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A developmental reading program for the pupils of Plainville High School, Plainville, Indiana

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A DEVELOPMENTAL READING PROGRAM FOR THE PUPILS
OF PLAINVILLE HIGH SCHOOL
PLAINVILLE, INDIANA

A Study
Presented to
the Faculty of the Graduate School
Indiana State College
Terre Haute, Indiana

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Helen E. Foust

June 1962

THESIS APPROVAL SHEET

The thesis of Helen E. Foust, contribution of the School of Graduate Studies, Indiana State College, Series I, Number 817, under the title "A Developmental Reading Program for the Pupils of Plainville High School" is approved as counting toward the completion of the Master of Arts Degree in the amount of six semester hours of graduate credit.

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H.E.F.

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CHAPTER I

INTRODUCTION

An abundance of printed matter floods this nation today. For the attainment of a well-adjusted and useful life, each high school pupil, including the college-bound and the terminal student as well as the drop-out, must be able to make intelligent selections, to read with speed, and to comprehend and utilize the selections made from the wealth of reading material with which he daily comes in contact.

I. THE PROBLEM

Statement of the Problem

It was the purpose of this study to (1) determine the reading achievement level of pupils in grades nine, ten, and eleven, (2) develop a program intended to improve the reading ability of these pupils, (3) apply this program for a period of one year, and (4) analyze the results.

II. SIGNIFICANCE OF THE PROBLEM

Importance of Reading in Learning, Thinking, and Solving Problems

The fact that young people, in order to survive and preserve the American way of life, must learn to live in a

world of changes brought about by technological developments has been pointed out by both Corey and Gray.¹ Education has taken on a new seriousness of purpose in order to help youth meet severe challenges.

"Reading is now recognized as a most important medium of learning,"² Gates wrote in a statement regarding the practical implications of recent research in reading. It is no longer considered a few simple skills taught only in the primary grades, but it is a complex type of learning which can continue to grow through the years of secondary school and afterwards.³ Such realities emphasize the importance of the role of reading in the curriculum of each local school.

III. PURPOSE OF THE STUDY

Because competence in the use of the reading skills is essential to achievement in each phase of the high school student's training and to the life he lives when formal schooling terminates, this investigation was made for the

¹Stephen M. Corey, Action Research to Improve School Practices (New York: Teachers College, Columbia University, 1953), p. vii; and William S. Gray, "What Lies Ahead in Reading," Education Looks Ahead (Chicago: Scott, Foresman Company, 1960), p. 57.

²Arthur I. Gates, "Teaching Reading," What Research Says to the Teacher, Department of Classroom Teachers American Educational Research Association of the National Education Association (Washington: National Education Association, 1953), p. 3.

³Ibid.

purpose of establishing a program for improving the reading ability of pupils in Plainville High School.

IV. LIMITATIONS

Conclusions Applicable Only to Plainville High School

In accordance with the purpose, conclusions drawn from this study would be applicable only to the high school to which the program has been applied and could be only suggestive of a general plan suitable for use in other high schools.

Records Used in the Study

Records of forty-eight students enrolled in ninth, tenth, and eleventh grade English classes in Plainville High School were used in the study. Results of Henmon-Nelson Test of Mental Ability, Iowa Silent Reading Test, Form DM, and Iowa Silent Reading Test, Form CM were used to determine the gain, if any, in reading ability and to compare the gain in grade percentile with mental ability.

Program Designed for All Students of the Stated School

The program described in the study was designed to include all secondary students, including the retarded reader and the academically talented as well as the large group who fell between slow and accelerated. Specific help for the two extreme groups was not planned as a part of the developmental program.

V. : DEFINITIONS OF TERMS USED

Developmental Reading

According to Smith, "developmental reading" is the term applied to reading instruction that is provided to all students at each successive level of development as they pass through the school grades.⁴ Smith's definition was accepted for use in this study.

Developmental Reading Program

The term "developmental reading program" was accepted for use in this study to mean carefully planned guidance to promote more complete mastery of the basic reading attitudes and skills at the secondary level.⁵

⁴Nila B. Smith, Teacher's Guide for Book II, Be a Better Reader (Englewood Cliffs, New Jersey: Prentice Hall, 1958), p. 14.

⁵Gray, op. cit., p. 59.

CHAPTER II

REVIEW OF THE LITERATURE

Conditions of life in the mid-twentieth century have placed such extensive demands upon every individual to be able to read intelligently that improvement of reading in the secondary schools has become the common concern of educators. The results of prolonged study, experience, and research have been reflected in developmental reading programs reported by high schools throughout the United States. A brief review of programs closely related to the study at hand will be given.

I. DEVELOPMENTAL READING PROGRAMS IN SECONDARY SCHOOLS

Recent Trends

Amount and quality of today's reading. A planned reading program for secondary schools is a recent development in that it has been given important consideration during only the past fifteen years. "In 1911 high schools did not realize that they needed to teach reading,"¹ Hatfield stated, but he made a contrasting statement that modern schools now save students years of adult time by intensive

¹W. Wilbur Hatfield, "A Quick Look Back," The English Journal, XLIX (November, 1960), 517-18.

training to accelerate rates and develop reading skills which at that time were neither possible or needed.

Cobb generalized the importance of the modern reading situation when he said:

While we do not know what tomorrow will bring in the way of scientific communication miracles, all our cues from the past indicate that reading will continue to increase rather than to diminish, both in its importance and in the amount of it that will need to be done. This is true both for the child in school and for the adult in modern society.²

Cobb reminded his reader that with the coming of talking movies, radio, and television, predictions were made that the amount of and necessity for reading would be reduced, but the predictions were wrong. Since the advent of television, "studies of children's reading have shown that more of it, not less, is being done."³ Witty, in a report on televiewing, stated that "some writers believe that the quality of children's reading has improved and some emphasize the increase in amount of reading."⁴ He continued, however, that even though voluntary reading clearly has not declined, the picture is by no means bright because many children do not read widely and many read less. Results from one of his recent surveys showed "the amount of time given to reading

²J. E. Cobb, "Functional Reading: A Point of View," Peabody Journal of Education, XXXIX (January, 1962), 226.

³Ibid.

⁴Paul A. Witty, "Report on Televiewing in 1961," Elementary English, XXXIX (January, 1962), 30-31.

by elementary school pupils now appears to be one hour as compared with three hours given to TV."⁵

In answer to the critics who have made unfavorable comparisons between the reading habits of today's youngsters and those of children in the "good old days," Mersand and Maggio presented data from seventy-three large city libraries to which questionnaires had been sent asking librarians to compare circulation today and years ago in classic, good modern, and good nonfiction books. The total circulation today was reported greater than in the 20's and 30's, and librarians felt that young people were reading more worthwhile books than ever before. According to librarians questioned in the study, the favorable attitude of young adults to reading now was attributed to "(a) increasing difficulty of getting into college; (b) post-Sputnik emphasis on trained minds; (c) enrichment programs and advanced college programs for the gifted."⁶

Importance of today's reading. Regardless of the amount and quality of reading completed today, leaders in the industrial world, as well as in the field of education,

⁵Ibid.

