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An analysis of the effectiveness of filmstrips in comparison with oral presentation of stories in the first and second grades.

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Boston University
AN ANALYSIS OF THE EFFECTIVENESS OF FILMSTRIPS
IN COMPARISON WITH ORAL PRESENTATION OF STORIES
IN THE FIRST AND SECOND GRADES

Submitted by
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First Reader: Helen A. Murphy, Professor of Education

Second Reader: B. Alice Crossley, Assistant Professor of Education
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Thanks are also extended to Miss Mary A. Drennan, Principal of the Wilson School, Manchester, New Hampshire, for permitting this study to be conducted in her school.
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INTRODUCTION.

The following study is an attempt to compare the effectiveness of presenting stories to first and second grade children by filmstrips and oral presentation by the teacher.

The modern trend of using films and filmstrips as motivating or culminating activities in correlation with school subjects is becoming increasingly popular in many of our schools throughout the country.

School systems in many of our cities, large and small, have already established audio-visual centers where projection facilities and equipment may be secured. Teachers are encouraged to make effective use of these facilities and to designate for purchase certain films and filmstrips that will supplement teaching materials for their grades.

The utilization of visual aids most effectively raises numerous questions in our minds:

What benefits do the children derive from them?
Do they offer adequate learning experiences?
Are they effectively used?

Do children gain more understandings when stories are visually presented by way of filmstrips?

or

Do they gain as much when story is presented orally by the teacher?
The writer presented numerous filmstrips to her first grade children who appeared to enjoy them. Interest was aroused in making further effective classroom utilization of the available filmstrips.

Therefore, this study is an attempt to compare the effectiveness of presenting stories to first and second grade children by filmstrips and oral presentation by the teacher.
CHAPTER 1

REVIEW OF PREVIOUS RESEARCH
CHAPTER I

REVIEW OF PREVIOUS RESEARCH

Visual Education

The growth and improvement of audio-visual materials during the last ten years seem to be influencing teaching procedures in many of our schools. According to Strauss:

The three R's are being supplemented by the three L's—Look, Listen, and Learn.

The use of visual instruction is not a new aid to learning. It may be traced through the centuries. To quote McKown:

Primitive man learned to communicate by means of signs, gestures, facial expressions, and crude imitations long before he developed a vocabulary with which to express himself orally.

Then came various methods of ways to illustrate and inform. Among these were; hieroglyphics or picture drawing, early alphabets used on clay tablets, drawings in the sand, on boards and slate, specimens, collections, pictures, trips, and then illustrated materials which followed the development of printing, engraving, and photography.

For many years educators and instructors have supplemented the textbook with various kinds of visual aids, such as:

blackboards, bulletin boards, charts, maps, exhibits, field trips, posters, illustrations, microscopes, motion pictures, lantern slides, radio, filmstrips, and recordings.

Dent\(^1\) refers to visual aids as

...all materials used in the classroom, or in other teaching situations, to facilitate the understanding of the written or spoken word.

A visual aid, as defined by Hoban\(^2\), is

...any picture, model, object, or device which provides concrete visual experience to the learner for the purpose of (1) introducing, building up, enriching, or clarifying abstract concepts, (2) developing desirable attitudes, and (3) stimulating further activity on the part of the learner.

Learning experiences which involve the use of sight and sound are confirmed by Wittich\(^3\) when he says,

Modern educators have written again and again that the learning situations which allow children to view, to experience, to examine, to manipulate, to discuss provide the best opportunities for real learning.

Thus, through teaching films which combine sight and sound, children can understand areas which heretofore have been far removed from the classroom.

The expression "I see" is an integral part of our conversation. We unconsciously realize that when we see, we understand. We receive clearer, more accurate impressions. What we see, we comprehend more fully, and we retain.

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Dale places great emphasis on the intelligent use of audio-visual materials in our schools. He stresses the importance of teacher education and training in the proper use of these aids to learning. He says,

Once the teacher gets the "Know-how" of audio-visual materials she will realize their great possibilities. She will use them properly because she will appreciate their great value in making the learning experience of her pupils more meaningful and thus better remembered.

McKown refers to visual-sensory aids as

...supplementary devices by which the teacher, through the utilization of more than one sensory channel, helps to clarify, establish, and correlate accurate concepts, interpretations, and appreciations.

The importance of careful selection and use of audio-visual aids is expressed by McKown when he says,

Audio-visual aids, wisely selected and intelligently used, arouse and develop intense and beneficial interest and so motivate the pupil's learning. And properly motivated learning means improved attitudes, premanency of impressions, enriched experience, and, ultimately, more wholesome living.

