A COMPARATIVE EVALUATION OF A FUNCTIONAL APPROACH
TO HANDWRITING IN A PRIMARY GRADE

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By

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CHAPTER I

INTRODUCTION

For several years the author has been concerned with the handwriting of children entering the second grade. The quality of the writing and the type of mistakes seem to indicate that writing is merely copying and means nothing to the children as a method of expression and communication. The purpose of this investigation was to study the progress of children in handwriting, when writing is taught functionally, that is when there is a need for it in connection with real communication or other school work.

There have been several related studies which present evidence in favor of a functional approach in teaching handwriting. Margaret Duncan\(^1\) found in her study of letter writing in a fourth grade that there was opportunity for much practice with real purpose, and suggested that a study of the penmanship would give evidence that skills did improve with functional learning.

\(^1\) Margaret Duncan, "Letter Writing in Elementary Schools A Comparative Study," (unpublished Master's thesis, The Ohio State University, Columbus, 1931), p. 75.
Aimmee Healey,⁴ Edna Salt,⁵ and Lydia Sommer⁶ found, in their studies of language arts, that using activities and experiences, as a basis for language development, stimulates and enriches language and at the same time provides a variety of writing experiences and makes provision for individual needs.

In order to compare the progress in a functional program with progress in a traditional, formal program, where all work is assigned by the teacher, two groups of children were taught by the same teacher during the school year 1947 to 1948 in a public school of Columbus, Ohio. During the first semester, from September to January, writing was taught in a regular period every day and all the work was teacher imposed. In the second semester, from February to June, with another group at the same school level, all writing experiences grew out of the needs of the group or individuals when there was a purpose or reason for writing.

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Most of the children in both groups came from lower middle class homes and had limited experiences. The majority of their parents had a high school education and one or two had attended college.

To do a good job of teaching one needs to plan in terms of his philosophy and knowledge of child growth and needs. Chapter II is a statement of the philosophy basic to this study. It includes a discussion of the principles which determined and guided the procedures used in the study.

Chapter III describes in detail the two programs, and Chapter IV is a comparison of the two programs with special consideration for the following:

(1) The variety of writing experiences in both programs.
(2) The children’s attitudes about writing.
(3) How well individual needs were met.
(4) The quality and quantity of the writing.
(5) The progress in skills in penmanship.

Chapter V is an evaluation of the study, with conclusions and implications for further studies.
CHAPTER II

A PHILOSOPHY BASIC TO FUNCTIONAL LEARNING

A philosophy of education like any theory has to be stated in words, in symbols. But so far as it is more than verbal it is a plan for conducting education. Like any plan it must be framed with reference to what is to be done and how it is to be done.¹

Down through history man's life has been a continuous adjustment to his environment. He learned through experience the best way to meet the situation which arose. The caveman developed tools and weapons in order to secure food and protect himself. Language was developed because of a need to communicate. The pioneer "...was close to nature, and he found that nature as met in her most primitive mode could not be trusted to take care of him. The possibilities - the raw material - for life was there but they had to be utilized. He had to bring order out of disorder."² The industrial age brought about more experience. When a machine of one type was invented it often created a need for another, and it necessitated human adjustments.

Science has made continual progress through experience. Doctors are constantly searching to find causes and

cures for disease. Preventive medicine has developed through experience and research. Scientific research in the field of agriculture has produced better crops.

The job of each generation has been to give to its children what it has learned through experience in order that they might begin farther along than they otherwise could and make progress by future experiences. Thus "... education becomes identified with the process of transmitting a way of life ..."3 The way of life does not remain the same but changes as experiences bring about new and better ways of doing things.

If experience is so important in life and its progress it would seem that learning through experience in school would help children to learn there, and also to meet new situations in life after school.

In order to use children's experiences as the basis of education we need to know something about the fundamentals of growth, the nature of the learning process, and the needs of children, because one of the fundamental concepts of an experience curriculum is "... promoting the best all around growth of the child in a continuously changing learning situation ...


"Intelligent guidance begins with the concept of growth. To understand a child one must become acquainted with the gradients of growth which determine the trends and patterning of his behavior." Growth can be defined for this study as all the developmental changes in the total child organism. Biologically the child is a complex organism no one part of which is disconnected or uninfluenced by another. The reaction of his mind depends upon the physical condition of his body, the situation confronting him and past experiences. Mental, physical and environmental conditions cannot be separated, because it is their working together that makes the human being. "The analysis of any organic activity shows that it is as much a function of the environment as it is a function of the organism."6

"The individual does not inherit any definite thing. He merely inherits a tendency or a potentiality of developing to a certain degree under normal conditions."7 He may be born with a certain color of hair and eyes and with a susceptibility to certain diseases, but whether he develops the disease depends upon the environmental conditions.


6 Childs, op. cit., p. 70.

7 Hopkins, op. cit., p. 177.
"The genes establish inexorable limits but what will be done with their potential depends on growth circumstances."\(^8\)

With this insight into growth the concept of learning has changed. The old idea of the conditioned reflex with insistence upon fixed connections in the nervous system no longer holds, nor does the theory that learning is the training of the faculties as was believed by those who supported formal discipline. Instead it is the interacting of the whole organism with the environment. Heredity, physical conditions, environment and past experiences all influence the amount and type of learning. "Learning, including as it does the whole organism, is thus the process by which each one builds his growing self by the choices that he makes."\(^9\)

"The direction involved in the process of learning is toward an ever more intelligent participation in the environment in which the child may be located."\(^10\)

Every child has a variety of needs and the degree to which they are met influences his growth and learning. Prescott\(^11\) divides these needs into three groups, physical needs, social needs, and ego needs. Physical needs include


\(^10\)Hopkins, op. cit., p. 256.

such things as rest, food, clothing, shelter, and freedom from disease. Social needs include those things which determine the child's acceptance as a member of the group and his integration with the existing culture. He needs to receive and give affection, to be liked by others and to feel he is like others in his peer group. Ego needs are those which help him interact with the environment such as freedom in self direction and attitudes about the existing culture.