⁶J. Mersand and J. Maggio, "But They Are Reading Better," High Points, XLIII (June, 1960), 23-29, cited by H. Alan Robinson and Dan S. Dramer, "High School Reading--1960," Journal of Developmental Reading, V (Autumn, 1961), 7.

have recognized the power of reading as an important phase of communication. Steel industry executive Turner said, "The relation between education and communication is immediate, and absolute in this task [responsibility of good communication]--one which is partly an art as well as a science."⁷

Gray emphasized the importance of the power of reading when he said that current life demands a high development of reading, creating one of the most challenging tasks of the world today. He pronounced it a continuous task which begins with kindergarten and continues through college and a task which involves a shared responsibility.⁸ In another instance, he voiced the findings of leading educators when he reported that evidence from research is firm in establishing the fact that reading growth is a lifelong process and that the process is increased by carefully planned guidance.⁹

⁷W. Homer Turner, "In the Beginning Was the Word: The Responsibility of Good Communication" (a commencement address), U.S. Steel Foundation, 1960, pp. 12-13, cited by Helen M. Robinson, "The Unity of the Reading Act," Sequential Development of Reading Abilities: Proceedings of the Annual Conference on Reading Held at the University of Chicago, 1960 Vol. XXII (Chicago: University of Chicago Press, 1961), p. 224.

⁸William S. Gray, "The Major Aspects of Reading," Sequential Development of Reading Abilities: Proceedings of the Annual Conference on Reading Held at the University of Chicago, 1960, Vol. XXII (Chicago: University of Chicago, 1961), p. 24.

⁹William S. Gray, "What Lies Ahead in Reading," Education Looks Ahead (Chicago: Scott Foresman, 1960), p. 57.

Development of reading skills. In regard to the understandings, attitudes, and skills common to most reading activities, research evidence pointed to the following classification of components: (1) perception, (2) comprehension, (3) thoughtful and critical reaction to what is read, and (4) assimilating and learning through reading.¹⁰

According to Gray, effort to promote more complete mastery of the basic reading attitudes and skills will be fruitful in all grades, but the most urgent need is to improve the specialized skills in the subject areas.¹¹ Other leaders have studied the question of specialized skills needed by high school students. "Each subject matter area requires certain specialized patterns of reading abilities,"¹² Gates noted in summarizing research findings for the teacher. Smith was among the early advocates of the theory that "every high school teacher should be a reading teacher."¹³

Speed-reading: word perception. A recent trend in reading for all ages was noted by Betts when he said that

¹⁰Ibid.

¹¹Ibid., p. 62.

¹²Arthur I. Gates, "Teaching Reading," What Research Says to the Teacher, Department of Classroom Teachers American Educational Research of the National Education Association (Washington: National Education Association, 1953), p. 3.

¹³Nila B. Smith, "Planning for a Total Reading Program in the High School," The High School Journal, XLIII (November, 1953), 61.

speed-reading is a present-day boom, but facts point to a need for discriminative reading, which requires planned teaching of depth reading.¹⁴ Likewise Cobb stated that "currently much effort is being given to that aspect of reading which we call word identification and recognition," yet he warned that functional reading results in the formation of concepts causing the child to become a "demander of meaning" rather than a mere caller of words.¹⁵

Basal and individualized reading programs. Leading educators have agreed upon achieving a goal of functional reading for each pupil, but two distinct programs for attaining the desired results have been reported, namely: basal and individualized. Sartain recognized the two when he said:

In education today we are confronted with two values that are in direct conflict. There is abundant experimental evidence to prove that the more carefully teaching is tailored to individual needs, the more productive it is. Still one system of mass education makes it necessary for each teacher to instruct thirty children in one classroom.¹⁶

¹⁴E. A. Betts, "Impact of Adult Reading on Pupil Achievement," Education, LXXXII (September, 1961), 34.

¹⁵Cobb, op. cit., pp. 226-29.

¹⁶Harry W. Sartain, "Combining Sequential and Individualized Reading," Sequential Development of Reading Abilities: Proceedings of the Annual Conference on Reading Held at the University of Chicago, 1960, VOL. XXII (Chicago: University of Chicago Press, 1961), p. 187.

According to Brown, a basal reading program included group instruction with attention given to vocabulary development, structural analysis, phonetic analysis, reading for comprehension, oral reading and interpretation, with free reading and participation in library-type reading. He reported that the California Achievement Test given in connection with a basal reading program in which the mean intelligence quotient for all groups was slightly above the standardization norms of the fiftieth percentile. He concluded that such a program carried on by basal reading authorities had produced excellent results in stable, conservative communities where much free reading was done by students. "It would seem unwise to recommend a change from a successful basal reading program to any other type of reading program."¹⁷

Fay observed that recent years have witnessed a growing interest in the individualized approach to the teaching of reading. He explained that the popular conception of this approach has been a wide reading of books followed by the teacher and the pupil talking about characters, action, and setting of the stories; hence he questioned the power of the individualized reading instruction to develop the

¹⁷Charles M. Brown, "Whither Basal Reading," Educational, LXXXII (September, 1961), 3-4.

basic reading skills essential for mature and independent reading.¹⁸

According to Veatch, the individualized program permitted the pupil to select any book he wished and to read at his own rate of speed, being placed in groups only when a few students needed to learn the same skills. The teacher held short weekly conferences with each pupil, at which time an attempt was made to stimulate interest, teach word-attack skills, guide the development of comprehension abilities, give oral practice, introduce work-study skills, diagnose difficulties, and improve reading tastes.¹⁹

In regard to results of research done with individualized reading programs, Sartain stated that Witty, Gray, and himself all concluded "there is no reason to forfeit the advantages of a well planned basal system; instead, individual conference benefits should be added to a basal reading program."²⁰

¹⁸Leo Fay, "Basal Reading Skills," Education, LXXXII (September, 1961), 10.

¹⁹Jeanette Veatch, Individualizing Your Reading Program (New York: Putnam, 1959), pp. 18-32, cited by Harry W. Sartain, "Combining Sequential and Individualized Reading," Sequential Development of Reading Abilities: Proceedings of the Annual Conference on Reading Held at the University of Chicago, 1960, Vol. XXII (Chicago: University of Chicago Press, 1961), p. 187.

²⁰Sartain, op. cit., p. 188.

The need for research. Early stated:

Reading in the secondary school is still unexplored territory. Guide posts of research are about non-existent and the secondary-school faculty that breaks ground in the field of reading is indeed pioneering.²¹

Bloom also pointed to the need for research, stating that the importance of reading is so great as to require both exploratory and demonstration research. Exploratory research was intended for communication among research workers and demonstration research would use the principles and methods of educational research in order to convey a message to teachers and practitioners.²²

Secondary Developmental Programs in Progress

A decade of experimental reading at Purdue. Purdue University recently evaluated a decade of experimental reading with the instruction offered as a separate course on a credit basis. Data related to high school reading programs were reported by Kinne and were furnished by the Purdue Extension Center at Fort Wayne where, in 1954 and 1955, the courses

²¹M. J. Early, "A High School Faculty Considers Reading," Reading Teacher, XIII (April, 1960), 282-87, cited by H. Alan Robinson and Dan S. Dramer, "High School Reading--1960," Journal of Developmental Reading, V (Autumn, 1961), 4.

