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A Comparative Study of Open Court and Slingerland Reading Programs when used with Special Education Students

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A COMPARATIVE STUDY OF OPEN COURT AND SLINGERLAND READING PROGRAMS WHEN USED WITH SPECIAL EDUCATION STUDENTS

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

The United States has long been looked upon as the country which could offer freedom to all peoples. Many people also believed that this country offered equal educational opportunity for its citizens. In the past few decades it has been demonstrated by law makers, parents and pressure groups that not all citizens of the United States are offered the educational opportunities which will benefit them.

One group which has not been getting equal educational opportunity is the educable mentally retarded. In the past the retarded students were taught by substandard teachers in poorly planned classrooms often using materials rejected by other teachers (4:47).

In an agricultural society the uneducated retarded adult could often give unskilled manual labor in exchange for room and board. In our present American industrial society there are far fewer tasks that the uneducated retarded adult is capable of performing and exchanging labor for room and board is much less common today. Featherstone estimates that there are over four million students in the slow learner, mentally retarded group. In discussing the inadequate education offered these students he states:

> If anyone doubts the need of sincere efforts to educate the slow learner, not to mention the mentally retarded . . . then let him ponder the consequences for the general welfare of permitting the number of future adult citizens to grow up illiterate, uncultured, and uninitiated in the American way of life (4:7-8).

Teaching the retarded to read is a very important step in preparing them to operate to the best of their ability in our rapid moving society. Educable mentally retarded children are often exposed to reading at age six, in much the same way that a normal six year old might be taught to read. However, the retarded student is usually expected to be less successful in their attempts to master the skills of reading.

I. THE PROBLEM

Statement of the Problem

It is the purpose of this investigation to determine the effectiveness of Open Court and Slingerland reading programs when used with intermediate students who perform at the educable mentally retarded level.

Importance of the Study

If a citizen is to become self-supporting reading is a requisite. He must learn to read signs, job application forms, take examinations, such as driver's tests, and interpret highway signs correctly for his own safety and that of other people (1:3).

A limited enjoyment through reading is possible for the educable mentally retarded. If in fact the desired final product of the educable mentally retarded special education classroom is a self-supporting citizen, then the above considerations make a sound and realistic instructional program in reading a necessity for the educable mentally retarded child (12:23).

Many programs have been introduced to help teach reading to elementary students. There are programs designed for the disadvantaged, the slow learner, the "normal" student and the student who lacks interest. Can any of these programs be used effectively in working with the intermediate level educable mentally retarded child?

II. DEFINITIONS OF TERMS USED

For the purpose of this study, these terms are defined as follows:

Educable Mentally Retarded Student

As defined by Garrison-Force, this student will have an IQ of from 50-80 and will, in general, have the following characteristics:

1. They are able to learn second to fourth grade subject matter by age sixteen.

2. They do not begin to learn to read or to understand formal arithmetic until sometime between nine and twelve years of age.

3. They develop mentally from one-half to three-fourths as fast as the average child.

4. Their progress in school is likewise about one-half to three-fourths the rate of the average child. After they begin to read, for example, they progress about half as fast as a normal child. If they begin to read at the age of ten, they probably can gain three or four grades in the next six years.

5. Although their vocabulary will be limited, their speech and language will be adequate in most ordinary situations.

6. In most instances they can get along with people.

7. They can learn to do unskilled or semi-skilled work and can usually support themselves at the adult level (6:55).

Special Education Student

Throughout this paper the term "special education student" will be used interchangeably with "educable mentally retarded."

Reading

McGee states that reading is the act of responding to printed symbols (16:15). It is a skill that does involve much more than word recognition. This author feels that the following definition of reading by H. P. Smith closely fits the objectives of this study. He states that reading is responding to printed symbols in conjunction with thinking, feeling, interpreting, and imagination (20:9).