In view of the preceding points concerning growth and learning it would seem that the educator "... must be concerned with improving the ongoing, interacting adjusting process."12

This study is concerned with the seven year old child, so it is necessary to know some of the specific growth characteristics of this age group. No exact pattern of development can be outlined because each child "... is born with potentialities which are peculiar to him or to her. Each child has a unique pattern of growth, determined by these potentialities, and by environmental fate."13

"The child is his own best norm. He is never so much like himself as when he is changing, because his growth characteristics are the truest index to his individuality."14

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12 Hopkins, op. cit., p. 2.
13 Gessell, op. cit., p. 10.
14 Ibid., p. 29.
There are some general characteristics of growth at the age level which Gessell and Ilg describe in the following paragraph.

The seven year old has himself better in hand. He shows less liability, and a greater capacity to absorb and organize his new cultural experiences. He establishes more firm relationships with his companions and his teacher. He is decidedly more unipopular. He is better able to take what comes. There is less disequilibrium. This is comparatively speaking an absorptive and assimilative phase. Day by day he grows in mental stature.15

In their discussion of the seven year old Gessell16 and Ilg also point out the following characteristics of this age which would have definite relationship to handwriting.

1. He is very fond of pencils and erasers.

2. He uses an eraser very often. In fact it could almost be called the eraser age.

3. He is interested in comparative size of capital and small letters.

4. He reverses some letters but usually recognizes them.

5. He frequently rests his head on forearm while writing.

6. He worries if he cannot finish his work.

7. He likes to have an evaluation of his work immediately.

There are several guides to teaching handwriting which can be set up with the foregoing philosophy as a basis.

First; it is necessary to know how well each child can write and what his difficulties are. "It is important


16 Ibid., pp. 131-158.
that the teacher know in the case of any item to be taught
how much the pupil knows concerning it, and just what his
difficulties are at the beginning of the teaching process.\textsuperscript{17}

Second; each piece of writing should be done to
satisfy a purpose.

Mere busywork or repetition without a
purpose actually causes the child to write very
poorly. Neatness, legibility, ease and fluency
in writing must be the standard in all the
written work that the child does. The improve-
ment of letter forms should accompany and be
commensurate with the total maturation of the
individual child.\textsuperscript{18}

Third; the child should be praised for his efforts
and his goals should be in terms of his maturation and
ability. "Educational goals should be so adjusted for each
individual child as to make success a consequence of reason-
able effort."\textsuperscript{19}

Fourth; the child should be helped to find and
correct his own errors. One of the main criticisms of the
traditional practice lesson is that "... too few pupils are
led to proof read their writing and to correct the errors
that they make. This means that the pupil gets too much
practice in making errors."\textsuperscript{20} In a study conducted by four

\textsuperscript{17}Paul McKee, \textit{Language In The Elementary School} (New York:

\textsuperscript{18}The Language Arts In The Elementary School, (Columbus,

\textsuperscript{19}David Ballen Klein, \textit{Mental Hygiene} (New York: Henry Holt

\textsuperscript{20}McKee, \textit{op. cit.}, p. 54.
classroom teachers it was found that when children see a real need for making a usable final draft they work willingly until they have a copy that represents the best they can do.21

Fifth; skills should be developed to the degree that will be maintained by normal use because "... skills which are developed beyond the level which will be sustained by normal use quickly drop back to lower levels once the special practice is discontinued."22

These five guides were fundamental to the practices employed in the functional program with the second group of children described in the next chapter.

21 Alvina Trent, June D. Frebee, Doris C. Jackson, and Dorothy Saunders, They All Want To Write (New York: The Bobbs-Merril Company, 1939), p. 5.

CHAPTER III

DESCRIPTION OF PROCEDURE OF STUDY

During the period of this study the author had two groups of children under her guidance. In order to make a comparison between the progress of the two groups, thirty-two children from each group were picked as case studies. Those children included in the study remained in the group the entire semester or at least twelve weeks. Those not included were not in the group long enough to measure their progress. Four of the children were in both groups. The manuscript form of writing was used because it is the form taught in the first two grades in the Columbus School System.

Some of the children in both groups had been given the Kuhlman-Anderson Intelligence Test when they entered school, but not everyone. In order to have a comparison of the mental ability of the groups the short form of the Otis Mental Maturity Test was given during the first month of each semester. Both the verbal and non-verbal tests of Alpha A were used.

The first group, studied from September to January, included seventeen 1 A's, the last half of the first grade, and fifteen 2 B's, the first half of the second grade. There were fourteen boys and eighteen girls in the group. Their I. Q.'s, as found by the Otis group intelligence test, ranged from 77 to 116 with nineteen above 90. The age range
at the beginning of the semester was from six years and four months to eight years and ten months. Three of the second graders were retarded a year and two were retarded a half a year. Ten had progressed normally. Thirteen of the 1 A's were retarded one half year and four had progressed normally. While eighteen retarded children in one group seems like a large number, it may be related to the fact that at the time of this study, children could enter the Columbus schools as early as five years, eight months.

The second group, studied from February to June, included seventeen 2 B's and fifteen 1 A's. There were eighteen boys and fourteen girls in the group. I. Q.'s, found by the Otis Test, ranged from 68 to 113 with twenty-one above 90. Their ages ranged from six years, six months to eight years, six months. One 2B was retarded one and one half years and eight had progressed normally. Thirteen 1 A's were retarded one half year and four had progressed normally. A total of twenty three children in the group were retarded a half grade or more.

