THE PRODUCTION OF MATERIAL SUITABLE

TO THE READING LEVEL OF DULL-

NORMAL FIRST-GRADE CHILDREN

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THESIS

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CHAPTER I

INTRODUCTION

The Problem -- Its Setting, Scope,
and Purposes

The way of teaching beginners to read has been an important, perplexing, and highly interesting problem for many years. Regardless of research, and in spite of all the progress made in primary education, practically every first grade contains certain pupils who cannot read as quickly, intelligently, or fluently as some of the other pupils. These dull-normal children are not always mentally incapacitated but are mentally retarded, probably because of physical defects, impoverished social, experiential, and economic backgrounds, irregular school attendance, frequent transfers from school to school, a late start in the school term, oral language difficulties, or various other handicaps. *The gravity of the dull-normal child problem is emphasized in the following report:

> It is estimated that some 20 per cent to 30 per cent of school children fail to be promoted in the first grade. While the percentage of failure is lower in the second grade, it is still much too high, running between 14 per cent and 25 per cent. The failure

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of 99 per cent of pupils in the first grade, 90 per
cent in Grade II, and 70 per cent in Grade III is
due to reading difficulties.[1]

The traditional problem of what to do for and with the
slow readers obtained in the writer's first-grade class. It
motivated the research for this present experimental study
which involved thirteen dull-normal children, and which was
made during the school year of 1941-1942 in Memphis, Texas,
a town of approximately four thousand population.

The specific problem of this thesis was the produc-
tion of material suitable to the reading level of these
dull-normal children, whose intelligence quotients' range
was from eighty to ninety, inclusive. The purpose of the
study was five-fold: (1) to discover what criteria have
been set up by recognized authorities for teaching dull-
normal children; (2) to determine the interests and needs
of the dull-normal children under consideration; (3) to
determine their vocabulary range; (4) to produce interest-
ing, easy reading material for them and to determine their
response to the reading material produced; based upon their
activities and interests; and (5) to recommend a reading
program for the dull-normal children in the Memphis, Texas,
public school in the future.

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[1]May E. McCarthy, "Teaching Reading to Slow Learners,"
Teachers' Service Bulletin in Reading, IV (February, 1943).

Definition of Terms

Clarity of data on this problem is increased by an un-
derstanding of the interpretation accorded various terms
used in the discussions. Although none of the terms are
technical, it seemed desirable to call attention to cer-
tain definitions.

Reading. -- Many different definitions of reading have
been formulated. Probably no certain one is accepted by
all who are interested in reading problems. For the pur-
pose of this study, Dolch's definition which says that read-
ing for the first-grade pupil consists of "(1) recognizing
most of the words, (2) guessing or sounding out the others,
and (3) getting meaning as a result,"[2] appears to be satis-
factory.

Dull-normal children.[3] -- In this study the terms
"dull-normal," "mentally retarded," "slow-learning," and
"slow readers" are used synonymously and interchangeably.
Each term refers to children who have not been able to
learn to read with the speed, ease, understanding, and
fluency of their classmates. They lack socializing experi-
ences and a wide, functional range of words. Monroe gives
the following description of the children of this type:

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[2]Edward William Dolch, Teaching Primary Reading, p. 2.

[3]Samuel A. Kirk, Teaching Reading to Slow-learning
Children, p. 174.

The mentally retarded children, however, usually lack the understandings involved in reading, and cannot make the fine discriminations and co-ordinations required by this exacting skill. These children become accustomed to failure before they have a chance to succeed. A year or two later after they have matured sufficiently for reading, the primer stories and books have lost their zest through frequent and painful repetition, and the children become resistant to further efforts to teach them. . . . By this time the children are often social misfits and show evidences of personality maladjustment.[4]

Additional data on the dull-normal pupil are found in the following excerpt:

The slow-learning child is one of low intelligence, who is incapable of keeping up with his classmates in the regular public schools, and who therefore requires a modified curriculum for his maximum growth and development. . . . Any child who has an I. Q. below 80 and who is not progressing in school at the same rate as other children may be considered mentally retarded.[5]

Characteristics of dull-normal children are described by Garrison in the following paragraph:

The abbreviated vocabulary of mentally retarded children has constantly been recognized by those concerned with a study of these individuals. It is in the use of language as a tool that they show their greatest deviation from intelligence. . . . They have poor habits of study, a lack of comprehension and a deficient vocabulary. Their habits of attention are faulty and they lack power of organization and ability for ideas.[6]

Reading readiness. -- This term is found often in

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[4]Ibid., Introduction by Marion Monroe, p. iii.

[5]Ibid., p. 1.

[6]Karl C. Garrison, The Psychology of Exceptional Children, p. 169.

discussions pertaining to the teaching of reading. In
this study it included physical readiness, school readiness
(adjustment to school methods and routine or fitting into
the group), language readiness (word meaning and word use),
interest readiness (interest in learning to read), perceptual
readiness (distinguishing and understanding certain printed
symbols or word forms). In summary, reading readiness cor-
responds to a mental age of about six and a half years.

Sources of Data

Both primary and secondary sources of data were uti-
lized in making this study. Primary sources included the
thirteen dull-normal children under consideration, the
community citizens who cooperated in excursions and other
activities, and the parents of the children. Secondary
sources included recent professional books and periodicals,
courses of study, standardized tests, teacher-made tests,
and pupil-teacher-produced stories.

Method of Procedure

Briefly, the following sequential procedures were fol-
lowed in making the research on this problem of teaching
reading to certain first-grade dull-normal pupils:

1.   The writer read accepted authorities on the subject.

2.   In cooperation with the public-school superintendent,

plans were laid for grouping together all first-grade dull-normal pupils.

3. At the end of the second week of school, September, 1941, the <u>Pintner-Cunningham Intelligence Test</u>[7] was administered to ninety-six first-grade pupils.

4. Results of the test were tabulated. It was found that twenty-seven of the ninety-six pupils had intelligence quotients ranging from eighty to ninety, inclusive. Eight of these twenty-seven were repeating the first grade; six withdrew at an early date, leaving thirteen dull-normal children to be considered in the study.

5. As soon as the dull-normal pupils were located, a nine-weeks' reading readiness program was begun. This included excursions, parties, and many other worthwhile experiences and activities.

6. At the end of the reading readiness program, early in November, 1941, the <u>Detroit Advanced First Grade Test</u>[8] was administered for the purpose of ascertaining whether the pupils' mental ages indicated reading readiness.

7. Since the last-named test indicated that twelve of the thirteen pupils were ready to learn to read, the teacher began to locate their interests, and determine their range

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[7]Rudolph Pintner, and Bess V. Cunningham, <u>First Grade Intelligence Test</u>.

[8]Harry J. Baker, <u>Detroit Advanced First-Grade Intelligence Test</u>.

of vocabulary by daily observation and checking.

8.   Together the pupils and the teacher wrote a large
number of experience stories which were copied on a chart
and immediately hectographed for each child.

9.   In a few weeks, pre-primers, primers, and eventually
first-grade readers supplemented the original stories.

10.   An intensive and extensive reading program was ex-
perienced for nine months.

11.   At the end of school, May, 1942, the Metropolitan
Achievement Test[9] was administered and comparisons were made
of the results of the tests given in September, November,
and May.

Justification of the Problem

Teachers in a democracy are committed to the task of
training all the children of all the people, regardless of
the child's intelligence quotient, his social experience,
or his economic status. In the final analysis, this means
that it is the teacher's privilege and responsibility to
supply methods and materials that will be conducive to the
development of the whole child, whether he be an excep-
tionally brilliant student or a dull-normal pupil.

An analysis of statistics regarding the percentage of
failures in reading apparently justifies the writer's

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[9]Gertrude H. Hildreth, Metropolitan Achievement Tests.

interest in endeavoring to help certain dull-normal pupils overcome their reading handicaps. Witty and Kopel say that "from twenty to forty per cent of first-grade children are not promoted."[10] Gates explains the reason for this situation by explaining that "these failures are almost wholly due to deficiencies in reading. In Grade I, 99.5 per cent of the pupils failing of promotion were marked as failures in reading."[11] Hobson's investigations show that "most failures in first grade are due to a lack of mental maturity or readiness to read."[12]

The following passage calls attention to the significance of the dull-normal-pupil problem and implies the importance of initiating a modified program:

> Putting a slow-learning child in a situation where he is expected to compete with normal children is minimizing his chances for successful development. Continually to expect of him that which he is not capable of producing is to undermine his entire personality. He becomes fearful and shy, anticipating failure, or in trying to bolster his own courage he becomes boisterous and over-confident. Studies tend to show thatthis results in a complete disintegration of the child's behavior.[13]

Monroe's report on the activities of educators regarding the problem of teaching reading, especially to dull-normal children, contains the following information:

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[10]Paul Witty and David Kopel, Reading and the Educative Process, p. 73.

[11]Arthur I. Gates, Improvement of Reading, p. 4.

[12]James R. Hobson, "Reducing First Grade Failures," Elementary School Journal, XXXVII (September, 1936), 30-33.

[13]J. Murray Lee and Dorris May Lee, The Child and His Curriculum, p. 91.

Instead of waiting until children have actually failed to learn to read, educators are now looking to early indications of difficulty and are changing emphasis from corrective to preventive work in reading. Educators are also attempting to recognize and adapt instruction to individual differences to a greater extent than ever before. Emphasis is now being placed on developing reading readiness before exposing children to the actual reading process. Objectives and goals are being defined more clearly than before. Subject matter and skills are no longer regarded as primary objectives of education, but rather as the tools and means by which children react successfully and happily in their social environment.[14]

The need for producing material suitable to the reading ability of dull-normal pupils is accentuated in Kirk's review:

There is, however, a scarcity of books and information dealing directly with the reading problems of children who are retarded mentally. Yet, in every classroom there is a little group of "slow-learners," children who do not have the capacity to keep up with their classmates, and whose problems must be met in some way by their teachers.[15]

Many first-grade teachers of dull-normal children, and the children as well, have worked under much strain in attempting to complete the same material that has been designed for normal first-grade children. A justification of providing experience stories, on the proper reading level, and centered about child interests, appears in Garrison's discussion of the subject:

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[14]Marion Monroe, Introduction to Kirk, op. cit., p. iv.

[15]Ibid., p. iii.

The psychological basis for the selection and organization of activities for slow learning pupils must be found in the pupils themselves. If knowledge and skills are to have any value for these slow learning pupils they must be recognized as significant and must be presented in a manner sufficiently concrete and related to activities as to be meaningful. The alert teacher will study the characteristics, abilities, and needs of these pupils, and with these as a basis, formulate group activities that will tend to lead towards the ends set forth in a democratic civilization.[16]

Additional emphasis on the significance of using life situations experienced by the children as bases for reading material in the classroom is contained in the following lines:

There is a significant difference between mentally retarded and average children in activities related to learning and especially those involving reasoning and insight. . . . Their characteristics are of such a nature that they should be directed through direct experiences into concrete activities.[17]

. . . .

Through a careful study of the individual it is possible to provide materials that will be in harmony with their abilities and interests and give them an opportunity to discover their own talents and aptitudes.[18]

To summarize, it may be said that too long we have been trying to make the dull-normal child fit the school rather than make the school fit the dull-normal child. We should first discover the child's interests and needs and utilize these in developing his potentialities to the highest

[16]Garrison, op. cit., p. 231.