III. LIMITATIONS OF THE STUDY

This study was limited to six classrooms. Two classrooms used the Open Court reading program and two other classrooms used the Slingerland program. The two remaining classrooms were used as a control group. A consultant was hired to work with the teachers using the Slingerland program. The teachers using the Open Court program had no consultant.

Teacher variables also limited the study. Teacher variables included motivation, quality and experience. Two classes had teacher changes during the year.

The degree to which the Hawthorne affect influenced the teachers using programmed materials could not be controlled or calculated.

IV. ORGANIZATION OF THE REMAINDER OF THE STUDY

The remainder of the study will enlarge on the following material:

Chapter II will present a review of the literature relating to the need to teach reading, some approaches to the teaching of reading, and the problem of teaching reading, and the problem of teaching educable mentally retarded students to read.

Chapter III will describe the method and procedure of the study.

Chapter IV will report the findings of the study, using tables and charts. An analysis of each table or chart will be included.

Chapter V will present a summary of the project with conclusions and recommendations drawn from the data.

CHAPTER II

REVIEW OF THE LITERATURE

The cave drawings left by ancient civilizations have shown us that communication has been a concern of man for countless centuries. Communication in the 1970's is carried out in many ways which are far different than those of past centuries. However, it is quite likely that the ability to communicate is just as necessary now as it has been in past history. The Atherton House Conference on Education reported that America's largest industry was communication--reading, writing, listening and speaking (23:1).

Reading is considered by many communication experts to be the most important of the four areas of communication. McKee thinks that our schools reflect the importance that our society places on reading. He also feels that our present day schools are for the most part reading schools (15:viii). In elementary schools the ability to read is the number one factor in promotion. Although there are many other ways of transmitting information, reading is the chief means of delivering information to the secondary school student. It was McKee's feeling that although reading has always been included in the curriculum, its importance has increased greatly because of the increasing necessity modern life has placed upon it (15:vii).

There are many indications that teachers, administrators, and professors consider reading important. A great deal of the daily classroom routine is devoted to reading instruction, either by choice of the teacher or the administrator. Much research is carried on at the college and university level concerning reading. Publishers spend more time on development of elementary school reading materials than any other area of the elementary school curriculum (8:10).

Technology has supplied us with many devices which aid our communication with those around us. But even with all the technological advances of our modern society, reading has not yet been replaced as the number one means of communication between the literate peoples and nations of the world. "Reading," said DeBoer, "enables man to link one age with every other and to perceive himself in history in relation to his total universe" (3:5). Because man has been reading for centuries written material is our richest source of information. Tinker feels that it is much faster than talking and can provide the ideas and thoughts of the most brilliant people in history (24:3).

While reading it is possible to study and re-read printed material many times to gain meaning and understanding. Gray and Rogers felt this would be difficult to do using other media since it is often not feasible to pause and deliberate at will (11:8).

Because reading does have certain advantages over other means of communication it is of primary importance throughout most school curriculums. It is linked to every other school subject. That reading is of significant value in our present society cannot be denied.

McKee investigated those areas in which reading could affect the success of the child in school. Here is a summary of his findings:

1. In terms of school work, he found that reading was a tool which enabled the student to learn much of what the school had to offer.

2. He concluded that studies by Gray, Monroe, and Hemming and Woolring showed that use was made of a large number of reading abilities in various study activities, and that there was a need for teaching these important abilities to pupils for study purposes.

3. McKee surveyed the relationship between reading ability and scholastic achievement. While some studies that he reviewed concluded that reading was indispensable to to success in school, McKee felt that the studies did not warrant such a bold statement. He felt that there was a disparity among the results of the various investigations as well as a large number of low correlations reported by the investigations. However, on the basis of common sense, he did conclude that it is reasonable to assume that the pupil who read well was more likely to succeed in school

than the pupil who had not acquired many important reading abilities (15:36-45).

