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A Comparison of Teaching the Use of the Card Catalog by Conventional Method and by Programmed Instruction

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A COMPARISON OF TEACHING THE USE OF THE CARD CATALOG

BY CONVENTIONAL METHOD AND BY PROGRAMMED

INSTRUCTION

—————————————

A Research Paper

Submitted to

the Department of Library Science

University of Northern Iowa

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to Complete the

Requirements in

35:299

Research

—————————————

by

Annabel Meyer

May 1971

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

It is always of interest when a new method or an adaptation of
an older method is brought to the attention of educators and is tried
in actual classroom situations. While programmed learning has its
roots in ancient history, its use in modern education has come into
importance in just the past several decades. There are many obvious
advantages in using programmed materials, and also some disadvantages.
This study will consider the possibility of using programmed materials
in teaching library skills.

I. THE PROBLEM

Statement of the problem. This study was designed to compare the
teaching of the use of the card catalog by programmed instruction with
the conventional lecture techniques now being used, to discover the
more effective method of teaching this material. An experimental
group and a control group will be pretested, instructed, and post-
tested to compare the effectiveness of the methods.

Importance of the study. Experimentation to discover just what
is an effective teaching procedure should be a constant concern of
educators. The specific importance of this particular problem lies
in the results of experiment. It is trying to determine if there is
a more effective way of teaching than the lecture method now being
used when teaching the use of the card catalog. There are advantages
in utilizing programmed materials as opposed to the lecture method,
and so if it is found to be as effective, or more effective as the
lecture method, it would probably be to the teacher's advantage to

use the programmed materials for part of her instruction.

Limitations of the problem. The scope of the problem is limited to the fifth grade classes at Alden Community School during the 1970-1971 school year. These limitations are, however, in keeping with the problem as defined.

II. DEFINITIONS OF TERMS USED

Feedback. Communicating to the subject pursuing a sequence of programmed materials the information needed to modify responses so that failures or errors can be eliminated and correct responses maintained.[1]

Frame. A single item or statement is exposed at a time. The exposed material constitutes a single frame.[2]

Frame, response. That part of a teaching machine or programmed textbook which permits the subject to record his response to the item presented by means of the stimulus frame.[3]

Frame, stimulus. That part of a mechanical teaching machine or programmed textbook containing the individual items, in the form of a question or statement, to which the student is to respond. Also refers to the mechanical part of the teaching machine which allows the examinee to see the item.[4]

Lecture method. Traditional way of having the teacher present the material to the whole class orally. This may be done with the help of charts, blackboard, and opportunity to examine related items.

Pace. The rate at which the subject is permitted to work through the programmed material.[5]

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[1]John P. DeCecco, Educational Technology; Readings in Programmed Technology (New York: Holt, Rinehart and Winston, Inc.), p. 3.
[2]Ibid. [3]Ibid. [4]Ibid. [5]Ibid.

Program. The subject matter that is to be learned by the student via the machine or other device.[6]

Programmed book. A special book in which the subject matter to be learned has been arranged into a series of sequential steps leading from familiar concepts to new materials. Differs from a "scrambled textbook" in that the content is arranged so that the student proceeds directly from one step to the next, or one succeding page to the next, rather than skipping around. The student generally is asked to construct a response as opposed to choice.[7]

Programmed learning. A term sometimes used synonymously to refer to the broader concept of "auto-instructional methods", a comprehensive term to describe instruction characterized by the controlled presentation of material, the elicitation of appropriate response, guidance with respect to the subject matter, and control of the way in which learning proceeds.[8]

Programmer. Generally, a curriculum specialist who subdivides the material to be learned into the sequential steps for later use with the mechanical method of presenting the program.[9]

Programming. The process of arranging the material to be learned into a series of sequential steps; usually moves the student from a familiar background into a complex and new set of concepts and understandings.[10]

Reinforcement, immediate. The process of providing the subject with immediate feedback or information regarding the success or failure

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[6]Ibid.   [7]Ibid., p. 6.   [8]Ibid.   [9]Ibid.   [10]Ibid.

of his program.[11]

Reinforcer, immediate. A self-instructional aid which contains a built-in system of providing the student with immediate knowledge of the success or failure of his **performance**.[12]

Response mode. The form of the response a student makes while working on a program.[13]

Self-instructional device. A mechanical or paper device which presents a set of planned sequential materials to be learned and which the student can complete in the absence of live instructor and at his own rate of speed.[14]

Step size. The amount of increase in subject matter difficulty with each step in the program. A large step size could result in relatively few frames while a low step would indicate a relatively large number of frames in the program.[16]

Teacher. In this study, refers to the librarian, not the classroom teacher.