A similar point of view concerning the use of audio-visual materials is noted by Noel. He says,

The methods and materials of audio-visual education are here to stay. They are modern means of meeting modern educational objectives. Their values have been established by research and by the experiences of the armed forces and industry during World War II. To be effective in the classroom however, their use must be based on the same concepts of precision, cooperation, and efficiency that govern our technological society outside the school, and, in return, they will improve instruction and constructively affect the behavior of boys and girls—goals which every good teacher seeks.

Research indicates that the use of audio-visual aids in our classrooms affords an opportunity to bring greater reality into the school. They help pupils to interpret ideas that are abstract and difficult to understand. The motion picture and the filmstrip seem to be the more popular types of visual aids that are being used in the schools. Many studies dealing with various phases of visual aids in instruction were found but very few were found concerning the use of filmstrips in the primary grades. This study is concerned with the effective use of filmstrips in the first and second grades.

History of the Filmstrip

Concerning the development of the filmstrip, Falconer says,

The projection simplification that we know as the filmstrip came into being shortly before 1920 when Underwoods of New York conceived the idea of putting their large photographic library on 55-mm. film. In a sense the step was comparable to the

introduction of Eastman roll film in photography. These new materials were mainly photographs of people and places with brief identifying captions. The activity was taken over by the Stillfilm Company for distribution to schools as a substitute for the glass slide, with a "teaching" title for each picture as an added attraction. Later 35mm. film was found more desirable and became the standard width for the filmstrip. This type of pictorial teaching aid continued to gain popularity until the early 1930's and the development of the educational sound motion picture. For a time, school interest was captured almost completely by sound movies; however, in recent years the filmstrip is again coming into popularity— not to the exclusion of other visual devices, but where it has most to contribute.

Strauss¹ reports that following World War I interest and enthusiasm toward educational films and other kinds of audio-visual materials was rather limited. Most of the movies were considered primarily entertainment. Then followed a period of several years of experimentation with films and filmstrips. Educators became interested in using² "the new equipment to enrich the learning experiences of their pupils." World War II followed this period and great advances were then noted in the use of audio-visual materials. To quote Strauss³:

In 1941, the United States was faced with the enormous task of turning out a Navy and an Army of millions of men in a relatively short period of time. Experimentation had shown that facts and skills could be learned with the help of audio-visual materials in a shorter period than by older methods. Motion pictures, slides, models, slidefilms, mock-ups, and many related aids came into use on a hitherto unprecedented

1. Strauss, op. cit., p. 3.
2. Ibid., p. 4-5.
3. Ibid., p. 4-5.

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[2] Ibid., p. 4-5.
[3] Ibid., p. 4-5.
scale. With unlimited funds, materials, equipment, and manpower at their disposal, training officers were able to select and use the instructional services, to develop new training methods utilizing these materials, and to produce thousands of units of new materials. Audio-visual communications were utilized extensively in strategic and tactical planning, technical study, and for historical recording. Here was a large scale demonstration for the first time of the value of these media.

Dent\(^1\) says,

The filmstrip, which has been in use for the past thirty-one years, is the most common type of projected still picture. The individual pictures are printed in series on 35mm. safety film. The pictures on the film may be single frame or double frame. The pictures are in fixed sequence, but it is possible to move backward or forward three or four frames with ease.

Dale's\(^2\) definition of a filmstrip is

... a short length of film containing a number of positives, each different but usually having some continuity, intended to be projected as a series of still pictures by means of a filmstrip projector.

Both sound and silent types of filmstrips are available. The sound filmstrips are usually accompanied by records which carry the commentary and musical effects. The silent filmstrips include a series of pictures with or without captions, and are accompanied by a manual or reading-script.

The filmstrip is sometimes referred to as stripfilm, slidefilm, filmslide, and picturoil. Each film company has its own terminology for this type of visual aid. The term "Filmstrip" is commonly used in educational programs.

Advantages and Use of the Filmstrip

Some producers\(^1\) consider the filmstrip the best of all visual aids. Various reasons are given for this opinion:

1. Ease of showing under normal classroom situations.
2. Wealth of material available.
3. Simplicity of the projection.
4. Relative low cost compared to other teaching aids.

Strauss\(^2\) points out that

...the filmstrip may be used to advantage whenever an operation or learning situation can be divided into a series of logical steps. As an aid in skills teaching it ranks a close second to the motion picture. It doesn't replace a motion picture; it does a different kind of job. Use a filmstrip when you want to stop, discuss, answer questions, make sure that every point registers—when the detail is extensive.

According to Brunstetter\(^3\), the usefulness of the filmstrip results from the following three factors:

1. Projection of a number of selected photographs dealing with one general topic.
2. Opportunity for detailed study.
3. Convenience of handling.

