

THE DEVELOPMENT OF EASY READING MATERIALS FOR A
GROUP OF SLOW LEARNERS IN THE SECOND GRADE

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CHAPTER I

INTRODUCTION

Statement of Problem

The problem of this study was undertaken to determine what reading material might be developed from the meaningful vocabularies, experiences, and interests of some slow learners from one of the second grades of Nederland, Texas.

Purpose of Study

The following study was undertaken to develop easy reading material for a group of slow learners from one of the second grades of Nederland, Texas, which was within the children's ability but sufficiently difficult to challenge effort and promote learning by determining:

1. The speaking vocabularies of the slow learners by observing and recording words used in all conversation.

Dewey is convinced that, since meanings are not tangible things, they must be anchored by attachment to some physical existence.¹

2. The meaningful interests of this group of children

¹John Dewey, How We Think, p. 132.

which were developed through their experiences and needs, either spontaneous or stimulated.

Pennell states: "The first essential to the preparation of reading material composed with children is that each child must have had vivid, interesting experiences, real or vicarious, which fill their minds with ideas and stir them to active discussion."²

Technique of Determining the Reading
Readiness of a Group of Slow
Learners

The data for this study were collected by direct observation of and personal interviews with one section of second-grade children of the Nederland Elementary School. The study lasted for a period of nine months.

The California Test of Mental Maturity was given to determine the intelligent quotient of each child. This series of tests is different from the usual mental tests in that the test is preceded by a pre-test of visual acuity, the purpose of which is to detect those pupils with serious defects and provide both language and non-language test situations in the major factors involved in intelligence or mental capacity.

The Gates Primary Reading Tests include the following:

²Mary E. Pennell, "Early Reading as a Thought-getting Process," Newer Practices in Reading in Elementary Schools, Seventeenth Yearbook of the Department of Elementary School Principals, p. 297.

Type 1. Word recognition.

Type 2. Sentence reading.

Type 3. Paragraph reading.

These tests were given early in September for a two-fold purpose: (1) to determine the children's reading age and grade placement in reading and (2) to diagnose the abilities of the individual child and to direct instruction to meet individual needs.

The Gates Primary Reading Tests of the three types mentioned above were given again at the end of a nine-months' period to ascertain the progress of each individual after enriching his experiences, after building a workable vocabulary, and after reading material developed from purposeful situations within the level of his reading ability.

Definitions

To better understand the terms used in this study, the following definitions taken from different authorities are offered.

A slow learner is a child who lacks socialization, a rich experiential background, and a wide functional vocabulary. His intelligence may be average and need not be below normal.³ Many slow learners have the capacity

³Samuel A. Kirk and Marion Monroe, Teaching Slow Learning Children How to Read, p. 180.

to achieve but have not done so because desirable learning conditions have not been developed.

Reading is a meaningful process rather than an exercise in calling words. It is an end in itself. It is an adventure among the most glorious life has to offer.⁴

An interest is that field or area to which the child reacts with interest consistently over an extended period of time. The child must be active and the activity must fill a need.⁵

A stimulated interest may be defined in the following manner: "To arouse interest is a process of awakening or stimulating a desire to learn to do."⁶

The following comment is definitive of subject matter: "With the teacher as a guide subject matter is not mere text material but includes anything and everything that may serve pupils in achieving their purpose."⁷

Vocabulary control, according to Dolch, "is a process of the steady learning of new words with a continual reuse of the old words."⁸

⁴Pennell, op. cit., p. 297.

⁵J. Murray Lee and Dorris May Lee, The Child and His Curriculum, pp. 145, 116.

⁶S. R. Slavson and R. K. Speer, Science in the New Education as Applied to the Elementary School, p. 33.

⁷Lee and Lee, op. cit., p. ix.

⁸Edward M. Dolch, Teaching Primary Reading, p. 197.

CHAPTER II

VOCABULARY AND INTEREST OF THE GROUP OF CHILDREN STUDIED

Vocabulary

It is an established fact that to insure reading readiness a child must have reached a mental maturity beyond that of the average six-year-old, and must have a rather extensive speaking vocabulary and a fairly rich background of experience. Storm and Smith say:

(So far as reading is concerned, a command of oral English is an absolute essential in the mastery of this subject. Reading in reality is only one step removed from the child's world of auditory symbols, which has been extended into the new realm of visual symbols representative of the spoken word with which he is already familiar.¹)

It would readily be assumed that any child who possesses a wide speaking vocabulary would be more apt to read with ease and meaning. Likewise, if the child acquires a fundamental speaking vocabulary and is able to understand words he hears spoken by others, he will find the familiar words in his reading experience easy to recognize.

In order to obtain an extensive record of the speaking

¹Grace E. Storm and Nila B. Smith, Reading Activities in the Primary Grades, p. 117.

vocabulary from this group of slow learners, observations were made and records were kept of all the words used in informal conversations and activities in which there was a sharing and relating of experiences by the group.

This oral usage vocabulary was one basis used in developing the material for reading recognition of new words.

A complete list of this group of slow learners' speaking vocabulary may be found in Appendix B.

Determining Meaningful Interests

Today educators have begun to understand the child as an integrated personality to be dealt with in terms of his own capacities for achievement rather than in terms of adult standards. As a result, reading is coming to be viewed as the experiencing of those activities which will result in a child development point of view rather than in subject-matter mastery.

(The child needs a wealth of first-hand and vicarious experiences to broaden his field of meaningful concepts, for a thing can have meaning only in terms of what the child already understands.) Dewey states that "the school must select those things within range of existing experience that have promise and potentiality of presenting new problems which by stimulating new ways of observation and

judgment will expand the area of further experience."²

By considering what some authorities say on developing children's interests, the discussion of this problem may be understood more easily. Pagit says that

the adult thinks socially, even when he is alone and . . . the child under seven years of age thinks egocentrically, even in the society of others. Those children over seven years of age begin to think in terms of the group and his surrounding environment.³

The children's mental ages in this slow-learning group extended from five years and eight months to eight years and nine months. If the children were, for some part, egocentric in their language at this age, they would be more interested in activities and stories about themselves, about someone whom they could identify as themselves, or someone having experiences that they themselves had had or would like to have.

Quoting Lee and Lee, we learn that "interest is a state of being, a way of reacting to a situation in which the children's own purposes provide the stimulation for effective activity."⁴

Spontaneous interests are very vital in determining material to be used, but often times those voluntarily

²John Dewey, Experience and Education, p. 90.

³Jean Pagit, The Language Thought of the Child, p. 40.

⁴Lee and Lee, op. cit., p. 145.

expressed interests are limited by some experiences already felt by the group. It is not desirable to follow up every interest expressed by the group for many are non-essential. At all times the interests must be guided into meaningful, worthwhile activities.

Smith says, in discussing interest as a guide:

There is a fallacy in this practice, that the nature of the investigation itself confines the child to a narrow scope of reading materials. It is possible to find out the child's preferences for certain selections placed before him, but there are thousands of other selections in the great mass of available material upon which we have no data and can never hope to obtain any.

Study the dormant interests or lack of interests and make provisions for developing broader interests instead of relying wholly on the child for guidance. Strive to cultivate their interest in desirable lines where we find interest lacking.⁵

In this phase of directing interests there must be a wise, intelligent guidance.

The basis for determining the interests of this particular group of children was made by (1) combining all of these facts and the knowledge that a child is an active, curious individual differing in his abilities, needs, and interests, and if allowed to work at his own rate instead of being forced into situations out of his understanding, he will develop into a wholesome, integrated personality; and (2) combining all of these facts with Lee and Lee's

⁵Nilá B. Smith, Reading Instruction, p. 270.

definition of an interest as a "field or area to which the child reacts with interest consistently over an extended period of time."⁶

The growth of an individual's interest is based upon his interest in the people he knows and the things they do, and the environment which they contact and to which they react. Thus, in understanding that the child is a living organism who is active mentally, physically, and socially, and is a person growing in experience, power, and needs, interests may be built.

To determine the "fields" or "areas" in which the children were interested, first-hand and vicarious experiences were provided. In order to provide for the special needs of children who were limited in experiences necessary to their development due to foreign background or a barren experiential background, activities were developed by (1) excursions, (2) social experiences, and (3) constructive activities. Through excursions the children's curiosity was aroused, and they were challenged to investigate, stimulated to talk, and to build a large, meaningful, speaking vocabulary. Through these experiences they are able to interpret their environment, to see new meanings, and to gain richer experiences. They were further developed by social experiences which gave foundation for building

⁶Lee and Lee, op. cit., p. 116.

concepts and experiences that demanded language that came from being with other children. These activities were still further developed by constructive activities which developed self-expression and grew out of purposeful activities.

Vicarious experiences gained from (1) stories and poems, (2) discussing and relating experiences, (3) songs, and (4) pictures should be provided to obtain optimum value already set up for the first-hand experiences. The experiences for this group of children were very different from those of children found in another section of the state or even in a group of children twenty miles away on account of environmental conditions.

Nederland has a heterogeneous population. The place was settled by a group of Dutch people because it had many physical similarities to their native Holland. Because of its nearness to the Gulf, many more nationalities are here, with the French heading the list. Many of the children's fathers and other relatives are employed on the oil tankers which come and go constantly from nearby ports. Many of the fathers are employed in the oil refineries. Since the world conflict has begun, much change has taken place in the docking of boats and in the output of oil from the refineries. All of this change has brought about a corresponding change in many interests of this group of

children. New interests have developed in such activities as shipbuilding, submarines, airplanes, and bombers.

The children's association with the seamen, with people who have recently come to America from other countries, and with relatives living in European countries tends to build many interests and meaningful concepts concerning countries across the ocean.

The growth of the interest in the cultivation of cotton was interesting. Many of the children had neither seen growing cotton nor cotton seed. Their idea of cotton was their dresses, shirts, trousers, and handkerchiefs; in other words, the manufactured articles. One child recently had returned from a visit in Louisiana where he had picked some cotton and had been allowed, with the children whom he was visiting, to go with the bale of cotton to the gin. Interest grew by leaps and bounds. A letter was written to ask another group of children living in a cotton-growing section of the state to send a stalk of cotton with bolls of cotton upon it.

The discussion of this interest was presented in order to show that all of the interests were not confined to their own community or environmental occupations.

From Nature Came Much Evidence of Interest

The children's interest was challenged and their curiosity was stimulated in birds by the two following

incidents: (1) the observation of sea gulls seen flying over the school playground, and (2) the observation of a bat brought to school.

The children wanted to know why the sea gulls had come away from the water, what they did when they flew over the water, and what they ate. Differences from other birds were noticed in the gulls' color, shape, and way of holding their wings.

Real interest was evident when James and several other boys caught the baby bat at school. Exclamations of "His head looks like a monkey's!," "I think his head looks like a mouse's," "Look at his wings!," "What sharp little eyes he has!" were made. By close observation many meaningful characteristics of the bat were discovered by the children, for they had come from first-hand experience and knowledge. The interest in birds did not stop here, but led to the observation of other birds and a desire to find out more about their feathered friends.

Jimmy brought some limbs from some milkweed plants with six queer, black, fuzzy worms on them. Curiosity was stimulated and interest was challenged when the children learned that the worms were caterpillars and the milkweed plants were the caterpillars' storeroom of food. The children brought fresh milkweed leaves for the baby caterpillars every morning, and they observed them eat.

Their surprise was great when they came to school one morning and the caterpillars were gone. Soon a funny-looking something of a beautiful aqua-blue color with gold dots was found on one child's desk, and another on a window sill. The other chrysalises were discovered in various places.

Their interest was increased when they learned that the baby caterpillar had gone to sleep and when he awoke he was a beautiful butterfly.

The life cycle of the monarch butterfly was observed from the tiny black caterpillar, the beautiful aqua-blue chrysalis with gold dots across it, to the emerging of the baby butterfly.

An interest in Indians started from hearing a story told about Columbus' finding the red-skin people in America when he arrived and in the discussion about the first Thanksgiving and the pilgrim children. The interest in Indians was great and continued in cycles throughout the year. The children never tired of hearing stories about the Indians and liked to compose their own. Thus one activity or interest led to another. For example, the interest in Texas came from the observation that the school flag was flying half-mast and from noticing a display of Texas flags. One child had heard a program about Texas' birthday over the radio.

As stated before, the interests were developed through real, varied, and rich experiences, and through vicarious experiences. The spontaneous interests were provided for by (1) excursions which afforded opportunities to observe and participate in different types of the work of nature, and (2) constructional activities which involved working with materials and stimulated carrying problematic thinking into fruition. The interests were made meaningful through such vicarious experiences as (1) hearing stories, (2) singing songs, (3) discussing and relating of experiences, and (4) using visual aids from an educational projector.

The following areas of interests were developed by direct observation and recorded from informal conversations and problems raised by the children, and are listed according to the value of the interests to the child.

1. Animals. -- The children were interested in the movements, forms, and characteristics of animals.

2. Other children and nature and science. -- Much interest was expressed in how other children live, dress, eat, and play. The birds, rocks, shells, and all about the children were full of vital interests.

3. Holidays. -- The interest was used to bring out the unexpected, the unknown but important events.

4. An interest about the history of Texas. -- This

interest was developed from noticing the flag at half-mast on March 6.

From these interests reading material was developed from the experiences of the child which was within the child's ability but sufficiently difficult to challenge efforts and promote growth of the whole child.

Technique Used in Developing Easy Reading Material

There were two types of reading materials used in this problem: (1) the material growing out of the children's experiences, which was meaningful because of the relationship between the understandable concepts and the printed symbols; and (2) some material which was re-stated from different sources at the group's level of reading ability.

The vocabulary is of prime importance in preparing easy materials for slow learners. The choice and distribution of words have to be controlled by the level of development of the children or it would tend to be too difficult for them to read. Otherwise, the purpose would have been defeated.

As a first step, the speaking vocabularies of the slow-learning group were recorded from observations of all the children's activities along with their conversations with the teacher and with one another.

The child gains meaning from reading in so far as he has concepts or meanings to associate with the printed page. Thus, by using words from the children's speaking vocabulary and new words from varied experiences, reading material was provided which contained few, if any, words of unknown meaning, except those which could be derived readily from the context.

Material built on the foundation of a fundamental speaking vocabulary, and on that which the child understands when he hears it spoken by others provides a vocabulary level simple enough to be comprehended. At the same time the interest level must be mature enough to keep the interest of the child.

A vocabulary and meaningful interests are best developed through experiencing activities. As stated in Dewey's psychological principle of apperception, "we assimilate new materials with what we have digested and retained from prior experiences."⁷ Concepts acquired through first-hand experiences and the sharing and relating of these experiences aid the child to better interpret the printed symbols in stories of similar activities.

The different types of curriculum areas of particular interest to these children, areas that develop different types of vocabulary concepts, are (1) animal study,

⁷Dewey, How We Think, p. 199.

(2) how other children live, (3) nature and science, (4) holidays, and (5) an interest in Texas, their state. For example, such words as caterpillar, temperature, hibernation, aquarium, sprout, and evaporate at first sight seem difficult. The oral conversation used in observing and discussing these words eliminate any perturbation over recognizing the printed words as they are already a part of their oral-recognition vocabulary. Pictures help to clarify understandings in many instances.

It is advisable to use some authoritative basic vocabulary list to check the selection of words in the stories. This practice was not strictly adhered to, however, for too much restriction would result in dull and uninteresting reading material. Smith tells us that "strict adherence to a vocabulary list is undesirable, for scientifically determined vocabulary lists are static in that they do not provide for new words which are continually coming into wide usage."⁸ Words that are interesting to the child because of vivid associations, words of color, and words which have strong rhythmical appeal but do not occur frequently should not be excluded.