[17]Ibid., p. 175.   [18]Ibid., p. 206.

possible extent, so that he may take his place as a con-
tributing member in an ever-changing social order.   In
order to accomplish this task, it is necessary first to lo-
cate the dull-normal children, then produce material that
is designed to promote their mental, social, moral, and emo-
tional growth and thereby enrich their lives. Such has been
the purpose of these investigations reported in the present
study.   If the criteria presented in the preceding para-
graphs are acceptable, this research appears to be justi-
fied.

CHAPTER II

VOCABULARY RANGE AND AREAS OF INTEREST OF THIRTEEN
DULL-NORMAL CHILDREN USED AS BASES FOR THE
READING READINESS PROGRAM

An interpretation of results obtained from the administration of the <u>Pintner-Cunningham Intelligence Test for First Grade</u> showed that only one child, whose chronological age was six years and nine months, had an intelligence quotient of ninety and a mental age of six years and one month. Two pupils, each with chronological ages of seven years, had intelligence quotients of eighty-seven and mental ages of six years. The remaining ten pupils' chronological ages ranged from six years and one month to six years and eleven months. Their intelligence quotients ranged from eighty-four to eighty-eight, with mental ages of five years and three months to five years and nine months.

Preceding data regarding the chronological ages, intelligence quotients, and mental ages of the thirteen dull-normal children considered in this study indicated that only three of the pupils were ready to read at the beginning

of school. Since a rich experiential background and the understanding of spoken English are essential aids in learning to read, a reading readiness program was planned for these children. It was based on their range of vocabulary and their areas of interests.

A justification of the reading readiness program is found in the following paragraph adapted from Louella Cole:

> It has been an educational assumption that children are ready to read when they are six years old. Some children are, but a considerable proportion are not. To be ready to read a child must have sufficient intellectual development, maturity of speech and organs plus social and emotional maturity. Intellectually he must have a mental age of at least six and a half -- and seven years are safer. With a mental age of less than six and a half he will not learn to read because he does not have the intellectual development necessary for so complicated a procedure.[1]

Gates emphasizes the importance of a child's readiness to read, regardless of age, in these lines:

> The time to begin reading is the time when learning to read will be individually the most satisfying and helpful, and socially the most fruitful period. I believe that we can design materials and methods to enable children to read successfully at this age whatever it may be.[2]

The value of the development of a rich, meaningful vocabulary by means of experiences is pointed out by Harris in the following paragraphs:

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[1]Louella Cole, The Improvement of Reading, pp. 281-282.

[2]Arthur I. Gates, "Viewpoints Underlying the Study of Reading Disabilite s," Elementary English Review, XII (April, 1935), 89.

It is generally agreed that a period of preparation is necessary before children are ready to begin to use primers. The period of preparation is used to teach a small vocabulary of sight words which are frequent and important in later reading. The earliest words are taught by means of charts and blackboard materials, and workbooks which present the words in various combinations with much repetition until they can be easily recognized.

As soon as a sufficient number of words has been learned, the children are introduced to reading in extremely easy little books called preprimers. These contain desirable elements of polt and surprise although the same words occur over and over.[3]

Suggestions regarding the contents of a reading readiness program are made by McKee in these words:

During the period of preparation for reading, at least two things should be done to enable the child to develop a meaning vocabulary. First, means must be provided by which the child may acquire accurate concepts that will later serve as the source of meaning in reading. Second, there must be ample opportunity for him to become familiar with the common sound symbols of these concepts.[4]

O'Donnell sums up the necessity for reading readiness, its value, and its contributions in the following paragraph:

The modern primary school conceives of education in terms of child growth rather than in terms of subject matter accomplishment. The curriculum, the informal school setting, the activities of the school day, are judged for their value in contributing to the social, emotional, and physical as well as intellectual development of each child in the group.[5]

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[3]Albert J. Harris, How to Increase Reading Ability, pp. 38-39.

[4]Paul McKee, "Vocabulary Development," The Teaching of Reading: a Second Report, Thirty-sixth Yearbook of the National Society for the Study of Education, Part I, p. 279.

[5]Mabel O'Donnell, "A Suggested Program of Reading Readiness," Primary Reading Monograph, No. 1, pages unnumbered.

Vocabulary

Importance of vocabulary. -- The development of a rich,

meaningful vocabulary is a necessary part of the reading

readiness program. This is pointed out by McKee, who says:

> Means must be provided by which the child may
> acquire accurate concepts that will later serve as a
> source of meaning in reading. There must be ample
> opportunity for him to become familiar with the com-
> mon sound symbols of these concepts.[6]

The value of meaningful concepts is emphasized still

further by Storm and Smith in the following excerpt:

> Meaningful concepts aid in recognition of words.
> Numerous experiments have resulted in evidence that a
> content word and its use in a meaningful situation
> are distinct aids in recognition. Any first grade
> teacher can corroborate this evidence from her own ex-
> perience if she will but recall the great ease with
> which her pupils learned some word which is filled
> with meaning for them such as "candy" or "automobile,"
> as contrasted with the difficulty of learning abstract
> words such as "is" or "can" which mean nothing to them
> in isolation.[7]

Speaking vocabulary of children under consideration. --

An extensive study of the speaking vocabulary of the group

of dull-normal children considered in this study was made

by observing and recording practically all the different

words used in conversations during excursions, group dis-

cussions, and other activities in which experiences were

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[6]McKee, op. cit., p. 279.

[7]Grace Storm and Nila B. Smith, Reading Activities in
the Primary Grades, p. 114.

related. A complete list of words composing the children's speaking vocabulary, compiled over a period of nine months, appears in List 2, Appendix, of this study. These words were used as one basis for the production of reading material suitable to the reading level of the dull-normal group. They, as well as new words, were used frequently enough to assure the children's familiarity with them.

Areas of Interest

Interest in the learning process. -- The importance of interest in the learning process is generally recognized. Its purposes are clearly stated by James F. Webb in these lines:

> A careful analysis of the psychology of interest indicates that it has two chief purposes in education. The task of motivating the individual seems to be the chief function of interest . . . his acts become more definite, more integrated, and a greater intent to accomplish is manifested.
> A second purpose of interest is that it serves as a limiting factor. It limits the things that can be taught with a high degree of success to children. . . . A lack of interest in any particular piece of schoolwork is caused by one or both of two things. Either the child's background of experience is deficient, or the problem is too complex for him.[8]

Kirk says that "learning takes place more rapidly and efficiently if the materials to be learned are meaningful and interesting to the child."[9] Dolch corroborates that

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[8]James F. Webb, "Children's Interests -- Their Use and Abuse," Texas Outlook, XXVI (June, 1942), 15.

[9]Kirk, op. cit., p. 128.

concept by suggesting that "the children should be so interested that they both think and feel about the subject matter, and as a result are anxious to talk about it."[10] Gray reiterates the same thesis when he says that "pupils can learn to read best by reading to achieve purposes that appeal to them as highly interesting and worthwhile."[11]

Webb indicates the gravity of the teacher's responsibility of guiding children's interests in the following concept:

> One can readily identify three responsibilities of the schools with respect to interest. . . . Guidance in the development of the ability to make wise selections of interesting experiences is very definitely the duty of the school. A second responsibility is that of helping the child to broaden and deepen those interests to the point where lasting satisfaction and happiness may be obtained. The third responsibility is that of making it possible for the child to develop new interests. These new interests are basic factors in the process of growth or education.[12]

Garrison, in the following lines, stresses the value of interest as a foundation for reading:

> It is very important that book materials should be carefully chosen. They should not only supply knowledge, but also should stimulate the interest and thought processes so as to motivate and develop increased reading skills.[13]

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[10]Edward W. Dolch, Teaching Primary Reading, p. 83.

[11]William S. Gray, Marion Monroe, and Lillian Gray, Guidebook for the Pre-primer Program of the Basic Readers, p. 12.

[12]Webb, op. cit., p. 15.

[13]Karl C. Garrison, The Psychology of Exceptional Children, p. 225.

<u>The</u> <u>dull-normal</u> <u>children's</u> <u>areas</u> <u>of</u> <u>interest.</u> -- Since
learning takes place more rapidly if the material to be
learned is meaningful and interesting, it seemed logical
to find out the various interests of the children for whom
reading material was to be produced. Subsequently, the
writer began to record all areas of interest indicated by
the children. Spontaneous interests were noted first.
Then an effort was made to provide experiences that would
develop new interests.

> As the child responds to stimuli in this ongoing of
> experience, he accumulates a store of meanings which
> he uses in interpreting new situations and which
> furnish the background needed to give meaning to the
> printed symbols when they are presented to him.[14]

Dewey offers the following criterion for guiding the
children's interests: "The school must select those things
within range of existing experience that have promise and
potentiality of presenting new problems and by the area of
further experience."[15]

The writer accepted Dewey's principles regarding the
guidance of interest. As a result, opportunities were pro-
vided for the children to have first-hand and vicarious ex-
periences. The preparatory activities included story
telling, memorizing nursery rhymes, singing interesting

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[14]Mildred English and Thomas Alexander, <u>Teacher's</u> <u>Guide</u>
for <u>Spot</u>, <u>a</u> <u>Pre-primer</u>, and <u>Jo Boy</u>, <u>a</u> <u>Primer</u>, p. I.

[15]John Dewey, <u>Experience</u> <u>and</u> <u>Education</u>, p. 90.

songs, oral reading of songs and poems by the teacher,
oral reading of stories by the teacher, situations involv-
ing real communication of ideas, conversation about inter-
esting observations, free discussion of experiences and
activities, dramatization of incidents and stories, expres-
sion of ideas by drawing and color, visiting the library or
other classrooms and observing older children engaging in
voluntary reading, excursions, holiday parties, collections
of various insects, caring for toys and pets, reading bul-
letin board news, making sand-table setups, doing folk
dances, playing in the rhythm band, and participating in
games.

One of the first experiences the children had in this
reading readiness program was a trip to the park. There
they watched the birds and the squirrels. Their curiosity
was aroused when they saw different colored birds, and they
began to ask questions about their names. This led naturally
to an extensive unit on bird life.

The stories about birds logically led to an investiga-
tion about other fowls and animals. The children were stimu-
lated to talk about animal life and to observe the way in
which various animals live. As a result many of the chil-
dren brought their pets to school. Jimmie found an owl; one
child brought a rabbit to school; and another brought her
kitten. These were kept in a cage in the schoolroom. All

of the children were very interested in these pets and
helped to take care of them. New words were added daily to
their vocabulary as they asked questions, listened to poems
and stories, built houses, made experience charts, and com-
posed reading matter for the blackboard.

The goldfish provided much interesting material for
the group throughout the school year. Scientific informa-
tion pertaining to water, food, and body building was col-
lected.

While one group was engaged in learning about goldfish,
another group made a collection of butterflies. The col-
lection was conveniently displayed in the schoolroom to be
enjoyed by all of the children. The life cycle of the monarch
butterfly became a practical bit of knowledge to the chil-
dren.

When time came for the children to go barefooted, as
many of them did, it became necessary to take precaution
about red ants which were numerous in the schoolgrounds.
This in turn led to an observation of small ants at work.
Comparisons, stories, and observations provided an increase
in the children's vocabularies.

Early in the autumn the children began to note that
the leaves were changing color. Ann brought a basket of
brown and yellow leaves to school one morning and passed

them about as favors to her friends. Much interest was manifested in the various shapes and colors, and information on trees was gathered for several weeks. Then came time for the snow to cover the bare limbs and to hide all the leaves under a white blanket. This seasonal change offered an opportunity for dissemination of scientific facts in a practical setting.

Holiday seasons throughout the year were duly observed by the first-grade pupils. In October a Hallowe'en party was enjoyed by the entire group. Jack-o'-lanters decorated the room and served as motivation for stories, poems, and games. All of these activities enriched the children's experiences and extended their vocabularies.