Concerning the advantages of filmstrip teaching, Owen\(^4\) says,

In a well selected still picture, the main historical event or trend can be made to stand out against

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a background of supplementary detail clearer than it does when presented by word symbols.

Pictures arranged in a series can present a sequence of events forcefully. Students can understand the cause and effect relationship between two events portrayed in a realistic pictorial manner better than they can by word narration.

In using words, ideas are presented and connected one by one in individual sentences and paragraphs. A picture can throw all of the ideas contained in several paragraphs into one situation, interweaving them with each other. The still picture provides an opportunity for studying the whole situation at length and thus enhances the development of comprehensive ideas instead of providing step by step learning.

Films and filmstrips can play an important role in establishing readiness for the reading and language arts experiences that are needed by first grade children. Wittich1 reminds us of this when he says,

It is the responsibility of the school to provide increasing opportunity for all the children to explore effectively the environment considered the domain of the primary grades: namely, experiences with the home and family, the community, transportation, animals, seasonal changes, and community helpers. Authentic experiences in these areas may be made available to all the children, as a living experience shared in common, by means of a film or filmstrip which has been well planned, well photographed, well organized into logical and understandable sequences of action; and with the facility for showing, discussing, and reshowing as often as is necessary in order that every child come away with correct, indelibly fixed impressions of the new experiences he has virtually "lived."

Falconer urges the use of filmstrips in the primary and elementary grades to:

1. Broaden the pupil's experience through illustration of situations, people, animals, etc. outside their everyday life.

2. Provide stimulus for imagination and a focus for class discussion.

3. Assist in the development of meaningful vocabulary.

4. Encourage good group attitudes by obtaining group attention, which is developed into group activity.

In making effective use of the filmstrip as a teaching tool, Green offers some suggestions based upon teaching principles known by all good teachers:

1. Know what teaching filmstrips are available that fit into the subject being taught.

2. Preview them.

3. Know why you are using a particular filmstrip—

   To arouse curiosity and interest in subject matter, to clear up misconceptions, to increase knowledge, to increase vocabulary, to provide mental pictures, to encourage scientific thinking, to review subject matter already taught, to stimulate group discussion, to answer questions given after a pre-test, to give pupils enriching vicarious experiences.

4. Decide in which part of the teaching the filmstrip is to be used—before the topic is introduced, midway in the teaching, as the culmination of the teaching, or a combination of all.


Bender, who was associated with Row Peterson Co. in the preparation of films and filmstrips says,

The teacher plus the textbook is the cornerstone of education today, and together they do a pretty good job. But the teacher plus the textbook plus special tools offer an unbeatable combination.

He offers the following reasons for using the stripfilm in his book-film program:

1. Stripfilm puts visual education where it belongs: in the classroom, not the auditorium. Visual tools should be available when and where the teacher needs them, which is in the classroom at the time when the visual tool is needed to carry some point.

2. Stripfilm is exclusively a teaching medium. The distracting entertainment factor always present in motion pictures is not present.

3. Stripfilm takes into account individual differences.

4. Stripfilm is cheap enough to permit classroom use.

5. With stripfilm class participation is possible— and easy to get.

6. Good teaching, particularly in the lower grades, demands that the class be divided into ability groups. Visual tools must be adapted to this situation, so that the teacher can use a visual method with one group without interfering with the individual work of the others. This is possible only with stripfilm projection.

7. With stripfilm only could we do the most important thing in our film program: coordinate visual education with the aims and methods of our textbook program.

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In recent years there has been a noticeable increase in the quantity of filmstrips that are suitable and available for teaching purposes. Teachers in many schools are making effective use of the filmstrip in teaching. Others appear eager and ready to learn more about the techniques for using them and other visual aids.

Previous Studies Concerned With Visual Aids

Hayes\(^1\) in an experiment to determine whether it is better to show a motion picture before a reading unit or after a reading unit found that there was a slight gain in favor of showing a film after a reading unit. In all of the situations analyzed a slight gain was noted in favor of showing a film after a reading unit. However, these differences were not statistically significant.

Woodward\(^2\) in an attempt to evaluate a filmstrip as an aid for teaching map skills in a fifth grade discovered that there was a "definite increase in the pupils' skills in map interpretation after the showing of the filmstrip." The children were given a pre-test and then a test after the showing of the filmstrip. The median for the second test was 16.37% higher than

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the median for the pre-test. A retention test given three weeks after the showing of the filmstrip indicated definitely that "material learned from the filmstrip was retained and understood."