It is not recommended that the vocabulary be increased by specific drill or isolated words but by the introduction

⁸Wils B. Smith, "Developing New Reading Material in the School," Seventeenth Yearbook of the National Society for the Study of Education, p. 445.

of new words in many different situations. Repetition of new words must occur a sufficient number of times in order to fix them in the children's reading vocabulary. A control vocabulary parallel with the repetition of new words is essential for maintaining and increasing the sight vocabulary. Dolch states that by a control vocabulary is meant, "as we plan a steady-learning of new words, we plan a continual re-use of old words."⁹

Smith says that "to insure the ease of reading for slower pupils it is advisable to confine the number of new words introduced per page to three in the first grade; and to four in the second grade."¹⁰ This plan was used only as a guide, for every page did not contain a definite number of new words.

A criterion for vocabulary growth, as stated by Dolch, is as follows: Present (1) those words whose meanings are already known and need merely to be recognized; (2) those words which can be taught through the use of familiar experiences; and (3) those words which can be taught satisfactorily through provision of additional first-hand experience.¹¹

⁹Dolch, op. cit., p. 197.

¹⁰Smith, op. cit., p. 446.

¹¹Samuel Kirk, Teaching Reading to Slow Learning Children, p. 50.

Children prefer what is true to life and within their experiences. Keeping this fact in mind, material that was not rigid and regimented was developed (1) to satisfy a conscious need or purpose of the learner, (2) to stimulate and sustain interest through the interpretation of meaningful experiences in terms of their own understandings, and (3) to start with the child at his own maturation level and build from there, and then (4) to increase a reading vocabulary "by specific drill on isolated words but by introducing new words in many different activities."¹²

¹²Edward W. Dolch, Reading and Word Meaning, p. 104.

CHAPTER III

MATERIAL PRODUCED ON THE BASIS OF THE VOCABULARY AND INTERESTS OF THE GROUP OF CHILDREN STUDIED

The first essential in the preparation of experience reading material developed by the teacher and the children is for the children "to have had some interesting experiences, real or vicarious, which fill their minds with ideas and arouses active conversation."¹

Development of Material about "Living under the Big Top"

One morning in the latter part of September, James rushed into the schoolroom bubbling over with excitement. Men were putting up posters on the bill boards. A circus was coming! Interest was instantaneous and spontaneous. Questions were asked rapidly: "When is the circus coming?" "Where will it be?" "My mother said that I might go." In the oral discussions, interests were expressed in the clowns and the comparative sizes, the appearance, and the peculiarities of the various animals.

¹Smith, op. cit., p. 447.

Experiments show that learning takes place more rapidly and efficiently if the materials to be learned are meaningful and interesting to the child. Lee and Lee observe that, "when children are given the opportunity to talk about something that is of interest to them, they respond freely. It is only in such situations that language development may be determined."²

Interest was spontaneous. With the exception of two children, the whole group of slow learners attended the circus. The two children who did not get to go to the circus asked many questions about the clowns and the animals. The children decided to build a circus, in order that Joyce and Alvin might see what the circus was like. Experiences at the circus were related, colorful pictures of clowns and animals were exhibited, and stories were read to the children about the circus. Material was developed, showing the children's reactions to the animals, describing the animals' appearances, and telling the sounds the animals made. Some factual material was collected and rewritten to meet the reading level of the children and to aid their understandings. The words used in the material were, for the most part, secured from the conversations of the children, and were compared with the Reading Vocabulary for Primary Grades, by Arthur I. Gates.

²Lee and Lee, op. cit., p. 320.

According to List 1, eight per cent of the words used in the story were not included in Gates' Reading Vocabulary for Primary Grades.

LIST 1

A CLASSIFIED LIST OF WORDS USED IN THE STORIES,
"LIVING UNDER THE BIG TOP," NOT FOUND IN
GATES' READING VOCABULARY FOR
PRIMARY GRADES*

Classification of Words

Animals	Places	Miscellaneous Words
camel giraffe hippopotamus kangaroo rhinoceros seal zebra	Africa Alaska (repetition in Arctic Land) Australia Greenland Jungles	apart chatter cracked desert insects ivory pouch slender snout stomach tusks whiskers wrinkled skin

*Lists of words in this thesis appear in a form that is used by permission from the chairman of the Graduate Council. Any student, before using this form for lists, should consult the chairman of the Graduate Council.

From the information shown in List 2, there were nine words on the list used in the story, "Living under the Big Top," or 1.5 per cent of the total number of words, not included in the children's speaking vocabulary. These words were used in the story to increase the children's

understandings and to make their experiences more colorful and challenging.

LIST 2

A CLASSIFIED LIST OF WORDS USED IN THE STORIES,
"LIVING UNDER THE BIG TOP," NOT FOUND IN
THE CHILDREN'S SPEAKING VOCABULARY

Classification of Words		
Places	Words Supplied by the Teacher	Miscellaneous Words
Australia	Ship of the Desert King of Beasts Old Bruin	chatter ivory pouch snout tusks

If a word in the new vocabulary was an important one, the child found adequate repetition of the word in different situations in order to develop an accurate conception of it. It sometimes was not a key word, and in these instances it was not necessary to develop an accurate conception.

The information in Table 3 shows the repetition of the words not included in the children's speaking vocabulary. The word Australia is repeated three times. Australia was known to the group, for some had relatives in the army stationed in this place. The word chatter was

used one time in this story and was repeated two other times in the science stories. The word ivory was used two times in this story and was repeated two more times in the stories about the Eskimos. The word pouch was used twice and, as has been discussed, was made meaningful through the children's knowledge about the o'possum. The word snout was used two times and tusks was used once. A repetition of tusk occurred in the study about the land north of us.

The following material was developed from the activities experienced from "Living under the Big Top":

"Living under the Big Top"

Jolly old clown. -- The clown is funny. He is jolly. He makes people laugh. This clown can ride. The clown can stand on his head and ride a donkey.

Donkey, donkey. -- Our donkey is funny. The jolly clown does tricks with him. This makes people laugh. Sometimes donkeys will not go. Donkeys eat hay.

Zebra. -- Little zebra, I like your black and white stripes. The zebra looks like a little striped donkey. We have to be careful around zebras. Sometimes they bite. We wouldn't want a zebra to bite us. Zebras come from the jungles.

The elephant. -- The elephant is one of our largest

animals. He lives in the jungle. He is often called Jumbo because he is so large. Jumbo can lift heavy loads with his trunk.

The elephant's skin is very thick and wrinkled. It looks like mud that has dried out and cracked.

His tusks are made of ivory. Piano keys are sometimes made of ivory.

The giraffe. -- The giraffe has the longest neck of all animals. When he wants to eat, he reaches up in the tops of trees. To reach the ground, he spreads his front legs apart. A giraffe looks funny with his legs spread apart.

The tall giraffe can make no sound. He has no voice. The giraffe comes from Africa.

The camel. -- The camel lives in the desert. A camel's feet are made so that they do not sink into the hot sand. A camel can carry enough water in his stomach to last for days on the desert.

Camels can carry heavy loads. They are called "Ships of the Desert."

A lion. -- A lion is called "King of the Beasts." He is a fierce animal. He kills animals and eats them. A lion likes raw meat. He comes from the jungle.

The lion belongs to the cat family. He moves about as quietly as a cat does. His feet are padded like cushions.

A lion's whiskers are just as wide as his body. If a lion's whiskers can go through a hole, he knows his body can go through the hole.

A lion lives in a cage in the circus.

Our tiger. -- Oh! you beautiful tiger. We are afraid of you. Please don't bite us. You will have to live in a cage. You seem to belong to the cat family. We see your beautiful orange and black stripes. When the animal tamer cracks his whip you jump through hoops. Did you come from the jungles of Africa?

Monkeys. -- There are many kinds of monkeys. Some of them are very queer looking.

They live in trees in warm countries. These queer looking monkeys swing by their tails.

Monkeys eat fruits, coconuts, and other nuts. Some monkeys eat berries, bugs, and insects.

Monkeys chatter. A monkey lives in a cage in the circus.

The hippopotamus. -- The hippopotamus is a very ugly animal. He is large. The elephant is the only animal larger than the hippopotamus. The hippopotamus is big and fat. His skin is very thick. He lives in the water, and can swim very well.

Sometimes the hippopotamus walks on the bottom of the river. He closes his ears and nose just like a window. He

does this when he walks on the bottom of the river.

The word hippopotamus means "river horse."

The ugly old rhinoceros. -- Poor Old Mr. Rhinoceros! You are so very, very ugly. We are afraid of your horn. How large your lip is! Did a little tiny bee sting you, Mr. Rhinoceros? Please don't hurt me with that horn on your snout.

The rhinoceros' home is in the jungles of Africa, too.

Bears. -- Polar bears are white. They live where there is ice and snow.

Other bears are brown or black. They can squeeze the breath out of a person with their front legs. Bears are dangerous, and may hurt people. Some bears sleep all winter in caves or hollow logs.

Bears eat berries, leaves, insects, bugs, and roots of trees. They like honey.

Bears live in a cage in the circus. Bears can roll on a ball in the circus.

A bear is sometimes called "Old Bruin."

The seal. -- The seal comes from the sea around Greenland and Alaska. There is ice in the sea.

The seal's body is long and slender. It is covered with stiff hair of yellowish-gray. He has a small head and small eyes. His ears cannot be seen because they are covered with skin to protect them from the water. Its

teeth are sharp. Seals eat fish. They like to lie on ice. Their babies are called puppies. Wouldn't you like to see a seal's baby?

They play ball in the circus. Seals give us valuable furs.

Kangaroo. -- The kangaroo is a queer looking animal. His real home is in Australia. Australia is far away. Australia is across the ocean.

The kangaroo has a small head. His tail is very strong, and it helps him to sit up. His back legs are strong, too. When he wishes to go places, he hops along on his strong back legs.

Mother kangaroo has a pouch or pocket. In this pocket or pouch she carries her baby.

The noise of the monkey was spoken of, but the children had not associated the word chatter with this concept before. The tusks of the elephant and the snout on the rhinoceros were called horns by the children. Here, synonymous concepts were established. All of the children knew about piano keys, but the meaningful concept, ivory, had to be established. The teacher supplied the names of the homes for the animals. All of the places were familiar names to the children, but the proper names of places were not emphasized as part of the vocabulary. The word pouch was readily adopted for the word pocket. The children

immediately associated it with the o'possum's pocket or pouch.

The vocabulary is of first importance in preparing reading material for slow learners to read with ease. The distribution of new words must be controlled by the level of the development of the slow learners, or else the material will fail to serve its purpose by being too difficult for them to read. Smith states that "scientifically determined vocabulary lists are static in that they do not provide for new words which are continually coming into wide usage."³ Even though a basic vocabulary list is important, it cannot be adhered to specifically, for the material would become stilted and dull.

Such words as chatter, wrinkled, slender, snout, tusks, and whiskers were used for color, and they added to the interest of the story rather than to specific comprehension.

Repetition in the story about the seal and bears was found in the stories about the country north of us, the Arctic lands. Oral conversation in sharing and relating experiences helped to make the more difficult words part of the children's meaningful vocabulary. Brooks makes it obvious that certain factors determine to a large extent

³Smith, op. cit., p. 445.

the growth of a child's vocabulary in the following terms:

In the child's mental ability lie the possibilities and powers of acquiring a vocabulary. In environment lie the stimuli which may affect him. His interests select and make more effective certain portions of this environment which thereby become actual stimuli leading to increased knowledge.⁴

Reagan and Charlotte composed the stories about the clown, the donkey, and the zebra. Their interest was spontaneous, whereas previously they had been unresponsive. Reagan had been very timid.

The other animal stories were developed by different members of the group, according to their interests in a particular animal. These stories were developed to build up a meaningful, happy background for the slow learners' reading experiences. The stories were put in each child's scrapbook and illustrated. There was a circus parade and an exhibit of the circus for the other two second-grade rooms in the building.

Thus reading became a meaningful process, rather than an exercise in calling words. Concepts and meanings were built up through the pleasant experiences of the children. The association with the experience itself and the oral discussion helped the written symbols to take on new meanings rather than becoming a series of confusing symbols.

⁴D. Brooks Fowler, The Applied Psychology of Reading, p. 60. See also, William D. Gray and Eleanor Holmes, Development of Meaning Vocabulary in Reading, p. 22.

Thirteen children of the group were able to read with a fair degree of comprehension the animal stories from the Fairy-Find-Out and In Animal Land, readers for the second grade.

The teacher-made tests have a definite place in the classroom. They measure how well the group of slow learners understand the material and use the important facts and concepts developed.

The following test was given to check the children's understandings of the concepts and their ability at thought getting. Similar tests were given to check the other stories.

Give a score of one for each correct response.

(a) Supply one word for answer:

1. The clown was _____ (funny).
2. Funny things make people _____ (laugh).
3. The clown does tricks with the _____ (donkey).
4. The zebra is a _____ (striped donkey).

(b) Find the picture of the animal that:

1. has no voice.
2. is a king.
3. has orange and black stripes.
4. swings by its tail.
5. has a large lip.
6. walks under water.

7. sleeps all winter.
8. plays ball.
9. carries its baby in a pocket.
10. gives us our piano keys.

A written test was given to measure the children's ability to read and understand with reasonable accuracy sentences composed of words found in primary reading materials. The test measures the children's ability to utilize context clues that are essential to the intelligent reading of sentences. The test follows:

(a) Cross out the words in each sentence that do not fit.

1. Tigers live in towns, houses, jungles.
2. A monkey can chatter, fly, talk.
3. A lion likes meat, apples, peanuts.
4. Zebras are green, wild, tame.
5. Polar bears climb woods, icebergs, stars.
6. Deer can run fast, fly, crawl.
7. Tigers have stripes, spots, squares.
8. A pony is a small dog, goat, horse.

(b) Answer each question with the name of a circus animal.

1. Which animal has big ears?
2. Which animal acts funny?
3. Which animal has orange and black stripes?

4. Which animal has black and white stripes?
5. Which animal likes snow and ice?
6. Which animal has cushions on his feet?
7. Which animal has a long neck?

From the facts revealed in Tables 1 and 2, the ability to correlate the visual symbols with the auditory symbols, and the understandings gained from the meaningful concepts were satisfactory.

TABLE 1

PARTS OF THE ORAL TEACHER-MADE TEST ON "LIVING UNDER THE BIG TOP," THE NUMBER OF ITEMS IN EACH PART, AND THE NUMBER OF CHILDREN ANSWERING ALL, ALL BUT ONE, AND ALL BUT TWO OF THE ITEMS IN EACH PART

Parts of Test	Number of Items in Each Part	Number of Children Answering		
		All Items	All but One	All but Two
a. Fill in blanks....	4	14		
b. Find the pictures..	10	8	5	1

The data in Table 1 indicate that all fourteen of the children made perfect scores on the first part dealing with filling in blanks. On the second part of the test, that dealing with finding pictures, eight children

made perfect scores, five children were unable to answer one statement, and one child was unable to answer two statements.

According to Table 2, the scores made by the fourteen children for the written tests were the same for parts one and two. Eleven of the children made perfect scores, and three children in each case were unable to answer one item.

TABLE 2

PARTS OF THE WRITTEN TEACHER-MADE TEST ON "LIVING UNDER THE BIG TOP," THE NUMBER OF ITEMS IN EACH PART, AND THE NUMBER OF CHILDREN ANSWERING ALL, ALL BUT ONE, AND ALL BUT TWO OF THE ITEMS IN EACH PART

Parts of Test	Number of Items in Each Part	Number of Children Answering		
		All Items	All but One	All but Two
a. Choice of words.....	8	11	3	
b. Answering questions by selecting answer from a group of words listed	7	11	3	

As has been stated before, there was a fair degree of comprehension among all pupils. The two slowest pupils

showed more progress on the first part of the test dealing with their stories; however, they scored seventy per cent on the second half.

The purpose of this series of stories was to bring out the interests and responsive attitudes of the children in order that their reading would become part of their own experiences rather than just experiences found in a book.

The information in Table 3 shows the frequency of the words used in the reading material. Many of the words were repeated in the stories developed from other experiences. The vocabulary is not to be increased by specific drill on isolated words, but by the introduction of new words in many different activities.