The Zaner Bloser Manual for First and Second Grade was used as the teacher's guide for the first group's work, because it is the one used in the school system.

According to the manual, children

... will attain a higher level of performance if they have a picture of the correct form in their mind. ... They should do printing of material which is suggested by their experiences in school from day to day ... and some of this material
will lead up to the printing of the exercises in the book.  

When it comes to printing the phrases or sentences of the practice book they should be printed first on the board and then on sheets of paper. After each pupil has printed the material as well as he is likely to be able to do as a result of a reasonable amount of practice under self-criticism supplemented by criticism by the teacher he should print it in his practice book.  

Following these suggestions a sample lesson was placed on the board each morning and the children were asked to practice it. In order to have samples of their writing, to compare with group two, once each week a short story about a current interest or an approaching holiday was written on the board by the teacher and copied by the children. These short stories were collected and checked for common errors. The following week these errors were used as a basis for the practice lessons. The following are examples of practice lessons used throughout the semester.

Date
9/25/47 My cat
9/30/47 My name is ___
10/ 7/47 Mother helps us.
10/ 8/47 We are going to have a party.
10/14/47 We had a good time.
10/21/47 We took our grade cards home.

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10/27/47  Friday is Hallowe'en.
         We will have fun.

11/ 3/47  Today is Monday.
         It is raining hard.

11/13/47 Today is Thursday.
         We are having open house.

11/16/47 Today is Tuesday.
         It is a cold day.

12/ 1/47 Today is Monday.
         We had fun over vacation.

12/ 4/47 Take your boots and rubbers off
         when you come inside.

12/ 8/47 Christmas is coming.

12/15/47 We have a Christmas Tree.
         We made decorations for it.

1/ 6/48  It is snowing hard.
         The ground is covered.

In presenting each practice lesson the teacher after
reading it with the children pointed out some fault which
had been found common to the group on preceding practice
papers. The children then practiced the exercise on a nine
by twelve inch practice paper. Spacing between letters and
words, height and size of letters, slant of letters,
punctuation and neatness are examples of faults which were
pointed out.

The following stories are those collected each week
and used in comparing the work of the two groups. These
too, were composed by the teacher as previously stated, but
were copied only once and were not practiced.
Date

9/24/47  Squirrels
Squirrels have bushy tails.
They make their home in a tree.
They can run fast.
They can climb too.
They like to eat nuts.

9/28/47  Play Safe
Play in your yard.
Stay out of the street.
Don't run with a sucker in your mouth.
Don't play with matches.
Watch out for little children.

10/17/47 We sold popcorn.
We worked hard.
We earned money for our school.
We helped each other.
Some of us had too much to carry.

11/5/47  We played a game.
We had fun.
We took turns.
Polite boys and girls take their turns.
We like to choose our games.

11/21/47 Today is Friday.
It is cold outside.
Thanksgiving is next week.
We have three days of school.
We have four days vacation.
We can have fun.

11/26/47 Today is Wednesday.
Tomorrow is Thursday.
It will be Thanksgiving.
We will not come to school Thursday or Friday.
There is a concert Friday.

12/12/47 It snowed yesterday.
The sidewalk was slick.
It's fun to slide.
We made gifts for our Mothers.
We will save them until Christmas.

The following guides, discussed in Chapter Two, were fundamental to the teaching method used in the functional program with the second group of children.
First; it is necessary to know how well each can write and what his difficulties are.

Second; each piece of writing should be done to satisfy a purpose.

Third; the child should be praised for his efforts and his goals should be in terms of his maturation and ability.

Fourth; the child should be helped to find and correct his own errors.

Fifth; skills should be developed to the degree that will be maintained by normal use.

In order to find out how well each child could write the following story was written by the teacher and copied by the children during the first week of the semester. These papers were used as the starting point for measuring the group's progress.

Date
2/3/48

Today is Tuesday.
It is warm outside.
There is snow on the ground.
There is ice on the walk.
We like to play in the snow.
It's fun to slide.

During the first two months of the semester the group was interested in pets. Most of the children had some sort of a pet and were anxious to paint, write and talk about pets. As these children had not written group stories, this seemed to be the logical starting point. With a great deal of help from the teacher the following story was the first group enterprise.
Date
2/5/48

Pets

Some of us have pets. Harold, Darlene, Sandra, Phyllis, David, Calvin, Nancy, Robert, Harvey and Paul have dogs. Paul, Anna, Tommy, Mike and Gary have kittens. Ronald, Sara and David have goldfish.

Each day a different child was given a chance to tell about his pet and then together the group composed a story. During a short period each day, following work period and while the children were doing free choice activities, the teacher went over each child's paper with him. In the beginning outstanding faults were pointed out and the child was shown how he could correct them. Usually not more than one error was pointed out at a time unless they were minor ones. Praise was given very liberally especially if effort was shown the following day to correct an error. These papers were saved and put together as a book at the end of the study. The children were encouraged to read their own papers and they soon realized if they were going to have a book that others could read they should be careful and not omit words, or to be careless about spacing, etc.

If it was found that an error was quite common to the group, in order to economize on time, a way of improving it was shown to the group as a whole.

The following are stories composed by the group and copied for their pet booklets. Each story is dated on the day it was written.
2/6/48
Shep
Shep is Harold's pet.
She is a dog.
She is one year old.
She is brown and white.
She likes to play.
When she wants to come in she scratches on the door.

2/9/48
Pudgie
Darlene has a dog.
His name is Pudgie.
He is brown.
He likes to play with a ball.
He sleeps in his house.
He eats dog food.

