the content area classroom.
 - 13.11 ☐ The reading teacher works directly with the classroom teacher to formulate activities aimed at the disabled reader.



14. Do you perceive a need for inservice training in reading instruction so that you can teach your students to read more effectively the material assigned in your classes?

14.1 ☐ Most of the time
14.2 ☐ Frequently
14.3 ☐ Sometimes
14.4 ☐ Never

15. Do you perceive that the reading material provided to you to teach your classes adequately meets the reading level needs of your students?

15.1 ☐ Most of the time
15.2 ☐ Frequently
15.3 ☐ Sometimes
15.4 ☐ Never

16. Do you feel the need for help in planning for reading instruction in your classes?

16.1 ☐ Most of the time
16.2 ☐ Frequently
16.3 ☐ Sometimes
16.4 ☐ Never

PLEASE CONTINUE THIS QUESTIONNAIRE

ON THE NEXT PAGE



QUESTIONNAIRE

17. Following are some opinion statements related to reading on the secondary level. Please indicate your response to them by checking one column that is most appropriate: Whether you "Very Strongly Agree" (VSA); "Strongly Agree" (SA), "Agree" (A); "Disagree" (D); or "Strongly Disagree" (SD).

Opinion Statements	VSA	SA	A	D	SD
17.1 Students who have difficulty reading the text in my course should go to the reading center to learn to read.					
17.2 The teaching of reading is the responsibility of the elementary school, only, rather than the secondary school.					
17.3 The teaching of concept development is part of reading instruction, and should not be taught in my classes.					
17.4 The reading teacher should help students who cannot read the text for my class within my classroom.					
17.5 The teaching of reading is the sole responsibility of the reading teacher.					
17.6 Teaching library and reference skills to my class is not my responsibility.					
17.7 Every secondary teacher is responsible for teaching reading in his subject area.					
17.8 The determination of reading levels of students in my class does not require the help of the reading teacher.					
17.9 The reading teacher helps me to determine the reading levels of my students.					
17.10 Reading instruction need only be offered to poorer readers in the secondary schools.					
17.11 Teachers need the help of reading teachers in selecting instructional materials.					



QUESTIONNAIRE

Opinion Statements	VSA	SA	A	D	SD
17.12 The services of the reading teacher are not desired to plan lessons to teach reading required in my classes.					
17.13 It is important to know the reading level of my textbook.					
17.14 As a secondary teacher, I should know how to teach phonics.					
17.15 It is important to teach reading in my classes.					
17.16 Classroom teachers are not responsible for teaching reading.					
17.17 The reading level of new textbooks should be determined before purchasing them.					
17.18 If our school had a reading teacher, I would ask her/him to help me with reading in my classes.					
17.19 It is important to use more than one reading level textbook in my classes.					
17.20 Knowing how to teach my students to read is useful to me in my classes.					
17.21 Teaching reading in my class is a waste of my teaching time.					
17.22 Reading as a thinking tool interests me, and I want to know more about it.					

Thank you very much for your cooperation!



APPENDIX III



LANSING SCHOOL DISTRICT

519 W. Kalamazoo Street
Lansing, Michigan 48933



May 25, 1976

Dear Secondary Principals and Assistant Principals for Instruction:

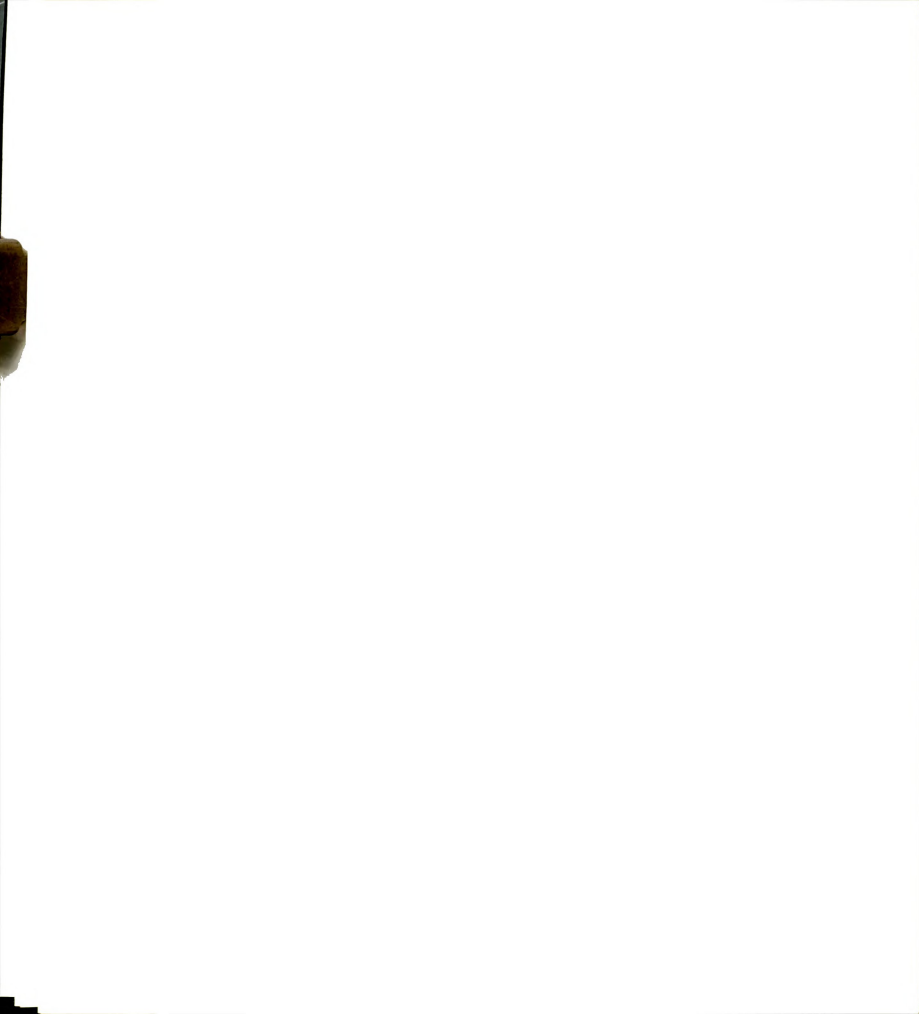
Janet E.A. Haque has our (the Committee's) permission to conduct a survey of content area teachers' (social studies, mathematics, science and English) perceptions of reading instruction on the secondary level.

Sincerely,

Robert E. Lott

*Robert E. Lott,
Director of Secondary Education*

REL/mnr





MICHIGAN STATE UNIV. LIBRARIES



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