[11]Ibid., p. 7   [12]Ibid.   [13]Ibid.   [14]Ibid.   [15]Ibid.   [16]Ibid.

CHAPTER II

REVIEW OF THE LITERATURE

An inspection of educational writings fails to reveal much
data concerning the use of programmed instruction in library science.
Where it has been used, it was at a college level, not elementary as
this study will be. However, much has been written concerning the
use of programmed materials in general, and heneralizations can be
made which would also apply in this area.

One of the earliest programmers was Socrates, who developed a
program for **geometry,** called Meno. He guided his followers to
knowledge by conducting them conversationally along a path from
one fact to another. His method was very similar to the programmed
instruction being used today.[17]

A more recent antecedent of programming is the tutorial method.
This consisted of **continuous** exchange of questions and answers
between the tutor and his student, constant selection of new material
on basis of what the student has already mastered, and unfolding of
new information and explanations.

The modern use of programming began in the 1950's and really
came into prominence in the 1960's. Two Harvard psychologists, B. F.
Skinner and James G. Holland, devised auto-instructional methods
which have been used as the basis for other plans.[18]

Programmed learning emphasizing the reinforcement immediately

[17]Jerome P. Lysaught and Clarence M. Williams, A Guide to
Programmed Instruction (New York: John Wiley and Sons, Inc., 1963) p.
3. [18]Ibid., p. 6. [19]Ibid., p. 7.

was developed because of the reinforcement theory of learning; the knowledge of being "right" is the reinforcement here. According to this theory, reinforcements that are immediate, repeated, and enjoyable are more likely to result in repeated behavior.[19]

Walker studied the use of programmed materials vs. traditional methods in catalog instruction at a college level. He was interested in seeing if there was any difference in retention, and found that there was no significant difference. It was his opinion that the programmed material was a very useful study device and should be undertaken in other areas of librarianship.[20]

Gibbs found that the scores on the experimental group were greater on three post tests at the .025, .01, and .001 levels when comparing programmed instruction with conventional methods in bookkeeping.[21]

Many tests were made concerning the use of programmed materials during the 1960's when it first came into prominence. When tests were made in various aspects of the field of science and mathematics, there was a little variation of results, but the most prevalent finding was that of "no significant difference". Several of the investigators found that programmed learning required less time than did traditional instruction, even though the performance level was the same. None of the studies made showed the programmed instruction method to be inferior to the traditional method. The

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[19]Ibid. p. 7.

[20]Walker, Richard D., Independent Study Materials in Library Science Instruction", Journal of Education in Librarianship, 10:44-52, Summer 1969.

[21]William E. Gibbs and others, "A Comparative Study of Conventional and Programed Instruction in Bookkeeping", Journal of Educational Research, 61: 7:320-323.

programmed instruction also seemed to show greater benefits for the lower students academically. There was also the advantage of a much more effective use of a teacher's time when the students could be working individually and just seek help when they needed it. The teacher could use the time spent ordinarily for preparation and lecture more effectively in individualized help.[22]

Other advantages of using the programmed materials are:

1. The slow student can proceed at his own pace, knowing that he has an excellent chance of getting grades comparable to the fast student. He does not feel that he is holding up the class by raising questions. He can get more individual attention when he does have difficulty.

2. The fast student is not held back, nor is he bored by extra drill.

3. Average student benefits because the programmed materials are usually more clear and comprehensible.

4. Releases teacher from much of routine work to develop more challenging class programs.

5. Often results in decreased discipline problems, increased reading skills and general increase in motivation-to-learn.[23]

6. A homebound child is better able to keep up with schoolwork.

Some of the disadvantages of programmed instruction are:

1. Cost of programming. This is not much of a problem if only

[22]Leslie J. Briggs and David Angell, "Programed Instruction in Science and Mathematics", Review of Educational Research. Vol. XXXIV, No. 3, June, 1964, pp.354-373.