2/18/48
Blackie
Blackie is a dog.
She is Phyllis's pet.
She likes Phyllis.
She sleeps downstairs.
She sleeps on the floor.
She is black and has white paws.

2/19/48
Betty
Betty is Calvin's pet.
She likes to eat.
She likes Calvin.
She is a good dog.
She is four years old.
She is white and has brown spots.

2/24/48
Tippy
Tippy is a dog.
She is brown.
She eats canned dog food.
She sleeps in the basement.
She is Nancy's pet.
She comes when Nancy calls.

3/1/48
Rusty
Rusty is Anna's pet.
He sleeps on the floor.
He likes Anna.
He likes to play with a ball.
He is a kitten.
He drinks milk.
Date

3/2/48
Blackie
Blackie is a kitten.
She is Mike's pet.
She likes to play ball.
She lives on a farm.
She is black and white.
She likes Mike.

3/9/48
Ronald's Fish
Ronald has some goldfish.
He has two of them.
He had four but two died.
They like to swim.
They like fish food.
Ronald has to give them fresh water.

3/10/48
David's Pet
David has a gold fish.
It likes to swim.
He had two but one died.
It eats fish food.
David's Mother feeds it every week.

3/12/48
Inky
Inky is Barbara's dog.
He likes to eat dog food.
He plays with Barbara's rope.
He plays with Barbara's rag doll.
He is black and white.
Barbara plays with him.

3/16/48
Sara's Pet
Sara has three goldfish.
Sara changes their water every week.
She feeds them every day.
They like to swim.
Sara has had them for a year.
They live in water.

3/19/48
Poochy
Poochy is a kitten.
He is Jimmy's pet.
He likes to play.
He likes to eat cornbread.
He is black.
He sleeps in the basement.
3/22/48

Blackie
Blackie is Ralph's pet.
He is a bulldog.
He likes to play ball.
He likes to play with Ralph.
He is black.
He likes to eat dog food.

One of the biggest difficulties with this group was to get samples of their writing to be kept for later evaluation, because the writing was done for a purpose and had to be used for that purpose. There were occasions however when it was necessary to write something which could be used and then kept after it had served its purpose. The following are examples of this.

2/10/48

These phrases were written by the group, copied and used in making valentines. After the valentines were made the teacher asked that she be allowed to keep the papers.

To My Valentine
I Love You.
Will You Be My Valentine?
I Want To Be Your Valentine.
I Want You To Be My Valentine.
I Want You For My Valentine.
I Like You.
Happy Valentine Day.

3/4/48

The illness of a student from the university, who had been working with the group, provided a reason for writing this letter. The student returned the letters to the investigator.

Dear Miss ___:
We liked your stories. We liked to play your games. We liked them very much. We liked to color pictures. It was fun to play the story about Mr. Plumb.
Your friends,
Room 1
Date
3/8/48
These expressions were written to use on get well cards. Because there might be a future need for more cards each child copied the list and they were collected and saved.

Get well soon.
How do you feel?
How are you now?
I hope you get better soon.
We miss you.
We want you to get well.
Get better soon.

3/11/48
Letters answering an invitation and thanking another room for what they did were returned by the teacher of the other room.

Dear Boys and Girls,
We want to see your circus act.
We would like to have you come down to our room Friday afternoon. We liked your letters. Thank you for inviting us to see your circus.
Your friends,
Room 1

3/15/48
Dear Boys and Girls,
We liked your circus. We liked the white rat. We thought it was funny when David found the rat in his hat. We liked the clowns. We thought the things they did were funny. Thank you for coming to our room.
Your friends,
Room 1

3/18/48
A fifth grade class sent some original poems to the group and this provided the purpose for the following letter.

Dear Boys and Girls,
We liked your Easter poems. They were very nice. We read them. We talked about why we have Easter. Next Sunday is Palm Sunday and the next Sunday will be Easter. Thank you for sending the poems.
Your friends,
Room 1
Date

3/24/48  The group decided, after hearing the original poems of the fifth grade, they would like to write some poems too. These were written for the fifth grade and returned after they had been used.

The bunny is coming
On Easter Sunday.

Birds are singing,
Bells are ringing.

All kinds of eggs,
Red, white, blue eggs.

On Easter Sunday, you know.
Birds and bees are out.

Flowers are growing,
Grass is growing.

Flowers are growing,
Trees are blowing.

After the unit on pets the group studied, first; How They Could Be Helpers Of Their School and Community and, second; Signs Of Spring. The following stories were written by the group during these units. Those stories and letters not related to the units were written for a purpose which is evident from the content.

Date

3/30/48  We want to learn how we can be good helpers.
How can we help at home?
How can we help at school?
How can we help at church?
How can we help in our neighborhood?

4/1/48  Helping Father
We like to help Father.
We can help Father fix the fire.
We like to go to the store to help him carry the groceries.
We can help Father fix his lunch.
We can help Father when he cleans wallpaper.
We can help Father when he works in the yard.
We can help Father shovel snow.
Helping Our Janitor
We want to help Mr. ___ and Mr. ___.
They work hard to keep our school clean.
We can pick up papers from the floor.
We can throw papers in the trash can
not in the yard.
We can throw paper towels in the basket.
We can always put soap in the soap dish.

Playing Safe
We are going to have some swings and
teeters on the playground.
We don't want anyone to get hurt.
We must not jump on the teeters.
We must not play where people are
swinging.
We must never stand in the swings.
We must now swing too high.
We must take turns.

Paper Sale
We are having a paper sale next Tuesday.
We want our room to have the most paper.
All the paper must be tied up.
The magazines and papers will be kept
separate.

Signs of Spring
The grass is growing.
Flowers are blooming.
Birds are coming back from the south.
Birds are singing.
Leaves are growing on the trees.
The sun is warmer and the days are
longer.