²²Benjamin S. Bloom, "Appraising Reading Under Different Patterns of Grouping," Proceedings of the Annual Conference on Reading, Vol. XXI (Chicago: University of Chicago Press, 1959), p. 184.

was offered to high school seniors, as well as to college students and adults, on a credit basis. Initial and end-of-the-course reading tests provided a comparison of the students' reading rates and comprehension scores on college level reading materials. Equipment and materials used in the course included the Harvard reading films and timed essays for speed and comprehension checks and the reading accelerator or pacer, with a free choice of books or magazines of varying difficulty and selected for all varieties of student tastes and abilities. Results showed that the younger readers [high school seniors involved in the study] made greater gains than did the adults, the high school seniors averaging over 100 per cent increase in reading rate and showing a significant increase in comprehension. In regard to the Purdue experiment, Kinne concluded that at the close of the school's first decade of instruction in developmental reading,

there is proof that reading improvement can be achieved with large groups involved. . . . Favorable possibilities for developmental reading programs in an increasing number of high schools in Indiana are indicated.²³

Reading programs in Illinois high schools, 1959-1960.

Grissom observed administrative and instructional approaches

²³ Ernest W. Kinne, "Decade of Experimental Reading Evaluated at Purdue," The Indiana Teacher, CVI (December, 1961), 170-77.

to reading improvement programs in schools with well-defined programs which had operated long enough to become adjusted to the needs of the particular schools. His study was made as a follow-up of a state-wide survey of the reading improvement programs being carried on by Illinois high schools during the school year of 1959-1960. Three distinct patterns by which schools provide help in reading were noted: (1) In the special English-reading classes students were grouped according to ability and, in addition to regular English content, special consideration was given to the improvement of reading skills and remedial reading work; (2) the special reading class, yielding credit and offered during the ninth or tenth year, enrolled students screened for potential for improvement and devoted the entire class time to advancement of reading, using practice materials, graded interest books, and a limited number of mechanical devices; (3) the multiple-provision program, usually conducted by large schools, centered effort around an all-school reading clinic which took advantage of a well-equipped reading laboratory. Three characteristics were common to all three types of programs: (1) staff members cooperated in the selection of students who were most in need of special help in reading; (2) emphasis was placed on gain rather than initial reading level in order to foster an atmosphere of security for the individual student; (3) an effort was made to adjust the instruction and

the materials to the individuals and to assist each pupil to know at all times the extent of his acquired strength and persistent weaknesses.²⁴

A mandatory program for ninth grade students. Fields reported a multiple-provision type of mandatory reading and study skills program for ninth grade students. Although the program was incorporated in the English curriculum, reading co-ordinators, selected from the faculty and given in-service training, and a reading laboratory with mechanical equipment and a great variety of reading material were features of the program. In addition to the administration of the Iowa Test program and the instruction given under the direction of the co-ordinators, the program was given (1) publicity and the approval of the citizens, (2) records of test scores for grade level, vocabulary, and paragraph comprehension, (3) a locally prepared student handbook, and (4) a one-week unit of instruction in the use of the library. Answers to a questionnaire showed a ready acceptance of the program by students, parents, and teachers. The English teachers made the following recommendations: (1) extend the intensive training from six to eight weeks; (2) include one to four

²⁴Loren V. Grissom, "Characteristics of Successful Reading Improvement Programs," The English Journal, L (October, 1961), 461-64, 474.

weeks for library instruction; (3) print the handbook in two versions, one for students and one for faculty; and (4) continue the training as a part of the freshman program, but incorporate a similar course in the junior year.²⁵

A comparison of basal and individualized programs. The types of reading programs, basal and individualized, most widely used by present-day schools were compared in a report by Sartain. The individualized program was administered for three months; it was then followed by three months of a strong basal program enriched by extensive supplementary reading. Standardized test results indicated that the slower pupils made less growth under the individualized plan, while the more capable pupils made approximately the same growth regardless of method. The individualized method provided a personal touch of the teacher for the student, needed motivation, and sharing of ideas gained from the reading. On the other hand, the slower pupils became restless when the individualized method was used; there was no chance for developing readiness; and there was no systematic program for word attack skills or determining individual need. Teachers believed that much of their time was wasted by a repetition of

²⁵Irwin H. Fields, "The Centinela Valley Plan: A Mandatory Reading and Study Skills Program for Ninth Grade Students," Journal of Developmental Reading, IV (Summer, 1961), 254-60.

instruction and the conferences brought frustration to them. Sartain concluded from the experiment that individualized, conferences should be added to the advantages of a well-planned basal system.²⁶

A comparison of three methods of teaching reading.

Three methods of teaching reading in junior high school were evaluated by Walker.²⁷ With group one a variety of materials was used to try to meet the individual child's difficulty by developing skills in which the child was weak without wasting time drilling on skills already acquired. Half of the allotted time was spent on the skills needed and the other half on vocabulary study, reading comprehension, and speed activities. Pupils without particular difficulties were given training in critical reading. The Science Research Associates program was administered to the second group, and the program for the third, or control, group was the conventional textbook, workbook method given to the entire class. The conclusions indicated that the individualized Science Research Associates program should be given a definite part in the reading program, especially where the teacher was inexperienced or over-

²⁶Harry W. Sartain, "Roseville Experiment with Individualized Reading," Reading Teacher, XIII (April, 1960), 277-81, cited by Sartain, "Combining Sequential . . .," op. cit., pp. 187-89.

²⁷Frederick R. Walker, "Evaluation of Three Methods of Teaching Reading, Seventh Grade," Journal of Educational Research, LIV (May, 1961), 356.

burdened because the results showed less teacher time was required in administering the Science Research Associates' material than by the method used with group one. Results, however, favored slightly the program of group one ". . . because it provided for future development and more precise meeting of the child's difficulty" and for the reason that it provided ". . . a more active part for the teacher which brings in a human element, that even the finest materials can not replace."²⁸

Mechanical Versus Instructional and Motivating Methods

The question of the merits of the use of mechanical devices for improving the reading skills, especially speed and comprehension, compared with instructional and motivating methods has been discussed widely.