TABLE 3

FREQUENCY OF WORDS USED IN THE STORIES,
"LIVING UNDER THE BIG TOP"

Word	Number of Times Word Appeared
about	2
afraid	2
Africa	3
Alaska	1
all	2
along	2
animal	5
animals	3
animal tamer	1
any	2
apart	2
around	2
as	3
Australia	2
away	3

TABLE 3 -- Continued

Word	Number of Times Word Appeared
babies	2
back	2
ball	2
bears	6
beasts	1
beautiful	2
because	2
bee	1
belongs	2
berries	2
big	1
bite	4
black	3
body	2
bottom	3
brown	1
bugs	3
cage	4
called	3
camel	3
camels	1
camel's	1
can	10
careful	2
carry	2
cat	3
chatter	1
circus	5
clown	5
coconuts	1
come	2
countries	1
cracks	2
cushions	1
days	1
desert	3
does	2
donkey	7
don't	3
dried	1
ears	2
eat	5
eats	2
elephant	4

TABLE 3 -- Continued

Word	Number of Times Word Appeared
eyes	2
family	2
far	2
fat	2
feet	4
fish	1
fierce	2
from	4
front	2
fruits	1
funny	4
furs	1
give	2
giraffe	5
go	4
gray	1
Greenland	1
ground	3
hair	2
has	6
have	4
hay	1
he	8
head	3
heavy	3
help	2
hippopotamus	6
him	4
his	14
hollow	1
homer	4
hoop	2
honey	1
horn	2
horse	2
hot	2
hurt	3
ice	4
if	2
in	4
insects	3
into	3
its	2
ivory	2

TABLE 3 -- Continued

Word	Number of Times Word Appeared
jolly	3
Jumbo	2
jump	2
jungles	5
just	2
kangaroo	4
key	1
kills	1
kinds	2
King of Beasts	1
know	2
large	3
larger	2
largest	2
laugh	2
legs	4
lift	1
like	7
likes	2
lion	5
lions	2
little	3
live	3
lives	3
living	2
loads	2
looking	3
looks	2
longest	1
made	3
makes	2
many	3
meat	1
monkey	8
mother	3
moves	1
Mr.	2
neck	2
no	2
nose	2
not	3
nuts	2
of	3

TABLE 3 -- Continued

Word	Number of Times Word Appeared
often	2
oh	1
old	4
Old Bruin	1
on	5
one	2
only	1
or	2
orange	1
other	2
out	2
padded	1
people	2
person	2
piano	1
place	1
play	2
please	2
Polar Bear	1
pouch	2
pour	1
protect	1
puppies	2
queer	3
quietly	1
raw	1
reach	1
real	2
reaches	1
rhinoceros	4
ride	3
river	2
roots	1
sand	1
scal	2
seals	4
sea	2
see	2
seen	2
sharp	2
she	3
Ship of the Desert	1
sink	1

TABLE 3 -- Continued

Word	Number of Times Word Appeared
sit	2
skin	3
slender	1
small	3
snow	1
snout	2
spreads	2
squeeze	2
stiff	1
sting	1
stomach	1
striped	1
stripes	2
strong	2
swim	2
tails	2
tall	2
than	3
that	3
their	3
them	3
these	2
they	10
thick	2
this	2
tiger	4
trees	3
tricks	2
trunk	1
tusks	1
ugly	3
up	2
us	3
very	6
voice	1
walks	2
wants	2
warm	2
water	4
well	2
when	3
where	2
which	2

TABLE 3 -- Continued

Word	Number of Times Word Appeared
whip	1
whiskers	3
white	3
wide	2
will	2
window	1
winter	1
wrinkled	1
wishes	1
with	6
word	1
yellowish-gray	1
you	7
your	2
zebra	4
zebras	3

Developing Elementary Science Experiences
Round about Us

Science on an elementary level can be meaningful and vital to the child. Children of this age are interested in the "hows" and "whys" of things around them. Children want to know what things are, what makes them, and what they are for. Through intelligent guidance of experiences that challenge their interests these questions are answered and growth of the whole child is accomplished. The timidity and unresponsiveness found in this group of children were replaced by curiosity and interest about their surrounding environment.

It might be stated here that these stories were not developed separately and apart from the other activities

in progress, but were an outgrowth of experience paralleled with the other activities. There was no necessity for the teacher to stimulate interest, but by helpful guidance the children's understandings and enjoyment of their environment were increased.

The Development of Material about Birds

The children's interest in and curiosity about birds were challenged by the fact that James and several other boys found a baby bat and brought him to the schoolroom. A record of their observations of the characteristics of the bat is found in the story, "An Animal That Can Fly."

Questions were asked about some sea gulls that had been seen flying around the school building. Patricia volunteered the information that her daddy had told her about sea gulls flying around the big boats that docked at Port Neches. From these experiences came the desire to find out more about their feathered friends.

It has been observed that "the place to study flowers, birds, and insects is out in the fields and woods."² This type of procedure was not possible in this particular situation. There were no fields or woods in which to make observations. It was possible, however, to observe birds on the playground at school, and the water birds in their

²Freeman G. Macomber, Guiding Child Development in the Elementary School, p. 182.

natural environment. A bat, the red-winged blackbird, a blue jay, a canary, a parrot, and a humming bird were brought to school by different children. The birds were cared for and observed by the children. When certain peculiarities had been studied about each bird, and all observations were made to the satisfaction of the children, the birds were given their freedom. The cardinal, the robin, and the mocking bird were observed on the school grounds. More meaningful understandings and interpretations about the robin's, mocking birds, and water birds' environmental situations were secured through the children's rich experiences from direct observations and through vicarious experiences from visual aids.

Interest in the orioles, owls, and red-headed woodpeckers did not have to be stimulated. However, the children's experiences were guided to a better understanding and a keener enjoyment through the singing of songs about these birds and hearing stories read about them. It was impossible to observe these birds in their natural environments.

Kerfoot says:

We read, then, quite literally with our experience. We read what we have seen and heard and smelled and tasted and felt. We read with the observations we have made and the deductions we have drawn from them, with the ideas we have built into them, and with the sympathies we have developed.³

³J. B. Kerfoot, How to Read, p. 20.

The stories composed about the various birds grew from the rich experiences involving familiar sounds of words put together for comprehension.

Davis says that it is through this "comprehension of words preceded through auditory stimuli and fixed in acceptable pattern of a grammatical language, a child has a firm basis for learning to translate meaning from printed letter symbols."⁴ Thus it may be seen that under these conditions reading was more meaningful, for the children had found another way to use the material they already knew or had learned.

Only one child was heard to use the word beak; the other children used the word bill. Through frequent repetition of the word beak in the story it was immediately adopted as a meaningful concept and a new way of expressing themselves. This word was not found in the Gates' Reading Vocabulary for Primary Grades.

As may be seen from Table 6, the names of the following birds were not listed in Gates' Reading Vocabulary for Primary Grades: cardinal, blue jay, mocking bird, heron, sea gull, pelican, kingfisher, cranes, sandpipers, orioles, humming bird, and screech owl. Cardinal was the only name of a bird studied that was not a meaningful term. The children knew the cardinal as a red bird. Some of the

⁴Irene Davis, "Speech Aspects of Reading Readiness," National Elementary Principal, XVII (July, 1938), 288.

children called a blue jay a blue bird until the differences between the two birds were observed.

The color words with "ish" added to them were coined by the children. The word ruby gave another variation of the color red, scarlet, and crimson, which appear in another section of the science stories. The following words were used in order to improve the slow learners' selection of words. The words male and female were easily associated with the synonymous words, father and mother. A repetition of these words occurs in the story about "Butterflies and Moths." The word speckled was substituted for the child's concept, spotted, as a more suitable adjective for the noun, breast. It was not difficult for the children to substitute the word throat for the word neck.

Grubs, wood-boring, nectar, glossy, chisel, olive, and the sounds, screech and squawk, were made meaningful through the oral discussions which preceded the writing of the stories. The children became acquainted with milkweed through excursions to examine the plants and their seed pods. A repetition of this word is to be found in the story about "Monarch Butterflies."

The story about the Audubon Society was introduced vicariously to increase (1) the children's knowledge about the care of birds, and (2) their attitude of protection and love for birds.

Forty-six words (seven per cent of the total number of words) used in the thirteen bird stories were not listed in Gates' Reading Vocabulary for Primary Grades, as is shown in List 3.

LIST 3

A CLASSIFIED LIST OF WORDS USED IN THE "BIRD STORIES"
NOT FOUND IN GATES' READING VOCABULARY
FOR PRIMARY GRADES

Classification of Words		
Names of Birds	Words Giving Color	Other Words
blue jay cardinal crane heron humming bird kingfisher mocking bird oriole pelican sea gulls sandpiper screech owl	bluish-white blossy-white grayish-brown greenish-blue male olive-green ruby-colored speckle speckled tube-like	Audubon Society arbor beetle. building busy bodies chatter chisel destroy except female grubs lizards male milkweed nectar pea saddle screeches squawk strings thumb throat wood-boring

As may be seen in List 4, twenty-one words, or 3.5 per cent, were not listed in the slow learners' speaking vocabulary in the stories about birds. These words were used to add color and vivid associations to the material. They had a strong appeal and added interest to the stories.

LIST 4

A CLASSIFIED LIST OF WORDS USED IN THE "BIRD STORIES"
NOT FOUND IN THE CHILDREN'S SPEAKING VOCABULARY

Descriptive	Miscellaneous
olive-green	Audubon Society
ruby-colored	beak
screech	beetles
squawk	blue jay
speckle	cardinal
throat	chatter
wood-boring	chisel
glossy	destroy
	female
	grubs
	male
	milkweed
	nectar

The data in Table 5 reveal the repetition of the words used in the stories about birds not included in the children's speaking vocabulary. Adequate provision was made for the repetition of all of the new words that were important to the child's needs. The words milkweed and female were repeated three times each in the story about the "Monarch Butterfly." Words which were not key words were not repeated but were used for color or variety. These

concepts were made meaningful through context clues and from the oral conversations about the birds.

Birds

Birds' beaks and feathers. -- If birds have short, thick beaks, they eat seed. We call them seed-eaters. Sparrows and cardinals have short, thick beaks, and are seed eaters.

Most birds that eat insects have pointed beaks. Their beaks help them get insects. Blue jays, mocking birds, woodpeckers, and robins have sharp, pointed beaks. They are insect-eaters.

Feathers cover birds and help them keep warm. Feathers help birds fly. Some birds change the color of their feathers in summer and in winter.

Water birds. -- The birds that live near the water have long beaks and long legs. Some of these birds are herons, sea gulls, pelicans, kingfishers, ducks, cranes, and sandpipers.

An oriole. -- The oriole is a very beautiful bird. The father oriole has a bright orange-colored coat with black wings. The mother oriole has a yellow breast with gray wings. The mother oriole builds a bag-shaped nest from milkweed strings. She hangs her nest on an elm branch. The father sings and watches for enemies while

the nest is being built. The mother sits on six white eggs with thin brown and black lines on them. The mother and father oriole both bring caterpillars to the babies.

The cardinal. -- The cardinal or red bird is one of our most beautiful birds. The male proudly wears a top-knot on his head. His song is a loud rich whistle: "Good cheer, cheer, cheer." The female's coat isn't as bright a red, but is brownish-red.

The nest is placed in a bush. Cardinals lay three or four bluish-white eggs, speckled with grayish-brown. The cardinal has a short, thick beak and eats insects and seeds.

Robin red breast. -- I am a song bird. I come in the spring. My nest is built in an apple or cherry tree. The foods I like best are fruits and insects.

My nest is made of twigs and mud. Did you ever hear my song: "Cheer-up, cheer-up"?

I have a brown coat and have a red-brown breast. When I was young I had black specks on my breast.

The mother robin builds the nest and lays four greenish-blue eggs. The father robin stays with her, but does not help her very often.

The red-headed woodpecker. -- The red-headed woodpecker is known as a bird carpenter. He pecks away at the tops of telephone poles and dead trees. He even pecks on

the roofs of houses. The woodpecker pecks at the bark of trees. He destroys insects and grubs that kill the trees.

He has a strong beak shaped like a chisel which can bore into tree trunks. The woodpecker's nest is built in hollow trees, and contains from four to six glossy white eggs.

The blue jay. -- The blue jay is found almost everywhere. His nest is round and is made from twigs. The blue jay lays from three to six pale olive-green eggs speckled with brown.

He can be a sweet singer when he really wants to be, but he usually screeches, "Jay! Jay!"

The jay is a noisy busy-body that chatters and scolds. He is sometimes called the corn thief, a nest robber, or an outlaw. Mr. Jay picks on small birds and seems to enjoy fighting with large ones. He destroys nests, eats eggs, and kills baby birds.

He wears a beautiful blue, black, and white coat with a top-knot on his head.

Mr. and Mrs. Jay eat many harmful insects. They eat wood-boring beetles, caterpillars, and insects. This helps us.

The wise old owl. -- The owl has large eyes and can see well at night. He has a funny face. He lives in hollow trees and old barns. He can frighten one by suddenly

calling out "Who!" overhead in the dark woods.

The owl is usually brown or gray. He will eat mice, insects, and spiders. Sometimes he eats snakes, frogs, toads, and lizards. Our most common owl is the screech owl.

The humming bird. -- The humming bird is our smallest bird. It is about three inches long with a long bill and tail. The bird is green and white with a red breast. The nest is called a saddle, and is shaped like a tiny cup made of plant down. Two tiny white eggs are laid. The eggs are about the size of a large pea.

The humming bird's food is nectar, spiders, and small insects. It has a long tube-like tongue.

He can fly as far as 500 miles in one night.

The male has a ruby-colored throat; the female has a white throat.

The mocking bird. -- The mocking bird is the state bird of Texas. He is one of the sweetest singers. He has a hundred songs and sings them all. Sometimes he makes up songs or mocks some other bird. The mocking bird has only one song of his own. The mocking bird sings all day and far into the night, especially during moonlit nights.

He is an insect-catcher, but he sings so much one sometimes wonders when he ever has time to eat.

Mocking birds make their nests in low trees, bushes,

grape arbors, and vines. The nests are made of weed stalks, grasses, twigs, and strips of bark. Four to six eggs are laid. The eggs are a light greenish-blue with heavy brown spots at the larger end of the egg.

An animal that can fly. -- We think of the bat as one of our Hallowe'en birds. The bat is not a bird. It is an animal. It is the only animal that can fly.

In its wings are bones which look like arms and fingers. The finger bones are as long as the body of the bat. With its wings folded at its sides, the bat looks like a tiny monkey. It is not easy for the bat to walk. His knees bend backward. The bat has a thumb which he uses to hold on to trees. When resting, a bat hangs head down. Most bats are useful to us. They eat insects which fly at night. Bats can see well at night. Bats live in old barns, buildings, and trees.

The Audubon Society. -- The Audubon Society gets its name from the great bird lover, John James Audubon. This society or club teaches us:

1. To protect wild birds, their eggs, and their nests.
2. Not to sell or wear birds' feathers.
3. To study bird life and to learn how birds help us.

Test to Find out How Well the Child Understands
and Can Use Important Facts and Concepts
on Birds or Stories about Birds

(a) Finish each sentence with the right ending.

- | | |
|--|------------------------------|
| 1. Birds with short, thick beaks | have pointed beaks. |
| 2. Cardinals have | cover birds. |
| 3. Birds with pointed beaks | birds fly. |
| 4. Robins, mocking birds, and
blue jays | of their feathers. |
| 5. Feathers | eat insects. |
| 6. Birds' feathers | long beaks and
long legs. |
| 7. Birds' feathers help | live near water. |
| 8. Some birds change the color | are seed eaters. |
| 9. Water birds have | short, thick
beaks. |
| 10. Sea gulls, cranes, and ducks | help keep them
warm. |

(b) Find the bird's nest.

