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The effectiveness of two methods of teaching card index skills to third graders

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The effectiveness of two methods of teaching card index skills to third graders

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Abstract
This research study set out to determine if an audio-tutorial package or a slide-tape learning package was more effective in teaching card index skills. The researcher predicted no significant difference at the .05 level in the two groups. Literature was reviewed on audio-tutorial packages, characteristics of media, the projected image, and theories of learning. The two learning packages were designed, piloted, and revised. The population was thirty third grade students at Grant Elementary School in Cedar Rapids, Iowa. This population was randomly divided into two treatment groups. The students took similar pretests and post tests and completed the same follow-up activities. Treatment Group A used seven audio-tutorial packages. Treatment Group B used seven slide-tape packages. A t test was performed on the means of the post test scores of each group. No significant difference in the effectiveness of the two learning packages was found, but students in each group made noticeable gains.
THE EFFECTIVENESS OF TWO METHODS OF TEACHING CARD INDEX SKILLS TO THIRD GRADERS

A Research Paper
Presented to the
Faculty of the Library Science Department

In partial Fulfillment
of the Requirements for the Degree
Master of Arts

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April, 1978

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This research study set out to determine if an audio-tutorial package or a slide-tape learning package was more effective in teaching card index skills. The researcher predicted no significant difference at the .05 level in the two groups. Literature was reviewed on audio-tutorial packages, characteristics of media, the projected image, and theories of learning. The two learning packages were designed, piloted, and revised. The population was thirty third grade students at Grant Elementary School in Cedar Rapids, Iowa. This population was randomly divided into two treatment groups. The students took similar pretests and post tests and completed the same follow-up activities. Treatment Group A used seven audio-tutorial packages. Treatment Group B used seven slide-tape packages. A t test was performed on the means of the post test scores of each group. No significant difference in the effectiveness of the two learning packages was found, but students in each group made noticeable gains.
Chapter 1

INTRODUCTION

What do I try now? Many times teachers and media specialists struggle with new ways to teach subjects that they have taught before, and still want to find a better way. Since there are few guidelines for the best way to teach a certain skill, most teachers muddle through several methods before coming upon one that works effectively for them. Many times they turn to commercially produced materials, only to find that they are not suited to their particular situation. This study was designed to compare two alternative methods of teaching what this researcher considers to be a basic library skill—how to use the card index. The term card index will be used instead of card catalog as it is the expected usage for the subjects of this study. Media specialists, teachers, and administrators generally agree that this is a necessary skill. Perhaps the guide put out by the Oklahoma State Department of Education states it best in the introduction to the guide. It says:

"Each student should be guaranteed a minimum exposure to basic library procedure. Those who learn research skills successfully will find that they can and do enjoy books, recordings, and other materials without continued guidance of teachers and librarians. If this knowledge has been acquired early in life, children will feel secure in their approach to school and public libraries the rest of their lives."

In surveying the literature in preparation for this study, this

researcher found that although similar studies have been done, there were shortcomings that prohibit the reader from understanding the significance of the studies. For example, no steps were taken to insure equal content taught by the two instructional methods, no pretest was given to measure knowledge of the students at the beginning of the study, the sampling technique was unclear, and the extent of teacher involvement in the teaching sequence was not clear. This researcher will seek to avoid these shortcomings.

The audio-tutorial approach has been tried in many classrooms with varying degrees of success. It involves the student working at his own rate, using various methods of learning. The audio-tutorial learning approach takes into account the basic ingredients of a good educational program—the repetition of skills, the association of related items, the breaking down of the learning sequence into basic parts, and the progressive sequence of learning activities. Most research already done on audio-tutorial programs has been confined to experiments with college level science, home economics, and business students. Most of the studies compare audio-tutorial teaching and conventional classroom teaching, or audio-tutorial teaching and no-teaching situations. This study attempted to document the effectiveness of this method of instruction when used with elementary students.

Many types of media presentations and self-instructional media packages have been developed for use in high schools, colleges, and

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universities, but few have been tried at the elementary level. Slides and tapes have several advantages over the most commonly-used forms of media presentations--video tapes and 16mm films. Slides and tapes are relatively inexpensive, easy to produce, and easy for both the researcher and the students to manipulate. The learning sequence can be changed to meet the needs of different groups. The slides can also be taken in the actual school setting, and thus add realism to the presentation. The slide-tape sequence includes the same basic ingredients of a good educational program as the audio-tutorial approach. Studies on the effectiveness of varied types of self-instructional media presentations have been directed mainly at educational television and instructional films. These studies have been generalized to other types of media, but more studies need to be done on the slide-tape presentation.

This study was undertaken to determine which was a more effective learning package--an audio-tutorial learning package or a slide-tape learning package--when used with third grade students who were learning to use the card index. This study may be a basis for other researchers when trying to design their own experimental projects. It will also be a basis for this researcher to refer to in designing further instructional sequences.

The problem this study considered was: Will an audio-tutorial learning package or a slide-tape learning package be more effective in promoting learning of card index skills as measured by a comprehensive post test?

The researcher predicted that there would be no significant difference at the .05 level between the learning of card index skills
as taught by the audio-tutorial learning package and the learning of card index skills as taught by the slide-tape learning package and as measured by a comprehensive post test.

The study was designed to study only the effectiveness on the learning of third grade students at Grant Elementary School in Cedar Rapids, Iowa. This researcher did not attempt to generalize the findings to a larger population. The study was designed with a specific need of the researcher as a guiding principle.

Some assumptions are necessary for understanding this study. As mentioned previously, professional educators generally agree that third graders are capable of learning how to use the card index. To check out this assumption, some library curriculum guides were surveyed. The curriculum guides produced by the Oklahoma State Department of Education,\(^4\) the Toledo Ohio Public Schools,\(^5\) and the Elkins Park Public Schools\(^6\) were typical of the curriculum guides that suggested teaching card index skills at the third grade level.

An assumption was also made that these students were capable of using self-instructional methods. Research on individualized instruction and actual usage of self-instructional methods by students in elementary schools have generally shown that this age student is capable of self-direction. Two other assumptions were considered.

\(^4\)Oklahoma, op. cit., p. 18.


Because of the current instructional sequence taught at Grant Elementary School, it was assumed that the students were able to operate all of the necessary equipment, and that they had mastered the basic terms used in the learning packages—author, title, subject, etc.

There were also some limitations to this study. For most of these students, these two methods of self-instruction were a new experience. Therefore this researcher does not know how much learning or non-learning may be attributed to this fact. They were not previously introduced to these two types of learning packages since they came from a traditional self-contained classroom. The population was a limitation since students were chosen from only one classroom. The design of the audio-tutorial learning packages and the slide-tape learning packages as described in the methodology section were also limiting factors. The limitations of the experimental design must also be considered. The validity of the learning packages, the validity of the measuring instruments, the mortality of the population, what the population already knew about the subject, the interaction of the learners, and the testing environment are examples of limitations of this experimental design.

Some operational definitions are necessary for understanding this study. Three terms that are further described in the methodology will be defined here. Card index skills taught by these packages are identified as: finding call numbers on card index cards and on book spines; locating the author and title on card index cards; locating the publisher, date, and number of pages on card index cards; using inside and outside guides; using simple filing rules; and using see and see also cards. The audio-tutorial learning packages consisted of
a cassette and accompanying worksheet to teach each of the card index skills listed above. The slide-tape learning packages were a set of slides and accompanying cassette tapes to teach the card index skills listed above. Both packages contained identical activity sheets to reinforce the learning packages. Learning as used in this study was defined as the ability to use the card index skills taught by the two learning packages as evidenced by performance on a comprehensive post test that was given to all students at the end of the two week experimental period.
Chapter 2

REVIEW OF THE RELATED LITERATURE

The researcher initially reviewed literature on programmed instruction, individualized instruction, multi-media instruction, audio-tutorial learning packages, and learning processes and theories. The review was then limited to these four basic questions:

1. What have previous researchers found out about the audio-tutorial learning package approach to skills?

2. What does research tell us about the characteristics of media that should be considered in designing a good instructional package?

3. What does research tell us about the projected image, both with and without sound, and its effectiveness as an instructional tool?

4. What have Neal Miller, B. F. Skinner, R. M. Gagne, and D. P. Ausubel, major learning theorists, told us about designing instruction?

On reviewing the literature to find out what is known about audio-tutorial learning packages, it was observed that most of the research in this area has been on the use of audio-tutorial methods with college students. Grobe,7 Butts,8 and Arnwine9 found that there


was no significant difference in learning from audio-tutorial packages as compared to students who were involved in regular classroom instruction. Thorsland compared audio-tutorial packages and conventional teaching, and he concluded that although there was no significant difference in learning, there was a measured favorable attitude toward learning via the audio-tutorial packages.10

Other recent studies have produced conflicting results when using an audio-tutorial approach as compared to conventional classroom teaching. Tipling,11 Edwards,12 Hinds,13 and Fields14 used different types of audio-tutorial methods but found similar results. Each researcher found that the students taught by the audio-tutorial method scored significantly higher on the post test than did students taught the same skills in a conventional classroom.

Four studies of significance with audio-tutorial packages involved primary children. Novak used audio-tutorial learning packages to teach


science concepts to primary students. He found that using this method made possible relatively controlled instruction in basic science concepts.\textsuperscript{15} Gallagher did a similar study with third grade science students and concluded that students did learn the concepts, that they were distracted less, and that they were able to generalize the concepts learned to similar situations.\textsuperscript{16}

Two more recent studies did show significant difference at the \textsuperscript{.05} level. J. S. Gardiner\textsuperscript{17} and T. M. White\textsuperscript{18} in two separate studies used an audio tape and printed materials audio-tutorial approach. Each of these studies used these audio-tutorial packages to teach reading and spelling skills to elementary students. Both showed significant difference over teaching the same skills with traditional teacher-based instruction.

What does research tell us about the characteristics of media that should be considered in designing a good learning package? Mellinger\textsuperscript{19} and Miller\textsuperscript{20} conducted studies on primary children to determine if


children prefer colored or black and white illustrations, and if they preferred abstract or realistic pictures. They concluded that a majority of the children surveyed preferred full color, realistic pictures over black and white pictures or abstract drawings. Dwyer, in his study on realism and how it affects the viewer, states that the more realistic the instructional device, the more effectively it will facilitate learning. He also points out that color can present a significant contribution to the realism depicted in the visuals. \(^{21}\)

Louis H. Berry, in his 1974 study, agrees with Dwyer that realism is an important factor to consider in designing media. He also points out that non-realistic color should be avoided unless it makes parts or objects more distinct from one another or from the background. \(^{22}\)

In a similar study, Travers determined that simplicity and clarity are important in pictures of any kind used with primary children. \(^{23}\)

In a later study Travers also focused on the question of realism in instructional materials. He suggested that to deal with a complex environment, the nervous system must simplify inputs by a process that he calls compression. So to maximize the effectiveness of visuals, it is necessary to mask or discard some parts of the visual which contain little or distracting information. \(^{24}\)


\(^{22}\) Louis H. Berry, An Investigation of the Effectiveness of Realistic and Non-Realistic Color in Visualized Instruction U. S. Educational Resources Information Center, ERIC Document ED 129257, 1975.