[23]Allen D. Calvin, ed., Programmed Instruction: Bold New Venture, (Bloomington, Indiana: Indiana University Press, 1969).

programmed texts are used, as their cost differs little from the cost of other text books. If need for machines is included, however, considerable more expense is involved.

2. Lack of good materials.

3. Could become too rigid, or too predigested.

The advantages seem to far outweigh any disadvantages which might be connected with using programmed instruction. For a librarian to make use of it for library instruction would be advantageous because she could have a few students working on it quietly while **she was** performing other services, or they could use it during free time in their own classroom situation. Her instruction could become more flexible than when she lectures to the whole class at one time.

CHAPTER III

PROCEDURE

This study was conducted with the fifth grade students of the
Alden Community School District. Ordinarily, instruction in the use
of the card catalog and related library instruction is begun at an
earlier age. In this school system, however, they had previously
been at an attendance center which did not have a catalogued library.

These fifth grade students were divided equally into two groups,
with 19 students in each classroom. Occasionally, in past years,
the students have been grouped according to ability. If this had
been the case this year, the researcher would have regrouped them
for the study. She was assured by the classroom teachers and the
principal that the students were randomly grouped and were very
similar in range of ability. A pretest was given[24] to both groups
and the results bore this out, so the decision was made to keep the
classes intact for the study.

The control group was taught by the same lecture method as
had been used in previous years, with the aid of an overhead projector
and the blackboard. The lessons were held three days for a period
of thirty minutes each.

The original intent was to use Library Skills: the Card Catalog[25]
a programmed booklet, for the experimental group, but further
examination showed that it was much too difficult material for a

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[24]See Appendix A

[25]Chester, Edward G., Library Skills: the Card Catalog, (Media
Masters, Inc., Tustin, California)

fifth grade class. No other material of a similar nature could
be found, so an adaptation was made of the booklet.[26] Permission
was requested from the publisher. Since it was to be used with
young children, more reinforcement techniques were used. Some
frames were left out, and some were revised to have more appropriate
examples of books and catalog cards. The students were to write
their frame responses on the cards provided to them for this
purpose. A small step-size was used to make sure the student
understood each phase.

This material was also used for three days, by which time
the students had all completed the booklet. Those that finished
ahead of that time could read materials of their own choosing.

On the fourth day of the week, each group was separately
shown actual samples of sets of catalog cards which they were
to individually arrange in this order: Author card, subject card,
title card, illustrator card, if any, any additional cards, then
the shelf list card. After this exercise they were taken to the
library where they could examine the card catalog and the books
as they were arranged on the shelves. They were then each given
a problem to work related to using the card catalog.[27]

On the fifth day of the week a posttest was given to both
groups, using the same test as the pretest.

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[26] See Appendix B
[27] See Appendix C

CHAPTER IV

PRESENTATION AND INTERPRETATION OF DATA

Of the class members, several missed part of the instruction
or one of the tests, so these were not considered in the comparison.
Seventeen remained in each group for the complete experiment, and so
their scores are the only ones included in the data. Since the Iowa
Test of Basic Skills was given during the same month, January of
1971, those results were also included. Since the vocabulary and
reading part most nearly correlates with the study material, only
the results of these are given.

The results of the pretest and posttest are given, and the
amount of gain noted. It was found that the mean gain of the
control group was higher than that of the experimental group.[28]

There were probably reasons for this difference which had
nothing to do with the independent variable. For instance, even
though the classes had been supposedly randomly divided, the
researcher noted that the higher ranking students on the Basic
Skills test were mainly in the control group. This was not apparent
when the pretest was given, because many of the lower students brought
the mean down. These better students made a greater gain than did
most of the average and lower students.

Another extraneous variable was the attitude of the respective
groups. Those in the control group were very attentive during the

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[28]See Table I, p. 12.