Twelfth grade experiment using accelerators. Significant gains in rate of reading were noted by Thornton in a twelfth grade experimental group using accelerators and other materials over a control group not receiving instruction. However, results indicated no significant difference in achievement in vocabulary and comprehension. A program was then organized in which mechanical aids were de-emphasized and purposeful reading, flexibility, reading for main ideas

²⁸Ibid., p. 358.

and details, intensive reading, and vocabulary development were stressed. Experienced teachers held the latter methods in high regard and results from them indicated important gains, not only in rate but in comprehension and vocabulary development.²⁹

A study involving the controlled reader. Bottomly stated:

A growing number of modern reading specialists have discovered that certain electronic aids, when carefully used make marked contributions to developmental reading programs.³⁰

He cited as an example the published results from a controlled reader experiment conducted among 460 fifth and eighth grade pupils with a well-established developmental reading program. Bottomly explained that the controlled reader used by the schools involved was an electronic device which projects words, phrases, sentences, and stories on a screen at controlled speeds for the purpose of forcing learners to acquire oculomotor habits associated with speed reading. Tests preceded and followed the training period of six weeks and were given five months after the close of the intensive

²⁹Cecil M. Thornton, "Two High School Reading Improvement Programs," Journal of Developmental Reading, III (Winter, 1960), 115-22.

³⁰Forbes Bottomly, "An Experiment with the Controlled Reader," Journal of Educational Research, LIV (March, 1961), 265-69.

training. Conclusions drawn were that the controlled reader had demonstrated real promise for inclusion in the regular developmental reading program and promised high potential use in the following aspects of the school system under consideration: (1) Its major use should be in boosting speed, with delayed benefits on comprehension and vocabulary development; (2) its most efficient use would be with average or better achievers who do not at first read rapidly and perhaps would not be used for pupils who already were rapid readers; (3) the device would be used in the long-term program because the results showed greatest benefits on the last of the three tests given; and (4) the accelerator registered greater effect on the fifth than the eighth grade and greater boosting effect on the lower socioeconomic area than the upper area.³¹

Eye movement photography in developmental reading.

Bryant reviewed the work of Taylor, when he said, "Eye movements [measured by the ophthalmograph] are not presented as the major controlling factor and most valid measure of good reading."³² Analysis of eye movement has been considered a

³¹Ibid.

³²Sanford E. Taylor, Eye Movement Photography with the Reading Eye (Huntington, New York: Educational Developmental Laboratories, Inc., 1960), 103 pp., reviewed by Dale N. Bryant, "Reviews," Journal of Developmental Reading, V (Winter, 1962), 127-30.

supplementary, but powerful, tool to provide a clear picture of a reader's performance, capabilities, and limitations and not considered a substitute for other standardized tests. For Bryant, it was refreshing that the president of a company which manufactures equipment for controlled reading had written a book which contradicted the claims often made by equipment salesmen and users: good readers cover four to five words per eye fixation. Taylor reported that the average span of recognition for college students was about one word per fixation and had been since high school. In seventeen hundred cases, no college readers achieved even a span of three words. Bryant concluded, "Such information as this has developed a sounder approach to reading training work with controlled reading equipment."³³

Place of mechanical aids in secondary reading programs. From the state-wide survey of reading improvement programs carried on by Illinois high schools during 1959-1960, it was noted that the greatest use of mechanical aids, such as the tachistoscope, reading accelerator, and controlled reader was made in the largest schools, in which the older well-established reading programs were found. In such schools a clinic or reading center was housed in special

³³Ibid., p. 130.

multiple-roomed quarters, including space for group and individualized work and large numbers of widely used mechanical aids.³⁴

According to Mingoia, mechanical aids stress speed of reading and tend to encourage visual accuracy and retention because better readers organize their eye movements more efficiently by better attention, focus, and directional attack.³⁵ However, he cautioned:

Although mechanical aids are an excellent means to arouse interest, their use alone cannot help all students. They have a place, however, in the reading improvement classes organized around either the SRA Reading Laboratory or an individualized, self-selection program. In speed reading classes usually reserved for learners approaching maturity in reading, they are an indispensable part of the program.³⁶

Continuity in the Reading Program

The importance of continuity in the reading program was evidenced by the fact that the Chicago Reading Conference of 1960 proposed:

To bring together some top specialists in reading and a number of effective teachers in reading to lay out a blueprint for teaching [that subject] from kindergarten through college.³⁷

³⁴Grissom, op. cit., p. 464.

³⁵Edwin Mingoia, "Improving the Reading of Academically Untalented Students," English Journal, XLIX (January, 1960), 31.

³⁶Ibid.

³⁷Helen M. Robinson, "Introduction," Sequential

During that conference, Traxler said:

Any idea that sequential development of reading ability must cease, or even that it need slow down, during the high school years is dispelled by an analysis of the actual growth curves of individual students.³⁸

Tyler called attention to the fact that sequence of reading abilities makes three contributions to learning, namely: (1) It provides new features for each new learning situation, thus requiring the pupil to react intelligently; (2) it builds onto previous learning experiences to carry the child to a higher level of some objectives; and (3) by providing meaningful practice, it makes the new learning situation more permanent.³⁹

Preparation of Teachers: Preservice and In-Service

Letson stated:

In the area of reading, a profession within the teaching profession, very little has been done in the formula-

Development of Reading Abilities: Proceedings of the Annual Conference on Reading Held at the University of Chicago, 1960, Vol. XXII (Chicago: University of Chicago Press, 1961), p. 1.

³⁸ Arthur E. Traxler, "Sequential Studies of Pupil Achievement," Sequential Development of Reading Abilities: Proceedings of the Annual Conference on Reading Held at the University of Chicago, 1960, Vol. XXII (Chicago: University of Chicago Press, 1961), pp. 105-06.

³⁹ Ralph W. Tyler, "The Importance of Sequence in Teaching Reading," Sequential Development of Reading Abilities: Proceedings of the Annual Conference on Reading Held at the University of Chicago, 1960, Vol. XXII (Chicago: University of Chicago Press, 1960), p. 4.

tion of standards to serve as guides in the preparation of those entering the field or as guides to those practicing.⁴⁰

Work of the International Reading Association. Letson noted also that special agencies, such as teacher-training colleges and certification divisions of education departments have set up their own standards which vary greatly.⁴¹ In 1958, the International Reading Association formulated a plan for dividing its membership into associates, members, and specialists; but the resolution was dropped and a brochure was prepared to include a "Code of Ethics" and a set of "Minimum Standards for the Professional Training of Reading Specialists." Ten thousand copies of the brochure were printed and distributed in 1961 to educational departments, teacher-training colleges, certifying agencies, reading clinics, and journals of education. A second printing has been completed at the present writing.⁴²

A study of preparation of secondary school reading teachers. McGinnis made a study of the preparation and responsibility of secondary teachers in the field of reading in which she tabulated results from 570 questionnaires

⁴⁰Charles T. Letson, "Professional Standards in Reading," Journal of Developmental Reading, V (Winter, 1962), 130.

⁴¹Ibid., p. 131.