M. A. Vandermeer conducted a study with adults to determine the effectiveness of color versus black and white films. He concluded that learners generally prefer color to black and white films, and that on retesting concepts learned by watching the films, the students who had watched color film had forgotten less.\textsuperscript{25}

W. A. Miller did another study on how children view pictures and concluded that if pictures are to be used to aid the understanding of concepts, cues will be needed to direct the attention to the important parts of the picture.\textsuperscript{26}

Rosonke also tested the importance of visual cues when working with third and fourth grade students. He concluded that visual attention-directing devices can increase the performance in identifying parts of the picture when the subject matter is new or is difficult for the viewer. He suggested that the cueing device should be explained to the viewer when he sees the visual.\textsuperscript{27}

Not many studies have been conducted on the use of tapes for teaching concepts. Goldstein compared various sound tracks with an instructional film to determine optimum words per minute that a sound track should have to promote the most effective learning by the viewers. He concluded that the average adult learner listened most efficiently when the rate of the verbal presentation was one hundred and sixty words


Nelson and Vandermeer studied the effects of four different sound tracks with an instructional film. Their conclusions were that the best sound track used short sentences and personal pronouns. The sound track that followed these principles promoted the most learning.

A brief search was made to determine what else could be included in a slide-tape learning package that would aid learning. In a 1960 study, Kantor showed that learning increased significantly when questions were inserted in the learning sequence at short intervals. Michael and Maccoby conducted similar studies that stated that the most important factor affecting learning was that the student understand the correct response to questions asked during an instructional film.

On the third question concerning the effectiveness of the projected image as an instructional tool, several current studies were read and considered. Those studies that related to the subject of the paper are summarized here.

Joy M. and John W. Menne tested thirty-six third grade subjects under three treatment conditions—audio, visual, and audio-visual

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combined--each with three different simple four-lined verses. Results of their study indicated that the subjects participating in this study learned a significantly greater portion of the four-lined verses from a simultaneous audio-visual presentation than from either single form. They also concluded that of the other two forms, the visual presentation was the more effective single-mode presentation.\textsuperscript{32}

William H. Allen tested fifth and sixth grade students on different kinds of learning tasks. The methods of visual presentations varied from transparencies to films. He also found by pretesting and post testing these students that they learned the tasks most efficiently when the visuals were combined with audio presentations.\textsuperscript{33}

In working with older students, Francis M. Dwyer, Jr. conducted a study using television, slides, and programmed material to teach a two-thousand word instructional unit about the human heart. He found that the programmed instruction was the most effective form of instruction, probably because it was not externally paced--the students could spend more time interacting with visuals in the programmed material. Programmed materials gave the students more opportunity to review materials or spend additional time on parts they had trouble comprehending. This seems to hold true in considering the other two methods. Students in the slide treatment group scored significantly higher than the television

\textsuperscript{32}Joy M. Menne and John W. Menne, "The Relative Efficiency of BiModal Presentation as an Aid to Learning," \textit{A\textasciitilde V Communication Review} 20: 170-180, Summer, 1972.

treatment group.\textsuperscript{34}

Harold R. Stang set out to assess the value of the pictorial approach in teaching students an automotive repair skill. He used high school seniors and allowed one group to use slides with written commentary. Another group watched slides and listened to an accompanying cassette tape. He found that pictorial verbal instructional packages can be highly effective in teaching procedural skills to students with wide ranges of ability. He also found that although the pictorial mode only students finished in 75\% of the time, the instructor had to spend 500\% more time administering individual help to students.\textsuperscript{35}

Werner Severin critically reviewed the cue summation literature. Cue summation is the principle of learning theory that predicts that learning is increased as the number of available cues or stimuli is increased. Severin made three predictions for multiple channel presentations. First, he predicted that presentations that combine audio with related or relevant pictures will lead to the greatest gains because of cue summation between pictures and sound. Secondly, he predicted that presentations that combine words only in two channels--orally and in print--will lead to no significant gains over single channel communication because no additional cues are involved. His third prediction is that presentations that provide unrelated cues cause interference and inhibit learning.\textsuperscript{36}


The fourth question of the literature review concerned the contributions of leading theorists to the design of instruction. After reading the literature of various learning theorists, this researcher identified the four whose ideas appeared to be most clearly related to the topic of the research. They will be reviewed only briefly here.

N. E. Miller describes four basic principles that must be included in any effective instructional design. These are motivation, cue, response, and reward. His first principle is motivation, meaning that the student must want something. There are various kinds of motivation, such as intellectual curiosity, the desire to achieve, or the desire to try something new. Miller's second principle is that there must be a cue, meaning that the student has to notice something. This can be done by adding color, a pointer, or markers that are easily discriminated by the student. The third principle is response. This means that the student must do something. The response may be anything from thinking to actual performance of a learning task. Miller stresses that the response is essential for learning. Instructional effectiveness will be increased to the extent that the student is allowed to do something with his knowledge. The fourth principle is reward, meaning that the student must get something that he wants. Any reward may be used, but Miller noted that when working with young children, the reward should be immediate.37

B. F. Skinner starts with Miller's four principles and adds one more idea. He calls his principle "stimulus control." He describes

this as the way in which reinforcement may be used to get more precise and more elaborate learning by the manipulation of stimuli affecting the learner. He says there are three ways of accomplishing stimulus control. The first was what he calls shaping a motor response. The teacher can do this by praising the student when he gives the correct response, thus reinforcing a correct stimulus. Another way to help a student learn a new concept is to chain the new concept to something he has already learned. By showing similarities and differences with an old concept, the student better understands the new concept. The third way to achieve stimulus control is to use successive approximation of stimuli in the learning sequence. Using similar stimuli and adding one new stimulus each time helps the learner assimilate the new information more quickly. These last two concepts tell the researcher to use pictures that add only one new idea at a time and to chain the ideas so that concepts build logically on what the student already knows.38

R. M. Gagne tells us that there are distinctive conditions for different kinds of learning. He describes the internal and external conditions for each particular type of learning which are the basis for instruction. He goes on to describe his principle of "cumulative learning," telling us that the learning of any new task depends on the student having mastered and being able to recall a prerequisite task.39

D. P. Ausubel starts with a similar theory which he calls his


"subsumption theory." In this theory he says that meaningful learning takes place only when a new idea is subsumed into a structure of already existing knowledge. He goes on to tell us that the learner should have an organizer—a meaningful structure as a background for learning a new concept. Next there should be progressive differentiation of content—the most general ideas should be presented first, then the more specific ones. His third principle is consolidation, which is an insistence on mastery of ongoing lessons before new material is introduced. His final principle is integrative reconciliation. This is the principle most often ignored by designers of instruction. It stresses the importance of relating new ideas to the old ones by showing similarities, relationships, and differences of the new concepts as compared to what the learners already know.40

In summary, the review of the literature has produced several ideas related to the concepts of the study. Some studies of audio-tutorial packages have shown no significant difference in learning by audio-tutorial packages as compared to conventional classroom teaching, while other studies have shown significant difference at the .05 level. In all of the studies there seemed to be a measured favorable attitude toward learning by this method. In using audio-tutorial packages with primary children, research has shown that children were able to learn concepts by this method, were distracted less, and were able to generalize the concepts learned to similar situations. This researcher felt that these conflicting conclusions supported the need for this study.

On studying the question of what characteristics of media need to be considered in designing a good media learning package, research showed that simple, clear, accurate, full color, realistic pictures are best. The designer should mask parts of the pictures that are unimportant. Research has also shown that learners need cues to direct their attention to important parts of the picture and that the learner needs to be aware of what the cues are and why they are used. Research on instructional tapes has shown that tapes should be paced at one hundred and sixty words per minute or less, and that more effective learning occurs when short sentences and personal pronouns are used. Questions should be included in the learning sequence with the answers given on the next frame so that the students have immediate reinforcement.

On the third question about the projected image both with and without sound, research seems to be in favor of the audio-visual mode of learning. In several studies, the audio-visual mode proved the most effective, with the visual only mode proving to be second-best. In Dwyer's study comparing slides with television and programmed instruction, programmed instruction was proven most effective, probably because it gave the students more time to study the visuals. When comparing slides with scripts and slides with tapes, Stang found that the advantage to the teacher was apparent because the students who saw the slides with the script needed a great deal more individual help. The cue summation theory tells us that the greater number of useful cues that the student has, the more he learns.

Investigation of the fourth question, concerning what major learning theorists tell us about designing instruction, gave the researcher
several useful hints. Miller told us that the student needs to be motivated, that he should be allowed to respond to the learning sequence, and that he should be rewarded for what he has learned. Skinner told us that the instructional designer should consider the distinctive conditions for learning and should be aware that learning is cumulative. Ausubel took us one step further, telling us that effective learning takes place when instruction is designed with an organizer, with progressive differentiation of content, with consolidation, and with integrative reconciliation.
Chapter 3

METHODOLOGY

The researcher initiated this study in an attempt to find a better way to teach card index skills to third grade students. Several methods had been used previously, but none were totally successful. A traditional lecture or discussion method was unable to focus student attention and permit everyone to see or participate at the same time. Most commercial materials, including filmstrips, transparencies, and tapes, were confusing to students unless they were adapted to the individual media center. The researcher felt that even Search Skills I, which was designed for use in Cedar Rapids' media centers, had some inherent problems and needed to be revised.

In working with other skills, the researcher had used a series of tapes with worksheets and several slide-tape units to teach the use of reference materials. These two methods of presentation had both been successful because they solved the problems of focusing the students' attention on the lesson and providing a way for all students to see the same thing at the same time.

The researcher decided to apply both the audio-tutorial method and the slide-tape method to teaching card index skills in order to determine if one method was more effective than the other. The first step was to find out about learning and what the researcher needed to know to design

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41 Karen Seward and others, Search Skills I (Cedar Rapids: Cedar Rapids Community Schools, 1973).
or choose a good learning package. After reviewing the theorists mentioned in the literature review, these points were evident: that learning is cumulative and should start with the easiest concepts and build to the most difficult; that students need to be motivated to learn; that students need to be actively involved in the learning sequence; and that they need to be rewarded when they have completed the learning package.