The Thanksgiving season brought with it an interest in Indians. One activity led to another, and soon all members of the entire group were little red men exploring in a new America. They exchanged their Indian costumes for one of Kris Kringle late in December. Reindeer, sleigh-bells, and beautifully colored Christmas packages, surrounding a blue and silver Christmas tree, transformed the sandtable into a magic garden. Stories, songs, poems, and Christmas secrets filled the atmosphere until the dawn of the new year, when the decorations were removed and were replaced with new calendars and bulletin-board pictures.

Similar activities were engaged in throughout the year, especially during the nine-weeks' reading readiness period. Time and space do not permit even an enumeration, but it appeared that all of the experiences contributed to the achievement of the following three aims:

> . . . 1. . . . to develop those abilities which prepare pupils to recognize the meaning of the printed symbols found in early reading materials. 2. . . . to develop and improve certain abilities that are necessary in recognizing and remembering the printed symbols found in reading materials. 3. . . . to cultivate the attitudes and habits necessary in learning to read.[16]

The following areas of interest were located or developed by observation and experience: plants, animals, holidays, seasons of the year, children of other lands, home and family, school, natural science, and friends. From these areas, reading material was produced which appeared to be meaningful and comprehensive, because it was within the experience of the children for whom it was produced.

The Reading Readiness Program

The teacher secured valuable and interesting data by careful observation of the pupils during the reading readiness period. A check was made on each child's physical condition. An effort was made to determine whether each pupil was physically alert, well-developed physically, well-nourished, and free from remedial physical handicaps. Check

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[16]Gray, Monroe, and Gray, op. cit., p. 26.

was also made on posture and auditory and visual acuity.

The teacher endeavored to determine whether each child worked and played easily with the group, respected the rights of others, was friendly and adaptable, enjoyed sharing experiences with others, assumed his share of responsibility, showed initiative and used simple forms of courteous speech. From observation an effort was made to determine whether each child was happy and cheerful, enjoyed school life, was free from strain caused by timidity, lack of confidence, fear or worry, spoke in a pleasing voice, seemed pleased when he was successful, and was not easily annoyed.

The teacher noted whether each child talked freely about pictures, contributed anecdotes from his own experience, asked questions about new things with which he was unfamiliar, interpreted his own drawings and other pictures intelligently, made interesting comments on a number of subjects, and indicated many great concepts about many things in the school environment. The teacher also checked to see if each child showed a feeling for sequence in relating stories, anticipated ideas and events from the preceding narrative when listening to stories, perceived the relationship of certain symbols and words, classified familiar ideas reasonably well, remembered items in a

sequence, grasped essential meanings in a short sentence, was concise and did not ramble in relating observations, could make simple generalizations, could compose dialogue for dramatization, could memorize a simple rhyme easily, and could answer questions directly and relevantly.

Throughout the reading readiness period, the teacher noted whether the child had a speaking vocabulary broad enough to express simple ideas easily and accurately, desired to participate in discussions, used varied forms of simple sentences, enunciated clearly, pronounced accurately the words he commonly used, attempted to use new words he heard, exhibited no "baby-talk" in speech, and spoke reasonably correct English.

In addition to the check on the command of language, the teacher studied the work habits of each child. An effort was made to determine whether he gave sustained attention to work or play for a reasonable length of time, gave thoughtful attention when observing or learning about new things, worked with a reasonable independence on a simple project, understood and followed directions readily, and knew how to handle books. Data also were recorded on his ability to distinguish similarities and differences, to coordinate eye and hand movements with reasonable skill, to produce sounds correctly, to focus his eyes fairly well on

lines of print, and to work his eyes from left to right
and keep the place.

A record was kept of each child's interest in books
and his interest in learning to read. These records were
for the purpose of determining whether he exhibited inter-
est in signs and records and in hearing stories, liked to
look at pictures in books, was curious about the meaning of
symbols, tried to identify words, read lines for memory
or from picture clues, made up simple stories about pictures,
told some stories, recited short poems, and asked to take
books home.

The teacher's checks on each child's physical condi-
tion, social adjustment, emotional stability, background of
ideas, ability to think, command of the English language,
work habits, sensory ability, motor habits, and interest
in reading were for the purpose of determining the activi-
ties which the children needed for extending and enriching
their experiences. An attempt was made to develop those
abilities which prepare pupils to recognize the meaning of
printed symbols appearing early in reading materials.

The reading readiness activities were also designed to
develop and improve certain abilities that were necessary
in recognizing and remembering printed symbols. These aims
were developed by clarifying concepts, by means of friendly
conversation involving past experiences. Language activities

also provided opportunity to develop a wide meaning and
speaking vocabulary, to grow in ability to speak and under-
stand simple English sentences, and to improve pronuncia-
tion and enunciation. Opportunities were also presented for
training in keeping a series of events in mind and in per-
ceiving the relationship of ideas when recalling familiar
experiences. Children also experienced a situation on many
occasions which called for selecting and organizing ideas
for specific purposes, such as making judgments or drawing
conclusions.

The preceding activities of the reading readiness pro-
gram included concrete experiences in reading such as ex-
cursions, general classroom activities, social activities,
vicarious experiences, construction, and creative experi-
ences. Since the time devoted to preparation for reading
was limited, great care was exercised in selecting activi-
ties which were meaningful to the children and which con-
tributed directly to the type of growth needed.

> Teachers should take full advantage of the oppor-
> tunities to broaden the understanding of children
> through discussions of facts relating to the homes and
> families represented in the group. Children are in-
> terested quite naturally in the things their parents
> and brothers and sisters are doing. They are inter-
> ested in each other's families and homes. Children
> should be led to share their everyday experiences
> and their pets and toys with others in the group.
> Neighborhood activities, such as gardening, farming,
> storekeeping, and transportation, may be close to
> everyday life, yet children often know very little
> about them.

The immediate out-of-doors affords abundant op-
portunities for rich learning activities. The school
lawn may be utilized for a study of seasonal varia-
tions in plant and animal life. A school garden may
present opportunities for planting seeds and watching
plants grow. Trees, flowers, birds, weather, and
seasons are closely related to the child; yet teachers
frequently fail to utilize them in teaching. A walk
to a neighboring park may prove more valuable than a
trip to a factory at this early level.[17]

The activities engaged in by the group provided for

language development, increase in the spoken vocabulary,

development of visual memory, discrimination, auditory memory,

correct enunciation, correct pronunciation, visual maturity,

and eagerness to read. The readiness workbook, Before We

Read,[18] contained exercises and interest centers which pro-

vided for thoughtful discussions, careful interpretation,

and reading readiness. This book was supplemented by the

blackboard, bulletin board, labels, word-picture cards,

greetings, directions, children's names, daily weather re-

ports, sentence strips, experience charts, phrase and word

cards, and original booklets.

Many of the experiences involved in their execution

such factors as the children's pets, their families, their

toys, and their work and play. In the beginning, inter-

ests were located and developed by sharing experiences with

pets. The children told about their animal friends, the

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[17]Gray, Monroe, and Gray, op. cit., p. 24.

[18]William S. Gray, May Hill Arbuthnot, and Marion
Monroe, Before We Read.

tricks they could do, and the food they ate. Their lively
discussions developed the ability to follow a sequence, to
tell a story with ease, and to plan and dramatize a dialogue.

Story telling provided the teacher with an opportunity
to note the various levels of ability to use sentences.
Some children merely enumerated objects in isolation; others
reported in sentences what they saw, but they made no at-
tempt to narrate sequentially. Oftentimes only the present
tense of a verb was used, even in relating a past event.
Gradually, however, most of the children began to use more
interesting and colorful sentences and to use conversational
dialogue.

Their vocabularies were increased by making visits to
kennels, or to homes that had several pets; planning for a
pet show; building equipment for pets; painting friezes;
making picture collections, magazine pictures of unusual
pets, or pictures of pets doing tricks; dramatizing epi-
sodes using original dialogue; learning poems, jingles,
rhymes, and songs; and listening to stories read or told
by the teacher.

Drawing pictures helped the children to grasp the gen-
eral idea, to infer what had happened, and to note details
in the picture, as well as to make inferences concerning
the time and place of action. Opportunity was provided
for coordinating visual and muscular activity as each child

traced broken-line drawings. Many new words were learned as members of the group made simple sketches of their pets, noticed differences in contour lines, and discriminated between different positions.

Similarly, the children experienced an increased interest as well as vocabulary development as they experimented freely with clay and other modeling materials. At the same time, science concepts, such as food requirements of certain animals, their coverings, how they move, and what sounds they make, were informally introduced in conversation. The pupils also dramatized stories about their pets and did animal pantomimes to music. Language games provided experience in describing animals in terms of size, shape, use, movements, or other distinctive features.

All of the activities involved in the children's experience with pets appeared to be meaningful and interesting. They were related to everyday life, were not beyond comprehension, and satisfied certain vital human demands and desires.

The children's toys proved to be another field of interest during the reading readiness period. During conversation periods they exchanged stories about dolls, trains, balls, bats, and other favorite toys. They played guessing games which required descriptions in detail. For instance, one child described his truck by color, shape,

size, and use, and the other children guessed what toy had
been described. Many interesting experiences centered about
collecting pictures of toys, especially from toy catalogues;
learning songs and rhythms; taking care of the toys brought
to school; visiting toy stores; and making toys from oil-
cloth, cardboard, spools, potatoes, and toothpicks, clothes-
pins and corn cobs, and yarn.

The group enjoyed exploring their community. They
made excursions to markets, stores, and to fields where
crops were being planted or harvested, and to various homes.
Social contacts extended the children's interest and knowl-
edge and increased their range of vocabulary. They were
deeply interested in the work and play activities of the
home. Discussions on the preparation of foods brought about
practical science and health concepts. The children made
various series of pictures, such as the life cycle of a
vegetable, beginning with the seed and ending with food.
Many pictorial records showed that the children were de-
veloping the ability to make generalizations, detect de-
tails, and make fine discriminations. They engaged in con-
struction and handwork, such as building play houses, mak-
ing tables and chairs from orange crates, transforming
cans into vases, painting bottles and jars, constructing
mats, and painting chairs. These activities enriched their
experiences, developed muscular abilities, and enlivened

their interests. All of these outcomes were conducive to
reading readiness.

Scientific concepts were introduced naturally as the
children studied about the foods in the home, the differ-
ent parts of plants and how they were used to build the
body. As an informal lead into science, it was pointed out
that the leaves of some plants were used for food while the
stems, roots, or seeds of others were eaten. Facts regard-
ing seasons for planting, the function of rain and sunshine,
and different methods of food preservation were discussed.
Vocabulary increases were noted as the children identified
fruits, vegetables, and other foods, and as they dramatized
buying and selling situations, and telephone conversations.
The experiences of work and play in the home were rich in
opportunities for developing the children's ability to do
some abstract thinking. For instance, they looked at ob-
viously related pictures, such as paper and pencil, needle
and thread, father and mother. Then they played such
games as "It Makes Me Think of Something." One child said,
"A bed makes me think of sleep." Another said, "A knife
makes me think of a fork." Similar relationships extended
the children's speaking vocabulary as well as their sight
vocabulary.

Activities related to farm life were very interesting
to the children. They made a trip to see the white calf

about which one of the original stories included in this study was written. Many discussions regarding plant life, animals, and pets on the farm added new words daily. The group made collections of farm pictures and discussed them. Many of them were mounted, others were made into booklets.