I. THE TEACHING OF READING

Perhaps the first widely used program of reading instruction was the McGuffey reader. This reader presented reading by breaking it down in elemental steps. First the alphabet was presented for the child's rote memorization. He then combined the letters of the alphabet to form simple words such as sat, cat, etc. The next step was combining these words into simple (sometimes unusable) phrases and sentences. This entire method of teaching reading was based on memorization and was for the most part a spelling approach to reading (25:1).

In the early 1900's a new and innovative approach to reading was coming into use. This method, which was considered to be innovative psychologically, as well as logically, involved the use of the sound of the letter rather than the name of the alphabetical letter. This approach to reading was less confusing to the student because he was pronouncing words made up of sounds which were familiar auditory sounds. This phonetic approach was the "new" method of teaching reading from the early 1900's until the early 1920's (14:74).

Educators began looking to schools of psychological thought to find basic guidance in methodology and materials for the teaching of reading. Facts were coming from research carried out in the classroom and the laboratory. This research produced many supposedly well proven facts, but no real theories. It was the Gestalt theory of reading which finally captured the attention of educators. The theory simply states that adults read by interpreting symbolic wholes and therefore words should be presented to children as wholes (for memorization). During the 1920's, 1930's, and 1940's introduction of whole words was "the modern approach to reading" (14:75).

Chall makes the following statement about reading theories of the present:

> It is interesting that no well accepted theory of the nature of the reading process has been advanced to replace the now highly suspect Gestalt-based theory. Debates flourish, methods and materials come and go, but throughout there is a noticeable lack of theory which lends to explain the nature of the reading process itself. Thus one finds that so-called modern reading methods embrace an eclectic approach, and that a variety of techniques are employed by good teachers, each of which seems to be necessary for efficient learning of the reading art (2:iv).

"Automated Techniques" in education are generally believed to be very recent. However, Pressey did a study on this topic in 1926. He concluded that:

1. The self-scoring characteristics represented a tremendous time saving.

2. That testing is transformed into self-instruction by the immediate knowledge of mistakes.

3. Supplemental use of the tests improves performance on regular objective tests.

4. Even more automatic self-scoring devices can be devised (19:373-76).

The last conclusion would seem to predict the coming of learning programs and teaching machines.

The term, teaching machine, now refers to a device for presenting content and questions in predetermined sequences and providing immediate knowledge of results to an active learner (5:1155). Programmed textbooks and learning materials use this same technique of presenting material in small sequential steps.

Both teaching machines and programmed materials have been used in the teaching of reading. These approaches to the teaching of reading allow the student to proceed at his own rate. If a student fails items of the program they are repeated. The student who gives the correct responses may skip some material. At present it appears that learning is enhanced by programmed presentations but that programmed presentations require more time than conventional textbooks (5:1155). Glaser and Homme conclude that it seems entirely reasonable that material designed specifically to achieve certain objectives could be more effective than our present textbooks. Unfortunately, we are probably better able to devise sequences optimal for cognitive learning than for arousing and maintaining motivation (16).

J. L. Hughs and W. J. McNamara programmed instruction of industrial trainees resulted in significant gains in achievement. Contrary to McKeachie's belief that programmed material is more time consuming they found it is to be less time consuming than traditional approaches.

Although teaching machines and the programmed approach to reading do represent some new techniques, the eclectic approach to reading theory as mentioned by Chall is used by many programs. Some reading programs are based purely on Gestalt or phonetic theory. No programs represent any new theories of the reading program.

II. TEACHING THE EDUCABLE MENTALLY RETARDED STUDENT TO READ

The educable mentally retarded child and the normal child have many common problems that complicate their ability to understand and retain concepts.

Mentally retarded children, although they have many individual traits, have only one common characteristic and that is slow mental development. The child of normal mental ability will use his reasoning abilities and overcome or philosophically accept his problems and his education, in most cases, will continue on in a satisfactory manner. The retarded child will be overpowered by similar obstacles because he is unable to complete a solution to his problems unless he has help (7:87).