Several commercially produced card index units were previewed and rejected as instruments for the research because they were too difficult for third graders or because they introduced concepts that the researcher did not want to introduce at that level. The basic concepts that the researcher wanted to teach were outlined in Search Skills I. They were revised and used as the basis for both learning packages. These revised objectives and concepts are listed below.

I. Call Numbers
   A. Objective - The student will locate the call number on the card index card.
   B. Concepts
      1. The call number is always on the left corner of the card.
      2. The call number is on the label of every book.
      3. The call number on the card is the same as the call number on the book.
      4. There are three kinds of call numbers:
         a. Three-letter call numbers
         b. Two rows of letters call numbers
         c. Numbers and letters call numbers

II. Author and Title on the card
   A. Objective - The student will locate the author and title on the card index card.
   B. Concepts
      1. The author's name is always written with his last name first.
      2. The title is always written on the line under the author's name.

42Ibid.
III. Imprint

A. Objective - The student will locate the publisher, date and number of pages on a card index card.

B. Concepts
   1. A publisher is a company that makes books. The publisher's name is written before the date.
   2. The date tells the year the book was made.
   3. A number with a "p" behind it tells how many pages the book has.
   4. The letters "unp" mean that the book has no page numbers.

IV. Author, Title, Subject Cards

A. Objective - The student will identify the author, the title and the subject as three ways to locate a book.

B. Concepts
   1. You can find a book by looking for an author card. Always look for the author's last name.
   2. You can find a book by looking for a title card. The title will be at the top of the card.
   3. You can find a book by looking for a subject card. The subject is always at the top of the card. It will be written in capital letters.

V. Inside and Outside Guides

A. Objective - Given a title, author, or subject, the student will locate the appropriate card.

B. Concepts
   1. The drawers of the card index are in alphabetical order.
   2. The large letters on the outside of the drawers are called outside guides. They tell you what letter all the cards in the drawer begin with.
   3. All of the cards in the drawer are in alphabetical order by the top line.
   4. The tallest cards in the drawer are called inside guides. They help you find what you want more quickly.
   5. A detailed use of inside guides explanation.

VI. Card Index Rules

A. Objective - The student will use the proper filing rules in a materials search.

B. Concepts
   1. Look for the author's last name.
   2. Look for the first word of the subject.
   3. Look for the first word of a title unless the title begins with the word "A", "An", or "The".
   4. When the title begins with an abbreviation like "Dr." or "Mr.", spell it out. The exception is "Mrs."
   5. When the title begins with a numeral, spell it out.
VII. See and See Also Cards

A. Objective - The student will demonstrate proper use of see and see also cards.

B. Concepts

1. A see card tells you to look another place in the card index for your information. There are no subject cards for this subject.

2. A see also card tells you where to look if you want to find some more about your subject. You can look in both places.

Once the objectives and concepts to be taught were determined, the two learning packages needed to be designed. Background research was read on audio-tutorial programs. The researchers that were reviewed generally agreed that audio-tutorial packages were successful with elementary students, that the packages promoted a favorable attitude toward learning, and that students were able to generalize the concepts that they had learned to similar situations. Based on this favorable research, and considering the points outlined by the learning theorists, the original tapes and student response sheets from Search Skills I were revised to eliminate some perceived weaknesses. These revisions included the development of the terms "author card", "title card", and "subject card" in the fourth package and the revision of the inside-outside guide package to match the card index in the Grant Instructional Materials Center.

The final product was the revised tape scripts and response sheets that are included in Appendix B.

Research was then reviewed on audio-visual presentations before starting to design the slide-tape learning packages. These ideas were gained from the search: children prefer full color realistic

\[43\] Ibid.
pictures; simplicity and clarity are important; unimportant parts of the pictures should be masked; cues are needed to direct attention to important parts of the pictures; and short sentences and personal pronouns should be used in making tapes. Using these ideas and the content of the audio-tutorial tape scripts as a basis, the researcher was ready to make the slide-tape learning packages.

An attempt was made to keep the two sets of learning packages as much alike as possible so that students would be getting the same information in each treatment group. The Search Skills packets used the character Homer (from Crosby Bonsall's book *Who's A Pest?*) as an illustration and theme to tie the units together. The researcher decided to use this character on the audio-tutorial worksheets, on the credit slides of the slide-tape packages and on some of the student activity sheets. The character was also on a rubber stamp that was used as a reward for the students when used on the completed activities.

The first draft of the tape scripts was made and other Cedar Rapids media specialists were asked to make criticisms and suggestions. The second draft of the scripts was made and descriptions of the slides were added. A Saturday was devoted to designing and taking the one hundred and fifty slides. The film was sent in to be processed and was destroyed by the processor's slide framing machine. The slides were retaken and organized in carousels for each unit.

Individual cassette tapes were recorded for each set of slides.

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44 Ibid.
Since automatically synchronized equipment was not available to the researcher, an audible "beep" was put on the tapes to tell the group leader when to change slides. The completed slide-tape packages were previewed by three other Cedar Rapids media specialists and suggestions for revisions were made. The completely revised slide-tape scripts are included in Appendix C.

The learning activities were written after reviewing both learning packages. The groups were available to the researcher for thirty minutes at a time because of media center and classroom schedules. This necessitated some requirements for the activities. These requirements were that students had to be able to complete the activities in fifteen minutes or less, the activities had to require a minimum of writing, and they had to be easy to check when completed. These three requirements assured that the groups could be finished in the allotted time. Knowing the students' abilities and interests, the researcher designed the activities so that the students could complete them easily and successfully. The activities are included in Appendix D.

In order to measure what the students learned, a pretest and post test were developed. Both tests were designed to cover all of the basic concepts that the learning packages would cover. Some of the questions were also designed to allow the students to actually use the card index in the Grant Instructional Materials Center. There were multiple forms of these tests to facilitate the use of the card index and to insure that each student did not copy another student's work. An assumption was made that all forms of the test were equally valid since only authors, titles, and subject words were changed.
Some of the authors and titles were familiar to the students, thus making them less difficult than others. In these cases, the students' previous experience with the names may have been an advantage. The tests included short answer, fill in the blank, and activity questions. Samples of each test are included in Appendix A.

All of the prepared materials were used in a pilot project with third graders from a third and fourth grade combination classroom. These students were chosen since they were the same age as the treatment groups and were at an average third grade reading level. The pretest, all of the learning packages, and the post tests were used with these students. As a result of this pilot, some changes were made in the learning packages. Some of the pictures were masked to help focus the students' attention, some slides were retaken with arrows to point out important parts of the pictures, and the wording on some of the tape scripts was changed to make the concept clearer to the students. The completed packages were then ready to be used in the study.

Several experimental designs were considered and the following design was deemed best for this study:

- **Group A** Pretest - Audio-Tutorial Treatment - Post Test
- **Group B** Pretest - Slide-Tape Treatment - Post Test

The population for the study was defined as all third grade students enrolled in room 98 at Grant Elementary School in Cedar Rapids, Iowa. This population included thirty students. The population was limited by their availability to the researcher and the purpose of the study. Because of a flu epidemic that hit
Grant School at the time of the study, only students continuously enrolled in the class from the first day to the last day of the study were considered members of the population. Two students were out of school during the first week of the treatment period, one with the flu and one with the chicken pox. These two students were dropped from the study, leaving a group of twenty-eight students who completed the study.

The entire population was divided into the two treatment groups by a random sampling technique. A true random sample was assured by pulling names from a hat. The student's name was assigned to a group and then the name was returned to the hat until all the names had been drawn. This assured a true random sample. The random sample was necessary because of the statistical measures that were to be used later to analyze the data.

Once the groups were chosen, the media specialist met with the classroom teacher to decide when the groups would meet each day. Some limitations necessitated dividing the total group into two subgroups of fourteen students. The subgroups included seven students from each treatment group. The limitations were the size of the Grant Instructional Materials Center, the availability of only eight cassette recorders for use at one time, and scheduling problems created by students attending adaptive physical education and remedial reading classes. Working with these smaller groups also gave the media specialist more time to help individual students during the activity sessions and made checking each day's activity sheets easier.

The pretest was given to all students during the same period. The testing period was scheduled for a time when there were no classes
scheduled in the Instructional Materials Center, and there should have been no major interruptions. The pretest was given to all students and they were assigned seats for the testing session. Even though the students were accustomed to taking pretests in their reading program, they were frustrated with their inability to answer the questions on this test. The only major interruption during this testing session was the kindergarten class from next door, which paraded through the room wearing their newly made George Washington hats singing "Yankee Doodle". This happened at a time when everyone was most frustrated and it provided a welcome relief!

The two subgroups met for a one-half hour session each day. One group met at 9:10 each morning and the other group met at 12:50 each afternoon. The first day of the study the students met with the media specialist to discuss the project and the procedures they would be using during the two week session. The students seemed to be excited about participating in the study and were conscientious about completing the activities each day. The following six days the students arrived at their assigned times and divided themselves into the two groups.

The audio-tutorial groups were responsible for getting their own tape recorders and headsets and getting the tapes and worksheets from the desk each day. If a student had problems with the equipment, the media specialist assisted the student. They worked through the learning package, listening to the tape as many times as necessary. No attempt was made to help the students understand the learning package contents at this time.
When the students were done, they put away all the equipment before starting on the activity for the day.

The slide-tape group watched the slides and listened to the tape without headsets. The media secretary served as group leader for this group and operated the carousel projector at each session. The tape was not stopped during the session and no attempt was made to help the students understand the concepts presented at this time. The entire learning package was viewed and the students were asked if they would like to view it again. Only the inside guide-outside guide learning package was viewed the second time by the group. Both groups worked smoothly each day, although the slide-tape group was more easily distracted by the predictable interruptions such as the telephone ringing, the intercom buzzing, and students coming to return books or get materials.

After both groups had completed the learning packages each day, all students were given an activity to do to reinforce what they had learned. At this time students were allowed to ask questions. No observable difference in the quality of the questions asked could be discerned between the two treatment groups. The media specialist then explained the day's activity. The students were allowed to work at their own rates with assistance given when questions were asked. At the end of the activity period each day, the activities were checked by the media specialist and students were given the activity sheet or a colored bookmark that was stamped with the Homer stamp to show that they had successfully completed the day's activity.
The final day of the project was devoted to taking the post test. Not as much time was required to take this test, since it was identical to the pretest and did not require as much explanation. The students also seemed more comfortable with the parts of the test since the test questions were similar to the activities they had done each day. The students completed the test in one class session. The students seemed sorry that the project was over and asked when they could come back again to do some more.
Chapter 4

ANALYSIS OF DATA

The pretest and post test results provided some interesting observations. Once the pretests and post tests for both groups were scored and logged, an attempt was made to determine the significance of this data. Several statistical methods were considered in the search to find a usable method for evaluating the means and standard deviations of small samples.