Plants
We must get the ground ready before
we plant seeds.
First we spade it up.
We break up the big lumps.
After the seed is planted we water it.
We must keep the weeds out.

Dear Boys and Girls,
We liked your program. We know
the story about the frog too. We read
the story about the frog. We liked
the pictures you made. Thank you for
coming over.

Your friends,
Room 1
The group wrote thirty two stories while studying these two units. The above illustrations are samples picked at random from the group.

While studying about pets the children brought in many pictures of pets which they mounted and labeled. Before they were labeled the children wrote the label they intended to use on practice paper so that they could correct any errors before labeling their picture. These papers were kept as samples of their writing. This labeling was the beginning of individual work and started around the fourth week of the semester. From this time on the children were encouraged to do individual writing whenever there was an opportunity or functional need for it. A period of time was set aside when the teacher would be free to help with the spelling of words needed. As with the group stories the papers were checked with the child and ways of improving their writing were suggested. From about the middle of the semester the children were encouraged to make suggestions to improve their own form and arrangement. Some of the individual written material was rewritten after corrections were made. This depended upon the purpose. If they were writing letters they could understand that they must be correct to be read. When they were going to copy material anyway, as when labeling, there was no need to copy it on another practice paper.

The following are samples of individual written material which could be kept, without resorting to non-purposive teacher requirement, used in comparing the progress of the two groups.
These sample sentences were written, by individuals who had a use for them, on practice paper, to be copied under pictures of their pets, which they painted or drew for the group.

3/16/48  This is my pet.  
          She is my pet. (49)

3/9/48   This is a kitten. (43)

3/16/48  These are goldfish. (21)

2/27/48  This is a dog.  
          He likes Paul. (38)

3/9/48   This is Sandy.  
          I like Sandy.  
          She is striped. (57)

2/27/48  This is Betty. (42)

3/17/48  The goldfish is in the water. (23)

2/19/48  Blackie  
          Blackie is my pet.  
          Blackie is a good dog. (35)

2/19/48  This is Shep. (40)

3/23/48  David has goldfish. (56)

3/17/48  Inky (44)

The sentences in the next group were dictated to the teacher, who wrote them on practice paper, to be copied by the children for use under pictures of pets which they found and mounted.

These kittens are black and white.  
This kitten is brown. (59)

This dog is red.  
This dog is black and white.  
This dog is white and has a black nose. (34)

This is a hound dog.  
The dog is after the bird.  
The dog is chewing the hunting hat. (45)
The little puppies are twins. (36)

After seeing a picture on home safety the children wrote safety rules which they had noted in the picture.

4/23/48
We must play safe.
We must not put anything on the steps. (46)

We must not touch any kind of wires.
We don't put anything on the steps. (54)

We want everything off the stairs. (47)
We can keep things off the steps. (53)

We must not touch wires.
We must not put things on the steps. (37)

The girl took off the lid.
The girl made animals.
The boy hung up the animals.
The girl used the pot holder.
Don't put anything on the steps. (41)

The following letters were written to tell the principal how much the children liked the new playground equipment.

5/13/48

Dear Mr. _____,
We like to swing in the afternoon.
We like to slide and teeter.
Your friend,
_____ (58)

Dear Mr. _____,
We like to slide. We like to teeter. We like to play in the sand.
Your friend,
_____ (48)

Dear Mr. _____,
I like to play on the swing. I like to play on the hopscotch. I like to play on the teeter. I like to play in the sand.
Your friend,
_____ (51)
Dear Mr.
I like you Mr. I like to slide in the afternoon. I like to play on the teeter. I like to play on the hopscotch.
Your friend,

--- (33)

Dear Mr.
I like to play outside in the afternoon because I like to play. I like to go to school because I have to learn.
Your friend,

--- (52)

Dear Mr.
I like to slide. I like to swing. I like to teeter. I like to play in the sand. I like to play on the hopscotch.
Your friend,

--- (60)

Dear Mr.
I like to swing and teeter. I like to slide and play in the sand. I like to play hopscotch.
Your friend,

--- (10)

Dear Mr.
We like to go out in the afternoon. We like to slide too. We like to play in the sand too. We like to play on the hopscotch too. We like to swing too.
Your friend,

--- (24)

Dear Mr.
We like to play in the afternoon. We like to play on the swings. We like to play on the slide. We like to play on the teeter. We like to play in the sand. We like to play on the hopscotch.
Your friend,

--- (50)

Dear Mr.
We like to slide. We like to swing. We like to teeter. We like to play in the sand. We like to play hopscotch.
Your friend,

--- (39)
Dear Mr.,

I like to play. I like to swing.
I like to slide. I like to play on the hopscotch too.

Your friend,

_____ (55)

The preceding examples were chosen as samples of the kind of writing experiences used with the second group of children. All the children copied the group stories, poems and letters and every child did several individual pieces of written work. It did not seem necessary to show all the individual pieces of work of all the children, so one piece of each child's work was selected to sample individual functional writing. The numbers following each piece of work were used by the author in compiling the results of the study and will be explained in the next chapter. In Chapter IV an attempt is made to compare and evaluate the progress of the two groups by analyzing the sample papers from each group.
CHAPTER IV

A COMPARISON OF PROGRESS IN A FUNCTIONAL PROGRAM
WITH PROGRESS IN A TRADITIONAL PROGRAM

The purpose of this investigation, as defined in Chapter I, was to study the progress of children in handwriting, when writing is taught functionally, comparing it with a non-functional approach. An attempt will be made in this chapter to compare the children's progress in the two groups described in Chapter III, with special consideration for the following:

(1) The variety of writing experiences in both programs.
(2) The children's attitudes about writing.
(3) How well individual needs were met.
(4) The quality and quantity of the writing.
(5) The progress in skills in penmanship.