Birds were identified by their color. Baby robins were compared with baby chickens and ducks. Large cut-out figures of birds pinned on a wire provided opportunities for discrimination of directions. One child would tell another to place the bird above the wire. This was followed by different children's placing classroom objects in various directions. The chief aim of the activities was to clarify the meaning of directive words. Similarly, games using parts of speech encouraged the use of adjectives when pupils were told to think of something "big," "little," "red," "blue," and similar descriptions. At the same time, meanings of adverbs were illustrated by discussions about the baby sleeping "quietly" or mother working "quickly."

The preceding activities were preceded by hearing stories and learning songs relating to the home. Pictures were labeled, and it was a source of great pleasure to pupils when they could identify such labels as "father," "mother," and "baby." The blackboard was used for posting news about the children's homes and families. A library table was established, and this environment of attractive

picture books about work and play at home seemed to develop
the children's desire to read.

The nine-weeks' reading readiness program provided
for the thirteen dull-normal children apparently satisfied,
at least partially, the following requisites for reading
readiness:

     1. A degree of maturity represented by a mental
age of six or more and sufficient mental alertness or
brightness to insure rapid progress in learning.
     2. Good health and freedom from organic defects
so that the pupil can give careful attention during
periods in which he receives guidance in learning to
read.
     3. Sufficient social adjustment and emotional
stability so that the pupil can participate with
pleasure in the activities of the group.
     4. An adequate fund of ideas, or background of
experience, to enable him to grasp the meaning of pas-
sages in early reading activities.
     5. Sufficient facility in thinking to enable the
pupil to grasp simple relationships, to perceive se-
quence, to reorganize ideas, and to engage in simple
problem-solving activities.
     6. Ability to understand readily and use fluently
the vocabulary and types of sentences found in begin-
ning-reading books, such as the Pre-primers and Primer
of this series.
     7. Efficient work habits which enable the pupil
to follow directions and to concentrate on the activi-
ties involved in learning to read.
     8. Sufficient sensory ability to insure accurate
visual and auditory discrimination of words.
     9. Adequate motor control to make the muscular
adjustments involved in learning to read.
     10. Keen interest in learning to read.[19]

The following rich experiences were developed during
the reading readiness program. Many of them did not termi-
nate at the end of the nine-weeks' period, but continued

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[19]Gray, Monroe, and Gray, op. cit., p. 18.

to lead out into various activities throughout the school
year.

I. Collecting:

    1. rocks

    2. butterflies

    3. chrysalises

    4. seed pods

    5. leaves

    6. pictures

    7. shells

II. Making excursions:

    1. to see the park

    2. to see the white calf

    3. to see the squirrels

    4. to see the baby goat

    5. to see the autumn leaves

    6. to see a flower garden

    7. to see wild flowers

    8. to see stores

III. Caring for animals:

    1. the white kitty

    2. the brown rabbit

    3. the owl

    4. the goldfish

IV. Caring for plants:

    1. plants in the terrarium

    2. morning glories in a swinging basket

    3. ferns, coleuses, tomato plants, and amaryllis

    4. arranging of seasonal flowers in vases

V. Observing scientific facts:

    1. change of tadpoles into frogs

    2. attraction of magnets

    3. ants at work

    4. bees gathering pollen

VI. Experimenting to prove scientific facts:

    1. Looking at snowflakes on black paper to see the pretty shapes and that no two are alike

    2. No two leaves are alike.

VII. Listening to sounds:

    1. birds singing

    2. wind blowing during sand storms

    3. rain falling

    4. sleet falling

    5. leaves rustling in the wind

    6. crunching of dead leaves when walked upon

    7. airplanes zooming overhead

8. thunder

9. the trains

10. running water

11. the radio

12. bees humming.

VIII. Expressing observations aesthetically:

1. folk dancing

2. playing in rhythm band

3. singing

4. chorus reading

5. memorizing poems

IX. Reading to find out:

1. about animals

2. About children of other lands

3. about safety first

4. about home and family

5. about plants

6. about the community

7. about health

X. Expressing graphically:

1. calendar

2. daily newspaper

3. weather reports

4. pictures

XI. Constructing:

    1. making posters

    2. mounting leaves

    3. mounting pictures, writing their names, composing sentences about them

    4. making airplanes

    5. making strings of beads out of macaroni and coloring them

    6. making bows and arrows

    7. making teepees

    8. dressing dolls to represent Indians, Eskimos, and Dutch people

    9. making a snow man

    10. decorating Christmas tree

    11. making jack-o'-lanterns

    12. making sandtable setups

    13. making dolls and furniture

XII. Discussing things observed:

    1. tadpoles

    2. ants

    3. butterflies

    4. birds

    5. owls

    6. kittens

    7. dogs

8. cows and calves

9. plants

10. people

11. holidays

12. farms

13. snow

14. rain

15. hail

CHAPTER III

ORIGINAL READING MATERIAL PRODUCED FOR THE

DULL-NORMAL CHILDREN AND A DISCUSSION OF

SUPPLEMENTARY READING

Criteria for Production of Material

The preceding chapter of this investigation contains
data on the vocabulary range and the interest areas of the
first-grade group under consideration. With these two ele-
ments as bases, many stories were produced by the pupils
under the guidance of the teacher. Precautionary measures
were taken to insure sound pedagogical procedures. The
teacher remembered that "in order to interpret reading sym-
bols, it is necessary to have a rich fund of human experi-
ences and nature experiences."[1] It was also noted that
"the schools should offer materials that would give all
boys and girls opportunities to develop their special in-
terests and abilities and provide for the growth of re-
flective thinking."[2]

Consideration was given to the thesis that "through a

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[1] Mary E. Pennell, How to Teach Reading, p. 157.

[2] Arthur I. Gates, The Improvement of Reading, p. 206.

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careful study of the individual it is possible to provide
materials that will be in harmony with their abilities and
interests and give them an opportunity to discover their
own talents and aptitudes."[3] In addition, the following
vocabulary criterion was accepted: "The words in pre-
primers and primers should be selected, with very few ex-
ceptions, from those most commonly spoken by children up
to and including the age of six years."[4] A vocabulary
list for first-grade children, compiled by Dolch, was used
as a basis for determining the use of words in the stories
produced. Vocabulary included in the material used in this
study but not appearing in the list by Dolch, is contained
in Table 3, Appendix, of this study.

An effort was made to adhere to recent findings regard-
ing content of the stories produced. Stone says that "the
theory concerning beginning material that is most commonly
accepted and followed today is that it should be based
upon the common experiences and activities of young chil-
dren."[5] Since this concept seemed to be the consensus of
opinion among leading specialists in the field of reading,
it was accepted as a pattern for production. The stories
were designed to create within the pupils a desire to learn

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[3]Ibid.

[4]Clarence R. Stone, Better Primary Reading, p. 304.

[5]Ibid., p. 300.

to read, an attitude of reading to get the thought, and a concept of reading as a meaningful process closely related to their activities and experiences.

Background for Production of Stories

The stories considered in this study grew out of the children's everyday living, their interests, and their needs at home, at school, and at play. The experiences grew out of excursions, conversations, picture studies, reading and telling stories and poems about pets, toys, and objects brought to school, nature study of things about them, and incidental material. The stories were written on charts and on ditto paper. Each child was given ditto copies and these were then compiled into a booklet for his own use. These were read with much interest and enthusiasm by the children as they were about things with which they were familiar, and in which they were interested.

The children were led to discuss the names of the children in the stories they had heard. They told which of these names they liked best and why. Further discussion led to mentioning names of the children in the schoolroom. There were three little girls in the room who were named Ann. Someone said, "I think Ann is a pretty name for a girl."

Pictures that were suitable for experience chart material were then shown to the children. After studying one

of the pictures of a boy and a girl, one child said, "What
are their names?" A number of children said, "Let's call
the little girl Ann." The others said, "Yes, let's do!"

Then someone said, "What shall the boy's name be?"
Several names for boys were mentioned, among which was Andy.
"Andy sounds like Ann," said one child, "so let's call the
boy Andy." This met with the approval of all the group,
so it was decided that some of the stories should be about
Ann and Andy. This type of procedure is justified by Pen-
nell and Cusack in the following quotation:

> Reading material based upon children's experi-
> ences has a greater appeal than that of any ready-
> made material. It is vitally related to the chil-
> dren. They had the experiences; they helped in
> making the story charts; since they have a personal
> relationship to the material, they are eager to
> read it.[6]

Original Stories

Representative productions of original stories, based
on the children's experiences, are included in the twelve
stories which follow. As was previously stated, they were
composed by the pupils, under the teacher's guidance, and
represent the type of reading material used for the dull-
normal group under consideration.

"To the Park." -- This story was motivated by a visit
to the park soon after school began. Plans were made for the

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[6]Mary E. Pennell and Alice M. Cusack, The Teaching of
Reading for Better Living, p. 182.

children to ride the bus, which was a new experience for
several of the pupils. When the group returned from their
trip, they composed the following story:

TO THE PARK

One day Ann and Andy said,

"Let's go to the park."

"Yes, yes, let's go to the park," said

    all the children.

Soon they were ready.

They were all ready to go to the park.

"Away we go. Away we go to the park,"

    said the children.

They rode in the bus.

"We like to ride in the bus," they said.

The bus man said, "Sit down, children.

You must sit down.

You must not get hurt."

The children sat down.

They on they went to the park.

Soon they were at the park.

The bus man stopped the bus.

The children got off the bus.

Away the children ran.

They ran and played.

The teacher-made tests that follow were given after the children read the story. The purpose was to check the children's understanding of concepts, their ability to recognize words, and their ability to get thoughts from the printed page. Similar tests were given to check the other stories used in this study.

DRAW A LINE UNDER THE WORDS THAT ARE ALIKE:

stopped	ready	children	hurt	played
stopped	ready	children	hurt	went
Andy	they	children	all	played
Stopped	ready	away	hurt	played
man	ready	children	hurt	played
stopped	went	like	on	one
stopped	ready	children	hurt	played
sit	said	the	in	and

bus	ride	rode	must	yes	let's
we	ride	ran	they	yes	let's
to	rode	rode	must	yes	you
bus	yes	got	must	we	sit
then	ride	rode	must	yes	let's
bus	you	go	sit	yes	let's
bus	ride	rode	not	said	let's
bus	off	rode	must	to	let's

The results of the test are shown in Table 2 later in this thesis. This table represents a compilation of data on all of the stories. The children answered all parts of the test correctly. This was interpreted to mean that the group's ability to recognize words in the story and to match them was satisfactory.

The teacher-made test on the following page was given for the purpose of determining the children's ability to

DRAW A LINE FROM THE PICTURE TO THE RIGHT WORD:

children

busman
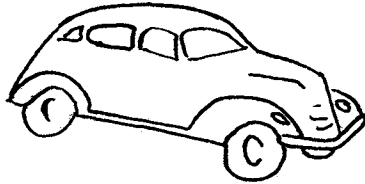
wagon

car
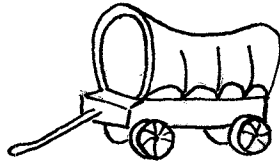
train

wagon
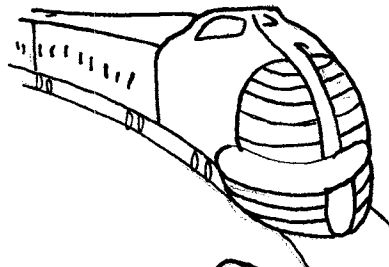
train

bus

children

busman
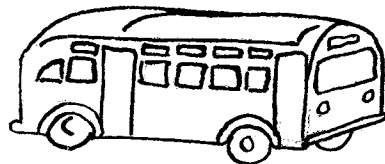
car

bus

correlate visual symbols with the printed words.