The pretest had a total of forty-one possible points. One point was given for each correct answer, and for questions that had more than one answer, a point was given for each part of the answer that was correct. The results of the pretests for the two groups are presented in Table 1.

The means of the two groups were 14.07 for Group A and 14.43 for Group B. These means were almost equal, but they tend to make the two groups appear more similar than they apparently were. The scores of Treatment Group A ranged from 5 to 28 points. This group had the three highest and the four lowest scores on the test. Although none of the students had previous instruction in using the card index, some of them had received informal help in using it to locate materials. This may be one factor accounting for the wide variation in the pre-test scores. Other factors may be the alphabetizing skills the student has already acquired and their experiences with other school or public libraries.

Group B appeared to be more evenly matched, since the scores only ranged from 10 to 18 points. This difference between the groups
is also indicated by the standard deviations as shown in Table 1. The standard deviation for Group A was 7.05, while for Group B it was only 2.56.

Table 1

Pretest Scores, Means, and Standard Deviations of Two Treatment Groups

<table>
<thead>
<tr>
<th>Treatment Group A</th>
<th>Treatment Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio-Tutorial Method</td>
<td>Slide-Tape Method</td>
</tr>
<tr>
<td>Student Number</td>
<td>Number Correct</td>
</tr>
<tr>
<td>(41 possible)</td>
<td>(41 possible)</td>
</tr>
<tr>
<td>1</td>
<td>28</td>
</tr>
<tr>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>5</td>
</tr>
</tbody>
</table>

Sum of the scores = 197  Sum of the scores = 202
Mean = 14.07  Mean = 14.43
Standard Deviation = 7.05  Standard Deviation = 2.56
The post test was identical to the pretest except for changes of authors, titles, and subjects in the questions. The post test scores, means, ranges, and standard deviations are included in Table 2.

Table 2

Post Test Scores, Means, and Standard Deviations of Two Treatment Groups

<table>
<thead>
<tr>
<th>Student Number</th>
<th>Treatment Group A</th>
<th>Treatment Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Audio-Tutorial Method</td>
<td>Slide-Tape Method</td>
</tr>
<tr>
<td></td>
<td>Number Correct (41 possible)</td>
<td>Number Correct (41 possible)</td>
</tr>
<tr>
<td>5</td>
<td>41</td>
<td>15</td>
</tr>
<tr>
<td>1</td>
<td>40</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>39</td>
<td>17</td>
</tr>
<tr>
<td>4</td>
<td>38</td>
<td>28</td>
</tr>
<tr>
<td>6</td>
<td>38</td>
<td>24</td>
</tr>
<tr>
<td>12</td>
<td>38</td>
<td>16</td>
</tr>
<tr>
<td>9</td>
<td>37</td>
<td>18</td>
</tr>
<tr>
<td>8</td>
<td>36</td>
<td>20</td>
</tr>
<tr>
<td>10</td>
<td>36</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>35</td>
<td>22</td>
</tr>
<tr>
<td>7</td>
<td>35</td>
<td>23</td>
</tr>
<tr>
<td>11</td>
<td>29</td>
<td>25</td>
</tr>
<tr>
<td>13</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>14</td>
<td>23</td>
<td>27</td>
</tr>
</tbody>
</table>

Sum of scores = 491
Mean = 35.07
Standard Deviation = 5.15

Sum of scores = 454
Mean = 32.43
Standard Deviation = 3.89
The range of scores on the post test was again greater in Group A, which still had the highest and lowest scores. By comparing the means on this test with the means on the pretest, we can see that Group A had a higher overall gain. Group A had a mean on the pretest of 14.07 and a mean of 35.07 on the post test, for a gain of 21 points. Group B had a mean of 14.43 on the pretest and a mean of 32.43 on the post test for a mean gain of 18 points. Thus Group A's overall gain was three points more than that of Group B. The standard deviation of the two groups appears to be more similar on the post test. The scores of Group A are now closer together and Group B's are farther apart.

The researcher had predicted that there would be no significant difference at the .05 level between the learning of card index skills as taught by the audio-tutorial learning package and the learning of card index skills as taught by the slide-tape learning package as measured by a comprehensive post test. To see if the difference between the means on the post test was significant, a t test was performed on the means of the post tests of the two groups. The result of the t test was t = 1.49. This is not significant at the .05 level. (.05 = 2.05646) The researcher concluded that there was no significant difference in the means of the two groups and the null hypothesis was accepted.

Although the research showed no significant difference between the two methods, there were considerable individual gains by the students in each group. The smallest individual gain was 12 points.

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made by student #1 in treatment Group A. The largest individual gain was 32 points by student #12, who was also in treatment Group A. The mean gain of the twenty-eight students was approximately 20 points.

One other table was constructed to show the reader and the researcher where students succeeded and where they had the most problems. This information is included in Table 3. Table 3 shows the concepts included in each learning package and the number of students who answered the questions correctly on the pretest and the post test for each concept. This table points out some interesting facts. More students responded correctly to the questions in the first three learning packages on both the pretest and post test. These packages included concepts that had been previously introduced to the students in a location unit taught just prior to the study. This prior learning by the students had an effect on the pre-test scores. With this reinforcement, the students seemed to have a better understanding of most of the concepts in these three learning packages.

The questions about outside guides seemed to be most difficult for the students. Although the individual items in the post test showed some evidence of improvement, there was little or no gain in the number of students who appeared to master the concepts. In the case of using the outside guides to locate a subject, one more student answered correctly on the pretest than on the post test.

The filing rules package also showed small gains in the number of students who understood the concepts. These were new concepts for the students, and the test results show that this package does not effectively teach these skills. The researcher must now decide
Table 3

Concepts Presented and the Number of Students Who Answered Questions Correctly on Pre-tests and Post Tests

<table>
<thead>
<tr>
<th>Learning Package</th>
<th>Concept</th>
<th>Number of students with correct answers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pre-test</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Group A</td>
</tr>
<tr>
<td>1</td>
<td>Call Number</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Author</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Title</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>Publisher</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Date</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Pages</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Author Card</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Title Card</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Subject Card</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Outside Guides:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Author</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Title</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Subject</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Inside Guides</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Filing Rules:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Author</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>THE</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>DR.</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>MR.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MRS.</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Numerals</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Applying the Rules</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>See and See Also Cards</td>
<td>0</td>
</tr>
</tbody>
</table>
whether to revise the packages to teach these concepts more fully, to use them as an activity to reinforce the skills after they have been taught by another method, or to reconsider teaching the skills at the third grade level.

The scores in Table 3 also indicate that the audio-tutorial group scored higher on most of the questions that were answered on paper, but they seemed to have more trouble applying the skills that they learned. The questions about inside guides, applying filing rules, and see and see also cards all required students to use the card index to get their answers. On two of these three sets of questions, more students in the slide-tape group answered the questions correctly. Overall, most of the packages seemed to be successful in teaching the concepts which they set out to teach.
Several conclusions can be drawn from the results of this study. By comparing the means of the pretest and post test for both treatment groups, we can logically say that each of the methods was valid for teaching the card index skills. The large gains made by each group made the researcher feel that the time spent developing the learning packages was worthwhile.

There were some advantages and disadvantages to each treatment method. The audio-tutorial packages held the students' attention better, since the students had to respond to the questions in writing. The students in the audio-tutorial group were also able to listen to the tapes as many times as they wished. This method was easier for the media specialist to manage because the students could handle all of the materials themselves. Since the students worked individually and wore headsets to listen to the tapes, there was little opportunity for them to be distracted by room noises or by other students. The students in the audio-tutorial group seemed to learn more of the concepts than the students in the slide-tape group.

The major disadvantage of the audio-tutorial method was that the media specialist could not observe the problems that were encountered by each individual student. The observation of the students was not a problem with the slide-tape group which
watched the presentation as a group. They did not wear headsets. It was easier for the media specialist to notice when individuals in this group did not appear to understand a concept.

Another advantage of the slide-tape learning package was that the students were more interested in watching the slides. They appeared to grasp the concepts the first time they saw the presentation, and they only asked to see one of the slide-tape packages over again to help them understand the concepts. In general, the students in the slide-tape group were able to complete the daily activities more easily than the other students.

One of the disadvantages of the slide-tape method was that the students were more easily distracted. They were aware of movement and talking in other parts of the room and were able to interact with other members of their group. Another disadvantage was that the students in the slide-tape group were not actively involved in the learning process. Although they experienced some overt questions in the presentation, they were not required to respond verbally or in writing.

The audio-tutorial treatment group scored higher on almost two-thirds of the post test questions. This may have been partially due to the fact that the drawings in the test were very similar to the drawings that the students had experienced in the audio-tutorial learning packages. It may have been more difficult for the students in the slide-tape group to make the transition from realistic photographs to line drawings. However, the students in the slide-tape group were more successful at applying the skills in the card index itself. The realistic photographs may have
worked to their advantage in this instance.

What do the results tell the researcher? The main conclusion was that the audio-tutorial method and the slide-tape method are both valid ways to teach card index skills. The slide-tape packages should be expanded to include more question slides, and the media specialist should work with the group to develop responses and to make sure that all students are involved in the learning process.

The audio-tutorial packages should be used with a student who works better alone, who needs to have his attention focused to learn the concepts, or who needs to work at his own speed.

After the initial time investment in designing the packages, these were both easy and efficient ways to teach card index skills. Although no difference was found in the two methods, considerable learning as a result of the instruction was found. The students who participated in this study are now eager to use the card index and to find materials for themselves. They also enjoy helping each other to find materials without having to ask for help. These observations encourage the researcher to keep using these materials. The materials will be made available to other media specialists in the Cedar Rapids Community Schools.

A proposal for further revising the materials and incorporating them in Search Skills based on the success of this project will be submitted to J. Robert Foley, Director of Staff and Curriculum Development for the Cedar Rapids Community Schools. If this

47 Seward, loc. cit.
project is approved, the learning packages will be revised, reprinted and available for purchase.

Other researchers may wish to study the effectiveness of these or similar packages with students who have already been introduced to these concepts. One or both of these packages might be compared with conventional classroom method of teaching these skills. A study using the slide tape package and designing a similar slide tape package using only line drawings on the slides would also be an interesting study for future researchers.
BIBLIOGRAPHY


Comprehensive Pretest

Wilder, Laura Ingalls
Little house on the prairie; illus. by Garth Williams. Harper 1953. 334p illus

Look at the card above to help you answer these questions. You may write your answers on this paper.