Samples of the children's writing in Group One, taught traditionally, were collected weekly throughout the semester. The number of papers saved for each individual varied from eleven to fifteen. Because of absence some children did not have as many sample papers as others.

The children's work in Group Two, taught functionally, could not be collected at set intervals because of the nature of the program, but samples were picked approximately once a week. The number of samples for each child, in Group Two, varied from eleven to eighteen. Group stories and individual work were included in the sampling, from the second group.
In both groups all the written material for one child was numbered as it was collected. Thus, paper number three would be the third sample of a child's work. Eleven samples for each child were considered in the comparison because this was the largest number of papers for some children. When a child had more than eleven samples some were discarded, but in every case paper number one was the first sample of an individual's work and paper number eleven was the last sample of his work.

The variety of writing lessons of Group One was determined by the teacher as it is in any traditional program of instruction; whereas in Group Two the writing experiences were determined by the interests and functional needs of the group. During the semester the pupils in the second group wrote the following:

(1) Lists of supplies needed for school work.
(2) Lists of names to address valentines.
(3) Stories, both group and individual.
(4) Cookie orders for a cookie sale.
(5) Labels for pictures and illustrations.
(6) Descriptive sentences for illustrations.
(7) Rhymes for Valentines, Easter and Get Well Cards.
(8) Letters, friendly, thank you, and informative.

While these writing experiences were functional, the teacher did not assume a laissez-faire attitude about handwriting. Functional intrinsic motives were brought to bear
and instruction and guidance were provided as aids toward functional effectiveness. While the experiences were quite varied it cannot be implied that all functional writing programs would include the same experiences, because functional means to serve a use or need, and all classes do not have the same needs. However, a teacher who is sensitive to needs and possible functional uses can guide the experiences of her class so that children's needs are met and their experiences are varied.

The author checked the attitudes about writing in Group One, by observation. For the most part the lessons were practiced with little comment, but there were very few requests for help in writing anything except the assigned work.

When the children in Group Two began to write individual pieces of work, there were so many requests for help that the teacher had to set aside a time when she did nothing but this. The children wanted to label and describe all their pictures and illustrations, and recopy work which they felt was not good enough. Some of the work recopied would have been considered satisfactory by the investigator, but a few children were not satisfied until their writing was almost letter perfect. This evidence of concern about the quality and appearance of their writing was clearly observable.

At the end of the semester the teacher asked the children in Group Two to write what they had liked and disliked during the term. She explained that this would help her
plan for her next class. The teacher made no mention of any phase of the work when the group was asked to do this. Most of the children told what they liked best on the playground, probably because there were several pieces of new equipment which was the current interest of all the children in the school. Fourteen of the children did mention writing stories and etc. as one thing they liked, and only one child said he did not like to write. He was a poor writer and a very nervous child. His mother was very concerned about his writing and made him practice at home. This home pressure may be related to his not liking to write, because he had good ideas and contributed much to the group stories.

In order to determine how well individual needs were met the teacher rated the eleven samples of each child's work either as satisfactory or unsatisfactory on the following six points:

(1) Spacing - between letters and words

(2) Letter form - height of large and small letters, shape of vertical and round strokes and the crossing of such letters as f and t

(3) Arrangement of work on the paper

(4) Neatness

(5) Punctuation

(6) Completion of work

These six points were chosen because they seemed to include all the factors which the Zaner Blosser Teachers'
Manual\textsuperscript{1} emphasizes in teaching manuscript writing. This manual was used because it is in the course of study of the Columbus Schools.

According to the manual, the space between words should be large enough to print the small letter o, and the space between letters should be large enough for about three pencil marks. The investigator rated an individual's spacing by looking at it and judging it, rather than by actually measuring the space between letters and words. If the work was spaced so that it could be easily read it was considered satisfactory.

The letter form was considered satisfactory if the height of the small and tall letters was in proportion, that is if the tall letters were about twice as tall as the small ones, and if the down strokes were vertical, and the round strokes full and closed.

Arrangement was satisfactory if work was well spaced on the paper and not crowded on one section. The general appearance of the paper was considered in judging neatness. If half or more of the punctuation marks were correct the child was given a satisfactory rating in punctuation.

Table I, which follows, shows the ratings of the individual pupils in Group One on their first and last papers

\textsuperscript{1}Frank N. Freeman, Print to Script, Teachers Manual (Columbus, Ohio: The Zaner Bloser Company, 1938), pp. 1-23.
In making Table I, the names of the children were listed alphabetically and numbered from one through thirty two. The numbers stand for the children thus listed.

Table II shows the ratings for Group Two. The names of the children in this group were listed alphabetically and numbered from thirty three through sixty. The four children who had been in Group One were given the same number in Group Two, but were placed on the table as they would appear in the alphabetical listing.

In studying Table I it is noted that while some children showed improvement others regressed. Looking at each trait separately, the following number of improvements and regressions are found:

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<tr>
<th>Trait</th>
<th>Improved</th>
<th>Regressed</th>
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<tr>
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<td>2</td>
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<tr>
<td>Punctuation</td>
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<td>2</td>
</tr>
<tr>
<td>Completion of work</td>
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Except for letter form there were some improvements and also some regressions with respect to all points rated. The regressions were fewer than improvements in all points rated, except spacing and form.
<table>
<thead>
<tr>
<th>Pupil Samples</th>
<th>Spacing</th>
<th>Form</th>
<th>Arrangement</th>
<th>Neatness</th>
<th>Punctuation</th>
<th>Completion</th>
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### TABLE II

**RATING OF INDIVIDUAL PUPILS ON FIRST AND ELEVENTH SAMPLES. GROUP TWO**

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<tr>
<th>Pupil Samples</th>
<th>Spacing</th>
<th>Form</th>
<th>Arrangement</th>
<th>Neatness</th>
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</table>
Table II reveals that there were no regressions in the second group. The following number of children showed improvement in each point rated:

Spacing - 22 improved
Form - 13 improved
Arrangement - 0 improved
Neatness - 18 improved
Punctuation - 11 improved
Completion of work - 7 improved

All the children in Group Two showed improvement except two whose papers were satisfactory in all six points rated at the beginning of the study.