Jordan states that there are some problems that are so common to retarded children that they can provide a base from which to begin educational planning for the educable mentally retarded. Those characteristics are:

1. The rate of learning is slow.

2. Retention is poor, requiring over learning and frequent review.

3. Language abilities are deficient.

4. Learning tends to be concrete, with a lessened ability to handle the abstract.

5. There is a lower tolerance for frustration.

6. The attention span tends to be short.

7. Imagination and creativity are weak, leading to resistance to change.

8. There is little spontaneous learning, making it necessary to include more common learnings in the curriculum.

9. Transfer and generalization occur less often and less spontaneously.

> These characteristics will have further handicapped the child before he enters school by limiting or distorting the experiential background so essential to reading success (12:16).

Mental Age and Reading Readiness

Garton, Garrison-Force and many others agree that the educable mentally retarded child will not be ready to read at age six and one half like most students. Black and Millard agree that the mental age cannot be used to determine reading readiness in the educable mentally retarded child. It is their belief that reading readiness in the educable mentally retarded child depends not on mental or chronological age, but on the child's background of experience. Garton states that the educable mentally retarded child will not be ready to read until his mental age approaches six and one half years (7:87). Mental age, Black and Millard state, should be one of a group of criterion to determine readiness. Two other criterion might be experiential background and oral language ability (1:5).

Oral Language Ability

The use of oral language in respect to vocabulary and language structure is closely related to achievement in beginning reading activities (14:34).

Some studies have shown that language development is related to opportunities for language usage, and some socially deprived children have improved in language development when they were placed in more favorable environments or received special training (20:128).

In a discussion of language experiences and language growth Strickland includes the following:

1. Unrealistic standards in the home tend to retard language development.

2. A normal family situation tends to stimulate language growth more than does an institutional environment.

3. More rapid language development is generally found among children who associate largely with adults rather than among children whose association is largely with peers.

4. Opportunity for verbal interaction with parents has a positive effect on language development.

5. Bilingualism may present problems which involve

language, intelligence, emotion, and social adjustment, both in the home and the community (22:45-56).

It will be up to the classroom teacher to determine when the student has sufficient language background to begin reading.

III. READING ACCOMPLISHMENT OF THE EDUCABLE MENTALLY RETARDED STUDENT

When the period of reading readiness arrives the teacher must assume the responsibility for proper motivation. The child will seldom respond to a rehash of the primer or first reader he has been using for the past two or three years. Therefore the teacher must find something that will hold his interest.

Garrison and Force have stated that once the educable mentally retarded student begins to read he will learn at approximately one half as fast as the normal IQ child. At the end of the educable mentally retarded student's school career he may be able to read at a fifth or sixth grade level and read a newspaper (14:58).

CHAPTER III

METHODS AND PROCEDURES

I. THE SAMPLE POPULATION

Population involved in this study included students of the intermediate special education program of the Yakima Intermediate School District. Students selected for special education classes were tested by the school psychologist and were found to be functioning at the educable mentally retarded level, meaning that they scored at an IQ level between fifty and eighty. Their accomplishments in reading, writing, and arithmetic skills were at least two years retarded for their age and grade placement. There were a few emotionally disturbed and/or brain damaged individuals. The chronological ages of the students ranged from nine to fifteen years.

II. ASSIGNMENT OF READING PROGRAMS

Of the six classes used in the study two used the Slingerland Reading Program, two used the Open Court Reading Program and the remaining two classes were used as control groups in which the teachers selected the method of teaching reading.

The Slingerland Program was assigned to two class-rooms within close proximity of one another. This was necessary because a consultant was hired to work with these two teachers. One of the classroom teachers had previous experience with this program, while the other teacher did not.

The Open Court Program was randomly assigned to two classrooms.