TABLE I

RESULTS OF VOCABULARY, READING, PRETEST, AND POSTTEST

			Experimental Group								Control Group						
SUBJECT NUMBER	SEX	GRADE EQUIVALENT – VOCABULARY	PERCENTILE RANK – VOCABULARY	GRADE EQUIVALENT – READING	PERCENTILE RANK – READING	PRETEST SCORE – 32 possible	POSTTEST SCORE – 32 possible	GAIN	SUBJECT NUMBER	SEX	GRADE EQUIVALENT – VOCABULARY	PERCENTILE RANK – VOCABULARY	GRADE EQUIVALENT – READING	PERCENTILE RANK – READING	PRETEST SCORE – 32 possible	POSTTEST SCORE – 32 possible	GAIN
E 1	g	32	8	47	31	16	17	+1	C 1	b	64	74	73	89	21	21	0
E 2	g	36	8	44	25	17	20	+3	C 2	b	30	6	34	8	16	23	+7
E 3	b	68	82	68	81	21	24	+3	C 3	g	81	97	82	97	18	25	+7
E 4	g	38	17	50	38	21	23	+2	C 4	b	81	97	82	97	22	27	+5
E 5	g	49	37	57	56	18	21	+3	C 5	g	9	38	34	16	16	19	+3
E 6	g	59	62	59	61	11	20	+9	C 6	b	81	97	82	97	22	32	+10
E 7	b	59	62	50	38	18	21	+3	C 7	g	66	79	78	94	21	29	+8
E 8	b	57	57	64	73	18	25	+7	C 8	g	32	8	37	12	16	19	+3
E 9	b	44	27	46	29	22	19	-3	C 9	g	88	99	86	99	18	28	+10
E10	g	48	34	54	48	16	25	+9	C10	b	36	14	46	29	16	19	+3
E11	g	50	39	48	33	17	21	+4	C11	g	62	69	58	59	18	29	+11
E12	b	51	41	55	41	19	19	0	C12	g	62	69	53	46	15	24	+9
E13	g	38	17	58	59	22	19	-3	C13	b	73	90	84	98	18	27	+9
E14	g	55	51	69	83	17	26	+9	C14	g	61	67	59	61	15	22	+7
E15	b	48	34	53	46	15	22	+7	C15	g	62	69	84	98	23	28	+5
E16	b	51	41	46	29	15	17	+2	C16	b	38	17	34	8	11	15	+4
E17	g	59	62	69	83	20	21	+1	C17	b	33	9	43	23	12	17	+5
Mean		50		55		17.6	21.2	3.4			58		62		17.4	23.7	6.2

pretest instruction, and began the test immediately with very few questions, if any. The students in the control group wriggled and squirmed and looked at each other, then when they were to proceed on their own, raised their hands to ask questions pertaining to previously explained instructions. When the programmed materials were presented to them, it was apparent right from that time that they were more interested in trying to keep ahead of others than in absorbing information. It was emphasized several times that they were to set their own pace and take as much time as was needed, but they seemed to deem it a "status symbol" to finish first.

Emotional problems of students also must be taken into consideration. While working directly with the students, it was much more obvious than when seen only as a librarian. The bulk of this seemed to be with the experimental group. E2 had been a disciplinary problem, and was not very well accepted by his peer group. The posttest was given after a recess which had been particularly trying for him, and he stared into space rather than finish the last few questions on his posttest. At least three others had been having great family upheaval and it was affecting all of their schoolwork. There also seemed to be a greater abundance of lively boys in the experimental group, although actually there was one less boy than in the control group.

The only correlation that seems to occur between the results of the Basic Skills Test and the pretest-posttest gains is with the top students. They seemed to make the most gain, while the middle and lower students varied.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

The purpose of this study was to compare the results of teaching card catalog skills by programmed instruction and by the traditional lecture method. The investigation was done by administering a pretest, treatment, and posttest, and comparing the mean gain.

It was found that in this case, the lecture method seemed to be more successful, although it is difficult to determine which was more responsible for the observed difference, the independent variable or extraneous variables.

CONCLUSIONS

Although the programmed instruction did not appear to be completely successful in this instance, it would not be expedient to make a generality from this, and discard it as a teaching method.

By using it with a class as a whole, it was not a fair test of its worth. The individuality of the self-instructional device was weakened to a certain extent by having each one aware of what the rest were doing.

The personalities of the individuals also play a part. This was their first experience with programmed instruction. It is possible that had it been a more familiar experience for them

they would have better understood the procedure and not have tried
to rush through the instructional material merely for the sake of
finishing first.

One girl missed the pretest and one day of working on the
programmed material. She was enthusiastic about the work, and
took her time with it, trying to understand each question before
going on to the next. She only missed five questions on the
posttest, which was the best performance in her group. This
indicates its potential, even though it did not appear to be very
effective with this particular group.