Date in Table 2 show that only three of the children missed only one item and only one child missed two items of the word-picture test. These facts indicated that their ability to correlate picture concepts with the printed word, and their ability to gain understanding from meaningful concepts was satisfactory, at least as far as this one story was concerned.

The following sentence-meaning test was given to determine the pupils' ability to read and understand sentences composed of words within their speaking vocabulary and words used in first-hand experiences:

READING EXERCISE FOR THE STORY,

"TO THE PARK."

DRAW A LINE UNDER THE RIGHT WORDS:

Ann and Andy said,

"Let's go to school."

"Let's go to town."

"Let's go to the park."

The children said,

"Away we go to the park."

"Away they go to the park."

"Away you go to the park."

They rode in the

        wagon.

        bus.

        train.

The bus man said,

        "Sit down, children."

        "Stand up, children,"

        "Go home, children."

The bus man said,

        "You must not get hurt."

        "You must go home."

        "You must not talk."

The children

        sat down.

        stood up.

        ran away.

The bus man

        stopped the train.

        stopped the bus.

        stopped the wagon.

The children

        got off the bus.

        got off the train.

        got off the wagon.

The children

> ran and ran.
>
> ran and played.
>
> ran and jumped.

The results of the sentence-meaning test are found in Table 2. They show that twelve of the thirteen children answered all items of the test correctly. One child missed one item. These facts indicated that the children exhibited a satisfactory comprehension of sentences about their experiences, as they were related in the story.

The following vocabulary test was given for the purpose of determining the pupils' ability to recognize words in isolation:

TEST

"TO THE PARK"

all	hurt	rode	what	yes
you	said	in	and	Andy
let's	sit	soon	man	Ann
at	must	away	not	stopped
they	then	off	bus	the

day	one	to	children	on
down	fun	ran	park	played
we	get	ready	went	were
ride	go			

DRAW A LINE UNDER THE RIGHT WORD:

all	then	bus	sit	yes
soon	hurt	man	what	stopped
off	what	rode	let's	all
you	bus	must	and	you
at	said	at	sit	Andy
not	man	in	let's	than
let's	sit	soon	what	hurt
hurt	the	and	the	Ann
away	all	yes	man	rode
at	Andy	away	sit	stopped
said	must	you	not	bus
soon	sit	bus	in	and

they	then	ride	then	the
were	rode	off	bus	they
yes	ran	sit	stopped	then
day	were	to	said	day
went	children	man	ride	down
Andy	one	Ann	children	on
ready	fun	yes	rode	all
park	hurt	ready	park	soon
down	one	ran	fun	played
soon	to	played	went	stopped
we	on	go	children	down
park	get	ready	rode	were
ready	all			
ride	go			
rode	ran			

The results of the vocabulary test are found in Table 2.
They show that forty-two different words were used in the
test on "To the Park," and that eleven of the thirteen chil-
dren recognized all words in isolation. One child missed
one word and another child missed two words. These data in-
dicated that the class as a whole exhibited a satisfactory
degree of word recognition.

The following list contains the words included in the
story, "To the Park," shich were not included by Dolch in
his compilation of a primary-grade vocabulary list:

People:	Miscellaneous:
Andy	bus
Ann	let's
	ready

The above list shows that five words, not common to
Dolch's vocabulary list, were used in the story, "To the
Park." All of these words were included in the story by
the children except "let's" and "away." These were supplied
by the teacher to increase the children's understanding and
to extend their vocabularies.

An analysis of all tangible results of the tests which
followed the composition and reading of the story, "To the
Park," leads to the conclusion that the material was inter-
esting to the children; that it was not beyond their com-
prehension; and that it was within their experience. Space
does not permit inclusion of tests used as follow-up checks
on the remaining stories used in the study, but the writer's
data show that satisfactory results were obtained.

Similar procedures were used in writing and reading the
stories that follow as were described in the preceding pages,
and they are representative of a large number of original
compositions.

"Fun in the Park." -- After the children returned to
school from the park, they composed this story about their
trip:

> The children had fun in the park.
>
> The boys and girls rode on the
>
>> merry-whirls.
>
> They liked to swing.
>
> They had fun in the swings.
>
> They went up, up, up.
>
> They came down, down, down.
>
> They saw pretty trees.
>
> They saw many pretty things.
>
> They said, "We like to go to the park.
>
> We have fun in the park."

"Autumn Leaves." -- When the trees began to shed their
spring regalia and donned sombre robes of brown, the chil-
dren noticed the change. One day Ann brought a basket of
beautifully colored leaves to school. All the children took
a walk to see the autumn leaves. Later the children dic-
tated the following story:

> The children went to see the autumn leaves.
>
> They saw the pretty autumn leaves.
>
> The leaves were many colors.
>
> They were many pretty colors.
>
> Some of the autumn leaves fell down.

Yellow leaves, red leaves,

Orange and brown,

Whirling and dancing,

The leaves fell down.

"Oh, what pretty leaves!

What pretty, pretty autumn leaves!" said the

children.

"Little Pumpkin." -- Hallowe'en was the time for little pumpkins to become jack-o'-lanterns; and jack-o'-lanterns brought about this original story:

Little Pumpkin grew in the garden.

It grew on a pretty green vine.

It grew and grew.

One day Andy came to the garden.

He saw many pumpkins growing on pretty green vines.

Andy said, "I want a pumpkin.

I want a little pumpkin.

I want to make a jack-o'-lantern.

I want to make a jack-o'-lantern for Hallowe'en."

Andy looked and looked.

Soon he saw Little Pumpkin.

Little Pumpkin, said, "Take me! Take me!"

Andy said, "I will take you, Little Pumpkin."

Andy took Little Pumpkin.

He made a jack-o'-lantern for Hallowe'en.

He made a funny jack-o'-lantern for Hallowe'en.

He put the jack-o'-lantern in the window.

"What a funny jack-o'-lantern!" said Andy.

"What a funny, funny jack-o'-lantern!

I like my funny jack-o'-lantern."

"White Kitty." -- A picture of a white kitty in a story book suggested to one of the little girls that she should bring her pet kitten to school. The children had much fun and asked the teacher to read some stories about kittens. Then they dictated this story:

"Mew, mew," said White Kitty.

"I am going to run away."

Mother Cat said, "Mew, mew.

You are too little to run away.

You must go to sleep."

Then Mother Cat went to sleep.

White Kitty did not go to sleep.

He got out of bed.

Then away he ran.

He ran and ran.

Then he met Big Dog.

Big Dog said, "Bow-wow."

White Kitty was afraid.

He was afraid of Big Dog.

"Mew, mew," said White Kitty.

"I want my Mother."

Then away he ran to his mother.

"Christmas." -- Letters to Santa Claus, written by older children, were the motivation for writing letters in the first grade. This activity, in turn, led to production of the Christmas story:

Christmas was coming soon.

How happy the children were.

Ann was happy.

Andy was happy, too.

"Santa Claus will bring us toys.

Let's write a letter to Santa Claus," they said.

Dear Santa Claus,

I want a pretty, big doll.

Ann

Dear Santa Claus,

I want a red airplane.

Andy

All the children wrote letters to Santa Claus.

Christmas Day came at last.

How happy the children were.

They were very, very happy.

Santa Claus brought toys to all the children.

He brought a pretty red airplane for Andy.

He brought a pretty, big doll for Ann.

He brought toys to all the children.

"I like my pretty, big doll," said Ann.

"I like my red airplane," said Andy.

"We like our toys," said all the children.

(Total number of words used in the story, 120.)

"Little Brown Rabbit." -- When one of the pupils brought his pet rabbit to school, the children composed the following story for the chart:

Brown Rabbit came to school.

He came to school with Andy.

He lived in the rabbit pen.

He liked to live in the rabbit pen.

Hop, hop, went little Brown Rabbit.

Hop, hop, up and down his pen he went.

He liked to go hop, hop, hop.

The children gave him carrots.

The children gave him lettuce.

He ate and ate.

He ate all the carrots.

He ate all the lettuce.

"I like carrots and lettuce," said Brown Rabbit.

"What a cute little brown rabbit!" said Andy.

"What a cute little brown rabbit!" said all the
    children.

The children liked Brown Rabbit.

"The Little White Calf." -- The teacher saw a little
white baby calf on her way home from school one day. She
told the children about it and she wished to see it, too.
So arrangements were made for the group to take a walk and
see the calf. When they returned to school, the following
story was dictated:

The children went to see the little calf.

It was a little, white calf.

It was a little, white, baby calf.

The children said, "See, see.

What a pretty, little, baby calf!

What a pretty, pretty, little, white calf!"

The little calf said, "Maa! Maa!"

The children laughed and laughed.

The little, white, baby calf ran and ran.

It was afraid.

It was afraid of the children.

Mother Cow was afraid, too.

Mother Cow said, "Moo! Moo!

Go away. Go away from my baby.

I want you to go away from my baby."

The baby calf lay down.

It lay down to rest.

Then it got up.

It went to Mother Cow.

It said, "Maa! Maa! I want my dinner."

It got its dinner from the Mother Cow.

The little white baby calf said,

"Maa! Maa! What a good dinner!"

"The Birthday Party." -- A real birthday party for one of the little girls in the group under consideration brought about the following story:

Ann was six years old.

She said, "Mother, may I have a birthday party?"

"Yes, you may," said Mother.

Ann wrote to her friends.

Come to my birthday party.

Come today at four.

Ann

Mother baked a birthday cake for Ann.

She put six candles on the cake.

"What a pretty cake!" said Ann.

"What a pretty, pretty cake!

Thank you, Mother, for such a pretty cake.

I like my pretty cake."

The children came to Ann's birthday party.

They gave gifts to Ann.

"Thank you for the pretty gifts," said Ann.

They had fun at the party.

Ann blew out the candles.

Then she cut the cake.

She gave the children cake.

What fun they had!

"The Bird's Nest." -- Illness of one of the pupils was
the source of motivation for this story:

One day Andy was sick.

He could not go to school.

He had to stay at home.

Mother stayed with Andy.

She sat near the window.

A tree was near the window.

Mother saw something in the tree.

It was a bird's nest.

Mother said, "I see something.

I see something pretty."

"Oh, Mother, what is it?" said Andy.

Then Mother said,

"Come to the window,

and look in the tree.

There is something pretty

that you will see."

Andy went to the window.

He looked in the tree.

He saw a bird's nest.

He saw three eggs in the nest.

"How pretty!" said Andy.

"How pretty the eggs look!"

"<u>Squeaky</u>." -- The queer old owl with big glassy eyes, which was brought to school by one of the pupils, was the inspiration for the following story:

Squeaky was an owl.

He was a funny owl.

One day Squeaky came to school.

The children put him in the cage.

Squeaky did not like the cage.

"Squeak! Squeak!" said Squeaky.

"Let me out of this cage."

The children laughed and laughed.

The children said,

"Squeaky does not like his cage."

They liked to look at Squeaky.

They liked to hear him say,

"Squeak! Squeak!"

"What a funny way to talk!" they said,

"and what funny big eyes.

He looks very, very funny."

"<u>The Easter Egg Hunt</u>." -- This story was motivated by a real Easter-egg hunt in the park. The mothers helped the children color the eggs, then they hid them for the children in the park.

One day Mother said to Ann and Andy, "Easter is

coming soon."

"Oh, Mother, may we have an Easter egg hunt?"

said Ann and Andy.

"Yes, you may," said mother.

Mother got some eggs.

She got some colors.

She got some pretty colors.

"You may color these eggs," said Mother.

"Oh, so many eggs! Thank you, Mother, for so

many eggs. We like to color eggs," said

Ann and Andy.