III. TEST USED

In designing the study, the Gates-MacGinitie Reading Test was chosen to provide scores for comparing the groups in vocabulary and comprehension skills at the beginning and end of the school year. In September, 1970, all students involved in the study were tested using this instrument. The instrument was selected by the psychologists of the school districts on the basis of their experience with it. In May, 1971, the children were again tested in the Gates-MacGinitie Reading Test, using an appropriate form. A description of the test follows.

Gates-MacGinitie Reading Test

The Primary A level, intended for use in the first grade and Primary B level, intended for use in the second grade were used for this study. The range of achievement of the special education students made the administering of both test levels necessary. Both levels consisted of two parts: vocabulary and comprehension.

The vocabulary sections sampled the child's ability to recognize or analyze isolated words. They consisted of forty-eight exercises, each of which contained four printed words and a picture illustrating the meaning of one of the words. The beginning exercises were relatively easy, gradually becoming harder as the test progressed.

The comprehension sections measured the child's ability to read and understand whole sentences and paragraphs. The tests contained thirty-four passages of increasing length and difficulty. Each passage was accompanied by a panel of four pictures. The child was to mark the picture that best illustrated the meaning of the passage or that answered the question in the passage.

The norms for the Gates-MacGinitie Reading Test were based on nationwide standardization. The communities participating in the standardization were carefully selected on the basis of geographic location, size, and socioeconomic level in order to assure a representative sample of pupils at all grade levels (9:1).

IV. PROGRAMS USED

Each classroom used several approaches to teach reading. For the purpose of this study the experimental classes added either the Slingerland Reading Program or the Open Court Reading Program to their normal curriculum. A description of each of these programs follows.

A Multi-Sensory Approach to Language Arts for Specific Language Disability Children

A Multi-Sensory Approach to Language Arts written by Beth Slingerland (commonly known as the Slingerland Reading Program), and published by Educators Publishing Service, is to be used in classroom situations with specific language disability or dyslexic children in the primary grades. It is an adaption of the Orton-Gillingham approach to reading, writing, and spelling.

The Gillingham approach to reading was researched and designed by Anna Gillingham and Dr. Samuel Orton. The phonetic approach of Orton and Gillingham teaches the letter sounds and builds them into words. This technique is based on the close association of visual auditory and kinesthetic elements forming what is sometimes called the "language triangle."

The Slingerland Multi-Sensory Approach to Language Arts assumes that language depends on intersensory associative functioning and it uses simultaneous auditory, visual, and kinesthetic patterning. One of the main tenets of the approach is that mistakes should be prevented. The teacher guides the student in his thought before he performs each task, thus attempting to assure the prevention of failure and the probability of success.

The Multi-Sensory Approach to Language Arts contains the following materials:

1. A guide for Primary Teachers of Specific Language Disability Children - a teacher's manual which explains the preventative therapy technique.

2. Small manuscript alphabet cards - to be used by students and teachers.

3. Teachers Word List for Reference - used to teach decoding for reading (the visual approach) and encoding for spelling (the auditory approach).

4. Phonetic Word Lists for Children's Use - for practice in decoding phonetic words in the visual approach.

5. Patterns for tracing the letters of the alphabet - patterns which children trace with their fingers (21:1).

The Open Court Correlated Language Arts Program

The Open Court Correlated Language Arts Program, published by Open Court Publishing Company, is designed to meet such individual differences as point of view, background of information, and mastery of skills. Reading and writing are developed so they can provide mutual support. The program attempts to present stimulating lessons to students of varying mental abilities.

The activities and exercises of the Open Court Program have two main goals: to place the child in contact with many of the important ideas and achievements of the past and present, and to enlarge his capacity for effective self-expression. Correlative language experiences are designed to enrich the student's mind and develop his language skills.

The stories and poems attempt to acquaint him with children's literature and introduce ideas and concepts of reading. The student is encouraged to react to the reading material orally and in writing. Experiences in reading, writing, speaking, and listening may be reinforced by the content of the readers.