In Group One there were five children who showed no progress, and eight who had more unsatisfactory ratings on their last paper than on their first paper.

Table III, compiled from Table I and II, gives the number of children in both groups needing help in each point rated on their first and last paper. It shows that more children in Group One needed help in spacing and letter form at the end of the semester than at the beginning. In all other respects there was some improvement. Group Two showed improvement in all of the points rated except Arrangement which remained the same. The difference between the number of children needing help at the beginning and at the end of the term shows that the improvement in Group Two was greater than in Group One in all points rated except Arrangement, which remained the same.
<table>
<thead>
<tr>
<th></th>
<th>Group One</th>
<th></th>
<th>Group Two</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First Sample</td>
<td>Eleventh Sample</td>
<td>First Sample</td>
<td>Eleventh Sample</td>
</tr>
<tr>
<td>Spacing</td>
<td>20</td>
<td>21</td>
<td>26</td>
<td>4</td>
</tr>
<tr>
<td>Form</td>
<td>17</td>
<td>29</td>
<td>21</td>
<td>8</td>
</tr>
<tr>
<td>Arrangement</td>
<td>11</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Neatness</td>
<td>19</td>
<td>7</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>Punctuation</td>
<td>26</td>
<td>15</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Completed Work</td>
<td>8</td>
<td>4</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

The quality and quantity of the writing in the second group improved gradually, as is evident from a comparison of the stories in Chapter III. At the beginning of the semester the stories were short with very simple sentences, while at the end of the semester the stories were longer and the sentences more complex. This was not due to any drill or practice work, but came about gradually as the children became freer in expressing themselves in writing.

The following photostatic copies of children's papers are some paired samples which give evidence of the growth in skills during the second semester of this study. The
Good Health
Brush your teeth every day.
Bring a clean handkerchief to school.
Have clean hands and face.
Comb and brush your hair.
Wear clean clothes.

It snowed yesterday.
The side walk is wet.
It's fun to slide.
We made gifts for our mothers.
We will save them until Christmas.

Today is Tuesday.
It is warmer outside.
There is snow on the ground.
There is ice on the walk.
It's fun to slide.

Dear,
We like the play time.
We like to swing.
We like to slide.
We like to teeter.
We like to play hop scotch.
We like to play in the sand.

Your friend,
Dear

Thank you for the pictures. We liked them. We colored them yesterday. We made them look pretty. We made the chick yellow. We made their eyes black.

Your friend

_____ Roomi

Dear

I like to play outside in the afternoon because I like to play. I want to play. I like to go to school because I have to learn.

Your friend,
Today is Tuesday.
It is warmer outside.
There is snow on the ground.
There is ice on the snow.
We like to play in the snow.
It's fun to slide.

Dear [Name],

I like the teeter-totters.
We like to swing.
I like to slide.
I like the hopscotch.
I like the sand.
We like to play.

Your friend,
Today is Tuesday.
It is warm outside.
There is snow on the ground.
There is ice on the walk.
We like to play in the snow.

Dear [Name],

We like you, Mr. [Name].
We like to slide in the afternoon.
We like to play on the teeter.
We like to play on the hopscotch.

Your friend,
Today is Tuesday
It is warmer outside
There is snow on the ground
We like to play in the snow
It's fun to slide.

Dear

I like the play time you are giving us.

Your friend
original papers were twelve by nine inches and were folded and lapped to save space. The writing as it appears in the photostats is one half the original size. All personal names were blocked out and the individual pupil's number placed at the bottom of his eleventh sample.

Pupil 21, a member of both groups, was a very normal, well adjusted child. The first two samples of his writing were his first and last papers in Group One. The third and fourth samples were his first and last papers in Group Two.

A comparison of his first and second papers shows that during the first semester he improved in spacing but regressed in letter form. Samples three and four show that he improved in letter form, punctuation and neatness while he was in Group Two.

The next eight photostatic copies are the first and last papers of four children in Group Two.

Pupil 52 was a very nervous child. When she first entered the class, which was two weeks late, because of illness, it was impossible to help her, because she took all suggestions as criticisms, cried and became so upset that she could not do anything. Working with the school nurse it was possible to influence the mother to take her to a physician for a physical check-up. When no physical condition was found for her nervousness a possible emotional cause was sought. The father and mother were both middle-aged and quite nervous themselves.
The child, the youngest of two children, was protected and babied because they feared something would happen to her. She was also drilled at home on school work because they were afraid she might fail. She would not play on any of the playground equipment because her mother told her she might fall or get hurt.

Through conferences with her mother some progress was made in getting the parents to ease the situation and discontinue the drill work at home. By giving the child more responsibility at school and praising her whenever possible, the tension was reduced and the child's work improved, but she still needed a great deal of help at the end of the semester, as did her family.

Pupil 37 was a slow-learning child but a good worker. She was given unsatisfactory ratings in spacing, letter form and neatness on her first paper. Her last paper was rated satisfactory on all six points. On her last paper she used a capital "K" where she should have used a small "k" in the work "like," and a capital "Z" in her name where there should have been a small "z". There were two omissions of letters, one in the principal's name (Vance) and the other in hopscotch. Most of the children habitually used the capital "K" for the small "k" when they started the semester and, it was a hard mistake to correct.