They colored many, many eggs.

"Red eggs, blue eggs,

Purple and green,

Yellow eggs, pink eggs,

Prettiest eggs ever seen," said Ann and

Andy.

They had an Easter egg hunt. The Easter egg hunt

was at the park. They found many, many eggs.

"What fun! What fun! What fun to find the

pretty colored eggs!" said Ann and Andy.

Results Obtained from the Original Stories

Data in Table 1 pertain to the total number of words
and the number of different words which were used by the
children as a result of the stories produced in their read-
ing program.

TABLE 1

THE TOTAL NUMBER OF DIFFERENT WORDS AND THE NUMBER
OF RUNNING WORDS USED IN EACH OF THE
TWELVE ORIGINAL STORIES

Title of Stories	Number of Different Words Used	Total Number of Running Words Used
1. "To the Park".............	42	117
2. "Fun in the Park"........	32	69
3. "Autumn Leaves".........	27	57
4. "Little Pumpkin"........	45	123
5. "White Kitty"...........	39	91
6. "The Christmas Story"...	47	121
7. "Brown Rabbit"..........	35	105
8. "The Little White Calf".	41	143
9. "The Birthday Party"....	48	113
10. "The Bird's Nest".......	51	113
11. "Squeaky"...............	45	84
12. "The Easter Egg Hunt"...	54	133
Total.......	466	1,299

Data in Table 1 show that the children used 466 dif-
ferent words and a total of 1,299 words as a result of com-
posing and reading the twelve stories included in this study.

It is to be noted from List 1 in the Appendix, which is an
alphabetized list of all words used in the twelve stories,
with an indication of the words missed by the total number
of children, that only 225 different words were used in
reality, but many of them were repeated, which accounted
for 466, as shown in Table 1. The words common to the
children's vocabulary, but not included in Dolch's compiled
first-grade vocabulary, are found in List 3, Appendix.
The words common to both the children's speaking vocabulary
and Dolch's list appear in List 4. The words missed on the
vocabulary part of the test on all the stories by the indi-
cated number of pupils appear in List 1. An analysis of
this list shows that the pupils missed a total of twenty-
eight words out of the possible 225. These data led to the
conclusion that the pupils' recognition of these words that
were used during a period of approximately nine months was
exceptionally good.

Table 2 contains a compilation of the results of
teacher-made tests given to the children after the produc-
tion and reading of each of twelve stories considered in
this study. The table shows that there were four parts of
the tests; namely, "words that are alike," "word pictures,"
"sentence meaning," and "vocabulary" (isolated). The table
also contains information on the number of words contained
in the vocabulary test on each story, and the number of

TABLE 2

THE NUMBER OF ITEMS IN EACH PART OF THE TEACHER-MADE
TESTS ON THE TWELVE ORIGINAL STORIES, AND THE NUMBER
OF CHILDREN ANSWERING ALL ITEMS, ALL ITEMS BUT ONE,
AND ALL ITEMS BUT TWO IN EACH PART OF THE TEST

Title of Story	Number of Items	Number of Children Answering		
		All Items	All Items but One	All Items but Two

"Words That Are Alike" Part of Test

Title of Story	Number of Items	All Items	All Items but One	All Items but Two
"To the Park"......	11	13		
"Fun in the Park"..	11	13		
"Autumn Leaves"....	11	13		
"Little Pumpkin"...	11	13		
"White Kitty"......	11	13		
"The Christmas Story"...........	11	13		
"Brown Rabbit".....	11	13		
"The Little White Calf"............	11	13		
"The Birthday Party"	11	13		
"The Bird's Nest"..	11	13		
"Squeaky"..........	11	13		
"The Easter Egg Hunt"............	11	13		

"Word Picture" Part of Test

Title of Story	Number of Items	All Items	All Items but One	All Items but Two
"To the Park"......	6	13		
"Fun in the Park"..	6	13		
"Autumn Leaves"....	6	13		
"Little Pumpkin"...	6	13		
"White Kitty"......	6	13		
"The Christmas Story"...........	6	13		
"Brown Rabbit".....	6	13		
"The Little White Calf"............	6	12	1	

TABLE 2 -- Continued

Title of Story	Number of Items	Number of Children Answering		
		All Items	All Items but One	All Items but Two
"The Birthday Party"	6	12	1	
"The Bird's Nest"..	6	11		2
"Squeaky"...........	6	12	1	
"The Easter Egg Hunt".............	6	13		

"Sentence Meaning" Part of Test

Title of Story	Number of Items	All Items	All Items but One	All Items but Two
"To the Park".......	9	12		1
"Fun in the Park"..	9	11	1	1
"Autumn Leaves"....	9	12	1	
"Little Pumpkin"...	9	12		1
"White Kitty"......	9	12	1	
"The Christmas Story"............	9	11	1	1
"Brown Rabbit".....	9	13		
"The Little White Calf".............	9	13		
"The Birthday Party"	9	12		1
"The Bird's Nest"..	9	11	2	
"Squeaky"...........	9	12		1
"The Easter Egg Hunt".............	9	12		1

"Vocabulary" Part of Test*

Title of Story	Number of Items	All Items	All Items but One	All Items but Two
"To the Park"......	42	11	1	1
"Fun in the Park"..	32	11	2	
"Autumn Leaves"....	27	12		1
"Little Pumpkin"...	45	11	1	1
"White Kitty"......	39	13		
"The Christmas Story"............	47	10	2	1
"Brown Rabbit".....	35	11	2	

TABLE 2 -- <u>Continued</u>

Title of Story	Number of Items	Number of Children Answering		
		All Items	All Items but One	All Items but Two
"The Little White Calf".............	41	11	1	1
"The Birthday Party"............	48	12		1
"The Bird's Nest"..	51	10	2	1
"Squeaky"..........	45	10	1	2
"The Easter Egg Hunt".............	54	10	3	

*List 1 in Appendix shows the words missed in all the vocabulary tests.

words missed by the children who did not answer all of the test correctly. These data were included to show that no child missed all of the words in the vocabulary tests.

Data in Table 2 show that all of the tests on the twelve original stories considered in this study contained four parts: "words that are alike," "word pictures," "sentence meaning," and "vocabulary." An analysis of the results obtained from the tests on these four parts shows that practically all of the group answered all the parts correctly except the isolated vocabulary test. Not more than three children missed any of this part of the test, and no child missed more than two words; the total number

missed was thirty-three. However, since more pupils missed
the isolated vocabulary part of the test than missed any
other part, it was concluded that words in isolation are
not learned as easily as words in groups or associations.

Supplementary Reading Material and Methods of Teaching It

As soon as the children showed an interest in reading
books, opportunities were provided for much reading of easy
material. After the reading readiness program, in which
Now We Read[7] was used as a basic guidebook, pre-primers,
easy primers, difficult primers, and finally a few first
readers were introduced. In addition, the group was sur-
rounded with interesting library books on their reading
level.

The incidental method was used for the initial steps
in reading. By means of the blackboard, bulletin board,
labeled schoolroom objects, word picture cards, picture
books and story books, daily weather reports, assignments,
directions calendar, and children's names, many meaningful
words and worthwhile activities were introduced.

To further supplement the reading program, the im-
mediate experiences and interests of the children were
utilized in making reading experience charts and stories

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[7]Nellie L. Griffiths, Mildred Creekmore, Mary Chute,
and Agnes Christenberry, Now We Read.

which were given to each child.

The children's speaking vocabularies were developed by conversation, excursions, home environment, story telling, listening to stories read, dramatization, and picture study. Their sight vocabularies were developed by pre-reading activities, word-picture vocabularies, environmental situations, basic readers, supplementary readers, experience stories in booklet form, free or incidental reading, conversation, story telling, reading stories, dramatization of stories, word-picture vocabulary, labeled schoolroom objects, picture study, excursions, experience charts, word games, work-type reading, library books, and vocabulary tests.

The incidental methods used to teach reading material included labels, pictures, assignments, greetings, rules, children's names, and directions.

The systematic methods used in teaching reading material included experience chart sentences, sentence strips, phrase cards, wood cards, experience stories, games, picture show, mimeographed stories, worksheets, original stories, and teacher-made tests.

CHAPTER IV

EVALUATION OF PROCEDURES AND READING MATERIAL PRODUCED

FOR THE DULL-NORMAL GROUP IN TERMS OF PROGRESS

MADE BY THE PUPILS

The best way to obtain an impressive view of the need
for producing material suitable for the reading level of
the dull-normal children under consideration in this study
seemed to be that of determining each child's mental ability
and his interests. When these facts were known, then there
was the possibility of providing experiences that would
tend to develop his ability and extend his interests. The
procedure followed in this study included a determination
of each child's mental age, intelligence quotient, chronolog-
ical age, reading readiness, vocabulary range, and areas of
interest.

Mental Abilities of the Group

As a first step in the study, the measurement of the
mental status of each child was obtained from the adminis-
tration of the Pintner-Cunningham Intelligence Test for
First Grade. The test was given during the second week of

September in order to locate the dull-normal children.
The value of tests in general is discussed by Lee and Lee
in the following quotation:

> In our modern schools, teachers are beginning to
> realize the importance of tests in helping them to
> group children to their mental age so that they may
> be given a program suited to their needs. . . .
> Boys and girls are complex human beings. The
> more we know about them as individuals the better we
> are able to plan an educational program suited to their
> individual needs. Tests of capacity or intelligence
> furnish one very important measures of these needs.
> We now recognize that these tests do not tell the
> whole story of a child's potentialities, but if his
> problems are to be understood, such a test is not
> to be omitted.[1]

Among the ninety-six first-grade children in the Memphis,
Texas, public school, twenty-seven had intelligence quotients
ranging from eighty to ninety, inclusive. In this group of
twenty-seven, there were eight children who were repeating
first grade, and six who withdrew early in the school year.
These fourteen were ignored in this study. The remaining
thirteen formed the group considered in this study.

The results of the intelligence tests are found in
Table 3. This tabulation includes each child's chronolog-
ical age, mental age, and intelligence quotient.

Data in Table 3 show that among the group of thirteen
dull-normal children, only one child, whose chronological
age was six years and nine months, had an intelligence quo-
tient of ninety and a mental age of six years and one month.
Two children, each with chronological ages of seven years,

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[1]Lee and Lee, op. cit., p. 624.

TABLE 3

THE CHRONOLOGICAL AGE, THE RAW SCORE, THE STANDARD SCORE,
THE MENTAL AGE, AND THE INTELLIGENCE QUOTIENT OF EACH
OF THE THIRTEEN DULL-NORMAL CHILDREN ACCORDING TO
THE RESULTS ON THE PINTNER-CUNNINGHAM
INTELLIGENCE TEST FOR FIRST GRADE

Name of Child*	Chronological Age	Raw Score	Standard Score	Mental Age	Intelligence Quotient
A...	6-9	32	87	6-1	90
B...	6-3	23	77	5-5	85
C...	6-2	23	77	5-5	87
D...	6-8	28	82	5-8	85
E...	7-0	31	86	6-0	87
F...	6-3	21	74	5-3	84
G...	6-8	26	80	5-7	84
H...	6-4	28	80	5-7	88
I...	7-0	31	86	6-0	87
J...	6-11	27	81	5-8	82
K...	6-3	24	78	5-6	88
L...	6-1	22	75	5-4	87
M...	6-5	23	77	5-5	84

*The letters used in this column indicate a child's name.

had intelligence quotients of eighty-seven and a mental age of six years each, respectively. The remaining ten children had chronological ages which ranged from six years and one month to six years and eleven months. Their intelligence quotients ranged from eighty-four to eighty-eight, and their mental ages ranged from five years and three months to five years and eight months. These data

indicate that only three children, whose mental ages were six years, were ready to read. Informative data on the connection between a child's mental age and his reading ability are contained in the following quotation:

> The importance of mental age in determining reading success among the mentally dull has been demonstrated. Merrill, studying special class children, found that those having mental ages below six did not profit 'to any appreciative extent by instruction in the three R's.'[2]

Since ten of the thirteen dull-normal children were not ready to read, the entire group was given a reading readiness program for a period of nine weeks, as described in Chapter III. At the end of this period, early in November, the children were given the Detroit Advanced First Grade Test for the purpose of determining whether their mental ages indicated a readiness to read. Results of this test appear in Table 4.