1. The author of this book is ____________________
2. The title of this book is ____________________
3. The call number of this book is ____________________
4. There are ___ pages in this book.
5. The date is _____.
6. The publisher is ____________.

Write the name you would look for to find a book by each of these authors in the card index.

7. Judy Blume ____________________
8. Bill Peet ____________________
9. Laura Ingalls Wilder ____________
10. Syd Hoff ____________________
Here is a picture of some cards from our card index. On the line beside each card tell if it is an author, a title, or a subject card.
<table>
<thead>
<tr>
<th>A - Al</th>
<th>Am - An</th>
<th>Ap - Az</th>
<th>B - Bi</th>
<th>Bl - Bu</th>
</tr>
</thead>
<tbody>
<tr>
<td>C - Ch</td>
<td>Ci - Co</td>
<td>Cr - De</td>
<td>Di - Dy</td>
<td>E - Ey</td>
</tr>
<tr>
<td>F - Fl</td>
<td>Fo - Fu</td>
<td>Ga - Gi</td>
<td>Gl - Gy</td>
<td>H - Hi</td>
</tr>
<tr>
<td>Ho - Hu</td>
<td>I - Iz</td>
<td>J - Ju</td>
<td>K - Ku</td>
<td>La - Le</td>
</tr>
<tr>
<td>Li - Lu</td>
<td>M - Me</td>
<td>Mi - Mu</td>
<td>My - Ne</td>
<td>Ni - Oz</td>
</tr>
<tr>
<td>P - Pi</td>
<td>Pl - Qu</td>
<td>R - Ry</td>
<td>S - Se</td>
<td>Sh - Sn</td>
</tr>
<tr>
<td>So - Sz</td>
<td>T - Ty</td>
<td>U - V</td>
<td>W - Wi</td>
<td>Wo - Z</td>
</tr>
</tbody>
</table>

12. These are the outside guides of our card index. Write the outside guide on the drawer you would choose to find each of these authors, titles, and subjects.

**DOGS** ________________  **First Book of the Jungle** __________

**CATS** ________________  **Syd Hoff** ________________

**Marion Renick** __________  **Henry and Ribsy** __________

**HORSES** ________________  **Elephant in a well** __________
For questions 13, 14, and 15 you'll have to use our card index.

13. Find a card for a book written by ________________________.
   The inside guide just before it is ________________________.
   The inside guide just after it is ________________________.

14. Find a card for a book about ________________________.
   The inside guide just before it is ________________________.
   The inside guide just after it is ________________________.

15. Find a card for a book titled ________________________.
   The inside guide just before it is ________________________.
   The inside guide just after it is ________________________.

16. Circle the title in each pair that would come first in the card index. Remember the rules for titles to help you.

   Mr. Bear and the Robbers  Dr. Doolittle
   More Jokes for Children  Don't Play with Herbie
   Mountains on the Move  Mrs. Frisby and the Rats of NIMH
   Mr. Pine's Purple House  More About Pandas
   90 Billion Raindrops  The Story of a Cave
   No School Today  Tales of the Town

17. Find a card like the one described below in our card index. Show the card you found to Mrs. Bemer.

   A title card for the book ________________________
   A title card for the book ________________________
   A title card for the book ________________________

18. Use our card index to find out what subject you would have to look for to find out about ________________________.

19. What other subject words would you look for in our card index to find out more about ________________________?
Look at the card above to help you answer these questions. You may write your answers on this paper.

1. The author of this book is ____________________________
2. The title of this book is ____________________________
3. The call number of this book is ____________________________
4. There are ________ pages in this book.
5. The date is ________.
6. The publisher is ____________________________

Write the name you would look for to find a book by each of these authors in the card index.

7. Judy Blume ____________________________
8. Jack Kent ____________________________
9. Beverly Cleary ____________________________
10. Scott Corbett ____________________________
11. Here is a picture of some cards from the card index. On the line beside each card tell if it is an author, title, or subject card.

**DOGS - STORIES**
- E  Zion, Gene
- Zio  Harry the dirty dog;

**HORSES - STORIES**
- SC  Brown, Beth
- Bro  The wonderful world of horses;
-  pictures by George Jones. Harper

- Far  Farley, Walter
-  The Black Stallion; illus by
-  Marguerite Henry. Macmillan

- B  Aulaire, Ingri D'

- Mas  Masin, Herman L.
-  How to star in football;
-  photos by Owen Reed. Four Winds Press 1966
-  62p illus
12. These are the outside guides of our card index. Write the outside guide you would use to find these subjects, authors, and titles.

**DOGS**

Cat in the Hat

**Freckle Juice**

**TURTLES**

**FLAGS**

**Marguerite Henry**

**Stan Berenstain**

**Harry the Dirty Dog**
For questions 13, 14, and 15 you'll have to use our card index.

13. Find a card for a book written by __________________________.

The inside guide just before it is __________________________.

The inside guide just after it is __________________________.

14. Find a card for a book about __________________________.

The inside guide just before it is __________________________.

The inside guide just after it is __________________________.

15. Find a card for a book titled __________________________.

The inside guide just before it is __________________________.

The inside guide just after it is __________________________.

16. Circle the title in each pair that would come first in the card index. Remember the rules about titles to help you.

Mr. Penny
More Science Experiments
Mrs. Magnie's Invention
More Riddles

Dr. Seuss' Sleep Book
Doll in the Grass
18th Emergency
Encyclopedia Brown

Moffats
Mr. Bass' Planetoid
The Genie of Sutton Place
Harry the Dirty Dog

17. Find a card like to one described below in our card index. Show the card you found to Mrs. Bemer.

A title card for the book __________________________

A title card for the book __________________________

A title card for the book __________________________

18. Use our card index to find out what subject work you would have to look for the find out about __________________________.

19. What other subject words could you look for to find out about __________________________?
CALL NUMBERS
AUDIO-TUTORIAL TAPE SCRIPT

You should have a pink sheet with a star in the corner. You will be using it while you listen to this tape. If you don't have a pink sheet, stop this tape and get one now. This tape will tell you what a call number is and how to use it. Look at book number 1 drawn at the top of the page. You see a drawing of the book Old Yeller. At the bottom of the book's spine you see the three letters "G-i-p". Circle these letters. You have just circled this book's call number. A call number is like a house address. It tells you where to find a book on the shelves.

Now look at number 2. Circle the call number on each book. Your answers should be "E-s-t-"; "E S-e-n"; "S-C-Kip"; and 5-8-1 S-e-l". You can see that there are different kinds of call numbers. The call number on the first book has 3 letters; the next two have 2 rows of letters; and the last one has numbers and letters.

To find out what a book's call number is, you look in the card index. A card index has cards in it, like the card beside number 3 on your paper. The call number is always in the same place on a card. It is in the top left corner. Finish Homer's lasso by drawing a circle around the call number for this book. You should have circled the 3 letters "D-u-b"
in the top left corner. This call number has 3 letters. These letters help you find the book in the library. Now turn your paper over. Look at number 4. Circle the call number for this book. You should have circled "E S-e-n". To find this book, you would look for a book with these letters on the spine.

Go on to number 5. This call number has numbers and letters. Circle the whole call number. You should have circled "5-6-8 B-1-o".

Beside number 6 you see a card and a book. Circle the call number on the card. Now circle the call number on the book. Did you circle "S-C F-e-n" on the book and the card? If you did, you are doing fine.

Now you are ready to do some work on your own.
1. Twenty-one balloons
   DuBois, William Pene
   Twenty-one balloons; written
   by William Pene DuBois.
   Viking Press 1947
   179p illus

2. The Hundred Dresses
   Pierre
   Just So Stories
   Play with Plants

3. Dub

TURN THIS PAGE OVER
4. E  Sendak, Maurice
    Sen  Where the wild things are;
         pictures by Maurice Sendak.
       Harper & Row 1963
              unp  illus

5. 568  Bloch, Marie Halun
    Blo  Dinosaurs; illus by Mason.
       Coward-McCann 1955
              unp  illus

6. SC  Fenner, Phyllis R
    Fen  Horses, horses, horses;
         illus by Pers Crowell.
       Watts 1949
              285p  illus
This tape will tell you about two new things you can find on card index cards. You should have a pink sheet with a triangle at the top. Look at the first card on your paper. Circle the call number. You should have circled "L-a-w".

Now you are going to learn something new. A person who writes a book is called an author. His name is always on the card. The author's name on the first card is "Doctor Seuss". Can you find his name and underline it? If you underlined "Seuss comma Doctor," you are right. Did you notice that his last name came first? On card index cards, the author's last name is always first. There is a comma between his last name and his first name.

Now look at card number 2. Underline the author's name on this card. The author's name is "Robert Lawson", but on the card it is written "Lawson comma Robert".

Look at card 3. Find the author's name and underline it. The author's name is "Jay Williams." The card says "Williams comma Jay".

Now go back to the first card. You have circled the call number. Did you circle "L-a-w"? Draw a line from the call number to the author's name. Now do the same thing on card 3. You should have circled "W-i-l", and drawn a line from the call number to the author's name.
Now you can find more things on card index cards. One thing you can find is the title. You know that a title is the name of a book. It is easy to find. Look at the first card. Look at the line below the author's name. Underline the title you see there. You should have underlined *The Cat in the Hat*.

Now look at card 2. You have already underlined the author's name. Now look at the line below the author's name and underline the title. You should have underlined *Rabbit Hill*.

Now look at card 3. Can you find the title by yourself and underline it? If you underlined *Danny Dunn and the Fossil Cave*, you are doing fine.

Now you are ready to do some work on your own.
1. Seuss, Dr.
   Seu
   The cat in the hat
   Vanguard Press 1937
   unp illus

2. Lawson, Robert
   Rabbit Hill; illus by Robert
   Lawson. Viking 1944
   127p illus

3. Williams, Jay
   Danny Dunn and the fossil
   cave; illus by Brinton Turkel.
   McGraw 1961
   146p illus
While you are listening to this tape you should have a pink sheet with a circle in the corner.

Look at card number 1, and put an "x" through "E P-a-r". Now draw a line under the author's name. You should have underlined "Parish comma Peggy". Make a squiggly line under the title. You should have underlined Amelia Bedelia.

Now you will find some new things on cards. Look at the first card. Right after the title, Amelia Bedelia, are the words Harper & Row. There is a dotted line around these words. Harper & Row is the name of the publisher. A publisher is a company that makes books.

After the publisher's name you find a date. On this card the date is 1963. Circle the date. 1963 is the year that this book was made. The publisher always comes before the date.

Look at card 2. Find the date this book was made and circle it. You should have circled "1958". Remember that the publisher always comes before the date. When you find the publisher, draw a circle around it. The publisher is Viking.