⁴²Ibid., pp. 130-32.

returned by college freshmen and one thousand teachers selected at random from 8,863. Seventy per cent of the freshmen thought they read well enough to do satisfactory academic work in college and 67 per cent of the teachers (50 per cent of whom held bachelors degrees and 48 per cent held masters) reported that they believed they possessed the essential reading skills. Inferences drawn from the study were: (1) There is a need for specific training in developmental reading at the high school level, with both pupils and teachers questioned in the study pointing to a need for high school students to be given assistance in making more effective use of textbooks; (2) secondary teachers have not provided adequate reading instruction nor are they prepared to do so; (3) a need was seen for departments of education and psychology to plan, organize, and manage reading laboratories for junior and senior high school students; (4) experimental evidence is needed to answer the questions which arise for teachers of reading in the various content areas; and (5) reading laboratories would not relieve classroom teachers of the responsibility for developmental reading in their fields.⁴³

⁴³ Dorothy J. McGinnis, "The Preparation and Responsibility of Secondary Teachers in the Field of Reading," The Reading Teacher, XV (November, 1961), 92-97, 101.

College training courses for teachers of reading. In answer to a questionnaire about reading in secondary schools and colleges, Strang reported seventy-seven replies. The programs reported were grouped into two types. One program instructed the high school or college teacher whose responsibility was to teach reading in his subject or in a developmental course. The other was planned for the remedial reading teacher, consultant, or clinician. Thirty-eight of the replies described one or two courses; the reports varied from institutions of higher learning offering only a limited single course to those offering ". . . a sequence leading to a master's degree, professional diploma, or doctorate."⁴⁴

In-service training. In a description of providing in-service training in the field of reading, Hoke said, "No amount and quality of preservice training can take the place of or do the entire job of teacher preparation."⁴⁵ She explained that administrators and supervisors can facilitate in-service training by employing teachers with ability for

⁴⁴Ruth Strang, "Preparation for the Teachers of Reading," Journal of Developmental Reading, IV (Autumn, 1960), 53-57.

⁴⁵Adalene Drew Hoke, "Administrative Responsibilities for Providing In-Service Training to Develop Sequential Learning," Sequential Development of Reading Abilities: Proceedings of the Annual Conference on Reading Held at the University of Chicago, 1960, Vol. XXII (Chicago: University of Chicago Press, 1961), pp. 180-81.

developmental reading leadership, analyzing standardized test scores, securing the best possible teaching aids and materials, noting research in the field, and accepting the findings from the research and implementing the same.⁴⁶

II. RELATIONSHIP OF IQ TO READING GAIN

"Intelligence test scores do not really predict with any degree of accuracy those students who will benefit most from a reading improvement program,"⁴⁷ Ramsey said after a study of test results from 138 eleventh-grade students. Ramsey sought to ascertain the elements which would predict reading abilities. From evidence obtained when students were given the California Test of Mental Maturity, Cooperative Reading Test, C, and Diagnostic Reading Test, Word Attack, Silent, he reported, "Intelligence test scores are highly indicative of reading ability"; yet neither the total IQ, language IQ, or the nonlanguage IQ of the California Test of Mental Maturity will predict the gains that will be made in reading vocabulary, speed, or comprehension.⁴⁸

⁴⁶Ibid.

⁴⁷Wallace Ramsey, "An Analysis of Variables Predictive of Reading Growth," Journal of Developmental Reading, III (Spring, 1960), 163.

⁴⁸Ibid., pp. 158-64.

III. TESTS AND USES OF TESTS

"There is no question that individuals will be evaluated. Rather the question is, How they will be evaluated?"⁴⁹ It is reported that today testing programs are being administered, and much evidence has been shown that such programs will continue to grow in both number and scope. The great emphasis on external testing has brought many questions, ranging from why so much testing has been necessary to how it has affected the curriculum.⁵⁰

Testing practices and the place of tests in the reading program have been reviewed.

Testing Programs

"A carefully devised testing program under the direction of experts is needed to determine the level of each student in his progress in reading."⁵¹

From the viewpoint of planning, diagnosis, and instruction, tests have been found to be of importance in the

⁴⁹National Education Association, "Opinions Differ on Testing, Testing, Testing," National Education Journal, LI (March, 1962), 39, citing a report of the American Association of School Administrators and the National Association of Secondary School Principals (no city, no publisher, n.d.).

⁵⁰Ibid.

⁵¹National Council of Teachers of English, The English Language Arts in the Secondary School (New York: Appleton-Century-Croft, 1956), pp. 164-65.

developmental reading program. Hall stated that tests may be classified on the basis of testing procedures involving performance or paper and pencil answers, objective or subjective, standardized or teacher-made, individual or group, speed or power. Classification may be based on purposes of measurement giving scores for intelligence or mental ability, aptitude evaluation, or achievement scores.⁵²

Test Results of Individualized Reading

In analyzing the results of reading tests, Dolch would have the practitioner to remember (1) individualized reading experiments have been done by above average teachers; (2) in many instances the individualized programs have been carried on in favored schools, with children of exceptional ability and backgrounds; (3) daily schedules of equal time are misleading; (4) records show the averages--not the records of the individuals involved in the studies.

Enthusiasm for reading is a result which Dolch thinks can not be measured; he would have educators to watch for unmeasured results of reading programs.⁵³

⁵² Robert C. Hall, "Types of Tests Available," Understanding Tests: United States Department of Health, Education, and Welfare (Washington: United States Government Printing Office, 1960), pp. 8-12.

⁵³ Edward W. Dolch, "Individualized vs Group Reading II," Elementary English, XXXIX (January, 1962), 20-21.

CHAPTER III

DESIGN OF THE STUDY

I. PROCEDURES USED

Reading Achievement Level of the Subjects

Iowa Silent Reading Test, Form DM. In order to help determine the reading level of the pupils, the Iowa Silent Reading Test, Form DM was given at the time of the beginning of the study to all pupils in grades nine, ten, and eleven of Plainville High School.

Reading Program Developed

Result of research recommendations and initial local test scores. A study of the scores from the initial reading test and the recommendations from research as it applied to the field of reading on the secondary level called for a developmental program which included systematic instruction in the reading skills, motivation for an increased amount of reading, and further testing.

Instruction in reading skills. Reading instruction was given for a period of three months to develop both the basic reading skills and the special skills needed in the subject areas of literature, social studies, mathematics,

and science. The exercises for developing these skills were given as part of the English classes of grades nine, ten, and eleven. Twice each week for twelve weeks thirty minutes of class time were devoted to developmental exercises arranged by Smith, including Be a Better Reader, Book II in grade nine; Be a Better Reader, Book III, in grade ten; and Be a Better Reader, Book IV, in grade eleven.¹

Motivation for Increased Amount of Reading

Increased library facilities. Approximately one hundred fifty new books selected with a wide range in interest and reading difficulty were added to the library to serve the purpose of motivating students toward a greater amount of reading. For the same reason, seventeen titles were added to the school library's list of periodicals, including increases in magazines featuring sports, science, and news.

Free reading was encouraged by making the library quarters more inviting. The addition of eight units of double-faced counter-height library shelves to serve as a divider between the school study hall and a reading room and the addition of two trapezoidal tables, one rectangular table, and twenty new chairs made possible an attractive

¹Nila B. Smith, Be a Better Reader, Books II, III, and IV (Englewood Cliffs, New Jersey: Prentice-Hall, 1958), 128 pp. each.

library, which replaced a single row of wall shelves and one unattractive long table surrounded by three chairs.