RECOMMENDATIONS

The school system currently has individualized instruction
in all areas of the curriculum in the sixth through eighth grades.
This will encompass lower grade levels in the coming year, and so
the fifth grade students will be at different levels of instruction.
Library skills can also be taught on an individual basis. As a
student is ready for the instruction, the programmed booklet could
be handed to him and he could set his own pace. If he were not
competing with others he would probably spend more time on it and
get more out of it, especially if he knew he had to have 90%
efficiency to pass a posttest. It would probably be desirable to
use some group instruction at the beginning of the school year and
then also incorporate programmed instruction into the curriculum.

It is hoped that more materials of this nature will be
available in the area of library instruction on an elementary level.

Programming material is a difficult job, and a very time consuming one, even when based on existing material. Once the masters are prepared, however, completing more booklets is very simple. Booklets may be reused many times, also.

As a result of this study, the researcher gained new insights in both student behavior and effective teaching methods. It was a valuable experience.

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APPENDICES

APPENDIX A

PRETEST AND POSTTEST

CHECK YOUR LIBRARY SKILLS ON THESE QUESTIONS:

(Circle the best answers)

1. The record of what books a library has in found in the:

   a. Dictionary
   b. Card Catalog
   c. World Almanac
   d. Atlas

2. There are usually ___ cards in the catalog for each book.

   a. 1
   b. 3
   c. 10
   d. 12

3. The cards are filed in the drawers in the following manner:

   a. The whole set of each book together.
   b. The longest titles first.
   c. In alphabetical order.
   d. According to how large the book is.

4. A card for a book by Maude Hart Lovelace would be filed under:

   a. M
   b. H
   c. L
   d. O

5. A subject card for the U.S. would be filed under:
   a. Am
   b. Us
   c. Un
   d. Gov
   e. Sta

6. The three most common catalog cards are: (Circle three)

   a. Publisher
   b. Title
   d. Date
   e. Author
   f. Subject

7. The card for the book The Middle Sister would be filed under:
   a. M
   b. S
   c. T
   d. G

8. Our system of organizing books in the library is called:

   a. Congressional
   b. Dewey Decimal
   c. Creative
   d. Numbering

9. To look for a story about a big white horse, look in the drawer
   a. A
   b. B
   c. H
   d. W

10. The book, The Borrowers by Mary Norton would be filed under
    ____ and ____. (Circle two)

    a. M
    b. N
    c. T
    d. B

11. There is only one card in the card catalog for each book.   T   F

12. The card catalog is the list of the books in the library.   T   F

13. Every book has an illustrator card.   T   F

14. If a book has the call number 598.2, you know that it is
    a fiction book.   T   F

15. The title card always lists the author on the first line.   T   F

16. Fiction books are arranged on the shelf alphabetically
    according to the title of the book.   T   F

17. The cards for the history of a country are filed alphabetically.

                                                                T   F

18. "See" and "see also" cards are called illustrator cards.   T   F

19. A book about birds by Simon would be listed after a book
    on birds by Lemmon.   T   F

20. There is never more than one subject card for each book.   T   F

21. A call number is like the address for a book.   T   F

22. A cross reference card tells you to cross over to another

    subject.   T   F

23. A book of make believe is called fiction.   T   F

24. Our system of organizing books in the library is called

the Congressional system.   T   F

25. Each non-fiction book has an author, title, and subject

card.   T   F

From the sample card, write down the following parts
of a card:

26. Author _____

27. Title _____

28. Publisher _____

29. Copyright date _____

30. Subject _____

31. Call number _____

32. Illustrator _____

	SHELLS

590
Goud
	Goudey, Alice E 1898-
	    Houses from the sea;
	illus. by Adrienne Adams.
	Scribner, 1959.
	
	        unp illus.
	
	    This book is about two
	children and all about the
	day the waves came up to
	meet them and left seashells
	lying on the beach. The
	shells found on this day are
	the beginning of a collection.

APPENDIX B

PROGRAMMED BOOKLET

Introduction:

The library is a treasure house of rich experiences and valuable information. You can pursue a hobby such as stamp-collecting, birds, animals, coin-collecting, space, stars, cars, almost anything you are interested in. You will be better able to find what you want if you learn how to use the library.