Now go on to the third card. See if you can find the publisher and the date yourself. Circle them. You should have circled the publisher, Macmillan, and the date "1955".
Did you know that a card will also tell you how many pages there are in a book? Let's look at card number 1. There is an arrow pointing to the number of pages in this book. Circle the number. This book has 32 pages. The small letter "p" means "pages".

Go on to card number 2. Can you find how many pages there are in the book Danny and the Dinosaur? Circle your answer. This book has 64 pages. Now look at card number 3. How many pages are there in the book Two—Lonely Ducks? Did you find the letters "unp"? When you see these letters, you know that there are no page numbers in this book.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Parish, Peggy</td>
<td>Amelia Bedelia. Harper &amp; Row</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1963</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32p illus</td>
</tr>
</tbody>
</table>

| 2. | Hoff, Syd | Danny and the dinosaur; story and pictures by Syd Hoff. Viking 1958 |
|    |   | 64p illus |

|    |   | unp illus |
You should have a pink sheet with a square in the corner while you are listening to this tape.

Look at card 1. Circle the top line. Did you circle the work "HORSES"? If you wanted a book about horses, you could look for the word "HORSES" in the "H" drawer of the card index. You would find a card like this one. The word "HORSES" is written all in capital letters. "HORSES" tells you what the book is about. It is the subject of the book.

This card is a subject card since the top line is the subject of the book.

Now look at the second card. Sometimes you are looking for one special book. You can find its call number by looking for the title in the card index. Pretend that that special book is about horses, and that you remember its title: All About Horses. To find this book, you would look for the work "All" in the "A" drawer of the card index. You would find a card like card number 2. Circle the top line of this card. If you circled the title All About Horses, you are correct. Since the top line of the card tells you the title of the book, it is called the title card.

Circle the top line of card 3. Did you circle "Henry comma Marguerite"? Pretend that you have read the book All About Horses by Marguerite Henry. You liked the book and
now you'd like to find other books that she's written. To find her books, look under her last name, "Henry", in the "H" drawer of the card index. This card is for the book *King of the Wind*. Whenever you know the author's name you can find the book by looking for the author's last name in the card index. A card with the author's name at the top is called an author card. To find a book's call number in the card index, you must know how to find the subject card. . . . . . HORSES

OR

the title card . . . . . *All About Horses*

OR

the author card . . . . . "Henry" as in "Marguerite Henry"
1. **HORSES**
   - 636.1
   - Henry, Marguerite
   - All about horses; with photos by Walter D. Osborne.
   - Random House 1967
   - 129p illus

2. **All about horses**
   - 636.1
   - Henry, Marguerite
   - All about horses; with photos by Walter D. Osborne.
   - Random House 1967
   - 129p illus

3. **King of the wind**
   - Henry, Marguerite
   - King of the wind; illus by Wesley Dennis.
   - Rand McNally 1948
   - 172p illus
You should have a pink sheet with a heart in the corner. This tape will tell you about the inside guides and outside guides of the card index, and how to use them. Look at the boxes on the pink sheet. Pretend the boxes are drawers in the card index. Each drawer has letters on the front. These letters are the outside guides. They help us decide which drawer we will need.

The drawers are always in alphabetical order. Look at the first three drawers. Put an "x" on them. All of the cards in these drawers begin with the letter "A". The fourth and fifth drawers begin with B. The next 3 are C's. Do you see that the drawers are in alphabetical order?

Let's pretend we're looking for a book about dinosaurs. "Dinosaurs is word number 1 at the bottom of your paper. Which drawer would you look in to find "Dinosaurs"? Draw a circle around that drawer. You should have circled the drawer with "Di-Dy" on it.

Try word 2: "Helicopters". What drawer would you look in to find "Helicopters"? Draw a circle around that drawer. You should have drawn a circle around the "H-HI" drawer.

Now try word 3 on your paper: Marjorie Flack. To find a book by Marjorie Flack, you should look for her last name. There are two drawers with "F" on the front. Which drawer would you look in to find the name "Flack"? Remember the cards inside the drawers are in alphabetical order. Draw
a box around the drawer you would use. Did you choose the "F-F1" drawer? That is the right answer.

Look at word 4. Pretend you want to find the book Where's Wallace? Draw a box around the drawer you would find it in. You should have marked the "W-Wi" drawer.

Now turn your pink sheet over. The drawing on this page shows two card index drawers. All the card in the drawers are in alphabetical order. Look at the first drawer. The outside guide is "B" so we know that all the cards in this drawer begin with the letter "B". The cards in the drawer that are taller than the others are called inside guides. They help you know where to look. The inside guides in this drawer are Ba, Be, Bl Bo, and Br. You can practice using the inside guides by pretending you are looking for the subject BIRDS.

The first inside guide is "Ba". Will BIRDS come before or after Ba? To find out, circle the first two letters of BIRDS and the two letters Ba. You can see that BI comes after Ba so BIRDS comes after Ba in the drawer. You will have to look further. The second guide is Be. Write the word BIRDS on the dotted line beside Be. Circle the first two letters of BIRDS and the two letters BE. You can see that Be comes after Be so BIRDS comes after Be. Try the next guide Bl. Write BIRDS on the dotted line beside Bl. Circle the first two letters of BIRDS and the letters Bl. You can see that Bi comes before Bl. BIRDS comes before Bl and after Be, so the only
cards you would have to look at are the cards between Be and Bl. If you looked through those cards, you would find the word BIRDS.

Now look at the second drawer. This is the drawer for cards beginning with "S-Sl". The inside guides are: Sa, Se, Sh, Si and Sl. Pretend you are looking for a book by Charles Schulz, the author of Charlie Brown books. You would look in this drawer to find his name. Schulz is written on your paper. Draw a circle around the second letter of Schulz and each inside guide. You should have circled the C in Schulz and each inside guide. You know that the Sc in Schulz comes between Sa and Se. You could find his name by looking through the cards between these guides.

Try one more example: Pretend you are looking for the book Ski Pup. You will look in the second drawer because Ski begins with the letter S. Draw an arrow between the two inside guides where you would find Ski Pup. Did you put the arrow between Si and Sl? If you did you are right. You know that Ski comes between the Si and Sl.

You have looked for a subject - BIRDS; and author - Charles Schulz; and a title - Ski Pup. Author cards, title cards, and subject cards are all arranged alphabetically in the card index, by the top line of each card.
<table>
<thead>
<tr>
<th></th>
<th>A-Al</th>
<th>Am-An</th>
<th>Ap-Az</th>
<th>B-Bi</th>
<th>Bl-Bu</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-Ch</td>
<td>Ci-Co</td>
<td>Cr-De</td>
<td>Di-Dy</td>
<td>E-Ey</td>
<td></td>
</tr>
<tr>
<td>F-F1</td>
<td>Fo-Fu</td>
<td>Ga-Gi</td>
<td>Gl-Gy</td>
<td></td>
<td>H-Hi</td>
</tr>
<tr>
<td>Ho-Hu</td>
<td>I-Iz</td>
<td>J-Ju</td>
<td>K-Ku</td>
<td>La-Le</td>
<td></td>
</tr>
<tr>
<td>Li-Lu</td>
<td>M-Me</td>
<td>Mi-Mu</td>
<td>My-Ne</td>
<td>Ni-Oz</td>
<td></td>
</tr>
<tr>
<td>P-Pi</td>
<td>P1-Q</td>
<td>R-Ry</td>
<td>S-Se</td>
<td></td>
<td>Sh-Sh</td>
</tr>
<tr>
<td>So-Sz</td>
<td>T-Ty</td>
<td>U-V</td>
<td>W-Wi</td>
<td>Wo-Z</td>
<td></td>
</tr>
</tbody>
</table>

1. **Dinosaurs**
2. **Helicopters**
3. Marjorie Flack
4. *Where's Wallace*
CARD INDEX RULES
AUDIO-TUTORIAL TAPE SCRIPTS

You should have a pink sheet with a happy face in the corner. You have already learned that cards are arranged in alphabetical order by the top line. The top line can be an author, or a title, or a subject. This tape will tell you about finding title cards.

To find a title card in the card index, you usually look for the first word of the title. To find Charlotte's Web, for example, you would look in the C drawer for Charlotte.

You usually look for the first word, but not always. You will be learning 3 rules to tell you when you don't look for the first word of a title.

The first ruled is about titles that begin with the word "A", or the word "An" or the word "The", like A Bear Called Paddington, An Old Haunted House, or The Dog on Barkham Street. To find a title that begins with "A", or "an" or "The" pretend that the first word isn't there, and look for the second word.

Look at the first title on your paper: The Dog on Barkham Street. Remember if a title begins with "The", look for the second word. Cross out "The" and circle the word you would look for. You should have circled the word "Dog".

Title 2 is: A Girl Called Al. If a title begins with "A" look for the second word. Cross out "A" and circle the word you would look for. You should have circled the word "Girl".
Now look at number 3: *An Otter's Story*. Cross out the word "An" and circle the word you would look for. You should have circled the word "Otter's".

Look at the last 3 titles. Circle the word you would look for in each title. You should have circled "Wizard", "Alphabet", and "place".

The second rule is about abbreviations like "Mr." for Mister and Dr. for Doctor. When the first word of a title is an abbreviation pretend it is spelled out. Look at the second part of your pink sheet. Mr. is spelled M-i-s-t-e-r. Dr. is spelled D-o-c-t-o-r. Mrs. is spelled M-r-s. Mrs. is an exception to the rule. We leave it M-r-s. instead of spelling it out. Look at the title Dr. Doolittle's Zoo. Cross out the abbreviation D-r-period, and write the word Doctor on the dotted line. You should have written D-o-c-t-o-r. Which title would come first: *Doctor Doolittle's Zoo* or *Drummer Hoff*? Underline your answer. You should have underlined Dr. Doolittle's Zoo. It would come first because the Do in Doctor comes before the Dr in Drummer.

Now look at the title *Mr. Popper's Penguins* and More Jokes for Children. Cross out the abbreviation M-r-period and write the word Mister on the dotted line. You should have written M-i-s-t-e-r. Underline the title that would come first in the card index. Did you underline *Mr. Popper's Penguins*?
It would come first because the Mi in Mister comes before the Mo in More.