Other motivation: sharing of cumulative records, book talks, bulletin board displays, student librarians. To stimulate a greater amount of reading, the students in the classes involved in the study were guided at the beginning of the study to make lists of reading interests. The lists were later filed within the cumulative reading records kept by all of the students in the three classes.² At intervals of two to three weeks, pupils were given time in class to bring the cumulative records up to date. Informal exchange of opinions formed of the books read by the students stimulated further reading. The discussion which resulted from the pupils' sharing of the cumulative records took the place of dreaded book reports.

Frequent book talks by the teacher-librarian formed one phase of the planned English classes so that the students involved in the study were encouraged to examine new and rebound volumes as they appeared on the shelves in the new library quarters.

Bulletin board displays served to introduce new books as well as to call attention to the wide variety available.

²The National Council of Teachers of English, "The Cumulative Reading Record of _____" (Champaign, Illinois: The National Council of Teachers of English, 1956), 4 pp. A copy is in the Appendix.

Student librarians, under the direction of the teacher-librarian, prepared the displays.

Not only the preparation of the bulletin boards, but other student librarian activities added further stimulation among the student body to do a greater amount of reading.

Evaluation of the Program

Iowa Silent Reading Test, Form CM. In order to evaluate the effect of the training upon the reading ability of the pupils, the Iowa Silent Reading Test, Form CM was administered at the close of one school year of application of the developmental program.

Comparison of gain or loss with mental ability.

Scores from the two forms of the Iowa Silent Reading Test were compared in order to determine the amount of gain or loss according to grade percentile. Gains were then compared with the intelligence quotients of the Henmon-Nelson Test of Mental Ability, previously given to the students included in the study.

II. SOURCES OF DATA

Reading Achievement Test Scores

Iowa Silent Reading Test, Form DM and Form CM. The Iowa Silent Reading Test, Form DM, was given in November,

1960, to seventeen students enrolled in grade nine, twenty-one students in grade ten, and ten students in grade eleven in Plainville High School. Form CM of the same test was given to the same students in May, 1961. The tests were given in connection with English classwork. All of the pupils enrolled in the three above named grades of the small rural-populated school were included in the program. The scores for the above mentioned reading achievement tests furnished a portion of the data for the study.

Mental Ability Test Scores

Henmon-Nelson Test of Mental Ability. The other source of data used in the study was furnished by the results of the Henmon-Nelson Test of Mental Ability given in April, 1960.

CHAPTER IV.

PRESENTATION AND ANALYSIS OF DATA

I. RESULTS OF TESTS

Gain or Loss in Reading Achievement

Each of the forms of the Iowa Silent Reading Test yielded nine raw scores from seven sub-tests. The raw scores were translated to standard scores; a standard median score was found for each pupil; a grade percentile for each standard median score was recorded on a profile chart for each student. Each pupil's grade percentile indicated by the Iowa Silent Reading Test, Form DM, given at the beginning of the study was compared with that of Form CM of the same test, given at the close of the study. In the forty-eight cases studied for the three grades, one student remained in the same grade percentile, one scored in the eleventh percentile lower than in the initial test, and the remaining forty-six showed gains, ranging from an increase of one grade percentile to sixty-seven.

Correlation of Mental Ability and Gain in Reading Achievement

To determine the relationship of mental ability of each of the groups studied to the gain in reading achievement, the investigator computed a correlation coefficient for the scores of the Henmon-Nelson Test of Mental Ability and the

differences in grade percentile as shown by the Iowa Silent Reading Test, Form DM, and the Iowa Silent Reading Test, Form CM, using the Pearson product-moment method.

Coefficient of Correlation for the Three Grades

Grade nine	-.55
Grade ten	-.004
Grade eleven	-.36

Correlation for grade nine. In grade nine, one pupil showed a regression in grade percentile of reading achievement. Scores of the Henmon-Nelson Test of Mental Ability and the gain or regression indicated by the reading tests are shown in Figure 1, included in the Appendix, page 58. A Pearson product-moment correlation coefficient of $-.55$ was found to exist between mental ability and gain in reading achievement.

Grade ten. A correlation of $-.004$ was found by the same method showing the relationship of the same factors for the pupils of grade ten as for those of grade nine. The scores and the differences are shown in Figure 2, included in the Appendix, page 59.

Grade eleven. Gain in reading achievement in grade percentile and the mental ability test scores for the pupils in grade eleven are shown in Figure 3, included in the Appendix, page 60. A correlation coefficient of $-.36$ was computed using these figures for eleventh grade pupils.

Representative Cases

The paired scores for the reading achievement tests, the gains indicated, and the mental ability test scores for all pupils in grade nine are shown in Table I.

Ninth grade. In grade nine, pupil E, who had a mental ability test score of 121, increased in reading achievement from 98 to 99 in grade percentile. Another pupil, I, whose achievement score indicated very little gain had a mental ability score of 88, a grade percentile of 44 on the initial reading test, and a 47 grade percentile on the test given at the close of the study. Pupils E and I represented the highest and the lowest scores for grade nine in the Henmon-Nelson Test of Mental Ability.

The only regression recorded in the three grades studied was pupil L of grade nine; he had a mental ability score of 115 and reading achievement scores of 35 grade percentile in the initial test and 24 in the follow-up test.

A medium amount of gain in reading achievement in grade nine is represented in the scores of Pupil C, who had a mental ability score of 114 and grade percentile achievement score of 71 and 88, and by Pupil A, who had 110 as a mental ability score and whose grade percentile score rose from 60 to 82.

Pupils G and K are representative of high gains in reading achievement made in the ninth grade. The former had

TABLE I

SCORES FOR READING ACHIEVEMENT IN GRADE PERCENTILE, GAIN
IN ACHIEVEMENT, AND MENTAL ABILITY, NINTH GRADE,
PLAINVILLE HIGH SCHOOL, 1960-1961

Pupil	Mental ability	Reading achievement		Gain
		Form DM December, 1960	Form CM May, 1961	
A	110	60	82	22
B	116	55	82	27
C	114	71	88	17
D	99	8	12	4
E	121	98	99	1
F	112	83	94	11
G	104	33	82	49
H	105	44	82	38
I	88	44	47	3
J	116	74	82	8
K	107	33	71	38
L	115	35	24	-11
M	120	96	96	0
N	89	24	63	39
O	128	93	98	5
P	124	85	95	10

NOTE: Reading achievement scores are the results of Iowa Silent Reading Test, Form DM and Form CM; mental ability scores are results of Henmon-Nelson Test of Mental Ability.

a mental ability score of 104 and indicated by the two reading tests a gain from 33 in grade percentile to 82. The score of K on the Henmon-Nelson Test of Mental Ability was 107 and the gain in reading achievement indicated by the two forms of the Iowa Silent Reading Test was from 33 to 71 in grade percentile.