Rulon\(^1\) attempted to measure the effectiveness of the sound motion picture in a ninth grade and found that teaching with textbook and film was 20% more effective than with the usual textbook method. Three and one-half months later retention tests were given to the class. The results showed that the retained gain of the film group was 38.5% greater than that of the control group.

In making a survey of various reports of simple experiments in which lantern slides were constructed and used by teachers, Vauter\(^2\) reports that slow learning pupils make almost as high scores, when slides are used, as those of high intelligence when taught without use of slides.

Flickinger\(^3\) in an experiment with a filmstrip as a teaching aid in social studies found that in addition to well


3. Alice Flickinger, "A Filmstrip Lesson on the U. S. S. R."
chosen pictures and generally well written commentary it had the following virtues in common with all good filmstrips:

1. Dramatic presentation of pictures similar to the movie.
2. The authority of a text.
3. The adaptability of a picture book.
4. The challenge of an unfinished problem; the filmstrip does not attempt to solve all problems but stimulates interest in further research.
5. The appeal of a machine that the pupils can operate.

Elliott\(^1\) in his war training film program discovered the filmstrip superior to other types of visual materials in treating subjects which demanded detailed study and considerable discussion. He reports,

The filmstrip enables the instructor to hold on the screen those visual details that need intensive study by the trainee. Its simplicity, its economy, and its inherent teaching qualities definitely characterize it as one of the major visual aids.

McDonald\(^2\) tells us that leaders of Boys' Clubs and Y. M. C. A. groups are making extensive use of filmstrips because they are so inexpensive and easy to handle and there is such a wide variety of filmstrips that are available. They are learning that filmstrips can help enrich the boy's program.

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Recent experiments conducted in the Thaddeus Stevens School at New Castle, Pennsylvania are reported by McCracken. These experiments were conducted in three first grades. Every reading lesson was completely visualized for the pupils through the medium of textfilms. The use of the filmstrips in introducing and clarifying each lesson in the entire first grade basic reading program resulted in reading success for all pupils enrolled in first grade classes regardless of mental ability.

In an experimental study to find the value of visual aids in giving a more complete knowledge and understanding of material covered in a social studies unit, Park and Stephenson found that visual aids are worthwhile and useful in the teaching of social studies. One group of children made use of slides, films, and flat pictures by discussion, while the other group had no access whatsoever to the films and slides. During the experiment tests were given, results of which were in favor of the group that had been taught with the use of the visual aids.

Research indicates that educators are becoming more aware of the values of audio-visual materials in teaching.


They are finding these aids a means of enriching instruction, getting facts, developing and clarifying concepts, and developing attitudes and interests.

This study is an attempt to compare the effectiveness of presenting stories to first and second grade children by filmstrips and oral presentation by the teacher.
CHAPTER II

PLAN OF THE EXPERIMENT

This study is an attempt to compare the effectiveness of presenting stories to first and second grade children by filmstrips and oral presentation by the teacher.

In order to conduct the study, it was necessary to secure permission from school authorities. Permission was granted by the assistant superintendent of schools and by the principal of the school in which the experiment was to be conducted. The writer is the first grade teacher in the school.

Materials Used.

Publishing companies and filmstrip distributors which were consulted for information concerning primary filmstrips included:

- Society For Visual Education, Inc.
  1345 West Diversey Parkway
  Chicago 14, Illinois

- The Stanley Bowmar Company
  513 West 166th. Street
  New York 32, New York

- Visual Curriculum Center
  10 East 40th. Street
  New York 16, New York

- Young America Films, Inc.
  18 East 41st. Street
  New York 17, New York
The following filmstrips which were borrowed from the libraries of the Wilson School, the local Audio-Visual Center, and the Rice Company were previewed for the purpose of selecting two unfamiliar stories that could be used:

Wilson School Library

"On the Road to the Country"
"Vacation in the City"
"The Lake in the Park"
"The Pet Parade"
"The Country School"
"The County Fair"
"Bill's Scooter"
"Visiting Grandma"

Audio-Visual Center

"The Animal Musicians"
"The Three Billy Goats Gruff"
"The Rabbit Who Wanted Red Wings"
"Lazy Jack"
"Change About"
"Rumpelstiltskin"
"The Ugly Duckling"
"Mr. Vinegar"
"Peter Rabbit"
"Jack and the Beanstalk"
"Hansel and Gretel"
"Tom Thumb"
"Little Black Sambo"
"Chicken Little"
"Pecos Bill Becomes a Cowboy"
"Janet Helps Mother"
"Fun on a Picnic"
"Janet's Ducks and Geese"
Rice Company Library

"Day Begins"
"Father Works for the Family"
"The Children Have a Busy Day"
"Holiday"
"The Red Shoes"
"The Big Surprise"
"Fun With Mitzi"
"The Lost Dog"
"A Day in School"
"After School Hours"
"Tom and Nancy Start the Day"
"A Busy Morning in School"
"Lunch and Play at School"
"Fun at Home"

In addition to having the stories new to the children, these items were considered in the selection:

1. Rich and comprehensive content.
2. Illustrations of animal activities.
3. Major incidents colorfully presented in logical and understandable sequence.
4. Vocabulary suitable for first and second grade levels.