This program will help you to know how to use the library more effectively. First of all you will learn about the card catalog. Then you will learn about the catalog card. After this you will learn about the location of books in the library.

Take your time to learn each part well, so you are familiar with each fact. This will come in handy when you need it.

Directions:

This program of instruction is simple. Each frame gives you some information. Then it requires you to make an answer. The correct answer is given after each frame. Cover the answer with a piece of paper. After you read the information, read the question and write down the answer on your paper. Then uncover the correct answer and compare it with the answer you have written. If your answer was correct, go on to the next frame. If wrong, re-read the frame and find out why you missed. There is no need to rush through or skip ahead. Work at your own speed. Be sure that you understand the information. You may begin.

LIBRARY SKILLS   PART I   THE CARD CATALOG

1. In this section you will learn that the key to the library
is the card catalog. The card catalog is the ____ to the
library.

                              answer: (The key)

Simple, wasn't it! Keep going in the same way.

    You will learn what kinds of cards the card catalog contains
and how it is organized to help you. You will learn how to find
whether the book you want is offered by your library. You will
also learn how to find what books contain information on the
subject in which you are interested.

2. A catalog is a list of things offered for sale or available
for use. A dictionary is a catalog of _____.

                              (words)

3. An art gallery may publish a catalog of its _____.

                              (pictures or paintings)

4. A telephone directory is a catalog of _____ who have
telephones.   (people or persons)

5. So it shouldn't surprise us that a library's catalog is a
list of its _____.

                              (books)

6. The list of books in a library is call the _____ ____

                              (card catalog)

7. The library calls its catalog a CARD catalog because it is made
up of a series of _____.

                              (cards)

8. These cards make up what is known as the _____ _____.

<div align="right">(card catalog)</div>

9.

Exhibit 1

A	D	IJ	M	QRS
B	E-F	K	N-O	TUV
C	GH	L	P	WXYZ

This is a card catalog for a small library. A big library would have more books and would have a bigger card catalog.

10. Most catalogs are in book form, but the card catalog in the library is a series of alphabetically arranged _____.

<div align="right">(cards)</div>

11. All catalogs have some system of arrangement. On common system of arrangement is an ALPHABETICAL system. The dictionary is arranged alphabetically. The phone directory is arranged alphabetically. And the card catalog is arranged _____.

<div align="right">(alphabetically)</div>

12. We know that the name of a book is its TITLE, and we know that every book has a title. So, if you went to look for that book in the library catalog, you would look for a card alphabetically filed under the book's _____.

<div align="right">(Title)</div>

13. Each book title is on a separate _____.

<div align="right">(card)</div>

14. A title card is filed in the card catalog alphabetically, according to its _____.

                                      (title)

15. The cards are in the ____ _____ alphabetically.

                                 (catalog card file)

16. In addition, every book has an AUTHOR, so we'd find that book also filed alphabetically on an _____ card.

                                   (author)

17. In the same catalog as the titles, the author cards are filed alphabetically, according to the last name of the _____.

                                   (author)

18. You may wonder where to find this all-important card catalog. Where in the library is it? No one is hiding it, it is usually in a prominent place where it is available to all. If the library is new to you and you don't see the card catalog, ask the librarian.

19. NOTE. Now let's take a look at EXHIBIT 2 and notice that there are four cards: two author cards and 2 title cards. In this author card you will see the title of the book right below it. Notice that the other author card has the same name, but a different title. The title cards are also shown for these two books, because their titles come alphabetically in the same file drawer.

20. EXHIBIT 2

```
                                    ┌──────────────────────────────┐
                                    │ Fic   Flood, Richard          │
                                    │ Floo   The fighting southpaw. │
                              ┌─────┴────────────────────────────┐  │
                              │ Fic   Flood, Richard              │  │
                              │ Floo   The fighting shortstop     │  │
                        ┌─────┴────────────────────────────────┐ │  │
                        │    The Fighting southpaw              │ │  │
                        │ Fic   Flood, Richard                  │ │  │
                        │  Floo   The fighting southpaw         │ │  │
                  ┌─────┴──────────────────────────────────────┤ │  │
                  │    The fighting shortstop                   │ │  │
                  │ Fic Flood, Richard                          │ │  │
                  │ Floo   The fighting Shortstop               │ │  │
             ┌────┴─────────────────────────────────────────┐  │ │  │
             │      ┌───┐                                    │  │ │  │
             │      │ F │                                    │  │ │  │
             │      └───┘                                    │  │ │  │
```

21. So in the same library catalog, filed alphabetically, we can find

    a card for each book's _____ , and a card for each book's

    _____ .

                                    (author and title, either can be first)

22. There is an author card and a title card for each _____ in the

    library.