- | | |
|-----------------------------|-----------------------------|
| 1. An oriole's nest | round and made from twigs |
| 2. A cardinal's nest | tiny cup |
| 3. A robin's nest | low trees, bushes, or vines |
| 4. A woodpecker's nest | hollow trees and old barns |
| 5. A blue jay's nest | bag-shaped from milkweed |
| 6. A humming-bird's
nest | in a briar patch |
| 7. A mocking bird's
nest | hollow tree |
| 8. An owl's nest | apple or cherry tree |

The information in Table 4 indicates that from the first part of the test nine children made perfect scores, whereas one child did not answer one item correctly, and two did not answer two items correctly. Thirteen children scored perfectly on all eight items included in the second phase of the test, and one child failed to answer one statement correctly.

TABLE 4

PARTS OF A TEACHER-MADE TEST ON "BIRD STORIES," THE NUMBER OF ITEMS IN EACH PART, AND THE NUMBER OF CHILDREN ANSWERING ALL, ALL BUT ONE, AND ALL BUT TWO OF THE ITEMS IN EACH PART

Parts of Test	Number of Items in Each Part	Number of Children Answering		
		All Items	All but One	All but Two
a. Find the right ending....	10	9	1	4
b. Find the bird's nest.....	8	13	1	

This same procedure was followed on all the tests covering the other science stories included in this chapter.

Table 5 presents the frequency of words used in the

"Bird Stories" that were not included in the children's speaking vocabulary.

TABLE 5

FREQUENCY OF WORDS USED IN THE "BIRD STORIES" NOT INCLUDED IN THE CHILDREN'S SPEAKING VOCABULARY

Word	Number of Times Word Appeared
Audubon Society	2
beaks	7
beetles	1
blue jays	4
cardinal	6
chatter	2
chisel	1
destroys	2
female	2
glossy	2
grubs	1
male	2
milkweed	1
nectar	1
olive-green	2
ruby-colored	1
screech	1
squawk	2
speckled	3
throat	2
wood-boring	1

The science stories, "Our Narcissus Bulbs" and "Our Cotton," were included in this study because of the rich experiences developed through these interests. The same procedure of analysis was followed as that demonstrated in the "Bird Stories."

All of the words used in the stories were familiar to the children and provided a repetition of many basic words

in various settings rather than a drill on isolated words.

Patricia brought a bulb to school. Interest was instantaneous. Remarks such as these were heard: "It looks like an onion, only it is brogn." "Does it really make a flower?" "Let's plant it and see it grow." Finally it was decided that each child would bring a bowl, enough money to buy a bulb, and grow his own narcissus bulb. Although narcissus was a new word, it was easily learned by the children, due to their interest in the narcissus bulb. The children wished to record their experiences watching the bulbs develop roots, stems, leaves, and finally flowers. The bulbs sprouted and grew, and flowers began to appear on the narcissus plants. It was decided to give the bowls of flowers to the children's mothers as a gift.

A scientific fact was observed in watching the growth of the narcissus bulbs; that is, the influence of the sun on the color of the leaves was noted. There was a quick change from white stems to green stems after the plants were placed in the sunlight. Another observation was made of the result of turning the leaves toward the sun.

In developing these interests, reading became an experiencing process. Child growth was more certain when the child was happily and purposely engaged in activities that he regarded as meaningful to him.

Our Narcissus Bulbs

One day we brought a bowl and three pennies to school. Miss Smithwick bought some funny looking, hard things with our pennies. These funny looking, hard things looked like onions. They had a thin brown coat. They were bulbs. They were narcissus bulbs.

We put some rocks in our bowls. Then we put the bulbs in the rocks and put some water on them. We set our bowls in a dark corner of our lockers.

In about ten days a tiny white stem appeared at the top of our bulb. The bowl was soon filled with a mass of tiny white roots.

We took our bowls out of the dark lockers and put them in the windows where they could get sunshine. The white stems began to turn green. Sunshine and food made the plants grow.

Soon white flowers will come on those long green stems. Then our white narcissus flowers will be beautiful.

This experience was varied and meaningful enough to demand free conversation and developed language with another in the children's experimenting, observing, and planning of growing the narcissus bulb.

There were three words, bowls, lockers, and narcissus bulbs, not included in the Gates Reading Vocabulary for

Primary Grades. They presented no difficulty, but they were learned rapidly.

To test the vocabulary mastery, the slow learners read the story about the "Narcissus Bulb" in Winter Comes and Goes. It was read with a fair degree of success. The words appeared, mass, hard things, presented difficulties.

Test to Check Comprehension of the Story

Give a score of one for each correct response. Put the right word in each blank.

1. Our narcissus grew from _____ (seed, bulb).
2. The plant grew in _____ (dirt, rocks).
3. The narcissus flowers were _____ (scarlet, crimson, white).
4. The plants drink water through their _____ (leaves, roots).
5. Sunshine made their leaves turn _____ (white, green).

Development of Material on the Stories about "How Seeds Grow" and "Our Cotton"

According to List 5, only seven words, or four per cent of the words used in the story, "Our Cotton," were not listed in Gates' Reading Vocabulary for Primary Grades. All of the words were within the children's speaking vocabulary.

LIST 5

A LIST OF WORDS USED IN THE STORY, "OUR COTTON,"
 NOT FOUND IN GATES' READING VOCABULARY
FOR PRIMARY GRADES

fleecy	Eli Whitney
harvest	machine
emptied	quickly
gin	

All of the words used in the story became meaningful concepts from the rich experiences and absorbing interest that were evident throughout this activity.

In the story, "How Seeds Grow," all of the words were within both vocabulary lists and provision was made for repetition in many different ways. This experience was very meaningful through the experimenting and observing of the actual growth of the seed.

How seed grow. -- When seeds are put in earth, and are kept watered and warm, they begin to get larger and larger. The water goes into the seeds. The water and heat from the sunshine make the little plants inside the seeds grow. The little plants grow so large that they break open the seed. The outside coats of seed fall open. The little plants come out. Little roots grow on each plant. A stem grows, too. Then leaves grow on each stem. The thick, outer part of the seeds falls off.

A letter. -- The following letter was written by the group of slow learners and sent to some children in the

north-central part of Texas. The letter was used to initiate the unit of work on cotton.

Nederland, Texas

October 17

Dear Boys and Girls,

We are sending you some rice, large persimmons and their leaves, sweet gum leaves, and sweet gum balls that grow here. In the balls is sweet gum.

We would like for you to send us a stalk of cotton with the cotton bolls. Will you send us a stalk, please?

Your friends,

Second Grade

Miss Smithwick's Room

From seeds to plants. -- Every year the farmers in the South raise cotton. Early in the spring they begin to plow.

The strong horses pull the heavy plows over the wide fields all day long.

The farmer makes the earth soft before he can plant the seeds. Sunshine and rain helps the little seeds grow. Then little cotton plants push their heads out of the earth.

The cotton plant. -- The sunshine and the rain help the little cotton plant grow. It grows and grows.

Soon blossoms come on the plants. On the first day

the blossoms are white. The next day the little white blossoms turn pink. Then the blossoms fall off and a cotton square takes its place. Inside the square is a tiny green boll. This little boll grows and grows. The green bolls get larger and larger.

Then one day the big boll starts to turn brown. Out burst big puffs of fleecy white cotton.

Harvesting cotton. -- The large green bolls begin to turn brown. Then they burst open. Out puffs the fleecy white cotton. Puffs of cotton hang from the large bolls.

The farmer must work quickly and harvest his white cotton. He and his helpers get bags. They begin to pick cotton. Hour after hour they pick the fleecy cotton. Again and again they fill the bags. When the bags are filled, they are emptied into big wagons.

Going to the gin. -- Hour after hour the farmer and his helpers pick cotton. They work hard the whole day picking the white fleecy cotton. Sack after sack of cotton is emptied into the big wagon.

"Come here! Donkey, donkey! Where is Mr. Bones? Come help us take the cotton to the gin," said the farmer. Clippety-clap, clippety-clap, away they go to the gin.

Cotton is taken to the gin in big wagons. Sometimes it is taken in large trucks.

The cotton gin. -- A long time ago people had to pick

the brown seeds out of the cotton with their hands. It took a long time to pick out all the seeds.

One day some men asked Eli Whitney to make a machine to pick out the seeds. Eli Whitney made the machine to take out the seeds more quickly.

Today wagon after wagon, truck after truck, carries the fleecy white cotton to the gin. Huge machines take the seeds out.

Test on the story about seeds. -- Read the story the first time to enjoy it. Read it the second time to carry out the directions. Read it the third time to check your work.

1. Draw a dotted line under the word that tells what was put in the earth.

2. Draw a straight line under the sentence that tells how the seeds must be kept.

3. Put a cross above each of the two words that tell what helped the seeds grow.

4. Draw a circle around the words that tell what broke the little seed open.

5. Put an X on each word that tells what grew on the little plant.

Test on the story about cotton. -- In each sentence is a word which does not belong in the sentence. Cross out the wrong word.

possibilities. Children are interested in the world of science in which they are living, for they want to know what things are, what they are for, and where they come from, as well as what made them. Interest in this group's physical environment was evidenced by the different observations made by different members of the group.

Lee and Lee give us two steps in the learning procedure of science activities: (1) the collection and evaluation of data, and (2) the organization and presentation of data.⁶

Classifying our activities for the whole year in the light of the above suggestion, the writer discovered that the following rich experiences in science were developed by:

I. Collecting and evaluating data.

A. Taking excursions.

1. Talk a walk to see the trees.
2. Look at the poinsettia plants.
3. Watch the robin, sea gulls, cranes.

B. Making collections.

1. Make a picture book of birds.
2. Make a collection of different kinds of shells.
3. Make a collection of different kinds of rocks.

⁶Lee and Lee, op. cit., p. 463.

4. Make a collection of different kinds of seeds.

C. Caring for animals.

1. A red-wing blackbird was brought to school one day.
2. A bat was brought.
3. Ants were kept in a jar.
4. Tadpoles and fish were taken care of.

D. Growing plants.

1. The class grew narcissus bulbs given to mothers for Christmas.
2. They planted flowers in pots in the room.
3. Poinsettias were brought Christmas week.
4. Cotton seed, bluebonnet seed, and peanuts were planted.

E. Naming and identifying items.

1. Locate the Big and Little Dipper.
2. Locate the Milky Way.
3. Label the rocks and seeds collected.
4. Name the kinds of evergreen trees found in the neighborhood and at the grocery store (at Christmas).

F. Observing scientific facts.

1. Watch the caterpillar make the chrysalis.
2. Watch a chrysalis.
3. Watch a cocoon.
4. Watch the sprouts, stems, leaves, and roots on the cotton seed, bluebonnet seed, and peanut seed planted.
5. Observe the flight of milkweed and dandelion seeds.
6. Observe the work of the wind.
7. Observe the growth of the narcissus bulb.
8. Observe the work of the sun.
9. Observe the difference in the size of the moon at different periods.
10. Observe the evaporation of water.
11. Observe the different forms of water, such as rain, fog, sleet, snow, and frost.
12. Observe the difference in frogs' eggs and toads' eggs. Toad lays eggs in a string; frog lays eggs in a mass.

13. Watch the different stages in the growth of the tadpole.
14. Observe the change of color in leaves.
15. Observe the difference in evergreen trees and other trees.
16. Observe the longest night of the year.
17. Observe the shortest day of the year.
18. Observe the leaves change color on the poinsettia.
19. Observe the tides.
20. Observe the number of legs on a spider or grasshopper.
21. Is the feeler of a butterfly like the feeler of a moth?
22. Observe the difference in a chrysalis and a cocoon.

G. Experimenting to prove observations.

1. Use a magnet on pencil tops, tacks, nails, paper, and glass. What happened in each case?
2. Throw a cap into the air. See it fall to the floor. Illustrate gravity.
3. Observe evaporation; note the disappearance of water from a jar of water.

4. Watch leaves or plants turn yellow when kept from the sun's rays.
5. Observe leaves grow toward the sun.
6. Make a weather vane. Learn directions of the wind.

H. Listening to different sounds.

1. Do cicadas (locusts) make a noise?
2. Do crickets make a noise?
3. Listen to red bird, blue jay, robin, sea gull.
4. Use visual aids to get explanations of bird, plant, animal, and insect life.

I. Reading to find out.

1. Read the stories written in class.
2. Read the easy reading material found in library books.

J. Testing to prove observations.

1. Put a jar over a candle. What happens?
2. Keep a plant away from the sun. What happens?
3. Does something pull objects back to earth?
4. Where does the water in the rivers and lakes go (evaporation)?

5. Does the weather vane always turn toward the wind?

II. Organizing and presenting data.

A. Expressing graphically.

1. Make a sketch of a tree to show the different parts.
2. Make sketches of evergreen trees.
3. Draw and color birds you saw.
4. Place stars in place to make the Big and Little Dippers.

B. Constructing activities.

1. Make a weather vane.
2. Make an insect cage.
3. Make a cage for visiting birds or animals.

C. Exhibiting collections.

1. Arrange mounted bird pictures for an exhibit.
2. Give exhibit of seeds used for food.
3. Exhibit stalk of cotton and show the different stages in cotton from the seed to the finished product -- dresses, shirts, etc.

D. Discussing and talking about observations.

1. Tell about the caterpillar going to sleep in his cradle.

2. Tell about the butterfly and his emerging from his chrysalis.
3. Tell about the ants.
4. Report the changes in the tadpoles.
5. Tell about the growth of narcissus bulbs.
6. Tell about your pets.
7. Tell the superstitions about February 2, Ground Hog Day.

E. Recording and listening.

1. Keep record of weather in February to prove whether there were six weeks of bad weather after the ground hog saw his shadow.
2. List all birds observed by the class.
3. Keep temperature changes.
4. List things made from cotton.

F. Expressing observations esthetically.

1. Listening to records about nature played on a victrola.
2. Singing songs about birds, flowers, and animals.
3. Interpreting rhythms of falling rain, Old Mother Wind, hopping bunny, woodpecker sounds, etc.

The titles of the other science stories developed from the activities mentioned in the above discussion are listed as follows:

1. "Trees."
2. "Evergreen Trees."
3. "Facts about December."
4. "Flowers for December."
5. "The Earth."
6. "The Moon."
7. "The Sun Helps Us."
8. "Stars."
9. "Stars in the North."
10. "The Tides."
11. "Water."
12. "Evaporation."
13. "A Weather Vane."
14. "Use of Windmills."
15. "Hibernation."
16. "Our Amphibian Family."
17. "Toads."
18. "Frogs."
19. "Signs of Spring."
20. "Our Monarch Butterfly."
21. "Moths and Butterflies."
22. "When Easter Comes."

23. "The Easter Story."
24. "Easter Time" (awakening life).
25. "Easter-egg Rolling."

Development of the Material about
"Living with the Indians"

The vocabulary used in the eight stories composed about the American Indian was easy enough to be within this group of children's ability, but it was difficult enough to challenge their efforts. The words occurred frequently in many different settings. There was adequate repetition of the new words to insure the children's vocabulary growth.

The study of Indians was one of the activities this group really lived and experienced. Many times throughout the year this interest was revived. The activities of playing Indians, living Indian life, hearing stories, writing stories, reading stories, drawing and singing about Indians were meaningful to the group. These experiences and activities satisfied a need by providing for the social development of the whole child through actively living, playing, and working together in the group. The experience provided for free, spontaneous expressions and language development.

Similar reading material was developed about the Pilgrims, Eskimos, and great people whose birthdays come in February.

According to the facts revealed in List 6, there were thirty-four words, or 7.6 per cent of the words used in this story, which were not included in Gates' Reading Vocabulary for Primary Grades

LIST 6

A LIST OF WORDS USED IN THE STORIES, "LIVING WITH THE INDIANS," NOT FOUND IN GATES' READING VOCABULARY FOR PRIMARY GRADES

adobe	papoose
ashes	porcupine quills
branches (repetition)	pueblo
bricks	teepee
buffalo (repetition)	tribes (repetition)
building	raccoons
bull	spears
carries	shoved
chief	sinews (repetition)
died	spirits (repetition)
design	squash
dried	squaw
flat (repetition)	straps
herbs	sweat house
Hi-he-hi-hah	swiftly
medicine man	wove
melon	yelps

From List 7 it may be observed that twenty-one words, or four per cent of the words used in the Indian stories, were not included in the children's speaking vocabulary.