Two of Anderson's fairy tales fitted these criteria and were selected, "The Ugly Duckling" and "Thumbelina". The captions under the pictures of the filmstrips were written in story form to be read by the teacher for the oral presentation.

Yes and No tests were constructed to measure the retention. Copies of these with directions for administering will be found in the appendix.

Population.

The subjects of this study were sixty-three children from one school, thirty-five in Grade I and twenty-eight in Grade 2. They came from average homes of an industrial city.

The Intelligence Quotients were obtained from the results of the Kuhlman-Anderson\(^1\) Tests for Grade I, Second Semester.

Table I shows the mean chronological age and Intelligence Quotient.

\[
\begin{array}{|c|c|c|c|c|}
\hline
\text{No.} & \text{Mean C. A.} & \text{S. D.} & \text{Mean I. Q.} & \text{S. D.} \\
\hline
63 & 7.3 & 9.14 & 105.81 & 31.46 \\
\hline
\end{array}
\]

The chronological ages ranged from 6 years 2 months to 9 years 3 months and the Intelligence Quotients ranged from 76 to 121. The mean Intelligence Quotient, 105.81, showed the group was slightly above average mentally.

Procedure.

A projector and screen were conveniently placed in the first grade classroom shortly before school began the first day of the experiment. Filmstrip, "The Ugly Duckling", was threaded in the machine and adjusted for correct showing. Children's movable chairs were arranged for good visibility.

When the children were seated, curtains were lowered, lights turned off, and projection of filmstrip story was presented to the first grade group in the following manner:

"This morning, boys and girls, we are going to have a filmstrip story. The name of the story is "The Ugly Duckling." Let us find out what happened to the Ugly Duckling."

During the showing of the filmstrip, several frames were held in view as long as was necessary in order to clarify meanings of words used in the story, such as; pond, hatch, ugly, strutted, freeze, swans, woodsman, flapped, lonely.

All captions were read by the teacher.

Immediately following the showing of the filmstrip, the children were given a test to check retention of the story. The sentences were read by the teacher and the children drew lines around the correct answers. There were fifteen items in the test. Sufficient time was allowed for consideration of each item.

Later in the morning, the same story, "The Ugly Duckling," was presented orally by the teacher to the second
grade children. The same word meanings were clarified and the same test given.

The next day, the second grade children were presented the filmstrip story, "Thumbelina", and the first were presented story orally by the teacher. During both presentations, the following word meanings were clarified: petals, walnut shell, toad, stream, nibbled, dew, field-mouse, mole, tunnel, swallow, king, queen, crown. Yes and No tests which included fifteen items were given to each group after the presentation of the stories.

Table II shows the rotation of the stories used.

<table>
<thead>
<tr>
<th>Grade</th>
<th>No.</th>
<th>&quot;The Ugly Duckling&quot;</th>
<th>&quot;Thumbelina&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>35</td>
<td>Filmstrip Pre.</td>
<td>Oral Pre.</td>
</tr>
<tr>
<td>II</td>
<td>28</td>
<td>Oral Pre.</td>
<td>Filmstrip Pre.</td>
</tr>
</tbody>
</table>

All of the tests and story presentations were done by the writer. The results are presented in the next chapter.
CHAPTER XVII

ANALYSIS OF DATA
CHAPTER III
ANALYSIS OF DATA

The data were analyzed to discover:

1. The comparison of the two methods of presentation.

2. The differences of boys and girls in the two methods.

Table III shows the comparison of both methods of presentation.

**TABLE III**
COMPARISON OF FILMSTRIP AND ORAL PRESENTATION

<table>
<thead>
<tr>
<th>Method</th>
<th>No.</th>
<th>Mean</th>
<th>S. D.</th>
<th>S. E. M.</th>
<th>Diff. M.</th>
<th>S. E. Diff.</th>
<th>C. R.</th>
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</thead>
<tbody>
<tr>
<td>Filmstrip</td>
<td>63</td>
<td>13.65</td>
<td>1.80</td>
<td>.23</td>
<td>.54</td>
<td>.35</td>
<td>1.54</td>
</tr>
<tr>
<td>Oral</td>
<td>63</td>
<td>13.11</td>
<td>2.09</td>
<td>.26</td>
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</table>

The mean score for filmstrip presentation was 13.65 compared to 13.11 for oral presentation. The critical ratio 1.54 showed the difference was not statistically significant. There are 93 chances in 100 that this is a true difference in favor of filmstrips.
Table IV shows the comparison of scores for "The Ugly Duckling."