Information in Table 4 shows the raw scores, the chronological ages, and the mental ages of the thirteen dull-normal children under consideration. These data indicate that there were two children with mental ages of six years and six months; two with mental ages of six years and five months; five with mental ages of six years and four months; two with mental ages of six years and three months; one with a mental age of six years; and one with a mental age of

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[2]Paul Witty and David Koppel, Reading and the Educative Process, p. 170.

TABLE 4

THE CHRONOLOGICAL AGE, THE READING READINESS SCORE,
AND THE APPROXIMATE MENTAL AGE OF EACH OF THE
THIRTEEN DULL-NORMAL CHILDREN ACCORDING
TO THE RESULTS ON THE DETROIT ADVANCED
FIRST GRADE INTELLIGENCE TEST

Child	Reading Readiness Total Score	Chronological Age	Approximate Mental Age
A....	34	6-11	6-6
B....	32	6-5	6-4
C....	30	6-4	6-3
D....	31	6-10	6-4
E....	33	7-2	6-5
F....	20	6-5	5-10
G....	30	6-10	6-3
H....	32	6-6	6-4
I....	34	7-2	6-6
J....	33	7-1	6-5
K....	32	6-5	6-4
L....	24	6-3	6-0
M....	31	6-7	6-4

five years and ten months. If a mental age around six years
or a few months above is the psychological time for a child
to begin to learn to read,[3] then the results of the preced-
ing test indicate that all of the children except one were
ready to read at the time the test was administered.

The preceding tests of intelligence quotients and men-
tal ages did not reveal all of the children's abilities.
However, they were an aid in helping the teacher to obtain

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[3]Kirk, op. cit., pp. 207-208.

an understanding of each child and to know better how to
guide the group's first experiences with reading in school.
The value of such aids is described by Witty and Kopel in
the following excerpt:

> . . . The minimum mental age required for success-
> ful participation in reading will vary with the na-
> ture and complexity of the reading program and with
> the personality of the child. . . . Once determined
> this (mental) level should be used to rate a child's
> mental growth as adequate, meager, or inadequate
> for the reading program ahead. This rating will
> never be employed in isolation; it will be utilized
> as one element in the composite as indicative of
> readiness.[4]

The Achievement Tests

Most teachers of reading believe that, since the
achievement of the pupils in terms of growth and develop-
ment is important, it is necessary that we measure them in
part by means of achievement tests. McComber substantiates
this thesis in the following quotation:

> It is highly important that we evaluate growth
> to the best of our ability, utilizing all available
> instruments, and procedures to arrive at judgments
> to the extent of the child's growth along lines of
> worthwhileness to the child, of the experiences
> which make up the curriculum of the modern school.
> . . .
> Scientific measurement becomes an integral part
> of an effective evaluation program, but only a part.[5]

The value of achievement tests is emphasized by Lee
and Lee in these lines:

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[4]Witty and Kopel, op. cit., p. 182.

[5]F. G. McComber, Guiding Child Development in the Ele-
mentary School, p. 264.

Evaluation is necessary. No elementary school can have an efficient instructional program without knowing what it is accomplishing. It must know what is happening to boys and girls as well as what it is teaching them. Evaluation must be made in terms of the total development of the child. The many means for measuring the various phases of development are ample assurance that the measurement experts recognize and are trying to meet this need.[6]

Each member of the group under consideration in the study worked at his own level of attainment on the reading material which grew out of the children's experiences. In May the group was given the Metropolitan Achievement Tests. This was done after the group had experienced many activities and had produced original reading material. In addition, they had read the stories which grew out of their interests and experiences over a period of nine months. Results of the achievement tests are contained in Table 5.

Data in Table 5 are related to the word picture grade equivalent, word recognition grade equivalent, word meaning grade equivalent, and the average reading grade equivalent for each child. The data show that the mental ages of these dull-normal children varied from six years and three months to eight years and two months. The average reading age equivalent varied from grade one and two months to grade two and nine months.

An interpretation of preceding data led to the conclusion that only one child among the group of thirteen

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[6]Lee and Lee, op. cit., p. 628.

TABLE 5

THE CHRONOLOGICAL AGE, THE MENTAL AGE, AND THE READING
RECORD AND READING GRADE LEVEL OF A GROUP OF DULL-
NORMAL CHILDREN IN THE FIRST GRADE AS REVEALED
BY THE RESULTS ON THE METROPOLITAN
ACHIEVEMENT TESTS

Name of Child*	Chronological Age	Mental Age	Reading Record			Average Reading Grade Level
			Word Pictures	Word Recognition	Word Meaning	
A....	7-6	8-2	2.9	3.0	2.8	2.9
B....	7-0	7-5	1.8	2.5	2.4	2.3
C....	6-1	7-3	2.5	2.2	2.2	2.3
D....	7-5	7-8	2.3	2.7	2.7	2.5
E....	7-9	8-2	2.6	3.3	2.9	2.9
F....	7-0	6-3	1.2	1.3	1.0	1.2
G....	7-5	7-1	2.0	1.9	1.9	1.9
H....	7-1	7-7	2.6	1.9	2.5	2.3
I....	7-9	7-2	2.4	2.5	2.7	2.5
J....	7-8	7-5	2.0	1.9	1.8	1.9
K....	7-0	7-1	1.9	2.0	1.9	1.9
L....	6-10	7-5	2.5	2.1	1.9	2.1
M....	7-2	7-8	2.7	2.5	2.7	2.5

*Letters in this column represent children's names.

should be classed as dull-normal according to the results of
the achievement test. The handicaps of this child are dis-
cussed in the case study of Pupil F in this chapter. With
the exception of this one, whose average reading grade
equivalent was one year and two months, the three children
whose average grade equivalents were each one year and nine

months made the least progress in terms of grade placement, but their improvement was made at their own individual rate of speed.

It is a generally known fact that no test results are wholly valid. They must be supplemented by the teacher's judgment of the child. Through careful observation such handicaps as timidity, hesitancy, uncertainty in reading, an inadequate speaking vocabulary, physical disabilities, social maladjustments, and emotional instability can be discovered. These data may not be secured by tests. The writer took these facts into consideration when interpreting the results of the achievement test.

Case Studies

Supplementary data on each of the thirteen children in the dull-normal group under consideration are included in the following case studies:

Pupil A was a slow but very dependable child. She lacked confidence in herself at first, but when her interests began to increase through experiencing, her reading improved steadily. Her average reading grade equivalent at the end of the school year was two years and nine months.

Pupil B was very timid. She did not play with the other children much. She was younger than the other child in her family, and was not quite ready to be away from her mother.

As she became interested through living experiences, most
of her timidity disappeared and she began to read with a
great deal of enthusiasm. Her average reading grade equiva-
lent in May was two years and three months.

Pupil C came from a family of rather poor financial
standing. She was malnourished and poorly dressed. She
cried a great deal during the first few weeks of school.
It was difficult for her to become adjusted to school.
Because of her timidity she refused to participate in the
activities. But when she did become adjusted to the situa-
tion, she began to show rapid progress. By the end of
school she had an average reading grade of two years and
three months.

Pupil D lived with his grandmother because his mother
had to be away from home in order to help support herself
and her four children. D was the youngest child and missed
his mother a great deal. He was not at all talkative and it
was hard to discover his interests. However, after a few
weeks of association with the other children, he entered
heartily into the activities and his spoken vocabulary in-
creased noticeably. When he began to see the association
of living experiences with the printed material, reading be-
came interesting to him. In May his average reading age
equivalent was two years and five months.

Pupil E came from a family with an adequate financial
income. His physical condition was perfect. He was well

liked by the other children. He was very slow in learning to read, and at first did not seem interested in reading. But his interest began to increase when he was able to associate the concepts of real life experiences with similar experiences in reading materials. His average reading grade at the end of the school year was two years and nine months.

Pupil F was very slow, and was a child who rarely spoke. He came from a good family with plenty of chances for rich experiential background. He was the older of the two children of the family. His muscular coordination was very poor. He had bad tonsils which caused him to be absent from school a great deal. He had a bad speech defect, and his speaking vocabulary was rather limited. His average reading age at the end of the year was one year and two months.

Pupil G was from a family that had very low ideals. It was evident that he lacked good home influence and experiential background. He had a good disposition and seemed to appreciate the fact that he could share equally with the other children in all of the activities. His work was not at all outstanding, but he was interested and probably worked up to his level of ability. His average reading grade equivalent in May was one year and nine months.

Pupil H came from a home of meager financial income but of high ideals. He had polite manners, was very

courteous, and had a charming personality. He was slow in reading. However, his interest in experiencing and active participation in individual and group activities soon enabled him to make marked improvement in reading. His average reading grade equivalent was two years and three months in May.

Pupil I was slow in understanding simple statements at the beginning of school. His experiential background was rather limited. After a few months of enriching his reading background, he made great progress in reading. In May his average reading grade equivalent was two years and five months.

Pupil J came from a home of very adverse circumstances. Her home was an old barn without any floor. Her father came from a stable family of substantial means, but he had joined a circus as the clown when he was young. He squandered his part of the estate and had no security to offer his family. His wife was forced to make the living by doing laundry work. Most of the clothing J wore to school was second-hand, given to her through sympathy. To make it more embarrassing, the father went about town ragged and dirty and still tried to act the clown. J was sadly lacking in experiential background. She was emotionally upset and cried a great deal at the beginning of school.

Pupil K was near-sighted and wore glasses. She also

had impaired hearing. These physical defects hindered her
in her work. She came from a broken home, and as a result
of this, she seemed to feel insecure. At first she was shy
and seemed uninterested in learning to read. Because of ill-
ness she was somewhat irregular in attendance. Her attention
span was extremely short. Through experiencing living sit-
uations, her interest increased and simultaneously her read-
ing began to improve. Her average grade equivalent in May
was one year and nine months.

Pupil L was from a family of limited financial means.
She had to stay out of school a great number of days to
pick cotton. Her experiential background was unfavorable.
She was rather shy but was well liked by the other children.
She was rather slow in associating word concepts with the
printed symbols. As she became more interested, she came to
see the relations and her reading immediately improved.
In May her average reading grade equivalent was two years
and one month.

Pupil M was slow and timid. He came from a poor family
in which there were several children. He was much interested
in his family and seemed to be quite secure in their affec-
tion to him. When he became adjusted to school, his inter-
est in reading became quite improved. His average grade
equivalent was two years and five months in May.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study was concerned with the production of material suitable to the reading level of a group of dull-normal first-grade children in the Memphis, Texas, public school. The purpose of the study was five-fold: (1) to compile data on methods and materials suggested for dull-normal children by authorities in the field of reading; (2) to determine the interests and the needs of the dull-normal children for the purpose of utilizing these interests and needs in their reading program; (3) to determine each child's vocabulary range in order that it might be extended; (4) to produce interesting easy reading material based on their experiences and interests; and (5) to recommend a reading program for dull-normal children in the Memphis Public School in the future.