The facts listed in Table 7 reveal that adequate repetition was provided for this group of stories. The words sinew and spears were made meaningful from the oral conversations, and they were repeated in the stories about the Eskimos.

LIST 7

A LIST OF WORDS USED IN THE STORIES, "LIVING WITH
THE INDIANS," NOT FOUND IN THE CHILDREN'S
SPEAKING VOCABULARY

adobe	pueblo
ashes	raccoon
branches	spears
chief	sinew
deed	spirits
design	squash
herbs	squaw
Hi-he-hi-hah	teepee
melon	tribes
papoose	helps
porcupine quills	

The word spirits was repeated in the stories about Texas, the stories about the Eskimos' Northern Lights, and in the story about Lindbergh. The word squash appears in the story about "The First Thanksgiving." Tribes is another word repeated in "Texas -- Our Great State."

"Living with the Indians"

Little papoose. -- Little papoose! Little papoose! Do you like to be an Indian papoose? Aren't you afraid that your little cradle will fall from the branches of the tree? Look at the squirrels and birds. You can play with them. They are your friends. You had better not cry. The big bear will hear you.

Squaw. -- An Indian woman is called a squaw. The squaw works all the time at home. She skins the deer and buffaloes. The squaw dries the meat and berries. A squaw

puts up the teepees. She cooks the food. She cuts the wood. She carries the water.

Mother Indian straps her papoose's cradle on her back. She carries cradle and papoose with her into the forest.

Braves. -- An Indian man is called a brave. He is not afraid of anything. He can hunt and run swiftly. He is very, very brave. For every brave deed he does, he is given a feather for his headdress. Some Indian chiefs have many feathers in their headdresses.

The Indian doctor. -- An Indian doctor is called the medicine man. The medicine man tells the Indians that bad spirits cause Indians to be ill. The doctor makes himself look fierce. Then he dances, yelps, and shakes a rattle. He sings, "Hi, hi-he-hi-hah! Hi-he-hi-hah!" and beats on a drum. He makes all the noise that he can.

Sometimes sick Indians have to go to the sweat house. They take medicine made from roots, berries, and dried leaves.

Indian homes. -- Each family of Indians is called a tribe. The different tribes of Indians build different kinds of homes.

The hunters live in wigwams or teepees. They paint different designs on the skin. The wigwams are made from skin. The teepees are taken down easily and moved. The hunters have to find new hunting grounds often.

The Pueblo Indians build their houses of bricks. The bricks are made of clay, straw, and ashes mixed together with water. These mixed together are called adobe. Adobe lasts a long time. The walls are thick. This makes the adobe houses very cool inside. Some of these houses have many rooms. The roofs are flat. Indians go up on the roofs when the evening comes.

There are doors at the top of the building. The houses are large and have only one door. To reach this door, the Indians have to climb a ladder. To close the door, they pull up the ladder.

Indian food. -- Without hunting and fishing many tribes would have very little to eat. Some Indians are so quick that they catch animals with their hands. They build traps. They dig holes or pits. They cover the holes with brush or grass. In days gone by the Indians did not always hunt with traps. They often hunted with dogs. They used bows and arrows. They threw spears. The Indians found many kinds of animals to kill. There were deer, bears, wolves, squirrels, and raccoons in the woods. In the mountains were deer, mountain goats, and sheep. On the plains were the big buffalo. Twice each year a tribe hunted buffalo. Indians took strong bows and arrows to shoot buffalo. Some braves could kill four buffaloes in one day. The squaws dried the meat, berries, fish, and

herbs. In the gardens the squaws raised corn, wheat, wild rice, beans, squash, pumpkins, melons, and sweet potatoes.

Indian clothes. -- Indians did not wear as many clothes as we do. They made their clothes last a long time. In warm weather the Indians wore very little clothing. Some Indians wove cotton cloth. Others wove cloth from grass and bark. Blankets and shirts were made from soft deerskin. For shoes they wore moccasins.

Thorns and bones were used for needles. The best thread was narrow strips of leather and sinews of animals.

Skins from buffalo, deer, rabbits, and squirrels were used. Shells, seeds, hoofs, and birds' beaks were used for trimmings. Porcupine quills were used on clothing and canoes.

How Indians travel. -- Indians walked to many places. Indians walked swiftly. Sometimes they rode on wild ponies. Sometimes they traveled by boats. The Indians had three kinds of boats.

Father Indian got a big log. He shaved one side flat. Then he dug out the inside with stones. He burned the inside, too. This made the log hollow for a boat. This was called a "dug-out."

Father Indian made a tub of willow sticks. Then he put a buffalo skin around the tub. This was a bull-boat.

Mother Indian liked to ride in it.

From the birch tree the Indians took large pieces of birch bark. They made canoes from the birch bark. They used porcupine quills to make designs on the canoes. These boats were very light. They could be carried across land.

Test covering the material about "Living with the Indians." -- The following test was used as a check on the stories in this unit:

A. Complete each sentence with the right ending.

1. An Indian woman is a medicine man.
2. An Indian baby is adobe.
3. An Indian man is a canoe.
4. An Indian house is a papoose.
5. An Indian boat is tribes.
6. Pueblo Indians' homes are bows and arrows.
7. An Indian doctor is a squaw.
8. Indian families are tub shaped.
9. To kill they use wigwan.
10. A bull-boat is a brave.

B. Answer yes or no.

1. Does an Indian mother carry a baby as your mother carries a baby?
2. Are Indian men afraid?

3. Does an Indian brave get a feather for bad deeds?
4. Are the feathers put in their hair?
5. Does an Indian doctor look fierce?

According to Table 6, in part A of the test eleven children answered all items correctly, one child answered all but one item, and two children answered all but two items correctly. In part B of the test, all fourteen children in the group answered all five items correctly.

TABLE 6

PARTS OF THE TEACHER-MADE TEST ON "LIVING WITH THE INDIANS," THE NUMBER OF ITEMS IN EACH PART, AND THE NUMBER OF CHILDREN ANSWERING ALL, ALL BUT ONE, AND ALL BUT TWO OF THE ITEMS IN EACH PART

Parts of Test	Number of Items in Each Part	Number of Children Answering		
		All Items	All but One	All but Two
A. Find the right ending.....	10	11	1	2
B. Answer <u>yes</u> or <u>no</u>	5	14		

Thus, by the slow learners being able to converse freely and spontaneously, by sharing and relating experiences, by proceeding at their own rate of speed, and by

seeing the words or printed symbols in many different situations, the reading was purposeful.

Table 7 indicates the frequency of the words used in the stories about "Living with the Indians" that were not found in the children's speaking vocabulary.

TABLE 7

FREQUENCY OF WORDS USED IN THE STORIES, "LIVING WITH THE INDIANS," NOT INCLUDED IN THE CHILDREN'S SPEAKING VOCABULARY

Word	Number of Times Word Appeared
adobe	3
ashes	1
branches	1
chief	1
deed	1
design	2
herbs	1
Hi-he-hi-hah	2
melons	1
papoose	5
porcupine quills	2
pueblo	2
raccoon	2
sinews	1
spears	1
spirits	1
squash	1
squaw	6
teepee	3
tribes	5
yelps	1

Development of Material about
"Texas -- Our Great State"

The reading material developed about Texas was considered to be of sufficient importance to be treated in this

discussion. Macomber makes a statement to the effect that

any boy or girl living in the United States is handicapped if he cannot read fairly well, interpret radio and other talks with some degree of intelligence, and express himself well in oral and written form. This ability is essential not only to the welfare of the individual but to the perpetuation of a democratic society.⁷

It is the chief purpose of the school to start with the child where he is and to provide for the development of the whole child, helping him to realize his fullest potentialities as an individual and as a member of society.

This group's interest in their state of Texas grew from three different sources:

1. Bobby and Charlotte told of hearing radio programs about Coke Stevenson, W. Lee O'Daniel, and important days in Texas history.

2. Reagan, Alvin, and Joyce observed the six flags of Texas on display.

3. Bobby F. noticed the flag flying half-mast at school.

From these observations came such questions as: "Why is Texas having a birthday?" "Will there be a birthday party?" "Will they have a cake with candles?" "Why did Texas have so many flags?" "Where did Texas get the flags?" "Look at the flag." "Why is it flying half way down the pole today?"

⁷Macomber, op. cit., p. 148.

Activities grew from these interests, which started spontaneously. Part of the information had to be supplied vicariously by singing the songs of Texas, by listening to songs played on the victrola, by studying visual aids, and by hearing stories read.

Seven of the children had visited the Alamo in San Antonio, and all fourteen of them had been to the San Jacinto Monument near Houston. Three of the group had seen the capitol building in Austin. One child brought a piece of the stone used in the construction of the monument on the San Jacinto battleground. Another brought a piece of the red granite used in the construction of the capitol building at Austin. All of these experiences tended to give a more realistic background to our Texas heritage.

Much of the material used in the stories about Texas under the different flags was rewritten by the teacher in a simple vocabulary within the reading ability of the group. In some instances the group suggested certain phrases or statements that were used. The information used in the stories about the "Texas Gulf Coast" and "Texas Can Help Again" was furnished by the children. The name of the fish, gaspergou, for instance, was unknown to the teacher, but was a familiar term to all of the children. The story about "The Prairie" was developed by the children after having heard stories read about West Texas.

"Texas -- Our Great State"

In Texas. -- The bluebonnet is our state flower. The mocking bird is our state bird. The pecan tree is our state tree. The Lone Star flag is our state flag. "Texas, Our Texas" is our state song. "Friendship" is our state motto. Coke Stevenson is our governor.

Texas under the French flag. -- A long time ago there were no white people in Texas. There were just Indians, many, many Indians. These Indians lived in tents called wigwams. They didn't have any guns. They hunted with bows and arrows. They hunted for buffalo, deer, and other animals. They ate the meat.

There was a man named LaSalle who lived across the Atlantic Ocean in France. He came across the Atlantic Ocean to America. He brought boats full of people and supplies. Their boats came to Texas. LaSalle came off the boat first. He carried the French flag. He was followed by a French priest and soldiers. He claimed Texas for France.

The French built Fort It. Louis to protect themselves from the Indians. The French people had a hard time. The Indians killed some of them. Some of them grew sick and died. A few of the French people went back to France. In a few years there were hardly any French people left at Fort St. Louis.

Texas under the Spanish flag. -- The Spaniards were living in Mexico. They claimed Texas belonged to Spain. They found some French people living in Texas. This made them angry.

The Spaniards sent Captain DeLeon to Texas. They sent a hundred soldiers to Texas. They wanted to kill LaSalle and the French people. When the Spaniards got to Fort St. Louis, the French people were gone.

The next year DeLeon and his soldiers went back to Texas and claimed Texas for Spain. They built many missions and forts. A mission was used as a church. Forts were built to protect the people from anyone who might harm them.

Most of the missions were built near San Antonio. San Antonio soon became the largest town in Texas.

How Texas got its name. -- On his way to find the French, Captain DeLeon met a tribe of friendly Indians called "Tejas." In the Indian language Tejas means "friends."

DeLeon named our state Tejas after those friendly Indians. From this word we get Texas. It is the name of our state, and our motto is "Friendship."

Texas under the Mexican flag. -- In 1821 the Mexican people did not want to belong to Spain. They became free and Texas belonged to Mexico. Then we were under the Mexican flag.

Mexico promised to build schools in Texas. Mexico promised to educate Texas children. The Texas children were not given an education. Mexico did other things to worry the Texans. This made the Texans angry.

On March 2, 1836, Texas declared her independence from Mexico. Texas became a free country, just like the United States.

The fall of the Alamo. -- On March 6, 1836, the Mexicans attacked the brave Texans. William Travis, David Crockett, and James Bowie were brave men. They each did alone the work of ten men. Every brave Texan in the Alamo mission lay dead. The wife of Lieutenant Dickinson and her baby girl were spared. A Mexican woman and a Negro belonging to Travis were also spared. There were about 185 Texans against 3,000 Mexicans. Living Texans became very angry.

Texas under the Lone Star flag. -- Mexico soon began to act badly toward the Americans who were living in Texas. They would not build schools for the American children. The Mexicans killed many Americans at the Alamo. The Alamo was a mission in San Antonio. This made the Texans very angry.

Finally, on April 21, 1836, the Texans fought a fierce battle with the Mexicans at San Jacinto. General Sam Houston was the leader of the Texas army. The Texans won this

battle. Then Texas didn't belong to Mexico any longer. She was free.

Texas had a flag of her own. It was the Lone Star flag. The people of Texas chose a president. They chose General Sam Houston for their first president.

Texas under the Stars and Stripes, the flag of the United States. -- The Mexicans kept on bothering the Texans. Texas decided to join the United States. Texans wanted to be under the Stars and Stripes. Finally the United States sent some soldiers to Texas to make the Mexicans say that they would not bother Texas any more. It took them two years to make the Mexicans say this.

Texas began to grow rapidly. Texas built a new capitol building. They built schools. They built railroads. Red granite was used in the capitol building. The red granite came from Texas.

Texas under the Stars and Bars, the Confederate flag. -- The war began the northern and southern states began. Texas joined the Stars and Bars. This was the flag for the southern states. Not much fighting took place in Texas. Texas did her part for the southern states.

Texas raised much cotton for the soldiers. She sent about 60,000 soldiers to the southern army. They were brave, but they did not win. Texas joined the United States again. Once more Texas was under the Stars and Stripes.

Texas, the great state. -- Texas is an important part of the United States. She has grown and grown. Texas is the largest of the forty-eight states.

Texas has more cotton, oil, cattle, and sulphur than any other state.

Texas has built a fine new capitol building, the old one having burned. This building is the largest state capitol building in the United States. The red granite used in this building came from Mason and Burnet Counties in Texas. We hope that Texas will keep on growing.

Texas Gulf Coast. -- You cannot see across the water on the Gulf of Mexico. The water goes on and on. The big waves make much noise. They go, "Boom, boom, boom!"

There is sand on the beach. People can play in the sand on the beach, or you can put on bathing suits and play in the water.

Big boats from across the Atlantic Ocean come into the Gulf. These big boats come to the port or docks in Port Neches. They come to the docks in Port Arthur. They come to the docks in Port Beaumont. Every boat has a flag. The flag tells us from what country the boat has come.

A small boat goes out to meet the big boats. This is called a pilot boat. The pilot boat helps the big boats get into the docks.

The jetties are made of rock and concrete. They are built out in the water. The jetties break up the big

waves. This makes it easy for the big boats to come into docks. Out on the jetties is a good place to do crab-fishing. To catch crabs, one needs a bucket of bait and fishing lines. One needs a big bag, and a dip net.

Many queer kinds of fish are caught in the water along the Gulf. There are jelly fish, starfish, sawfish, swordfish, man-of-war, gar, buffalo fish, croakers, and stingarees. The fish that are good for food are trout, catfish, red snapper, perch, shrimp, oysters, crabs, and gaspergou.

White sea gulls fly over the boats to get food. Sea gulls fly over the school building, too. Along the beach are all kinds of queer birds. The pelicans are big, white birds with large bills. They eat little fishes and frogs. Along the beach are the sandpiper, kingfisher, crane, and ducks.

Transportation in Texas. -- Our first engines were tiny. They puffed over uneven tracks at about fifteen miles an hour. The engines we have now are huge. The streamline train roars over smooth tracks at one hundred miles an hour. Other engines have been built strong enough to pull long trains of loaded freight cars. Some engines pull many oil tanks. Some trains have passenger cars.

On the busy highways automobiles and huge trucks run. We see busses on the highways, too.

On the streets, busses and street cars carry the people.

In the skyways, passenger planes carry people. We often see mail planes and army planes in the sky, too.