The Open Court Correlated Language Arts Program is designed to build skills through a variety of approaches, whole group, small group, and individualized instruction. The program involves both child-centered and teacher-directed instruction.

The basic program consists of the following materials:

1. Reader-Workbooks which introduce the sounds of the alphabet, blending, and writing skills.

2. The Word Line Book is used in the teaching of blending, introducing new vocabulary words, and reading practice sentences.

3. Teachers Guide contains lesson plans for each lesson in the Reader-Workbooks (18:2).

Control Group

No particular reading program was added to the two classes which were used as the control group. Each teacher used several approaches and methods to teach reading. The approaches included:

Phonetic materials

Teaching of letter sounds

Charting of words read per minute

High interest, low vocabulary books

Limited use of Sullivan's programmed workbooks

Student written materials

Specific structured approaches of the published program were not followed in either of the classes making up the control group.

CHAPTER IV

EVALUATION OF THE STUDY

The purpose of this study was to determine the effectiveness of the Open Court and Slingerland reading programs when used with intermediate students who perform at the educable mentally retarded level.

The students used in this study were given the Gates-MacGinitie Reading Test in the fall of 1970 and again in the spring of 1971. Scores in both vocabulary and comprehension were provided by the test.

The raw scores of the subtests were converted into grade level scores and the mean grade level computed for each group. The results of the mean grade level scores of the subtests are listed in tables I, II, and III. Scores are given for both the vocabulary and comprehension sections of the test.

TABLE I

COMPARISON OF THE MEANS BETWEEN THE GROUPS USING OPEN COURT AND SLINGERLAND READING PROGRAMS

	Slingerland Mean	Open Court Mean	Difference of the Means	t
Comprehension	.491	.800	.309	1.030
Vocabulary	.609	.725	.116	.527

Through examination of Table I it may be seen that the Open Court Reading Program yielded higher mean scores in both comprehension and vocabulary. The mean scores for the Slingerland program seem to indicate that the program may be more successful in building vocabulary than in attempts to increase reading comprehension. The t test showed no statistical signficant difference between the means at the .05 level.

TABLE II

COMPARISON OF THE MEANS BETWEEN THE GROUPS USING THE OPEN COURT READING PROGRAM AND THE CONTROL GROUP

	Open Court Mean	Control Mean	Difference of the Means	t
Comprehension	.800	.616	.184	.609
Vocabulary	.725	.568	.157	.569

The information contained in Table II shows that there was no statistically significant difference between the means of the Open Court and control groups at the .05 level.

The means of the Open Court Program appear to indicate that students in the Open Court Program showed more growth in both comprehension and vocabulary than the students in the control group.

TABLE III

COMPARISON OF THE MEANS BETWEEN THE GROUP USING THE SLINGERLAND READING PROGRAM AND THE CONTROL GROUP

	Slingerland Mean	Control Mean	Difference of the Means	t
Comprehension	.491	.616	.125	.563
Vocabulary	.609	.568	.041	.191

Table III reveals no significant statistical difference between the means at the .05 level of confidence.

The mean scores in comprehension would seem to show that the Slingerland Reading Program is weak in that area as compared to the control group.

Considering the difference of the means in vocabulary it seems that neither the Slingerland Reading Program nor the control group was superior over the other.

The pre- and post- grade level scores and mean differences are listed in Tables IV, V, and VI.

When Tables IV, V, and VI are compared the Open Court Reading Program shows the largest positive mean difference in grade level scores. The control group and the Slingerland Reading Program have comparable mean differences in grade level scores.