Table II shows the paired scores for the reading achievement tests, the gains indicated, and the mental ability test scores for the representative cases and the other pupils in grade ten.

Tenth grade. Records of six of the twenty-one pupils in grade ten were analyzed. Scores of pupils Q and L indicated the smallest amount of individual gain in the class. The first mentioned had a mental ability score of 101 and scored a grade percentile of 11 on the test given in the fall and 14 in the spring test. Pupil L, with a Henmon-Nelson Test of Mental Ability score of 109, gained from 32 to 42 in grade percentile of the achievement tests.

Two pupils in this group made a gain of 18 in grade percentile, with pupil S, who showed a mental ability of 95, scoring a grade percentile of 6 on the initial test and 24 on the reading achievement test given at the close of the study and pupil C whose mental ability score was 132, scoring a grade percentile of 75 and 93 respectively for the tests given in the fall and in the spring.

TABLE II

SCORES FOR READING ACHIEVEMENT IN GRADE PERCENTILE, GAIN
IN ACHIEVEMENT, AND MENTAL ABILITY, TENTH GRADE,
PLAINVILLE HIGH SCHOOL, 1960-1961

Pupil	Mental ability	Reading achievement		Gain
		Form DM December, 1960	Form CM May, 1961	
A	107	29	77	48
B	97	3	26	23
C	132	75	93	18
D	106	24	34	10
E	112	34	83	49
F	112	34	89	55
G	114	9	45	36
H	112	48	93	45
I	112	51	77	26
J	126	69	83	14
K	93	5	42	37
L	125	60	96	36
M	109	32	42	10
N	87	5	19	14
O	111	51	88	37
P	101	19	69	50
Q	101	11	14	3
R	157	84	98	14
S	95	6	24	18
T	100	2	21	19
U	96	40	57	17

NOTE: Reading achievement scores are the results of Iowa Silent Reading Test, Form DM and Form CM; mental ability scores are results of Henmon-Nelson Test of Mental Ability.

Pupils P and F made scores showing the greatest amount of gain by individuals in the tenth grade. The tests for the first named indicated a mental ability of 101 and reading achievement of 19 in grade percentile on the first and 69 on the follow-up test. Pupil F, with a mental ability score of 112, scored a 34 grade percentile on the first achievement test and 89 on the one given at the close of the study.

Test results and increase in reading achievement scores for all the pupils of grade eleven are shown in Table III.

Eleventh grade. The smallest of the three groups studied was grade eleven, consisting of ten pupils. Scores of one pupil, G, with a mental ability test result of 104 and grade percentiles of 86 on the first and 89 on the test given later, showed a gain of 3; results for the remaining nine indicated a gain of from 17 to 67 in grade percentile. Pupil I made the gain of 17 by scoring a grade percentile of 32 on the first achievement test and 49 on the one given later; his mental ability test score was 104.

Gains were high in the middle group of this class. Pupil E, with mental ability of 104, scored 56 and 98 in grade percentiles and pupil C, with 98 in mental ability, indicated a reading achievement gain of 37 by scoring 35 and 72 in grade percentiles on the two tests.

TABLE III

SCORES FOR READING ACHIEVEMENT IN GRADE PERCENTILE, GAIN
IN ACHIEVEMENT, AND MENTAL ABILITY, ELEVENTH GRADE,
PLAINVILLE HIGH SCHOOL, 1960-1961

Pupil	Mental ability	Reading achievement		Gain
		Form DM December, 1960	Form CM May, 1961	
A	103	46	90	44
B	101	24	91	67
C	101	46	72	26
D	98	35	72	37
E	104	56	98	42
F	94	13	58	45
G	104	86	89	3
H	112	75	92	17
I	104	32	49	17
J	89	11	63	52

NOTE: Reading achievement scores are the results of Iowa Silent Reading Test, Form DM and Form CM; mental ability scores are results of Henmon-Nelson Test of Mental Ability.

One of the highest gains in achievement by individuals in grade eleven was made, according to test results, by the student with the lowest recorded mental ability; pupil J had a score of 89 on the Henmon-Nelson Test of Mental Ability, and achievement gain in grade percentile from 11 to 63 was noted. The greatest amount of gain in this grade was made by pupil B, who had a mental ability score of 101 and whose score on the initial test was in the 24 grade percentile and on the later test was in the 91 percentile.

II. INTERPRETATION OF DATA

Correlation of Mental Ability and Gain in Reading Achievement

The coefficients of correlation computed from data of grades nine and eleven indicated that the relationship between mental ability and gain in reading achievement was negative, the ninth grade coefficient being $-.55$ and $-.36$ being the coefficient for the eleventh grade. For this reason it appeared that the students in grades nine and eleven who had the higher scores on the mental ability test were not the ones who made the greatest gains during the first year of the developmental program under study.

The coefficient of correlation, $-.004$, computed for the tenth grade, although negative, actually indicated that there was no relationship between mental ability and gain in

reading achievement made during the period under study.

Representative Cases

Grade nine. Among the representative cases studied in the ninth grade, the greatest amounts of gain indicated by the two reading tests given during the study were made by students whose mental ability scores fell in the middle range between the high and low. The smallest gains were made by the highest and lowest mental ability scorers.

Grade ten. As in grade nine, the greatest amount of gains made in reading achievement among the representative cases studied were found to be students whose mental ability scores marked the scale between high and low. The pupil scoring the highest and the one scoring the lowest on the mental ability test showed the same, but not the greatest, amount of gain in achievement in reading.

Grade eleven. The reading achievement tests given in grade eleven during the study recorded the greatest amount of gains to be made by pupils with mental ability scores among the low ranks of this particular class, but the lowest intelligence quotient recorded in this class was 89.

General Analysis of Data

The trend in all three grades studied was that the greatest gains in reading ability as noted by the two forms of the Iowa Silent Reading Test were made by pupils whose mental ability scores were found in the lower of the middle group of scores. The extreme highs and the extreme lows in mental ability of the three classes as a whole showed a tendency to make the same amount of gain in reading ability and this amount was comparatively low.

Results from the reading achievement tests indicated that the majority of the forty-eight pupils involved in the study increased their reading ability during the initial year of the developmental program and that relatively few made little or no gain. This indication was in keeping with the purpose of the study, that of improving the reading ability of all the pupils.

It will be noted that in the groups studied, the extreme lows in intelligence quotients were used to designate the lowest in the group; the lowest, however, in the forty-eight was 87 and only three of the others were below 90.

CHAPTER V.

SUMMARY AND CONCLUSIONS

I. SUMMARY

In order to improve the reading ability of the pupils in grades nine, ten, and eleven of Plainville High School, a developmental reading program was planned and applied to the English curriculum. The study included the developing of this program, its application, and analyzation and conclusions drawn from the results.