The prairie (west Texas). -- Out on the prairie there are few trees. The land is level. Much grass grows on the prairie. Herds of cattle, sheep, and goats graze on the prairie grass.

Sage bushes grow on the prairie. Jack rabbits jump out from behind the sage bushes. Roadrunners run across the roads. Snakes crawl along. Prairie dogs make their homes in many places.

Texas can help again. -- Texas helped the southern states during the war between the North and South. Texas sent cotton to the army. Texas sent men to the army.

Texas is helping in World War II. At Orange, Texas, a boat is being launched every Monday. These shipyards are doing their part in building battleships, tankers, torpedo boats, and mine sweepers. Men are working day and night. They work during black-outs. Beaumont, Texas, is building boats, too.

Dallas, Texas, is busy building airplanes. Dallas is making army supplies.

Other cities are training air pilots. All cities are training defense workers. Terrell, Texas, has an air school for pilots from England.

We can all buy defense stamps. We can save paper.

We can save toothpaste tubes. We can use less sugar. We can walk more to save the rubber tires on our car.

Yes, Texas is helping again.

The information in List 8 reveals that there were one hundred words, or fourteen per cent of the words used in this unit of work, which consists of fifteen stories, not included in the Gates Reading Vocabulary for Primary Grades.

LIST 8

A CLASSIFIED LIST OF WORDS USED IN THE STORIES,
"TEXAS -- OUR GREAT STATE," NOT INCLUDED IN
GATES' READING VOCABULARY FOR
PRIMARY GRADES

Fish	Birds	Boats	Places	People	Miscellaneous
buffalo	gulls	mine	Alamo	James Bowie	army
croaker	king-	sweeper	Atlantic	Burnet	attacked
gar	fisher	navy	Ocean	County	bait
gasper-	(repe-	ships	Beaumont	David	bars
gon	tition)	tankers	Dallas	Crockett	battle
jelly-	mocking	torpedo	France	defense	boom
fish	bird	boats	Gulf	worker	bother
oyster	pelican		jetties	DeLeon	bothering
perch	(repe-		Mexico	French	building
shrimp	tition)		prairie	General	capitol
red	roadrun-		Port	Governor	carried
snapper	ner		Arthur	Sam Houston	chose
stingaree			Port	LaSalle	claimed
sword-	sand-		Neches	Lieutenant	declared
fish	piper		Spain	Dickinson	defense
trout	(repe-		St.	Mason	stamps
	tition)		Louis	County	docks
			Terrell	Mexican	fifteen
			Texas	Negro	fine
			United	priest	freight
			States	Spaniards	friendly

LIST 8 -- Continued

Fish	Birds	Boats	Places	People	Miscellaneous
				Tejas William Travis	granite graze grown herd independence important language largest passenger pecan motto net northern paste tubes sage smooth southern states spared streamline supplies training transportation tribes uneven

In this list of words, all of the names of the fish and of the boats were supplied by the children. Many of the names of places used, such as Dallas, France, Gulf, jetties, Mexico, Port Arthur, Port Neches, Texas, and United States, were used in the children's speaking vocabularies.

The other words were made meaningful from the stories read to the children, from the sound and visual aids of the projecting machine, and from oral conversation in sharing and relating experiences of the activities.

According to List 9, there were thirty-eight words, or 4.8 per cent of the words used in these fifteen stories developed about "Texas -- Our Great State," which were not found in the children's speaking vocabulary.

LIST 9

A LIST OF WORDS USED IN THE STORIES, "TEXAS -- OUR GREAT STATE," NOT FOUND IN THE CHILDREN'S SPEAKING VOCABULARY

attacked	LaSalle
bars	Lieutenant Dickinson
battle	prairie
boom	motto
James Bowie	northern
Burnet County	roadrunner
chose	sage
David Crockett	sandpiper
Dalles	spared
declare	southern
DeLeon	St. Louis
fifteen	supplies
fine	Tejas
General	Terrell
graze	training
herd	transportation
Sam Houston	William Travis
independence	tribes
language	uneven

Such words as boom, chose, fifteen, and fine were not out of the level of this group's ability. The words could have easily been spoken in some of the conversation but an

observation and record were not made of these particular words.

The stories were read with a fair degree of ease due to the children's interests, the many vicarious experiences, the context clues found in the material, and the ample repetition of the words in many different situations.

According to Table 8, all key words were repeated as many as seven times and as few as two times. Adequate repetition was provided for many of these words in other stories.

TABLE 8

FREQUENCY OF WORDS USED IN THE STORIES, "TEXAS
-- OUR GREAT STATE," NOT FOUND IN THE
CHILDREN'S SPEAKING VOCABULARY

Word	Number of Times Word Appeared
attacked	1
bars	1
battle	3
boom	3
Bowie, James	1
Burnet County	1
chose	2
Crockett, David	1
Dallas	2
declare	2
DeLeon	4
fifteen	1
finer	2
General Sam Houston	2
graze	1
herd	1
independence	1
language	7
LaSalle	3
Lieutenant Dickinson	1

TABLE 8 -- Continued

Word	Number of Times Word Appeared
motto	1
northern	5
prairie	4
roadrunner	1
sage	3
sandpiper	1
spared	2
southern	4
St. Louis	3
supplies	1
Tejas	3
Terrell	1
training	2
transportation	1
Travis, William	2
tribes	2
uneven	1

Test covering material about "Texas -- Our Great State." -- The following tests were given at the conclusion of the unit described in the preceding pages:

Finish each sentence with the right ending. Give a score of one for each correct response.

Test 1

1. The mocking bird is built the Alamo.
2. Our state motto is a church.
3. Indians lived in the Tejas Indians.
4. Then the French people fought at the Alamo.
5. People from Spain build schools.
6. We did not like to "Friendship."
7. A fierce battle was came to Texas.

- | | |
|------------------------|-------------------|
| 8. Mexico would not | belong to Mexico. |
| 9. Texas was named for | Texas first. |
| 10. A mission is | our state bird. |

Test 2 (to be given at another time)

- | | |
|------------------------------|--------------------------------|
| 11. Texas began to | to the southern army. |
| 12. You cannot see | largest state. |
| 13. A pilot boat | came to Port Neches. |
| 14. Big boat | break the big waves. |
| 15. The new capitol building | came to Texas. |
| 16. Jetties help | to travel across the
Gulf. |
| 17. Transportation means | there are no trees. |
| 18. On the prairie | goes out to meet big
boats. |
| 19. Texas is the | is red granite. |
| 20. Texas sent cotton | grow and grow. |

Test 3

1. Can you help Texas? (Yes, No)
2. Name the things you can do to help Texas.

The children were given many first-hand and vicarious experiences to broaden their field of meaningful concepts, for a thing can have meaning only in terms of what the child really understands. In other words, a factual background must be provided for the children to secure accurate interpretations of the printed words.

According to Table 9, the fourteen children made a

TABLE 9

PARTS OF THE TEACHER-MADE TEST ON "TEXAS -- OUR GREAT STATE," THE NUMBER OF ITEMS IN EACH PART, AND THE NUMBER OF CHILDREN ANSWERING ALL, ALL BUT ONE, AND ALL BUT TWO OF THE ITEMS IN EACH PART

Parts of Test	Number of Items in Each Part	Number of Children Answering		
		All Items	All but One	All but Two
Test 1.....	10	14		
Test 2.....	10	10	2	2
Test 3.....	2	14		

perfect score on test one. On test two, ten children answered all of the items, two answered all but one item, and two answered all but two items. All children scored perfectly on test three.

CHAPTER IV

EVALUATION OF THE MATERIALS USED IN TERMS OF PROGRESS MADE BY CHILDREN STUDIED

To provide reading material for a group of slow learners, first an attempt was made to start with the child where he was, in respect to his abilities and interests, and secondly to guide him to greater abilities and richer interests.

Reading Levels and Mental Abilities

As a first step, measurement of the reading level was obtained by the use of the Gates Primary Reading Test, and an index to the mental status of each child was obtained from the California Test of Mental Maturity.

Soon after school started in September, the Gates Primary Reading Test was given to a group of thirty-seven second-grade children, in order (1) to determine which pupils in the class needed special help in reading, (2) to ascertain to what grade each pupil's ability corresponded, (3) to find out how well each child read in relationship to his intelligence quotient, and (4) to measure the

results obtained from a special experimental program of instruction.¹

Out of this group of thirty-seven children, fourteen were found to be slow in reading.

Then, to compare the child's ability in relation to his mental status, the California Test of Mental Maturity was given to determine the intelligence quotients of each child. The test of intelligence did not tell the whole story of a child's potentialities. It was more an aid in gaining better understanding of the child and to help adjust more effective experiences to the child, for there must be a minimum mental age for successful participation in reading. According to Whipple,

the test has a diagnostic, rather than a theoretical aim, its purpose is not to discover new facts, principles, or laws for the science of psychology -- though such a result may indirectly be attained -- but to analyze, measure, and rank the status, or the efficiency of traits and capacities in the individual mind.²

The data shown in Table 12 (Appendix A) indicate that of the group of fourteen slow-learning children in reading, eight children's intelligence quotients ranged from ninety to 110, thus placing them in the average category; six children's intelligence quotients ranged from seventy-five to

¹A. I. Gates, Manual of Directions for the Gates Primary Reading Test, p. 5.

²Guy Montrose Whipple, Manual of Mental and Physical Tests, p. 1.

eighty-eight, placing them in the dull-normal category, with mental ages ranging from five years, eight months to eight years, nine months, and giving them a grade placement ranging from three months below grade one to three months above grade three. The chronological ages varied from seven years, three months to eight years, eleven months.

Every child worked without any undue pressure at his own level of attainment on the easy-reading material growing out of his experiences. In May the group was given the Gates Primary Reading Test after living, experiencing, and developing reading material and reading the material growing out of their interests and experiences over a period of nine months.

According to Table 10, there was a definite progress in the median scores in grade standing in September and the median scores in grade standing in May. The data in Table 19 indicate that in word recognition the gain median grade standing over a nine-months' period was 1.02 years.

As indicated in Table 15 (Appendix A), eighty-five per cent of the children made eight months' progress or more, while fifteen per cent made from 3.5 months to 5.6 months increase in achievement.

Less progress was shown in sentence reading than in the other two types covered by the Gates test. According

TABLE 10

MEDIAN SCORES IN TERMS OF GRADE STANDINGS IN
 SEPTEMBER AND MAY IN WORD RECOGNITION,
 SENTENCE READING, AND PARAGRAPH READ-
 ING ON GATES' PRIMARY READING TEST

Items	Median Grade Standing		
	September	May	Gain
Word recognition.....	2.25	3.27	1.02
Sentence reading.....	2.45	3.20	.75
Paragraph reading.....	2.25	3.16	.91

to Table 15 (Appendix A), fifty-seven per cent of the slow learners gained less than six months in reading achievement, while 42.8 per cent gained more than seven months.

Facts in Table 10 show that seven and one-half months was the median grade standing gained in sentence reading.

Data in Table 15 (Appendix A) reveal that the progress was more varied in paragraph reading; ranging from a gain of two months to one year and five and a half months. Out of the slow-learning group of fourteen children, one child gained as little as two months, and another gained three months. Fourteen per cent of the group made a gain of five months and six months, while seventy-one per cent of the group made a gain of eight months to one year and five and one-half months.

Information in Table 10 shows that the gain in median grade standing in paragraph reading was .91 of a grade.

The data in Tables 13, 14, and 15 (Appendix A) reveal that this group of fourteen children may definitely be classified into four distinct groups. These children were not classified into four groups for instructional purposes but in order to better compare their mental ages and grade placement as indicated in Table 12 (Appendix A) with their reading ages as revealed by Gates Primary Reading Test given in September (Table 13, Appendix A).

The facts in Table 11 reveal that only one child showed a mental age below six years and a grade placement below the first grade. His reading age was six years and nine and nine-tenths months and his reading grade was grade one and nine and six-tenths months. These reveal the score possessed by some average children in beginning second-grade reading. This child's handicap is discussed in the case study of Case N.

By taking the average and the median gains into consideration, the following results may be analyzed. According to Table 11, in the second grade were found four children whose median mental ages of six years and ten months and whose median grade placement of grade one and five and five-tenths months fall far below their median chronological ages of seven years and nine and five-tenths months, and their median reading age of seven years and seven and

five-tenths months, and their reading grade two and three and three-tenths months.

The third group of children was composed of five children with median mental ages of seven years and eight months, and a median grade placement of grade two and three months. In this group, the median chronological ages, the mental ages, and reading age, compared with the grade placement and the reading grade, remained more constant.

TABLE 11

MEDIAN CLASSIFICATION IN SEPTEMBER OF FOURTEEN SLOW
LEARNERS ACCORDING TO CHRONOLOGICAL AGE, MENTAL
AGE, GRADE PLACEMENT AS REVEALED BY THE CALI-
FORNIA TEST OF MENTAL MATURITY, AND READING
AGE AND READING GRADE BASED ON GATES'
PRIMARY READING TESTS

Number of Chil- dren	Median Classification				
	Mental Scores			Reading Scores	
	Chronological Age	Mental Age	Grade Placement	Average Reading Age	Average Reading Grade
1	7-6	5-8	0.3	6-10.9	1.69
4	7-9.5	6-10	1.55	7-7.5	2.33
5	8-2	7-8	2.3	7-8	2.40
4	7-9.5	8-4.5	3.5	7-7	2.31

Facts in Table 11 show that in the fourth group, the mental ages were higher than the chronological ages, and also higher than the reading ages; while the grade placements were higher than the reading grades.

The data in Table 11 reveal that sixty-five per cent of these children found in groups three and four should not be classified as slow learners. It is a known fact that no test results are completely valid, but must be supplemented by the teacher's evaluation of the child. Through observation, such factors as hesitancy in reading, shyness, lack of adequate speaking vocabulary, and many physical, social, and emotional factors are discovered by the teacher. These factors may not be revealed in mental maturity tests or in reading tests.

According to Stone, the normal gain for each child should be seven to seven and one-half months.³ From Table 15 (Appendix A) it may be seen that only four made less than the normal gain set up by Stone. The gains of three of the children ranged from six and two-tenths months to six and six-tenths months to six and nine-tenths months. The lowest gain was three and four-tenths months. Although some gains were low, every child made some improvement.

The two children who progressed the least did not make as high scores as the group, it is true, but their

³Clarence R. Stone, "Second Grade Reading Vocabularies," Elementary School Journal, XXXV (January, 1935), 566

progress was made at their individual rate. In the beginning the purpose was to start with the individual where he was and proceed from there.

There was a steady growth of the children's abilities to utilize context and other clues in the sentence reading, as is illustrated in Table 10. Although the growth was not outstanding, there was progress in the individual rate of speed.

In testing the children's ability to do independent reading through an understanding of the whole in paragraph reading there were eight pupils who made the greatest progress, while six continued at their individual rates of progress.

It is the purpose of this study to show that the vocabulary of this group of slow learners was best developed through a rich experimental background. In this manner concepts were acquired through first-hand study and through discussions about their environment. Thus the children were better able to interpret rich, meaningful associations found in similar activities in their stories and books.

Each child is discussed individually. In order to show his progress in reading achievement, which includes the development of vocabulary, ability to utilize context and other clues, and to measure the general competence

or power as revealed by a comparison of scores taken from the Gates Primary Reading Test given in September and in May, after the child had studied the easy-reading materials developed from his meaningful vocabulary, experiences, and interests, the writer decided that the individual case study would be the most appropriate manner of attack. The information for the following section is taken from Tables 13 and 14 in Appendix A.

Case Studies

Each individual child is designated by a letter.

A was a boy who showed interest in all activities, was very sociable, was well liked by all of his fellow classmates, and was very dependable. He read with a hesitancy. He showed evidences of some eye defect and was fitted with glasses. As shown in Table 15 (Appendix A), A showed a gain of eight and seven-tenths months in word recognition, three and five-tenths months in sentence reading, and nine and one-tenth months in paragraph reading.