It is interesting to note that the scores listed in Table VI under Class I showed the highest grade level gains

TABLE IV

PRE- AND POST- GRADE EQUIVALENT SCORES AND MEAN DIFFERENCES FOR CONTROL GROUP

Vocabulary			Comprehension		
Pre-Test	Post-Test	Differences	Pre-Test	Post-Test	Differences
1.7	2.5	+ .8	1.3	2.1	+ .8
--*	--	--	1.3	1.3	--
--	--	--	1.3	1.2	- .1
1.7	1.9	+ .2	1.4	1.8	+ .4
2.7	1.7	-1.0	1.6	2.0	+ .4
1.7	2.4	+ .7	1.6	2.7	+1.1
1.4	1.6	+ .2	1.4	1.6	+ .2
2.5	1.5	-1.0	1.9	1.5	- .4
2.7	2.8	+ .1	2.1	2.3	+ .2
--	1.7	+1.7	1.3	1.9	+ .6
--	1.6	+1.6	--	1.5	+1.5
1.4	1.6	+ .2	1.2	2.1	+ .9
1.7	2.3	+ .6	1.7	2.5	+ .8
1.6	3.0	+1.4	1.3	2.2	+ .9
1.7	2.1	+ .4	2.0	1.9	- .1
2.2	3.2	+1.0	1.7	3.4	+1.7
1.4	1.7	+ .3	1.6	2.0	+ .4
--	1.6	+1.6	--	2.0	+2.0
--	2.0	+2.0	1.2	1.6	+ .4
Mean difference + .6			Mean difference + .6		

*Indicates raw score too low to record

TABLE V

PRE- AND POST- GRADE EQUIVALENT SCORES AND MEAN DIFFERENCES FOR SLINGERLAND READING PROGRAM

Vocabulary			Comprehension		
Pre-Test	Post-Test	Differences	Pre-Test	Post-Test	Differences
2.4	3.6	+1.2	2.8	2.4	- .4
3.2	3.0	- .2	2.7	2.7	.0
2.1	3.0	+ .9	2.2	1.8	- .4
3.5	3.9	+ .4	3.2	5.1	+1.9
3.0	3.3	+ .3	3.4	2.7	- .7
3.3	4.4	+1.1	3.0	4.3	+1.3
3.3	5.0	+1.7	3.6	4.9	+1.3
1.7	2.0	+ .3	1.4	2.3	+ .9
3.5	4.1	+ .6	3.6	4.9	+1.3
1.7	2.4	+ .7	1.4	1.6	+ .2
1.5	1.8	+ .3	1.5	1.7	+ .2
--*	--	--	--	--	--
3.5	4.1	+ .6	2.1	4.0	+1.9
3.5	5.0	+1.5	3.0	4.5	+1.5
--	1.4	+1.4	1.4	1.3	- .1
1.7	2.4	+ .7	1.6	1.6	0
2.3	2.5	+ .2	1.6	2.4	+ .8
1.8	2.1	+ .3	1.4	1.8	+ .4
1.4	1.6	+ .2	1.8	1.6	- .2
1.8	1.8	0	1.4	1.6	+ .2
2.0	2.5	+ .5	1.5	1.7	+ .2
2.3	3.0	+ .7	2.5	3.0	+ .5
Mean difference + .6			Mean Difference + .5		