<table>
<thead>
<tr>
<th>Method</th>
<th>No.</th>
<th>Mean</th>
<th>S. D.</th>
<th>S. E. M.</th>
<th>Diff. M.</th>
<th>S. E. Diff.</th>
<th>C. R.</th>
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</thead>
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<tr>
<td>Filmstrip</td>
<td>35</td>
<td>13.40</td>
<td>1.93</td>
<td>.33</td>
<td>.52</td>
<td>.45</td>
<td>1.15</td>
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<tr>
<td>Oral</td>
<td>28</td>
<td>13.92</td>
<td>1.67</td>
<td>.31</td>
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<td></td>
<td></td>
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The mean score for filmstrip presentation was 13.40 compared to 13.92 for oral presentation. The critical ratio 1.15 showed the difference was not statistically significant. There are 87 chances in 100 that this is a true difference in favor of oral presentation of story.
Table V shows the comparison of scores for "Thumbelina."

**TABLE V**

**COMPARISON OF SCORES FOR "THUMBELINA"**

<table>
<thead>
<tr>
<th>Method</th>
<th>No.</th>
<th>Mean</th>
<th>S. D.</th>
<th>S. E. M.</th>
<th>Diff. M.</th>
<th>S. E. Diff.</th>
<th>C. R.</th>
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<td>Filmstrip</td>
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<td>13.96</td>
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<td>Oral</td>
<td>35</td>
<td>12.45</td>
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<td>.36</td>
<td>1.51</td>
<td>.47</td>
<td>3.23</td>
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The mean score for filmstrip presentation was 13.96 compared to 12.45 for oral presentation. The critical ratio 3.23 showed the difference was statistically significant. There are 99.9 chances in 100 that this is a true difference in favor of filmstrip presentation.
Table VI shows the comparison of scores of boys and girls for filmstrip presentation.

**TABLE VI**

**COMPARISON OF SCORES OF BOYS AND GIRLS FOR FILMSTRIP PRESENTATION**

<table>
<thead>
<tr>
<th>Group</th>
<th>No.</th>
<th>Mean</th>
<th>S. D.</th>
<th>S. E. M.</th>
<th>Diff. M.</th>
<th>S. E. Diff.</th>
<th>C. R.</th>
</tr>
</thead>
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<tr>
<td>Girls</td>
<td>25</td>
<td>13.68</td>
<td>1.71</td>
<td>.34</td>
<td>.05</td>
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<td>.12</td>
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<td>Boys</td>
<td>38</td>
<td>13.63</td>
<td>1.65</td>
<td>.27</td>
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The mean score for the girls was 13.68 compared to 13.63 for the boys. The critical ratio .12 showed the difference was not statistically significant. There are 55 chances in 100 that this is a true difference in favor of the girls.
Table VII shows the comparison of scores of boys and girls for oral presentation.

**TABLE VII**

**COMPARISON OF SCORES OF BOYS AND GIRLS**

**FOR ORAL PRESENTATION**

<table>
<thead>
<tr>
<th>Group</th>
<th>No.</th>
<th>Mean</th>
<th>S. D.</th>
<th>S. E.</th>
<th>Diff. M.</th>
<th>S. E. Diff.</th>
<th>C. R.</th>
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<tr>
<td>Girls</td>
<td>25</td>
<td>13.24</td>
<td>2.08</td>
<td>.42</td>
<td>.21</td>
<td>.54</td>
<td>.39</td>
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<tr>
<td>Boys</td>
<td>38</td>
<td>13.03</td>
<td>2.08</td>
<td>.34</td>
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The mean score for the girls was 13.24 compared to 13.03 for the boys. The critical ratio .39 showed the difference was not statistically significant. There are 65 chances in 100 that this is a true difference in favor of the girls.
CHAPTER IV
SUMMARY AND CONCLUSIONS
CHAPTER IV
SUMMARY AND CONCLUSIONS

The purpose of the study was to compare the effectiveness of presenting stories to first and second grade children by filmstrips and oral presentation by the teacher.

Sixty-three first and second grade children were presented stories by filmstrip and orally by the teacher. Two filmstrips stories were used. The captions under the pictures of the filmstrips were written in story form and read by the teacher for the oral presentation.