The third rule is: If the title of a book begins with a numeral pretend that the numeral is spelled out. Look at the bottom part of your page. Find the title *2 Policeman*. Cross out the number 3 and write in the word three on the dotted line. You should have written t-h-r-e-e. Now look at the title *1 is One*. Cross out the numeral 1 and write in the word one on the dotted line. You should have written o-n-e. In the box beside the title *2 Policemen* write the letter of the drawer you would look in to find this title. You should have written the letter "t". You would look in the "t" drawer to find the word Three. Now write the letter of the drawer you would look in to find the title *1 is One*. You would look in the "o" drawer because One begins with the letter O.
1. The Dog on Barkham Street
2. A Girl Called Al
3. An Otter's Story

Mr. =M-i-s-t-e-r
Dr. =D-o-c-t-o-r
Mrs. =M-r-s

Dr. Doolittle's Zoo

Drummer Hoff

The Wizard of Oz
An Alphabet Tale
A Place For Peter

Mr. Popper's Penguins

More Jokes For Children

3 Policeman

1 is One
You should have a pink sheet with a diamond in the corner.

Today you will learn about a different kind of card index card. The cards you have already learned to use help you find books on the shelves. Today you will learn about see and see also cards. These cards help you to use the card index.

Look at card number 1 on your paper. This card looks different from any other card we have talked about. There is no author's name, no call number, and not title on this card. Pretend you want to find out about "Bugs". When you look up "Bugs in the card index, this is the card you will see. It says "Bugs- see INSECTS". That means that to find books about "Bugs" you should look for "INSECTS". You will not find any books under "Bugs" because the card tells you to see "INSECTS". Look at the first picture of Homer. Finish his lasso by drawing it around the subject you should look for. You should have lassoed the word "INSECTS". This kind of card is called a see card. See cards always tell you to go to a different place in the card index. Circle the word see on card number 1.

Now look at the second card. Pretend that you want to find some books about the circus. This card say "CIRCUS- see also CLOWNS". The word also tells you that you can look in
both places. You will find books under "CIRCUS" and "CLOWNS".
This card is called a see also card. Draw a circle around the
work also. All of the words on see also cards will help
you find books.

Now look at card number 3. This is a see also card.
Pretend that you want to find books about art. Circle each
subject on this card that you could look for. You should have
circled ART, DRAWING, PAINTING, AND PICTURES. Sometimes see
also cards lead you to many other subjects that will help
you. Card 3 given you three extra subjects: DRAWING,
PAINTING, AND PICTURES.

We have learned about two different kinds of card.
See cards always send you to a better place in the card index.
See also cards lead you to more places that would help you
to find books on your subject.
1.

Bugs
see
INSECTS

2.

CIRCUS
see also
CLOWNS

3.

ART
see also
DRAWING
PAINTING
PICTURES

Card Index 26
"Call Numbers"

1. (music)

credit slide

2. (music)

"call number"

3. This lesson will help you learn about the call number and how to use it.

Old Yeller

4. Look at this book. At the bottom of the book's spine is a label with the three letters G-i-p.

CU of call number

5. These letters are the book's call number. It is like a house address.

book on shelf

6. It tells you where to find the book on the shelves.

three books

7. Look at these books. We already know that there are many different kinds of books in the IMC.

CU of call labels

8. You can see that there are also different kinds of call numbers.

Sou label

9. The call number on this book has three letters. They tell us that the book is fiction.

E/Myl label

10. The call number for this book is two rows of letters. The E on the top row tells us that it is easy fiction.

821.08/Bre label

11. This book's call number is a row of numbers and a row of letters. It's a non-fiction book.

card index

12. To find out what a book's call number is, you might look in the card index.

Card index drawer

13. The card index has cards in it for every book in the IMC.

Head in the Clouds card

14. The call number is always printed on the left side of the card. A three-letter call number will tell you to go to the fiction section of the IMC to find your book.

book on shelf

15. Fiction books are arranged alphabetically by these three letters.

How Big is a Foot card

16. A four-letter call number might tell you to go to the easy fiction shelf to find your book.
17. An easy fiction book will be found on the shelf by the first letter on the bottom line of the call number.

18. A call number with numbers and letters tells you to go to the non-fiction shelves to find your book.

19. These books are on the shelf in number order.

20. Now you try it. Find the call number on this card.

21. Were you right? The call number is E-Rey.
"Author-Title" 1. (music)
2. (music)
3. This lesson will tell you about finding the author and the title on card index cards.
Oldfield card 4. You already know how to find the call number on the card. It is always on the left side of the card. The call number tells you the book's "address," or where to find the book on the shelf.
"author" 5. The card also tells you the name of the author. The author is the person who writes the book.
two Peet cards 6. The author's name is always near the top of the card.
one Peet card 7. Notice that the last name is written first. There is a comma between the last name and the first name. This card is in the P drawer of the card index.
Robert Lawson card 8. Here's another card. The author of this book is Robert Lawson. On the card his name is written Lawson, comma, Robert. This card is in the L drawer.
Jay Williams card 9. Here's a card where the author's name is near the top, but it isn't the top line on the card. Can you find the name?
Same card with Jay Williams highlighted 10. If you think the author is Jay Williams, you are right.
"title" 11. Another thing that you may need to find on the card is the title. The title is the name of the book. It is easy to find.
Ant and the Elephant card 12. Look at this card. The line right below the author's name is the title. The title of this book is the Ant and the Elephant.
Bears in the Night 13. Look at this card. Can you find the title? Remember that the title is always under the author's name.
Same card with title highlighted 14. The title of this book is Bears in the Night.
"call number, author title" 15. Now you are ready to find the call number, author, and title on some other cards.
Slide-tape script

"Publisher, Date, and Number of Pages" credits

"call number, author, title"

Louise Rankin card

same card with title highlighted

Peggy Parish card

"publisher"

Peggy Parish card

"date"

Peggy Parish card

Rabbit Hill card

same card with highlights.

pages highlighted

1. (music)

2. (music)

3. You already know how to find the call number, author, and title on the card.

4. The author and call number are near the top of the card. The author's last name is always written first on the card.

5. The title is always right below the author's name. Sometimes the name of the illustrator is printed after the title. The illustrator is the person who makes the pictures for the book.

6. The author of this book is Peggy Parish. The title is Amelia Bedelia. The pictures were drawn by Fritz Siebel. The name highlighted in yellow is Harper, the publisher of the book.

7. The publisher is a company that prints the book, makes the cover, and sells it to the library.

8. After the publisher's name on this card, you can see the date, 1963.

9. The date tells the year that the book was published, or made.

10. The date always comes right after the publisher's name.

11. Look at this card. See if you can find the publisher and the date.

12. If you said the publisher was Viking and the date was 1944, you were right.

13. Did you know that some cards in the card index will also tell you how many pages the books have? The number on this card tells you that there are 127 pages in this book. The small letter "p" means pages.
Catherine Peare
Owens card

Roma Gans card

"publisher, date,
number of pages"

14. Look at this card. The number 245 tells us there are 245 pages in this book. Notice that the number of pages is always after the date.

15. You won't find page numbers on this card. The letters "unp" tell us that the pages of this book are not numbered. We do not know how many pages there are unless we count them ourselves!

16. Now you should be able to find the publisher, the date, and the number of pages on any card in the card index.
"Author, title, and Subject cards"

1. (music)

2. (music)

3. By now, you should be able to find all of this information on any book card in the card index: the call number, author, title, pages, publisher, and date.

4. Now that you know how to read the cards, you're ready to learn about the card index itself. In the card index there are at least three different cards for each book in the IMC.

5. If the top line on the card is an author's name, it is called an author card.

6. Look at these three cards. Which card is an author card?

7. If you said card number three, you were right.

8. Sometimes you know the name or title of a book that you want to read. Then you would look for a title card.

9. You have already learned that the title is printed below the author's name. On a title card, it is also printed on the top line of the card. A card with the title on the top line is called a title card.

10. Look at these three cards. Can you find the title card?

11. If you said card number one, you're right.

12. Pretend you don't know an author or a title, but you know you want a book about trees. For almost every book there is at least one subject card. The subject is what the book is about. You can look for the subject trees in the card index and find a card for every book about trees that we have in the IMC.

13. The subject card for a book about trees will look like this. Notice that the word trees is all in capital letters. TREES is the subject of this book, not the title. The title is The First Book of Trees.
three cards 14. One of these is a subject card. Which one tells what the book is about?

card two highlighted 15. If you said card number two, you were right. The capital letters tell you that this is a subject card. This is a fiction book about mothers and daughters.

"author's last name, title, subject" 16. To find a card for a book in the card index, you need to know only one of these three things: the author's last name, the title, or the subject.
"Inside Guides, Outside Guides"

1. (music)

2. (music)

"inside guides, outside guides"

3. These slides will help you use the inside and outside guides to find a book using the card index.

"inside guides, outside guides"

4. The card index contains author, title, and subject cards for every book in the IMC. The cards are arranged in alphabetical order. Notice that each drawer has letters on the front.

"outside guides"

5. These labels are called outside guides. They will help us decide which drawer we need to use to find a book.

"Jim and the Beanstalk"


Semi-CU of nine drawers

7. The first word of the title is JIM. Which drawer will you choose?

arrow to J-Ju drawer

8. If you said J to Ju, you're right, because all of the cards that begin with the letter J are in that drawer.

"animals"

9. Now let's pretend you're looking for a book about animals.

three A drawers

10. These outside guides tell us that the first word on each of the cards in these drawers begins with the letter A.

A-Al guide

11. The cards in the first drawer go up to Al.

Am-An guide

12. The cards in the second drawer begin with the letters Am or An.

Ap-Az guide

13. The third drawer has cards that begin with letters between Ap and Az.

Semi-CU of six drawers

14. In which drawer would you look to find the subject ANIMALS?

arrow to Am-An drawer

15. If you said the drawer with the outside guide Am to An, you're right.
16. This is the name of an author, A. A. Milne. To find this name in the card index, you would look for the last name, Milne.

17. There are three drawers with M cards in them. In which drawer would you look to find a card for A. A. Milne?

18. If you said the Mi to Mu drawer, you'd be right.

19. Now that you know how to use the outside guides to choose the right drawer, you're ready to learn about using the inside guides to help you find a card more quickly.

20. Look at this drawer. The yellow cards with two or three letters on them are called inside guides. They stand taller than the rest of the cards in the drawer and help you find a card more quickly.

21. Let's look for a book about Tigers. We will look for a subject card that says TIGERS on the top line.

22. The cards in this drawer are in alphabetical order. Will tigers come after Ta? Yes, because Ti, the first two letters in tigers, come after Ta.

23. The second inside guide is Te. Will tigers come after Te? Yes, because Ti comes after Te in alphabetical order.

24. The third inside guide is Th. Will tigers come after Th? Yes, it will, and we're getting closer to the card that we need.

25. Look at the fourth inside guide. Those letters are Ti. We are almost to the word tigers, because T and i are the beginning letters of tigers.

26. Look at the next inside guide. It is To. Will tigers come after To? No, if you get to this guide, you've gone too far.