*Indicates raw score too low to record

TABLE VI

PRE- AND POST- GRADE EQUIVALENT SCORES AND MEAN DIFFERENCES FOR OPEN COURT READING PROGRAM

Vocabulary			Comprehension		
Pre-Test	Post-Test	Differences	Pre-Test	Post-Test	Differences
	Class I				
1.6	3.5	+1.9	1.6	3.7	+2.1
--*	1.4	+1.4	--	3.0	+3.0
--	2.0	+2.0	--	2.8	+2.8
--	1.5	+1.5	1.3	1.6	+ .3
1.6	2.5	+ .9	1.5	3.6	+2.1
1.4	1.8	+ .4	1.2	2.7	+1.5
--	2.6	+2.6	1.3	3.6	+2.3
	Class II				
2.3	2.4	+ .1	2.1	2.1	0
1.9	3.5	+1.6	2.1	1.7	- .4
2.1	2.8	+ .7	2.0	3.0	+1.0
2.1	1.7	- .5	1.7	1.7	0
1.4	1.5	+ .1	1.6	1.4	- .2
3.0	2.1	- .9	3.0	2.7	- .3
1.7	1.7	0	1.9	2.1	+ .2
3.3	2.6	- .7	----------	----------	----------
1.7	2.2	+ .5	1.6	2.0	+ .4
2.7	3.2	+ .5	3.0	3.0	0
1.6	1.8	+ .2	1.6	1.5	- .1
1.6	2.2	+ .6	1.6	2.5	+ .9
1.6	2.2	+ .6	1.8	1.4	- .4
Mean difference + .7			Mean difference + .8		

*Indicates raw score too low to record

of any of the classes in the study. This class used the Open Court Reading Program. Class II in Table VI also used the Open Court Reading Program, but showed the lowest grade level gain of any class used in the study. The Slingerland Program and the control group did not show as wide a difference in classroom achievement and therefore Tables IV and V were not listed by classroom as was Table VI.

Test results indicate that the classes which used the Slingerland Reading Program did not compare favorably in vocabulary and comprehension with those classes which used the Open Court Reading Program. The Slingerland classes showed no significant gains in vocabulary and comprehension over those classes in the control group.

A consultant was provided for those involved with the Slingerland Reading Program, while both the Open Court and control groups had no consultant provided.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The study was conducted in typical intermediate special education classes using no special teachers or devices. As little attention as possible was focused on the study and the children involved were not aware they were taking part in a study. All this was done to make the study more valid.

I. SUMMARY

The study was conducted in six intermediate level special education classes in the Yakima Intermediate School District.

The study was conducted during the school year, 1970-1971. The Gates-MacGinitie Reading Test was given in the fall and spring as a pre- and post- test. The grade level scores obtained from the Gates-MacGinitie Reading Test were computed into group means in vocabulary and comprehension for the classes using the Open Court and Slingerland Reading Programs and the control group.

The obtained means were compared and tested for statistical significance through the use of the t test. When this test was applied it was found that the difference in means between the Open Court and Slingerland Reading Programs and the control group were not statistically significant at the .05 level of confidence. This study has indicated no statistical advantage was gained by the students in this study who used the Open Court and Slingerland Reading Programs.

II. CONCLUSIONS

Through observation and perusal of the results of the study, the following conclusions were drawn:

1. That although no program showed statistical significance over the other, the mean difference of the grade level scores indicated the Open Court Reading Program was more effective than either the Slingerland Program or the control group in teaching the intermediate level special education student to read.

2. That the teacher has a direct effect on the success of the program. This was illustrated in Table VI when comparing the grade level gains in both vocabulary and comprehension of Class I with the grade level gains of Class II. Both teachers used the Open Court Reading Program.

3. That reading programs seem to offer some measure of success in the teaching of reading to the special education student. Both Slingerland and Open Court Reading Programs showed greater mean differences in vocabulary than did the control group. The Open Court Reading Program also showed greater mean differences in comprehension than did the control group.

4. That the conversion of raw scores into grade level scores may have, to some extent, affected the validity of the study. The Gates-MacGinitie Teachers Manual conversion chart gave no grade level scores below grade level 1.3 in vocabulary. Thus, post- test gains by these individuals may be distorted. The same situation existed when converting comprehension scores.

III. RECOMMENDATIONS

1. That a similar study be conducted over a period of two or three years. Special education students acquire knowledge at a slower rate than normal students. Therefore, a longer study may result in a more accurate record of the gains of these students.

2. That a similar study be conducted in which an attempt is made to control teacher variables, such as: (a) time spent daily with the program, (b) following the publisher's suggested use of program materials, and (c) excluding the use of supplementary materials.

3. That a similar study be conducted in which matched pairs of students are used in the control and experimental groups.

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