One story was presented by filmstrip to the first grade and read orally by the teacher to the second grade. The other story was presented by filmstrip to the second grade and read orally by the teacher to the first grade. Following each presentation tests were given to measure the retention.

This study was limited to sixty-three first and second grade children in the same school. The group was representative of an industrial area. Nearly all of the children were of average or above average intelligence.
The following conclusions were made from the analysis of the data:

1. The comparison of the total results of filmstrip and oral presentation by the teacher showed a difference in favor of filmstrip presentation of stories. The difference was not statistically significant, the critical ratio being 1.54.

2. The comparison of both methods of presentation of "The Ugly Duckling" showed a difference in favor of oral presentation of story. The difference was not statistically significant, the critical ratio being 1.15.

3. The comparison of both methods of presentation of "Thumbelina" showed a statistically significant difference in favor of filmstrip presentation of story. The critical ratio was 3.23.

4. The comparison of boys and girls for filmstrip presentation showed a slight difference in favor of the girls. The difference was not statistically significant, the critical ratio being .12.

5. The comparison of boys and girls for oral presentation showed a slight difference in favor of the girls. The difference was not statistically significant, the critical ratio being .39.
CHAPTER V

SUGGESTIONS FOR FURTHER RESEARCH
CHAPTER V

SUGGESTIONS FOR FURTHER RESEARCH

1. Repeat the experiment using a larger population.
2. Experiment with children of different communities.
3. Repeat the experiment using different filmstrip stories.
4. Do a similar study using several stories for comparisons.
5. Compare scores of high, average, and low intelligence groups.
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Green, Ivah, "Time Is Costly; Save It," Educational Screen, 29: 238-239; June, 1950.


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FILMSTRIP NO. 1


FILMSTRIP NO. 2

On the banks of a pond near an old farm, a duck sat on her nest. She was waiting for her eggs to hatch. At last the eggs cracked open. Little yellow heads poked out of the shells. But out of one of the shells came a large ugly bird. He was not like the other ducklings. He was gray and his neck was long and thin. "Perhaps he is a turkey," said Mother Duck. Mother Duck took the ducklings down to the pond. The Ugly Duckling swam with them. No, he was not a turkey. Mother Duck took the ducklings to the barn-yard. "What an ugly duckling," cried the ducks and chickens. They pushed and stepped on him. No one wanted the Ugly Duckling. A large rooster strutted up and pecked him. The Ugly Duckling was so afraid and so sad. The Ugly Duckling thought he would run away. So he flew away to some trees. But the birds in the trees were afraid of him. He went off to another pond. Some wild ducks lived there. "Go away," they cried. "You are too ugly to live with us!" Suddenly he saw some beautiful swans with long necks like his. They made a queer cry like the Ugly Duckling. He wanted to go with them. But the Ugly Duckling went on until he came to a little house. An old woman lived there with a cat and a hen. The old woman let the Ugly Duckling live with her. She thought he might lay eggs. The cat and the hen did not like him. The
Ugly Duckling could not purr. He could not lay eggs. He wanted to swim. So they thought he was queer. "Go away," cried the cat and the hen. "We do not want you here!" So the Ugly Duckling went away. He swam and dived in the pond. But the Ugly Duckling was very lonely. No one wanted him because he was so ugly! Soon winter came. The pond began to freeze. The Ugly Duckling began to freeze, too. But just in time a kind woodsman found the Ugly Duckling. He cut the ice away and saved him. The woodsman took the Ugly Duckling home to his wife and children. They wanted him and tried to be kind to him. The children wanted to play with the Ugly Duckling. But he flew about the room and upset everything. They tried to catch him. The Ugly Duckling was frightened. He flew out of the door and hid under an old tree. There he lay in the snow all winter. At last spring came. The Ugly Duckling raised his head and flapped his wings. He found himself near a pond where beautiful swans were swimming. The Ugly Duckling swam toward them. "Kill me," he cried, as he bowed his head. Then he saw himself in the water. He was a beautiful swan! The old swans swam round and round him. They stroked him gently with their bills. They bowed their heads before him. Little children came and fed him. "Oh, what a beautiful new swan," they said. Then he lifted his beautiful neck and cried, "I never dreamed of such happiness when I was the Ugly Duckling!"
DIRECTIONS TO CHILDREN

"The word at the top of your paper is Name. Write your name on the line beside that word. I am going to read some sentences about the story that we just saw (heard). Some of the sentences are right and some are wrong. If you think the sentence is right, draw a line around Yes. If you think the sentence is wrong, draw a line around No. Put your finger beside No. 1. Here is the first sentence: A mother duck had some eggs in her nest. Draw a line around the correct answer."