                                    (book)

23. There is an author card for each book that author has written. If

    the library has four books by Richard T. Flood, then the number of

    cards listed under Flood, Richard T. would be _____ .

                                    (four)

24. Since each book also has a separate title card, then the number of

    title cards for all of Flood's books would be _____ .

                                    (four)

25. If you were observant, you probably noticed in EXHIBIT 2 that the

    title cards were filed under F for "fighting", and not under the

    T for "the".

    In filing title cards, the geginning A, An, or The of the title

    is disregarded. The book title card for The Wind in the Willows

    would be filed under the letter _____ .

                                    (W)

26. The title card for A Place for Peter would be filed under the letter _ .

                                    (P)

27. Titles beginning with a number are filed as though the numbers are

    spelled out: 20,000 Leagues Under the Sea would be filed under Tw,

The 13th is magic would be filed under _____ .

(Thirteenth)

27. If you wanted to look up the telephone number of Ralson Kumquist you would look in the telephone directory under the letter ___ .

(K)

28. In the same way, if you wished to see if your local library had a book by Richard T. Flood, you would look in the card catalog under the letter _____ .

(F)

29. If you want to see if we have a book by Mary Norton, you would look in the card catalog under the letter _____ .

(N)

30. Both the telephone directory and the card catalog list people by their _____ names.

(last)

31. Your friend tells you, "I just read an exciting book called, Little Vic. I can't remember who wrote it, but you can find it in the library." If you wanted to find it, and you know the title but not the author, you would look to see if the card catalog had a _____ card for this book.

(title)

32. To find out, you would look in the card catalog under the letter ____ .

(L)

33. Like words in the dictionary, the cards in the library's card catalog are arranged _____ .

(Alphabetically)

34. When these cards are filed in a cabinet, it is known as a

    _____ _____ _____.

                                      (card catalog)

35. Each book in the library has <u>at least</u> two cards for it, an

    _____ card and a _____ card.

                              (author, title)

36. These cards are filed alphabetically in the _____ _____.

                                      (card catalog)

37. NOTE:

    Did you notice I said for each book there were <u>at least</u>

    two cards? What other cards might we want in the card catalog

    to help us find what we want? Think about it for a little while.

    _ _ _ _ _ _ _ _ _ _

    All fiction books have two cards, the title and author. But

    if they deal with a certain subject, they will usually have

    a third card. All non-fiction books have three cards. So let's

    look into this "three card" business.

38. Books written about basically imaginary situations rather than

    facts are known as _____ books.

                              (fiction)

39. Books of adventure, novels of romance, imaginary tales of the

    Wild West, who-dunits - all of these, no matter how true

    their background may be, are books of _____.

                              (fiction)

40. On the other hand, books dealing with fact, not fiction, are

known as _____ books.

(non-fiction)

41. Books on history, animals, stars, art, all books of fact,

    not imaginary, are classed as _____.

(non-fiction)

42. A story about a boy and his dog would be called a _____

    story.

(fiction)

43. A factual book about dogs and their care would be a _____

    book.

(Non-fiction)

44. Every book, fiction or non-fiction, has an author, some person

    or group who wrote it. The first line of the author card is

    the _____ of the _____.

(name / author)

45. Every book, fiction or non-fiction, has a title. Therefore,

    we have a catalog card with a first line that is the _____

    of the book.

(title)

Example:

```
              The Fighting shortstop
       Fic    Flood, Richard T.
       Flood    The fighting shortstop, illus. by Lee
              Ames.  Houghton Mifflin, c1954.
                210p.  illus.
```

46. All fiction books will have an _____ card and a _____
    card.

                          (author/title)

47. Some fiction books also deal with a particular subject, such
    as dogs. These books usually have a third card, a _____ card.