27. These inside guides have helped us decide which cards we need to look through to find a card for the subject TIGERS.

28. Instead of looking at every card in the drawer,
we only had to look through those few cards between the Ti and the To inside guides to find this card.

"Charles Schulz"

29. Now pretend that you are looking for a book by Charles Schulz, the author of the Charlie Brown books.

S-Se drawer

30. You would look in this drawer for an author card with the name Schulz, comma, Charles on the top line.

Sc and Se guides

31. Look at these inside guides. You know that the word Schulz will be after Sc and before Se.

Schulz card

32. You will find the right card by looking between those guides.

"Bears in the Night"

33. Bears in the Night is the name of a book. To find this book in the card index, we would look for a title card with the word Bears in the Night on the top line.

nine drawers

34. What is the outside guide on the drawer where you will look to find the word bears?

arrow to B-Bi drawer

35. This is the right drawer.

B drawer's inside guides

36. Inside the drawers there are many inside guides.

CU of inside guides

37. Which of these inside guides would you look between to find a card for Bears in the Night?

inside guide with arrows

38. You should look between Be and Bec to find the right card.

card for Bears in the Night

39. If you used the right outside and inside guides, you should be able to find this card.

"TIGERS, Charles Schulz, Bears in the Night"

40. You have used outside and inside guides to look for a subject card--TIGERS; an author card--Schulz; and a title card--Bears in the Night. These guides will help you find any book in the card index.

three cards

41. Once you have found the cards, you can use the call numbers to find the books on the shelves.
Slide-tape script

"Card Index Rules"

credits

three cards

Jack Kent card

SHARKS card

Charlotte's Web card

"rules for titles"

"A, An, The"

"A Dog on Barkham Street"

card for Dog on Barkham Street

"An Easter Story"

card for An Easter Story

"The Yearling"

card for The Yearling

"The Wizard of Oz"

1. (music)

2. (music)

3. You have already learned that cards are arranged in alphabetical order by the first word of the top line. The top line on the card could be an author's name, a title, or a subject. These slides will tell you how to find these cards.

4. To find an author's name, you always look for the last name. This card is in the K to Ku drawer.

5. To find a subject, you look for the subject word itself. This card will be in the S to Sn drawer.

6. To find a title card, you usually look for the first word in the title. Charlotte's Web is in the C drawer under the word Charlotte's.

7. There are three special rules to remember when looking for a title.

8. The first rule is about titles that begin with the word A, the word An, or the word The. To find a title that begins with A, An, or The, look for the second word of the title.

9. Look at the title A Dog on Barkham Street.

10. Since the title begins with the word A, you should look for the second word, Dog, in the D drawer.

11. An Easter Story would be in the E drawer.

12. If a title begins with the word An, always look for the second word.

13. The Yearling would be found in the Y drawer.

14. If a title begins with the word The, always look for the second word.

15. Now you try it. Look at this title. For what word would you look to find this title? If you said Wizard, you were right.
"The Alphabet Tree" 16. What would you look for to find this title? Alphabet is the right word.

"Mr., Dr., Mrs." 17. The second rule is about abbreviations like Mr., Dr., and Mrs. When the first word of the title is an abbreviation, pretend it is spelled out.

"Mr. is Mister" 18. The abbreviation M-R-period stands for the word Mister. Look for this word in the Mi drawer.

"Dr. is Doctor" 19. The word D-R-period stands for doctor. Look for Dr. under D-O-C-T-O-R in the D drawer.

"Mrs. is Mrs." 20. Mrs. is an exception to this rule. It is filed under the letters M-R-S.

"Dr. Doolittle's Zoo" 21. Look at the title Dr. Doolittle's Zoo. Think of the abbreviation D-R-period as the word doctor.

"Dr. Doolittle's Zoo, Dogs and More Dogs" 22. Which title would come first in the card index, Dr. Doolittle's Zoo, or Dogs and More Dogs?

"Doctor Doolittle's Zoo, Dogs and More Dogs" 23. Dr. Doolittle's Zoo would come first, since D-O-C comes before D-O-G in alphabetical order.

"Mr. Popper's Penguins, Moon Mouse" 24. Now look at the titles Mr. Popper's Penguins and Moon Mouse. Remember that Mr. must be spelled out: M-I-S-T-E-R. Which of these two titles would come first in the card index?

"Mister Popper's Penguins, Moon Mouse" 25. If you said Mister Popper's Penguins, you're correct.

"1,2,3,4" 26. The third rule is this: If the title of the book begins with a number, pretend that the number is spelled out.

"1, 2, 3 to the Zoo" 27. In the title 1, 2, 3 to the Zoo, the first word is the number one. In which drawer would you look to find it?

"1 is One" 28. The number 1 is spelled O-N-E.

outside guide Ni-Oz 29. Look in the Ni-Oz drawer to find the card for the book 1, 2, 3 to the Zoo.

"2 Ton Canary" 30. In the book 2 Ton Canary, the first word is the number two. In which drawer would you look for this book?
"Two Ton Canary"  
31. Remember to look for the word two as it is spelled.

T-Ty drawer  
32. You would look in the T drawer for the word two.

"authors, titles, subjects"  
33. If you remember these rules, you should be able to find any authors, titles, or subjects in the card index.
"See and See Also Cards"

2. (Music)

two book cards

3. The cards we have studied so far have given information about the books and have told you where to find them on the shelves.

"see and see also cards"

4. Today you will learn about "see" and "see also" cards. These cards help you to use the card index more effectively.

see card for BUGS

5. Look at this card. It looks different from the other cards that we have seen. There is no author's name, no call number, and no title on this card.

BUGS card in drawer

6. When you look for BUGS in the card index, this is the card you will find. It says "Bugs--see INSECTS."

subject card for INSECTS

7. This means that to find books about BUGS, you would have to look in the "I" drawer for the word insects.

"see card"

8. This kind of card is called a "see" card. "See" cards always tell you to go to a different place in the card index.

see also card for CIRCUS

9. Now look at this card. Pretend that you want to find some books about the circus. You might find this card near the subject cards for circus. It says "CIRCUS, see also CLOWNS."

CIRCUS card

10. This means that you will find books under the subject CIRCUS,...

CLOWN card

11. ...and you will also find books under the subject CLOWNS.

CIRCUS card with "see also"

12. This card is called a "see also" card. The word also tells you to look in both places.

see also card for ART

13. Now look at this see also card. It tells you to find more cards about art under the subjects DRAWING, PAINTING, and PICTURES. Sometimes see also cards give you several extra subjects to help you find what you need. You can look for all of them or choose which one is best for you.
14. We have learned about two different kinds of cards. See cards send you to a better place in the card index.

15. See also cards lead you to more places that would help you to find books about your subject.
OBJECTIVE

The student will be able to find a call number on 3 card index cards and circle it.

MATERIALS

- Laminated card index cards - 3 per student
- Crayón
- Envelopes with student's names

DIRECTIONS TO THE STUDENT

Circle the call number on each of the cards in your envelope
OBJECTIVE
The student will be able to overline the author's name, title, and call number on 3 card index cards.

MATERIALS
3 laminated card index cards per student
Envelopes with students names
Red Crayon
Yellow Crayon
Blue Crayon

DIRECTIONS TO STUDENT
On the cards in your envelope:
1. Draw a line over the author's name with a yellow crayon
2. Draw a line over the title with a red crayon
3. Draw a line over the call number with a blue crayon
OBJECTIVES
Given 2 card index cards, the student will be able to list this information from each card:
- Call Number
- Author
- Title
- Publisher
- Date
- Number of Pages
The student will be able to write a definition of "unp".

MATERIALS
- Activity Sheet #1
- Pencil
- Cards numbered 1 and 2
- Envelope with students names

DIRECTIONS TO THE STUDENT
Do Activity Sheet #1
ACTIVITY SHEET #1

1. Look at card #1. Use it to help you answer these questions.

   There are _______ pages in this book.

   The author is ________________________________.

   The date is ___________.

   The call number is _____________.

   The title is ________________________________.

   The publisher is ________________________________.

2. Look at card #2. Use it to help you answer these questions.

   There are _______ pages in this book.

   The author is ________________________________.

   The date is ___________.

   The call number is _____________.

   The title is ________________________________.

   The publisher is ________________________________.

3. What do the letters "unp" mean when you see them on a card index card?

   ____________________________________________
Objective
Given 12 card index cards of various kinds and three book pockets marked "Author Cards", "Title Cards", and "Subject Cards" respectively, the students will be able to sort the cards and put them in the correct pocket.

Materials
Three book pockets per student - labeled
  Author Cards
  Title Cards
  Subject Cards
12 card index cards per student including author, title, and subject cards
Large individual envelopes with students names

Directions to the Student
1. Look at the cards in your envelope.
2. Decide whether each card is an author card, a title card or a subject card.
3. Put each card in the correct pocket.
4. Take the pockets to Miss Bader to be checked.
OBJECTIVE
Students will be able to find a subject card in the card index using inside and outside guides.
Students will be able to tell which outside guide they used.
Students will be able to tell which inside guide they used.

MATERIALS
Activity Sheet #2
Pencils

DIRECTIONS TO STUDENTS
Do activity sheet #2.
Activity Sheet #2

Use our card index to find a subject card for

____________________

1. What was the **outside** guide on the drawer you chose? ____________

2. What was the **inside** guide just in front of the card you found? __________

3. What was the **inside** guide just behind the card you found? ____________

Use our card index to find a subject card for ________________________

1. What was the **outside** guide on the drawer you chose? ____________

2. What was the **inside** guide just in front of the card you found? __________

3. What was the **inside** guide just behind the card you found? ____________
Package 6 Follow-Up
Card Index Rules

OBJECTIVE
The student will be able to locate a card in the card index in each of the categories below and mark it with a colored card:

- author card - given author's full name
- subject card - given subject word
- title card - given the title
- title card - title beginning with "A", "An", or "The"
- title card - title beginning with "Mr.", "Dr." or "Mrs."
- title card - title beginning with a numeral

MATERIALS NEEDED
- Envelopes with students names
- Colored cards with author, title or subject typed at top

DIRECTIONS TO STUDENTS
Find a card that has the same top line as the top line on this colored card.
Take the drawer with the card you found to Mrs. Bemer.
OBJECTIVE

Given a subject heading not included in the card index, students will use the "see cards" to help them find a book title on that subject.

The students will be asked to list all related subject headings on specific "see also" cards.

MATERIALS

- Activity Sheet #3
- Pencil

DIRECTIONS TO THE STUDENTS

Do activity sheet #3
1. Find the title of a book about ______________________

2. Find the title of a book about ______________________

3. What other places (subjects) in our card index would you look to find out about ________________

4. What other places in the card index would you look to find out more about ________________