Pupil 33 was an average, well-adjusted child who delighted in her own progress. Her papers are good samples
of the progress of the average members of the group.

The last two samples are the work of pupil 53. He was of average ability and had progressed normally. Spacing, letter form, neatness, and punctuation were unsatisfactory on his first paper. He improved in all of these points except punctuation.

From the evidence given it can be concluded that there was more improvement in handwriting skills in Group Two than in Group One. Figures I and II, which follow, show the progress in all points rated, as indicated by totaling the ratings on the eleven sample papers of the thirty-two children in each group. The progress in Group One is shown in Figure I and the progress of Group Two is shown in Figure II. A comparison of the two figures reveals that the progress of Group Two was gradual and continuous, from the first paper through the final or eleventh sample, while the progress in Group One was quick and temporary. Improvement in all six of the points rated seemed to occur at the same time in the second group, but there was little evidence of such relationship of the various component factors or points rated in the first group.

Some conclusions about functional learning can be made from the data presented in this chapter, and there are also some implications for further study. In Chapter V these will be discussed and evaluated.
Figure I

NUMBER OF PUPILS DOING UNSATISFACTORY WORK
(GROUP ONE)

Number of Pupils

Samples

Spacing  ---  Neatness  ---
Letter form  ---  Punctuation  ---
Arrangement  ---  Completion  ---
Figure II

NUMBER OF PUPILS DOING UNSATISFACTORY WORK
(GROUP TWO)

Number of
Pupils

Samples

Spacing

Letter form

Arrangement

Neatness

Punctuation

Completion
CHAPTER V

SUMMARY AND CONCLUSIONS

A study can be evaluated only in terms of how well it accomplishes its purposes. This investigation was concerned with the development of handwriting in a functional learning situation. After defining the aims of the research the investigator discussed, in Chapter II, a philosophy, basic to functional learning, which guided the procedure of the study.

Data presented in Chapter IV provide evidence to support a number of related findings in favor of the functional approach. The data substantiate the following conclusions:

(1) Children show progress in handwriting with functional learning.

(2) Writing experiences can be many and varied.

(3) Individual needs are met.

In a functional approach the teacher is concerned with directing experiences so that children have rich and varied opportunities for learning, and so that attitudes and skills are acquired in purposeful use. She must be skillful, understanding and sensitive to child growth and needs. It is not an easy casual task to relate and integrate learnings functionally in the experience process, to study needs and serve them. The teacher's role is interesting, broadening and satisfying instead of routine and formal.

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It is challenging to guide experiences so that teacher and children learn, live and grow together.

There were several limitations to this study which point the way for more research. It was conducted over a period of only one year with a relatively small group of children in a primary grade. There was no follow-up to see how well skills were retained after summer vacation. Similar research at other grade levels and over a longer period of time would give more conclusive evidence. One question which arose in the mind of the author relates to the initial first grade approach to writing which was formal and non-functional for both groups. Would children develop the unsatisfactory traits, found at the beginning of the study, if their first writing experiences were in a functional situation?

While handwriting was the concern of this study the implications have significant bearings on other phases of learning. There have been other studies in each of which some specific phase of learning has been approached and investigated in its functional setting in contrast to the more specific, formal approach in which specific subjects or phases of learning are separated for instructional emphasis.

The Duncan\textsuperscript{1}, Salt\textsuperscript{2}, Healey\textsuperscript{3} and Sommer\textsuperscript{4} studies in

\begin{itemize}
  \item Duncan, \textit{op.cit.}, pp. 1-112.
  \item Salt, \textit{op. cit.}, pp. 1-142.
  \item Healey, \textit{op. cit.}, pp. 1-53.
  \item Sommer, \textit{op. cit.}, pp. 1-61.
\end{itemize}
the language arts area were referred to in Chapter I.

Marion Kane\(^5\) found in her research that a functional approach to written expression provides rich and varied experiences and meets individual needs.

Another study in the field of spelling by Mildred Dicke\(^6\) gives evidence to show that there is growth in spelling with a functional program of instruction.

The Loomis\(^7\) study, which is an appraisal of a nine year functional reading program, adjusted to individual differences, shows that many primary children do not reach standard grade norms, but make satisfactory progress later, that by the time they reach the intermediate grade many begin to progress at an accelerated rate, and by the sixth grade surpass grade norms. This should cause educators to investigate the learning situation where children are expected to cover a given amount of material and reach set norms at a given grade level in order to be permitted to go on.

Doris Stout's\(^8\) findings in evaluating the use of books in a modern school show that children grow, gradually and naturally, in ability to use books in an experience

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\(^5\)Marion Kane, "A Comparative Study Of Two Aspects Of English Teaching In Sixth Grade", (Unpublished Master's Thesis, The Ohio State University, Columbus, 1940), pp. 1-133.


\(^7\)Mary Jane Loomis, "An Appraisal Of A Functional Reading Program In An Elementary School" (Unpublished Master's Thesis, The Ohio State University, Columbus, 1939), pp. 1-193.

program in which skills are learned functionally, and they become independent and self-reliant in the use of books.

Inez Bryant⁹ and Catherine Williams¹⁰ found in their studies, that children, whose arithmetic experiences grow out of problems in daily living, progress in the power of reasoning at a greater speed than children taught in a formal traditional program which emphasizes drill.

The cumulative findings of such studies are a significant basis for the conclusion that functional learning is distinctively different from specific learning and from casual incidental learning in ways which warrant serious consideration in the improvement of education, and in the approach to individual differences. This study adds one new area to those investigated in terms of these possibilities and contributes new bases for comparison and further study.

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