Chapter I contained data on the setting, scope, and purpose of the problem. A brief discussion of dull-normal children and their reading problems was included. It was pointed out that between twenty and thirty per cent of school

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children fail to be promoted in the first grade. Most of
the failures are attributed to reading difficulties.

Definitions of such terms as "reading," "dull-normal
children," and "reading readiness" were noted. From these
definitions it was concluded that reading for the first-
grade pupil included three aspects: (1) recognizing most
of the words, (2) guessing or sounding out others, and
(3) getting meaning as a result. The term "dull-normal
children" was interpreted as being synonymous with "mentally
retarded," "slow learners," and "slow readers." Each term
refers to children who are not able to learn to read with the
speed, ease, and understanding and fluency of their class-
mates.

Both primary and secondary sources of data were included
in Chapter I as were the methods of procedure and a justifi-
cation of the problem.

Chapter II was made up of discussions related to the
vocabulary range; the areas of interest of the thirteen
dull-normal children considered in the study were also an-
alyzed. An interpretation of results obtained from the ad-
ministration of the Pintner-Cunningham Intelligence Tests
for First Grade at the beginning of school showed that only
one child in the group whose chronological age was six
years and nine months had an intelligence quotient indicative
of reading readiness. Two other pupils who appeared to be

ready to read had chronological ages of seven years. The remaining ten pupils' mental ages ranged from five years and three months to five years and nine months, while their chronological ages ranged from six years and one month to six years and eleven months.

Chapter II also contained a justification of the reading readiness program as was found in books and periodicals of recent years. It was the consensus of opinion that a child must have sufficient intellectual development, maturity of speech, and social and emotional maturity before he is ready to read. Intellectually he must have a mental age of six years or a few months over. Authorities were agreed that children should be provided with experiences through which they might acquire accurate concepts that would later serve as sources of meaning in reading materials and should be supplied with opportunities in which they might become familiar with the common sound symbols of the concepts. In other words, the modern thesis was that education should be conceived as child growth rather than subject matter accomplishment.

Chapter II also contained a discussion on the importance of the children's vocabulary. It was pointed out that meaningful concepts aid in recognition of words, and that the development of a rich, extensive vocabulary is a necessary part of the reading readiness program. The speaking vocabulary

of the group of dull-normal children was observed by the
teacher, who recorded practically all the words used in
conversation during activities carried on in the reading
program. Areas of interest manifested by the group under
consideration were also discussed in Chapter II.

The importance of interest in the learning process was
noted, and the teacher's responsibility in guiding children's
interests was emphasized. A discussion was included on meth-
ods and materials used to locate and develop the children's
interests. Special mention was made of a trip to the park,
pets in the schoolroom, observation of scientific phenomena,
activities of Hallowe'en, Thanksgiving, and Christmas. From
these activities the following areas of interest were as-
certained: plants, animals, holidays, seasons of the year,
children of other lands, home and family, school, natural
science, and friends.

Chapter II also contained a discussion of the reading
readiness program carried on for a period of nine weeks.
The prerequisites to reading included wide experiences,
reasonable facility in the use of ideas, sufficient command
of the English language to enable pupils to speak with ease
and freedom, a relatively wide speaking vocabulary, reason-
able accuracy in enunciation and pronunciation, and a genuine
desire to read. Discussions were included on such interest
centers as pets, toys, work and play at home, and farm life.

Activities included in these phases of the program were representative of the procedures carried on throughout the year.

Chapter III contained original reading material produced for the dull-normal group. The chapter was introduced with a discussion of criteria for the production of such material. The theory most commonly accepted was that the beginner's reading material should be based upon his everyday experiences and activities. It was also noted that the stories composed by the group grew out of their interests and needs. The experiences came about as a result of excursions, holiday parties, conversations, picture studies, stories, poems, games, construction, drawing, books, and cut-outs.

Chapter III also contained twelve original stories representative of an abundant production of material by the pupils under the guidance of the teacher. In addition, several teacher-made tests, which were given after the stories had been composed and read, were included. A brief description of supplementary reading material and the methods of teaching it concluded the chapter.

Chapter IV contained an evaluation of procedures and reading material produced for the dull-normal group in terms of progress made by the pupils. The mental abilities of the group, as determined by the administration of an intelligence test, were noted. Results showed that thirteen

children among ninety-six first-grade pupils in the school had intelligence quotients ranging from eighty to ninety, inclusive. Three children among the group of thirteen had mental ages indicative of reading readiness. At the end of the reading readiness period, an achievement test was given. The results showed that all of the thirteen children except one were ready to read at the time the test was administered.

Chapter IV also contained material on the achievement tests given at the end of the school year. Results of the test showed that the mental ages of the children varied from six years and eight months to eight years and two months. The average reading age equivalents varied from grade one and two months to grade two and nine months. An interpretation of these data led to the conclusion that the children had progressed to such a degree that only one child of the thirteen should be classed as dull-normal.

The conclusion of Chapter IV was made up of case studies of the group considered in this research. The purpose of these data was to supplement information obtained from the standardized tests and the teacher-made tests.

Chapter V of the test contained a summary of the problem, conclusions reached by the writer, and recommendations which resulted from an analysis of the data collected for the study.

Conclusions

Interpretation of data obtained for this problem led to the following conclusions:

1. There was a need for the reading program described in this study.

2. Results of both teacher-made tests and Metropolitan Achievement Tests indicate that the dull-normal children under consideration learned to read successfully.

3. The program met the interests and needs of the group.

4. The original material was based on the experiences, interests, and vocabulary range of the children, and was an aid in developing the children's reading ability.

Recommendations

In the light of the preceding conclusions, the following recommendations are made:

1. An intelligence test should be given each child entering school to determine his mental age.

2. Dull-normal children should be given an extensive reading readiness program.

3. Dull-normal children should be given a reading readiness test at the end of the reading readiness period of nine weeks.

4. Dull-normal children should not be given reading as

such until they have reached a mental age of six years.

5. Each dull-normal child should be studied as an individual so that the curriculum may be made to meet his needs.

6. Every first-grade teacher should study all the literature available concerning the teaching of reading to dull-normal children in order to provide an adequate program which will assure each pupil success in reading to the extent of his potentialities.

APPENDIX

List 1

An alphabetized vocabulary list of 225 words used in the twelve stories suited to the reading ability of a group of dull-normal children in the Memphis, Texas, public school, and the number of pupils missing the indicated words given in the vocabulary tests as shown in Table 2. Numbers in parentheses to the right of the words indicate the number of children missing the word on the vocabulary tests.

A

a
afraid
airplane
all (1)
am (1)
an (1)
and
Andy
Ann
Ann's
are (1)
at
ate
autumn
away

B

baby
bed
big
bird's
birds
birthday
blew
blue
bow-wow
boys
bring (1)

brought
brown
bus

C

cage
cake
calf
came
candles
carrots (1)
cat
children
Christmas
color
colored
colors (1)
come
coming
could
cow
cut
cute

D

dancing
day
dear
did

does
dog
doll (1)
down

E

Easter
eggs
ever
eyes

F

fell
find
for
four
found
friends (1)
from
fun
funny

G

garden
gave
get
gifts
go

going
good
got
green
grew
grow
growing

H

had
Hallowe'en
happy
have (1)
he
hear
her
here
him
his
home
hop
how
hunt
hurt (2)

I

I
in
is

it
its

J

jack-o'-lantern

K

kitty

L

last
laughed
lay (1)
leaves
let
let's
letter
letters
lettuce (3)
like
liked
little
lived
look
looked

M

maa
made
make
man
many
may
me
merry-whirls
met (1)
mew
moo
mother
must
my

N

near
nest
not

O

of
off
on
old
one
only (1)
orange (3)
our
out
owl

P

park
party
pen
pink
played
pretty
prettiest
pumpkin
purple
put

R

rabbit
ran
read
ready
red
rest
ride
rode (1)
run

S

said
Santa Claus

sat
saw
say
school
see
seen
she
sick (2)
six
sleep
so
some (1)
something (2)
soon
stayed (1)
squeak
Squeaky
swing
swings

T

take
talk
thank
that
the
them
then
there (1)
they
things
three
to
today
too
took
toys
tree
trees

U

up
us

V

very
vine
vines

W

want
was
we
went
were
what
whirling (2)
white
will
window
with
write
wrote

Y

years (1)
yellow
yes
you

List 2

Speaking vocabularies of the dull-normal group as re-corded by the teacher from observation of all their activi-ties and conversations with the teacher and with one another. The number opposite each word indicates the number of chil-dren using the word.

A

about............ 6
across........... 7
afraid...........13
after............13
again............13
air..............13
airplane.........13
alarm............13
all..............13
along............ 5
always........... 5
am...............13
an............... 6
and..............13
Andy.............13
animals..........13
Ann..............13
Ann's............13
another..........13
ants.............13
any..............13
April............13
apple............13
aquarium.........13
are..............13
arm..............13
around...........13
as...............13
ask..............13
asked............13
asleep...........13
at...............13
ate.............. 6
August...........13
automobile.......13
autumn...........13

B

Baa-baa..........13
baby.............13
back.............13

C

D

E

F

G

H

had..............13
hair.............13
hall.............13
Hallowe'en.......13
hammer...........13
hand.............13
handkerchief.....13
happy............13
has..............13
hat..............13
have.............13
having........... 6
he...............13
head.............13
hear.............13
heard............13
held............. 9
help.............13
helped...........13
helping..........13
hen..............13
her..............13
here.............13
hid..............13
hide.............13
hiding........... 8
hill.............13
him..............13
his..............13
hog..............13
hold.............13
hole.............1e
home.............13
hop..............13
hopped...........13
hopping.......... 6
honk.............13
horn.............13
horse............13
house............13
how..............13
hunt.............13
hurt.............13
hurts............13
hurting.......... 2
hundred..........13
hungry...........13

I

J

K

L

M

N

O

P

S

T

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Y

List 3

List of words used in the stories common to the children's speaking vocabulary but not common to the Dolch vocabulary list.

afraid
airplane
Andy
Ann
Ann's
autumn
bird's
birds
blew
bow-wow
boys
brought
bus
cage
candles
carrots
color
colored
colors
coming
cute
dancing
Easter
eggs
eyes
fell
friends
fun
gifts
grew
grow
growing
Hallowe'en
happy
hear
hop
hunt
jack-o'-lantern
last
laughed
lay
leaves
let's

letters
lettuce
liked
looked
maa
merry-whirls
met
mew
moo
near
nest
oh
orange
owl
park
pen
pink
prettiest
pumpkin
purple
ready
rest
rode
Santa Claus
sat
seen
sick
something
stayed
squeak
Squeaky
swing
swings
talk
things
took
toys
trees
up
vine
vines
whirling
wrote
years

List 4

Children's speaking vocabulary common to the Dolch vocabulary list.

a	got	rabbit
all	green	ran
am	had	read
an	have	red
and	he	ride
are	here	run
at	him	said
ate	his	saw
away	home	say
baby	how	school
bed	hurt	see
big	I	she
bird	in	six
birthday	is	sleep
blue	it	so
boy	its	some
bring	kitty	soon
brown	let	take
cake	letter	thank
cat	like	that
children	little	them
Christmas	look	then
come	made	there
could	make	they
cut	man	three
day	many	to
did	may	today
does	me	too
dog	mother	tree
doll	must	us
down	my	very
find	not	want
for	of	was
four	off	we
found	old	went
from	on	were
funny	one	what
garden	only	white
gave	our	will
get	out	window
go	party	with
going	pretty	write
good	put	yellow
		yes
		you

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