Sentences read by the teacher to check retention following filmstrip and oral presentation of "The Ugly Duckling" are on the next page.
Sentences read by the teacher following filmstrip and oral presentation of "The Ugly Duckling":

1. A mother duck had some eggs in her nest.
2. Baby ducks came out of the eggs.
3. One baby duck was big and ugly.
4. All the ducks and chickens liked him.
5. The Ugly Duckling was happy.
6. He ran away from home.
7. He came to a little house.
8. An old pig lived in the house.
9. The Ugly Duckling lived with a cat and a hen.
10. The cat and the hen liked the Ugly Duckling.
11. The Ugly Duckling ran away again.
12. Mother Duck found him.
13. He hid in a house all winter.
14. One day in the spring he saw himself in the water.
15. He was a beautiful swan.
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There was once a woman who wanted a child. She asked an old witch to help her. The old witch gave her a barley corn and said, "Plant this, and see what happens." The woman planted the barley corn in a flower pot. At once it grew into a beautiful flower. She kissed the closed flower petals. And pop, the petals opened! There, in the middle of the flower, sat a beautiful little girl. She was not as large as the woman's thumb. So she called her Thumbelina. Thumbelina slept in a little bed made from a walnut shell. Her mattress was made of violet leaves and her cover of rose petals. During the day Thumbelina liked to sit upon a big tulip leaf in a dish of water, and row about from one side of the dish to the other. One night a toad hopped through the window and carried off Thumbelina, bed and all. He set her down upon a lily leaf in the middle of a stream. Thumbelina awoke and began to cry when she saw where she was. There was water all around her and she could not get away. Some little fishes heard Thumbelina cry and wanted to help her. So they swam close to the lily leaf and nibbled it off the stem. Away went Thumbelina down the stream on the leaf. A butterfly flew onto the leaf, and Thumbelina tied him to it for a sail. Thumbelina and the butterfly were very happy sailing on the leaf. But a
big June-Bug flew down and carried Thumbelina off to a nearby tree. All of the other June-Bugs came to see Thumbelina. When they saw that she had only two legs and no feelers, they did not think she was beautiful. Then the big June-Bug began to think that Thumbelina was not beautiful. So he carried her down from the tree and set her free. Thumbelina lived alone in the woods all summer. She ate honey from the flowers and drank the morning dew from the leaves. The birds sang to her all day. Soon winter came. The birds flew away. The trees and flowers lost their leaves. Poor Thumbelina was cold and sad. One day Thumbelina found the home of a Field-Mouse in a field near the woods. She went to the door and asked, "Oh Field-Mouse, May I live with you?" The Field-Mouse said, "You may, if you will keep house for me." The Mole was the friend of the Field-Mouse and often came to visit them. He wanted Thumbelina to marry him. One day the Mole took Thumbelina and the Field-Mouse to see his home in a dark tunnel under the ground. There Thumbelina saw a swallow. The swallow seemed to be dead, but Thumbelina covered him with some leaves. Then he awoke and thanked her for her kindness to him. All winter Thumbelina cared for the sick swallow. By spring he was well. Thumbelina made a little hole in the top of the tunnel so that he could fly away. One day Thumbelina was very sad because she was to be married to the Mole and live under the ground. She would never see the sunshine, nor the flowers and birds.
again. Suddenly she heard the little swallow singing above her. He said, "You do not have to marry the Mole. Climb upon my back and I shall take you far away." Away flew the swallow with Thumbelina until they came to a land of sunshine and flowers. He set Thumbelina down in a beautiful garden where little people, as small as Thumbelina, lived. On a flower sat the King of all the little people. He thought that Thumbelina was very beautiful. "I shall make you my Queen," he said. Thumbelina was very happy. The King placed his crown upon Thumbelina's head and said, "I shall call you Maia because you are so beautiful." The swallow sang and all the little people danced about their queen.
Sentences read by the teacher to check retention following filmstrip and oral presentation of "Thumbelina" are on the next page.
Sentences read by the teacher following filmstrip and oral presentation of "Thumbelina":

1. Thumbelina was a little girl.
2. She was as big as you.
3. Her bed was a walnut shell.
4. During the day she liked to sit on a chair near the water.
5. One day a toad carried her off.
6. He put her down on a lily leaf in the stream.
7. She was happy there.
8. Some little fishes helped Thumbelina.
9. She was happy in the woods all summer.
10. In the winter she kept house for a field-mouse.
11. She wanted to marry the mole.
12. Thumbelina helped a sick swallow.
13. The swallow took her away to a happy land.
14. The people there were big.
15. She was made king of all the little people.
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