B was a slow reader, mispronouncing many common words, such as a, an, and, and the. Her interest was fair but could have been improved. She was fitted with glasses and was found to have a very serious eye defect. Her speaking vocabulary was large. She had a very nervous temperament and was easily "upset."

The data in Table 15 (Appendix A) indicate that she showed a gain of three and five-tenths months in word recognition, six and three-tenths months in sentence reading, and two months in paragraph reading.

C seemed very absent-minded at the beginning of school in September and was slow in understanding simple statements. He could not associate word concepts with everyday life, but after four months of experiencing and enriching his reading background, he seemed suddenly to come to life. His record shows a great increase in achievement. The data in Table 15 (Appendix A) reveal that there was a gain of one year and three months in word recognition, of one year and five-tenths months in sentence reading, and of one year and five and five-tenths months in paragraph reading.

D was slow and timid, and was a child who very rarely spoke. She came from a French family and did not have a very rich experiential background. As she became interested in the group activities, some of her shyness disappeared. Information secured from Table 15 (Appendix A) shows a gain of one year and two months in recognition, of four months in sentence reading, and of three months in paragraph reading.

E was a little German girl. Due to poor health, she did not attend school regularly. She possessed great

imagination, and as a result, she exaggerated. She had a large speaking vocabulary. In the beginning, she was a "word caller," but through the development of meaningful concepts and through reading easy material this situation was eliminated. According to Table 15 (Appendix A), she showed a gain of one year in word recognition, of six and five-tenths months in sentence reading, and of eight months in paragraph reading.

F was of French extraction, was slow of speech, and was slow in reading ability. His vocabulary was limited, and for a greater part of the time he was more interested in the other children's affairs than in his own. He showed a decided interest in elementary science activities and stories about other children, such as Indians, Pilgrims, and Eskimos. His gain was not very outstanding, but there was some progress. The data in Table 15 (Appendix A) show a gain of five and six-tenths months in word recognition, of six and five-tenths months in sentence reading, and of one year in paragraph reading.

G and D were cousins. They were of French extraction. G's parents spoke very poor English. He did not have access to a very experiential background. One of his main handicaps was the effort of his mother to "baby" him. Throughout the year he was able to develop independence. He was very interested in all of the activities experienced

by the group. He was talkative. Facts in Table 15 of Appendix A reveal a gain of one year in word recognition, of one year and one month in sentence reading, and of one year and one and five-tenths months in paragraph reading.

H was one of the largest boys in the group. He was a trouble maker and liked to tease the other children. His speaking vocabulary was fairly well developed on account of his varied experiential background. He read slowly and with little understanding. Most of his disability was due to carelessness. Data in Table 15 (Appendix A) show a gain of eight and seven-tenths months made in word recognition, of seven and five-tenths months in sentence reading, and of one year and three and one-half months in paragraph reading.

I had a good background, an ample speaking vocabulary, but showed evidences of inattention on account of a lack of interest. His interest began to increase when he was able to associate the vivid concepts which come from living an experience with a similar experience in printed symbols. According to Table 15 (Appendix A), he showed a comparatively large gain in word recognition, which was nine and one-tenth months; a smaller gain in sentence reading, which was three and five-tenths months; and a much smaller gain in paragraph reading, which was six months.

J was a slow, dependable child. He was very interested

in his physical environment. He brought several collections of things to school. He had lived with relatives before his father's re-marriage. His step-mother was very kind to him. Many distractions came to him during the school year. One of these was the long illness and death of a little sister of whom he was very fond. Information in Table 15 (Appendix A) shows that J made a gain of one year in word recognition, of six months in sentence reading, and of nine and five-tenths months in paragraph reading.

K was a talkative, careless child. He was careless in his dress, in his speech, in his manner, and in his work. He showed sufficient interest in the activities, but tried to dominate the activities of the group. The data in Table 15 reveal a more decided improvement of one year and one month in word recognition, a considerable improvement of five and five-tenths months in paragraph reading, and a smaller improvement of four and five-tenths months in sentence reading.

L was fitted with glasses to correct an eye defect. Interest developed when he was able to associate his experiences with the printed symbols. His speaking vocabulary was well developed. According to Table 15 (Appendix A), there was a gain of one year and four months in word recognition, of one year in sentence reading, and of

nine and five-tenths months in paragraph reading.

M had one of the most varied and rich experiential backgrounds of all the group. His father is a graduate of a state college, and at the present time is a chemical engineer at an oil refinery. M's home life in the past had not been very happy, but at this time he was more happily situated. He had a step-mother who was interested in his welfare. At times he worked well with the group; at other times he would have tantrums, which were not temper tantrums, but which were explosive in nature. He worked earnestly and was interested in the activities experienced by the group. Facts in Table 15 (Appendix A) reveal a gain of one year in word recognition, of seven months in sentence reading, and of eight and two-tenths months in paragraph reading.

N was the real problem in the group. Although his chronological age, as indicated in Table 15 (Appendix A) was seven years and six months, in size he could easily have passed for his mental age of five years and eight months. His background at home was excellent. His serious handicap was his eyes. His perception depth had not been developed. Alternately, he wore a patch over his left and his right eye to force him to use each particular eye. In his beginning reading, his experiences had not been the rich, experiential type, but the drill, word-call, subject-matter type of experiences. According to Table 15 (Appendix

A) N showed a gain of one year in word recognition, of one year and five months in sentence reading, and of one year and two months in paragraph reading. Although N showed these marked gains in achievement, he still showed marked evidences of immaturity.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

This study undertook to determine what reading material might be developed from the meaningful vocabularies, experiences, and interests of some slow learners from one of the second grades of Nederland, Texas. This easy-reading material was within the children's ability but sufficiently difficult to challenge effort and to promote learning.

Chapter II presents the methods used in determining the group of children to be studied, their speaking vocabularies, and their meaningful interests, real and vicarious. It is readily assumed that any child who possesses a wide speaking vocabulary and a fairly rich background of experience will be more apt to read with ease and meaning. Many slow learners have the capacity to achieve but have not done so because desirable learning situations have not been developed. The latter part of this chapter deals with the technique and procedure used in developing the easy-reading material.

The development of the easy-reading material used by

this group of slow learners was presented in Chapter III. There were two types of reading material used in this problem: (1) the material growing out of the child's experiences, which was vital because of the relationship between the meaningful concepts developed from his experiences and the printed symbols, and (2) some material which was restated from different sources at the group's level of reading ability. The progress made by the group as a result of this experiment was determined by the Gates Primary Reading Test. An evaluation of this progress is given in Chapter IV.

Conclusions

According to data obtained by the evaluation of the progress made by this group of children after using the easy-reading material developed in this study, convincing evidence is produced that difficulties which many children encounter can be overcome successfully if the curriculum is adjusted to the child and not the child to the curriculum.

Effort was challenged and learning was more effective through arousing the interest and the curiosity of this group of children.

The children were given many first-hand and vicarious experiences to broaden their field of meaningful concepts. This factual background gave the children a more accurate interpretation of the printed words.

Timidity, shyness, and insecurity were eliminated by allowing each child to proceed at his own rate, and to read material simple enough for him to comprehend with some degree of success.

Through vivid, first-hand experiences, the easy material was related to special areas of interests and stimulated thoughtful reading.

The children's reading vocabulary was first composed entirely of words which were already a part of their meaningful vocabulary. The vocabulary was not increased by specific drill on isolated words, but it was increased by a wide reading of the words in many different situations. A greater part of the words used in the reading vocabulary were found in the assigned second-grade reader.

Every child made improvement definitely in accordance with his level of ability. The children of greater ability made more progress than the children of less ability.

Thus, the slow learner, by being able to converse freely and spontaneously in sharing and relating experiences, by proceeding at his own ability rate, and by seeing the words or printed symbols in many different situations, was enabled to achieve the development of the whole child in relation to his total environment.

APPENDIX A

TABLE 12

INTELLIGENCE QUOTIENTS, GRADE PLACEMENTS, CHRONOLOGICAL AGES, AND MENTAL AGES OF A GROUP OF SLOW LEARNERS FROM THE SECOND GRADE AS REVEALED BY THE CALIFORNIA TEST OF MENTAL MATURITY

Child	Intelligence Quotient	Grade Placement	Chronological Age	Mental Age
A..	110	3.3	7-11	8-9
B..	105	2.7	7-8	8-1
C..	104	2.3	7-4	7-8
D..	104	2.8	7-4	8-3
E..	102	2.3	7-6	7-8
F..	96	3.2	8-11	8-7
G..	94	1.5	7-2	6-9
H..	91	2.6	8-8	7-10
I..	88	1.6	7-10	6-11
J..	87	2.5	8-11	7-10
K..	87	1.8	8-2	7-2
L..	83	1.2	7-9	6-5
M..	79	1.6	8-9	6-11
N..	75	0.3	7-6	5-8

TABLE 13

GRADE AND AGE NORMS FOR GATES PRIMARY READING TEST GIVEN
TO A GROUP OF SLOW LEARNERS OF THE SECOND
GRADE IN SEPTEMBER

Child	Test Score	Reading Grade	Reading Age
Type 1. Word Recognition			
A...	25	2.33	7-7.3
B...	16	1.95	7-3
C...	13	1.80	7-1
D...	17	2.00	7-4
E...	23	2.30	7-7
F...	26	2.37	7-7.7
G...	24	2.30	7-7
H...	27	2.40	7-8
I...	27	2.40	7-8
J...	21	2.20	7-6
K...	20	2.15	7-5.5
L...	13	1.80	7-1
M...	25	2.33	7-7.3
N...	13	1.80	7-1
Type 2. Sentence Reading			
A...	35	2.65	8-1
B...	10	1.52	6-8.2
C...	28	2.30	7-7
D...	38	2.90	8-5
E...	35	2.65	8-1
F...	29	2.35	7-7.5
G...	24	2.10	7-5
H...	34	2.60	8-0
I...	28	2.30	7-7
J...	34	2.60	8-0
K...	33	2.55	7-11
L...	28	2.30	7-7
M...	35	2.65	8-1
N...	13	1.57	6-8.7

TABLE 13 -- Continued

Child	Test Score	Reading Grade	Reading Age
Type 3. Paragraph Reading			
A...	15	2.20	7-6
B...	9	1.80	7-1
C...	15	2.20	7-6
D...	16	2.30	7-7
E...	20	2.75	8-2.5
F...	14	2.10	7-5
G...	17	2.40	7-8
H...	13	2.00	7-4
I...	16	2.30	7-7
J...	17	2.40	7-8
K...	15	2.20	7-6
L...	19	2.60	8-2.5
M...	17	2.40	7-8
N...	7	1.70	6-11

TABLE 14

GRADE AND AGE NORMS FOR GATES PRIMARY READING TEST GIVEN
TO A GROUP OF SLOW LEARNERS OF THE SECOND
GRADE IN MAY

Child	Test Score	Reading Grade	Reading Age
Type 1. Word Recognition			
A...	41	3.20	8-8
B...	24	2.30	7-7
C...	39	3.10	8-7
D...	43	3.27	8-8.7
E...	46	3.31	8-9.1
F...	28	2.43	8-3
G...	46	3.31	8-9.1
H...	43	3.27	8-8.7
I...	46	3.31	8-9.1
J...	41	3.20	8-8
K...	43	3.27	8-8.7
L...	43	3.27	8-8.7
M...	48	3.33	8-9.3
N...	35	2.8	8-3
Type 2. Sentence Reading			
A...	39	3.00	8-6
B...	25	2.15	7-5.5
C...	43	3.35	8-9.5
D...	42	3.30	8-9
E...	42	3.30	8-9
F...	39	3.00	8-6
G...	41	3.20	8-8
H...	43	3.35	8-9.5
I...	35	2.65	8-1
J...	41	3.20	8-8
K...	38	2.90	8-5
L...	43	3.35	8-9.5
M...	43	3.35	8-9.5
N...	40	3.10	8-7

TABLE 14 -- Continued

Child	Test Score	Reading Grade	Reading Age
Type 3. Paragraph Reading			
A...	22	3.10	8-7
B...	17	2.00	7-4
C...	26	3.75	9-3.5
D...	19	2.60	8-0
E...	25	3.55	9-0.5
F...	22	3.10	8-7
G...	25	3.55	9-0.5
H...	24	3.35	8-9.5
I...	21	2.90	8-5
J...	24	3.35	8-9.5
K...	20	2.75	8-2.5
L...	25	3.55	9-0.5
M...	23	3.22	8-8.2
N...	21	2.90	8-5

TABLE 15

GAIN IN READING ACHIEVEMENT OF A GROUP OF SLOW LEARNERS
IN THE SECOND GRADE AS MEASURED BY THE GATES
PRIMARY READING TEST

Child	Word Recognition	Sentence Reading	Paragraph Reading
Reading Achievement at Beginning of Experiment			
A...	2.13	2.65	2.20
B...	1.95	1.52	1.80
C...	1.80	2.30	2.20
D...	2.00	2.90	2.30
E...	2.30	2.65	2.75
F...	2.37	2.35	2.10
G...	2.30	2.10	2.40
H...	2.40	2.60	2.00
I...	2.40	2.30	2.30
J...	2.20	2.60	2.40
K...	2.15	2.55	2.20
L...	1.80	2.30	2.60
M...	2.33	2.65	2.40
N...	1.80	1.57	1.70
Reading Achievement at the End of Nine Months			
A...	3.20	3.00	3.10
B...	2.30	2.15	2.00
C...	3.10	3.35	3.75
D...	3.27	3.30	2.60
E...	3.31	3.30	3.55
F...	2.43	3.00	3.10
G...	3.31	3.20	3.55
H...	3.27	3.35	3.35
I...	3.31	2.65	2.90
J...	3.20	3.20	3.35
K...	3.27	2.90	2.75
L...	3.27	3.35	3.55
M...	3.33	3.35	3.22
N...	2.80	3.10	2.90

TABLE 15 -- Continued

Child	Word Recognition	Sentence Reading	Paragraph Reading
Gain in Reading Achievement in Years and Months			
A...	0--8.7	0--3.5	0--9.1
B...	0--3.5	0--6.3	0--2.0
C...	1--3.0	1--0.5	1--5.5
D...	1--2.7	0--4.0	0--3.0
E...	1--0.1	0--6.5	0--8.0
F...	0--5.6	0--6.5	1--0
G...	1--1.1	1--1.0	1--1.5
H...	0--8.7	0--7.5	1--3.5
I...	0--9.1	0--3.5	0--6.0
J...	1--0	0--6.0	0--9.5
K...	1--1.2	0--4.5	0--5.5
L...	1--4.7	1--0.5	0--9.5
M...	1--0	0--7.0	0--8.2
N...	1--0	1--5.3	1--2.0

APPENDIX B

SPEAKING VOCABULARIES OF THE SLOW-LEARNING GROUP AS RECORDED
 BY THE TEACHER FROM OBSERVATIONS OF ALL CHILD ACTIVITIES
 AND CONVERSATIONS WITH THE TEACHER AND WITH
 ONE ANOTHER

Word	Number of Children Using the Word
a	14
able	10
about	14
above	5
acorn	14
across	14
act	4
afraid	3
after	14
afternoon	14
again	14
against	6
age	14
ahead	14
air	10
airplane	14
Alamo	7
alarm	3
Alaska	5
alive	14
all	14
almost	8
alone	10
already	14
always	10
am	14
America	14
amphibian plane	10
an	14
and	14
angry	4
animal	14

Word	Number of Children Using the Word
another	14
answer	14
ant	14
anxious	14
any	14
anyone	10
anything	14
anywhere	14
apple	14
April	2
apron	1
are	14
aren't	14
arm	14
army	14
arrow	14
art	14
as	14
ashamed	14
ask	14
at	14
ate	14
Atlantic	4
August	14
aunt	14
automobile	14
away	14
ax	3
baby	14
back	14
backward	14
bad	8
bait	8
ball	14
balloon	11
banana	14
band	14
bang	4
bare	6
bark	14
basket	14
bat	14
bath	14
bathe	14
be	14
beach	14
beak	1
bean	14