A study made of recent research in the field of developmental reading and reading programs at the secondary level revealed the following attitudes toward reading growth: (1) it is regarded as vital to modern communications; (2) it is a continuous process from kindergarten through college; and (3) it is increased by carefully planned guidance and instruction in the reading skills. Instruction in the reading skills and motivation toward greater amounts and more critical and creative reading were reported to be the purposes for improving reading programs in schools throughout the United States. The question of whether to use a basal reading program or an individualized program has been investigated by leading educators and research workers in the field of reading. Results of experiments from both types of programs point to a wise combination of the two. One of the

most recent developments in the field is the well-equipped reading laboratory encompassing the features of an effective reading program, namely: (1) a wealth of reading materials, which include a wide range of books, workbooks, testing program materials, and audio-visual aids; (2) a variety of mechanical devices, which experimental results found to have a permanent place in reading programs because they assist in motivation and development of speed in reading; (3) inspiring and effective reading specialists and consultants and teachers, including all faculty members, who have received thorough training of both in-service and preservice type.

The developmental program planned and applied to the classes at Plainville included three months of instruction in the basic reading skills and the special skills needed in the subject areas of literature, social studies, mathematics, and science; Be a Better Reader, Books II, III, and IV were used for this phase of the program.¹ Motivation for an increased amount of reading was supplied through increased library facilities, sharing of cumulative records, book talks, bulletin board displays, and student-librarian activities.

¹Nila B. Smith, Be a Better Reader, Books II, III, and IV (Englewood Cliffs, New Jersey: Prentice-Hall, 1958), 128 pp. each.

To determine the reading achievement level of the students included in the study, the Iowa Silent Reading Test, Form DM, was given at the beginning of the year, 1960-61. Form CM of the same test was given at the close of the school year in order to determine the amount of gain. The gains were then compared with the mental ability scores shown by the Henmon-Nelson Test of Mental Ability given prior to the time of the study. The coefficients of correlation indicated an improbability of predicting through intelligence quotients gains in reading achievement. Results from the tests showed the greatest amount of gains to be made in the slightly lower than average mental ability group of the classes involved in the study. The smallest gains were made by extremes of high and low on the mental ability scoring chart for these students.

II. CONCLUSIONS

The coefficients of correlation of mental ability and gain in reading achievement in the groups studied indicated that mental ability could not be used with accuracy to predict the amount of gain in achievement to be anticipated as a result of a secondary developmental program for the school classes under study. Results from reading achievement tests given at the close of the first year of the developmental reading program for Plainville High School showed gains made

by the majority of pupils involved in the study, even though greatest gains were made by the pupils whose mental ability scores were slightly below the average for the groups studied.

Inasmuch as the outcome of the first year of the developmental program pointed to sizeable gains made by the majority of the pupils in all three classes, it would appear that all phases of the program, including testing, motivation for increasing the reading, and instruction for developing the reading skills, should be continued.

Since the high and low ranking students in mental ability appeared to benefit the least from the basal program offered to all the pupils, the recommendation could be made to add to this program methods of individualizing the program to meet the needs of these two groups.

For a well-rounded reading program in the high school under question, the investigator recommends, upon the basis of studies made by leaders in the field and careful consideration of the local situation, two other additions: (1) A well planned testing program, including follow-up tests for the first year, is needed to determine the amount of retention of the gains made and to plan greater help in reading for all students; (2) In-service training for teachers who are on the staff at the present writing and both preservice and in-service training for incoming teachers will help to assure progress in a developmental reading program for the pupils of Plainville High School.

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APPENDIX

APPENDIX A

THE CUMULATIVE READING RECORD OF A STUDENT
(1956 Revision: The National Council of Teachers of English)

Author	Book	Date	Author	Book	Date
Hill	<u>White Orchids</u>	1/26/61	Blank	<u>Beverly Gray's Fortune</u>	1/26/61
	I enjoy this kind of book. I have read it two times			A typical story about a career girl.	
Kisinger	<u>Enchanted Summer</u>	1/26/61	Hill	<u>Happiness Hill</u>	1/26/61
	This is a little different than the other books I have read. I didn't like it quite as well as the others.			I have read this book 2 times. I have read most of Grace Livingston Hill's books. I enjoy them very much.	
Hill	<u>Christmas Bride</u>		Emery	<u>Senior Year</u>	1/26/61
	I enjoy and like to read this book. I have read it 3 times.			This is a very good book. I have read it 2 times.	
Alcott	<u>Rose in Bloom</u>	1/27/61	Dr. Jardin	<u>Double Date</u>	1/27/61
	This is a love story. It is about a girl who had been away from home for a long time.			This story is about two twins. One of them was more popular than the other one.	

APPENDIX B

SCATTERGRAMS

Gain in reading achievement in grade per- centile	Henmon-Nelson Test of Mental Ability Scores														Total cases
	86- 88	89- 92	93- 95	96- 98	99- 101	102- 104	105- 107	108- 110	111- 113	114- 116	117- 119	120- 122	123- 125	126- 128	
45-49						1	1								2
40-44															0
35-39	1	1					1								3
30-34				1											1
25-29									1						1
20-24							1								1
15-19									2						2
10-14								1			1				2
5-9													1		1
0-4						1					2				3
-5-1															0
-10-4															0
-15-9									1						1
Total	1	1		1		2	2	1	1	4	3		1		17

FIGURE 1

SCATTERGRAM: SCORES ON HENMON-NELSON TEST OF MENTAL ABILITY
AND GAIN IN READING ACHIEVEMENT, GRADE NINE,
PLAINVILLE HIGH SCHOOL

Gain in reading achievement in grade per- centile	Henmon-Nelson Test of Mental Ability Scores															Total cases
	83- 87	88- 92	93- 97	98- 102	103- 107	108- 112	113- 117	118- 122	123- 127	128- 132	133- 137	138- 142	143- 147	148- 152	153- 157	
51-55						1										1
46-50				1	1	1										3
41-45						1										1
36-40			1			1	1		1							4
31-35																0
26-30						1										1
21-25			1													1
16-20			2	1						1						1
11-15	1								1						1	4
6-10					1	1										3
1-5				1												2
Total	1		4	3	2	6	1		2	1					1	21

FIGURE 2

SCATTERGRAM: SCORES ON HENMON-NELSON TEST OF MENTAL ABILITY
AND GAIN IN READING ACHIEVEMENT, GRADE TEN,
PLAINVILLE HIGH SCHOOL

Gain in reading achievement in grade percentile	Henmon-Nelson Test of Mental Ability Scores											Total cases	
	89-90	91-92	93-94	95-96	97-98	99-100	101-102	103-104	105-106	107-108	109-110		111-112
63-67							1						1
58-62													0
53-57													0
48-52	1												1
43-47			1					1					2
38-42								1					1
33-37					1								1
28-32													0
23-27							1						1
18-22													0
13-17								1			1		2
8-12													0
3-7								1					1
Total	1		1		1		2	4			1		10

FIGURE 3

SCATTERGRAM: SCORES ON HENMON-NELSON TEST OF MENTAL ABILITY AND GAIN IN READING ACHIEVEMENT, GRADE ELEVEN, PLAINVILLE HIGH SCHOOL