Word	Number of Children Using the Word
bear	14
beast	1
beat	14
Beaumont	14
became	11
because	14
become	14
bed	14
bedroom	13
bee	11
been	14
before	14
beg	14
began	14
begin	14
bell	14
belongs	14
beneath	14
berry	8
berries	8
best	14
better	14
between	14
bicycle	14
big	14
bigger	14
biggest	14
bill	14
bird	14
birthday	14
bit	3
bite	14
black	14
blackberry	1
blackbird	9
blackboard	14
black-out	14
blanket	14
bless	4
blew	14
bloom	14
blossom	2
blow	14
blue	14
bluish	5

Word	Number of Children Using the Word
bluebird	14
board	14
boat	14
bone	14
book	14
boots	9
born	14
both	14
bother	14
bothering	14
bottle	14
bought	14
bowl	14
bowwow	14
box	14
boy	14
bread	14
breakfast	14
breath	10
breathe	14
brick	14
bridge	14
bright	5
bring	14
broke	14
brother	14
brought	14
brown	14
brush	14
buffalo fish	14
bug	14
build	14
building	14
built	14
burn	14
burst	5
bust (used in place of burst)	7
bus	14
bushes	14
business	1
but	14
butterfly	14
button	14
buy	14

Word	Number of Children Using the Word
by	14
cage	14
cake	14
call	14
came	14
camel	14
can	14
canal	14
candle	5
candy	14
cannot	14
canoe	2
can't	14
cap	14
cape	6
captain	9
capitol	3
card	14
care	11
careful	5
carpenter	2
carrot	14
carried	14
carry	14
cars	14
catch	14
cat	14
caterpillar	14
caught	14
cave	6
ceiling	4
cent	14
chair	14
chalk	14
change	5
chase	14
chemist	1
chicken	14
children	14
chimney	10
chin	14
chipmunk	14
chocolate	14
choose	9
Christmas	14

Word	Number of Children Using the Word
church	10
circus	14
city	3
claim	14
claimed	14
clap	14
clean	14
climb	14
clock	14
clothes	14
cloth	3
close	14
cloud	14
clown	14
coat	14
cocoa	4
coffee	14
cold	14
collar	14
color	14
comb	14
come	14
coming	14
company	14
conductor	2
cook	14
cookie	14
copy	2
corner	14
cough	14
could	14
couldn't	14
count	14
country	5
cousin	10
cover	14
covered	14
cow	14
crab	14
cracker	14
crane	14
crawl	14
crayon	14
cream	14
creature	1

Word	Number of Children Using the Word
cried	14
croaker	10
crocodile	14
cry	14
cup	14
curtain	3
cut	14
cute	14
daddy	14
Dallas	4
dance	6
dangerous	3
dark	14
day	14
dead	14
deaf	14
December	14
decorate	14
deep	14
defense stamp	14
defense worker	14
den	4
desk	14
dew	14
did	14
didn't	14
die	14
different	14
dig	14
dinner	14
dipper	3
direction	13
dirt	14
dirty	14
dish	14
dive	14
do	14
docks	14
doctor	14
does	14
dog	14
doll	14
dollar	14
done	14
donkey	14
don't	14

Word	Number of Children Using the Word
door	14
down	14
downstairs	11
drank	14
draw	14
dream	14
dress	14
dried	14
driller	5
drink	14
drive	14
driver	14
drove	14
drown	2
drum	14
duck	5
Donald Duck	5
dust	3
Dutch	12
each	14
ear	14
early	14
earth	14
east	14
Easter	14
easy	14
eat	14
edge	9
egg	14
eight	14
electric	14
electricity	14
elephant	14
eleven	14
end	14
engine	14
England	9
enough	14
Eskimo	14
evening	14
every	14
everybody	14
everything	10
everywhere	6
except	14

Word	Number of Children Using the Word
eye	14
eyelids	14
face	14
fall	14
family	14
fan	14
far	14
fare	3
farm	14
farmer	14
farther	2
fast	14
fat	14
father	7
feast	1
feather	14
February	14
fed	14
feed	14
feel	14
feet	14
fell	14
fence	5
fevers	6
few	14
fierce	2
fifteen	14
fight	14
fill	14
find	14
fine	14
fingers	14
finish	14
fins	14
fire	14
fireman	14
fireplace	14
first	14
fish	14
fisherman	14
fishing	14
five	14
fix	14
flag	14
flat	7
flies	14

Word	Number of Children Using the Word
float	14
floor	14
flower	14
fly	14
fog	14
food	14
foot	14
for	14
forgot	14
found	14
fountain	14
four	14
France	14
free	10
freeze	14
freight	14
French	14
Friday	14
friend	14
frighten	5
frog	14
from	14
front	14
frost	14
frozen	14
fruit	14
full	14
fun	14
funny	14
furniture	14
fur	14
games	14
gar	14
garage	14
garden	14
gas	14
gasoline	14
gaspergou	14
gate	14
gave	14
Germany	14
get	14
giant	5
gift	3
giraffe	14

Word	Number of Children Using the Word
girl	14
give	14
glad	14
glass	14
gloves	14
go	14
God	5
goes	14
going	14
gold	14
goldfish	14
gone	14
good	14
good-by	14
got	14
governor	5
grade	14
grape	14
grandfather	14
grandmother	14
grass	14
grasshopper	14
graveyard	4
gray	14
grayish	5
green	14
greenish	10
Greenland	5
grocer	14
grocery	14
ground	14
grown	6
guard	3
guess	14
gulf	14
Gulf Refinery	14
gulls	14
gum	14
gun	14
had	14
hair	14
hall	14
Halloween	14
hammer	14
hand	14
handle	3
handkerchief	14

Word	Number of Children Using the Word
happy	7
has	14
hat	14
hatch	14
hate	3
have	14
haven't	14
he	14
head	14
health(y)	11
hear	14
heard	14
heart	13
heat	9
heaven	3
heavy	14
help	14
helper	7
hen	14
her	14
heron	14
here	14
herself	2
hey	1
hid	14
hide	14
high	14
highway	14
him	14
himself	3
hippopotamus	14
his	14
hit	14
hold	14
hole	14
holiday	14
Holland	14
holly	14
home	14
hope	14
horn	14
horse	14
hot	14
hour	14
house	14
how	14
humming bird	9

Word	Number of Children Using the Word
hundred	14
hungry	14
hunt	14
hunter	4
hurry	5
hurt	3
husband	2
hush	2
I	14
ice	14
ice cream	14
if	14
in	14
important	4
Indian	14
into	14
is	14
isn't	14
it	14
its	14
January	14
jar	14
jaw	14
jellyfish	14
jetties	11
jerk	5
Jesus	14
join	14
joke	14
jolly	14
July	9
jump	14
June	4
just	14
kangaroo	14
keep	14
key	14
kick	14
kids	3
kill	14
kindergarten	3
king	14
kingfisher	14
kitchen	14
kite	14

Word	Number of Children Using the Word
kiss	5
kitten	14
knee	14
knife	14
knot	14
know	14
laid	14
lake	14
land	14
lantern	14
large	14
largest	14
late	14
laugh	14
lawn	1
lay	14
lazy	3
leader	14
leaf	14
learn	14
leather	14
leave	14
leaves	14
left	14
leg	14
lesson	14
let	14
letter	14
lettuce	3
life	2
electric light	14
lightning	14
lightning bug	13
like	14
lily	14
limb	14
line	14
lion	14
lip	3
listen	14
little	14
live	14
living room	8
lizard	14
loaf	14
lockers	14
log	14

Word	Number of Children Using the Word
long	14
look	14
lose	14
lost	14
lot	14
loud	14
love	14
low	14
lunch	14
lying	4
made	14
magnolia	14
maid	14
mail	14
make	14
man	14
many	14
marble	14
March	14
married	14
matter	14
May	14
may	14
me	14
meant	14
measure	3
meat	14
medicine	14
melt	14
men	14
meow	14
met	14
meter	8
Mexican	14
Mexico	14
middle-sized	14
might	14
mile	14
milk	14
mind	14
mine	14
mine sweeper	5
minnow	14
minute	9
miss	14
Miss	14
mocking bird	14

Word	Number of Children Using the Word
Monday	14
money	14
monkey	14
month	12
moon	14
moonlight	14
more	14
morning	14
mosquito	14
most	14
moth	5
mother	14
mountain	2
mouse	3
mouth	14
move	14
Mr.	14
Mrs.	14
much	14
mud	3
music	14
my	14
myself	14
nail	9
name	14
nap	14
napkin	2
narrow	2
navy	14
nearly	3
neat	10
neck	14
Negro	9
neighbor	14
nest	14
net	14
Netherlands	14
never	14
new	14
newspaper	14
next	14
nibble	4
nice	4
nickel	14
night	14
nine	14

Word	Number of Children Using the Word
no	14
nobody	14
noise	14
nene	14
noon	14
nor	2
north	14
nose	14
not	14
nothing	14
November	14
now	14
number	14
nurse	14
nut	14
O	14
ocean	14
October	4
of	14
off	14
office	14
often	14
oh	14
oil	14
old	14
on	14
once	14
one	14
only	14
open	14
or	14
orange	14
other	14
ouch	14
our	14
ours	14
out	14
outdoors	14
outside	14
owl	14
oysters	14
package	14
page	14
paid	14
paint	14
pair	14
pan	7
papa	2
paper	14

Word	Number of Children Using the Word
papoose	14
parade	14
park	14
part	14
party	14
pass	14
past	14
paste	14
paw	14
pay	14
peanut	14
peep	14
pelican	14
pen	14
pencil	14
penny	14
people	14
perch	14
persimmon	14
person	3
pet	14
piano	14
pick	14
picnic	14
picture	14
pie	14
piece	14
pig	14
pigeon	2
Pilgrim	8
pillow	14
pilot	14
pin	14
pine	14
pink	14
pipeline	14
plate	14
play	14
please	14
pocket	14
poetry	5
poinsettia	14
pole	14
pony	14
Port Arthur	14
Port Neches	14
pot	14

Word	Number of Children Using the Word
potato	14
present	14
pretty	14
priest	4
prison	14
promise	14
puddle	6
pull	14
pumpkin	14
puppy	14
pure oil	14
push	14
put	14
puzzle	14
queen	14
question	14
quick	14
quiet	14
rabbit	14
radio	14
rain	14
rainbow	14
rainy	14
raise	14
ran	14
rang	14
rat	14
reach	14
read	14
real	14
red	14
red snapper	14
refinery	14
reindeer	14
rhinoceros	3
ribbon	14
rice	14
rich	14
riddle	14
ride	14
right	14
ring	14
ripe	14
river	14
road	14
robin	14
rocks	14

Word	Number of Children Using the Word
rode	14
roof	14
room	14
round	14
round-shaped	14
rubber	14
run	14
saddle	14
safety	14
said	14
sailor	14
salt	14
salute	14
same	14
sand	14
sandwich	14
sang	14
San Jacinto	14
Santa Claus	14
sat	14
Saturday	14
save	14
saw	14
say	14
scare	14
searecrow	14
school	14
scold	14
scooter	14
scratch	14
screech owl	5
sea	14
sea gulls	14
seal	5
seashore	14
seaweed	14
second	14
secret	14
see	14
seed	14
seem	14
seen	14
seesaw	14
self	14
sent	14
September	14
seven	14

Word	Number of Children Using the Word
sew	3
shall	14
sharp	14
she	14
shell	14
shift	14
shine	14
ship	14
shirt	14
shoe	14
shoot	14
shore	14
short	14
should	14
shoulder	14
show	14
shower	14
shrimp	14
shut	14
sick	14
side	14
sidewalk	14
sign	14
signal	5
silk	14
since	14
sing	14
sister	14
sit	14
six	14
size	14
skate	14
skin	14
skip	14
sky	14
slap	14
slapped	14
sleep	14
slender	14
slept	14
slide	14
slim	10
slip	14
slipper	14
slow	14
small	14

Word	Number of Children Using the Word
smile	14
Smithwick	14
smoke	14
smooth	14
snake	14
sneeze	14
snow	14
snowball	2
so	14
soap	14
soft	14
sold	14
soldier	14
some	14
somebody	14
something	14
sometimes	10
somewhere	14
song	14
soon	14
soup	14
south	14
speak	14
spider	14
spill	14
splash	14
spoke	14
spoon	14
square-shaped	14
squirrel	14
stair	14
stamp	14
stand	14
star	14
start	14
starve	14
state	14
station	14
stay	14
steal	14
steeple	14
stem	14
step	14
stick	14
still	14
sting	14

Word	Number of Children Using the Word
stir	14
stocking	14
stomach	14
stood	14
stop	14
store	14
storekeeper	14
stork	14
storm	14
story	14
shove	14
stingaree	14
streamline	14
street	14
string	14
stripe	14
stuck	14
studied	14
study	14
such	14
sugar	14
summer	14
sun	14
Sunday	14
sunshine	14
supper	14
surprise	14
swam	10
sweating	14
sweater	14
sweep	14
sweet	14
sweet gum	14
sweet peas	14
swing	14
swordfish	3
swung	14
table	14
tablet	14
tadpoles	4
tail	14
take	14
talk	14
tall	14
tame	14

Word	Number of Children Using the Word
tanks	14
tankers	14
tea	14
teacher	14
tear	14
teeth	14
telephone	14
tell	14
temperature	14
ten	14
tent	14
Texas	14
Texas Company	14
than	14
thank	14
Thanksgiving	14
that	14
the	14
their	14
them	14
then	14
there	14
thermometer	14
these	14
they	14
thick	14
thin	14
thing	14
think	14
third	14
thirsty	14
this	14
thorn	14
those	14
thought	14
thousand	14
thread	14
three	14
threw	14
through	14
throw	14
thumb	14
Thursday	14
ticket	14
tide	4
tiger	14
tight	14

Word	Number of Children Using the Word
till	14
time	14
tiny	14
tiptoe	14
tire	14
tired	14
to	14
toad	14
today	14
toe	14
together	14
told	14
tomorrow	14
tonight	14
too	14
took	14
tooth	14
top	14
tore	14
torpedo boats	5
town	14
toy	14
track	14
trade	14
traffic cop	14
train	14
training	4
tree	14
tremble	1
trick	14
tried	14
trip	14
trot	14
trout	14
truck	14
trunk	14
tub	14
tube	14
Tuesday	14
tug	14
tulip	14
tune	14
tunnel	14
turkey	14
turn	14
turtle	14

Word	Number of Children Using the Word
twelve	14
twenty	14
twin	14
two	14
ugly	14
umbrella	14
uncle	14
under	14
United States	14
up	14
upon	14
upset	14
upstairs	14
us	14
use	14
useful	5
Valentine	14
vegetable	14
velvet	9
very	3
visit	14
voice	14
wade	14
wagon	14
wait	14
wake	14
walk	14
wall	14
want	14
war	14
warm	14
wants	14
was	14
wash	14
wasn't	14
watch	14
water	14
wave	14
way	14
we	14
wear	14
weather	14
web	14
Wednesday	14
weed	14
weed stalks	14

Word	Number of Children Using the Word
week	14
weight	14
well	14
went	14
were	14
west	14
wet	14
whale	14
what	14
wheel	14
when	14
where	14
which	14
whisper	14
whistle	14
white	14
who	14
why	14
wide	14
wigwam	14
wild	14
will	14
willow	14
win	14
wind	14
windmill	14
window	14
wing	14
wink	3
winter	14
wire	14
wish	14
with	14
wolf	14
woman	14
wood	14
woodpecker	14
wool	14
word	14
work	14
world	14
worm	14
worn	2
worry	14
worse	14

Word	Number of Children Using the Word
worth	5
wouldn't	14
wrinkled	7
write	14
wrong	14
xylophone	5
yawns	14
yard	14
year	14
yellow	14
yes	14
yesterday	14
yet	14
you	14
your	14
zebra	3
zoo	14

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