                          (subject)

Example:

BASEBALL - FICTION

    Fic   Flood, Richard T.
    Floo   The fighting shortstop, illus. by Lee
            Ames. Houghton Mifflin, c1954.
            210p. illus.

---

48. You are interested in a certain subject, say horses. The
    subject cards tell you what books the library has concerning
    that _____.
                          (subject)

49. All non-fiction books deal with a subject or subjects.
    Therefore, each non-fiction book would have an _____
    card, a _____ card, and a _____ card.

                          (author, title, subject)

50. If you want to find a book about ADVENTURE AND ADVENTURERS,
    you would look in the card catalog under _____

                          (ADVENTURE AND ADVENTURERS)

51. Look back at the examples of author, title and subject cards.
    If you were observant, you noticed that the subject was the
    only part that was in capital letters. The title and subject
    and author all have separate cards, but the only one in

capital letters is the _____ card.

<div align="right">(subject)</div>

52. Subjects are always typed in capital letters, but you do not

   find the _____ or _____ in capital letters.

<div align="right">(author/title)</div>

53. If the first line on the card said HORSES, you would know that

   the _____ was horses, not necessarily the _____.

<div align="right">(subject/title)</div>

54. On the other hand, if the first line on the card said "horses"

   you would know that it was the _____ of the book.

<div align="right">(title)</div>

55. NOTE: You can see how the cards, especially the subject cards,

   can help you find what you are interested in. When you know

   how to use the card catalog, it is so simple!

   There are some more things in the card catalog that are also

   helpful and simple.

   Let's take a look at these examples:

Example 1.   Example 2.

AMERICAN HISTORY	CLIMATE
see	see also
U.S. HISTORY	METEOROLOGY RAIN SEASONS WEATHER

Cross reference card,   Cross reference card,

the "see" card   the "see also" card

56. On the first one, do you see any reason why we would want to have it listed under U.S. HISTORY instead of AMERICAN HISTORY? We sometimes forget that there are many countries on the American continents. It is easier to find what we are looking for if we have it listed under the proper name of each country. We don't want you to give up if you don't find a card in the first place you look. That is why we have a "see" card. We are telling you where it can be found elsewhere in the card catalog. This is known as a cross reference card, because it asks you to cross over to another subject.

57. The "see" card, then, is one type of _____ _____ card.

    (cross reference)

58. NOTE. When looking up the subject heading "U.S. HISTORY", remember that all abbreviations are filed as if they were spelled out. "U.S." would be found in the un section of the catalog file, not us, since it stands for United States.

59. Now let's look back at example 2, another type of cross reference card. Do you see how this differs from example 1?

    Instead of see, it says see also. It means that in addition to books on climate, you may also find more books listed under the other subject headings. These other books may be more what you are looking for. This type of cross reference card is called a _____ _____ card.

    (see also)

60. Because they ask you to cross over, or refer you to another

subject heading, both the "see" and the "see also" cards are types of _____ _____ cards.

(cross reference)

61. Now let's review a little. The A, An or The on a book title is not used in filing cards but is _____.

(dropped, disregarded, or ignored)

62. The title card for "The Mysterious Island" would be found in the card catalog under the letter ___.

(M)

63. Such title and subject abbreviations as U.S., F.B.I., and Dr. are not filed as abbreviations but are filed as if they were whole _____.

(words)

64. Whether on a title card or a subject card, F. B. I. for example, would be filed as if the initials or abbreviations were actually _____ out.

(spelled)

65. The title card "The U.S. Constitution" would be filed under the letters: 1. The   2. Us   3. Co   4. Un

(4. Un)

66. The title card for "Dr. Jeklyll and Mr. Hyde" would be filed under: 1. Dr   2. Do 3. Drh   4. Jek

(Do)

67. What we have learned about abbreviations is also true of numbers.

"20,000 Leagues Under the Sea" would be filed under:

1. Le   2. 2   3. Tw   4. Sea

(3. Tw)

68. Not only are the subject headings of the catalog arranged

alphabetically, but often the sub-heads of that subject

are also arranged _____.

(alphabetically)

69. 1. EGYPT - RELIGION

2. EGYPT - HISTORY

3. EGYPT - DESCRIPTION AND TRAVEL

Instead of this 1, 2, 3, order, these cards would be arranged

in this order ___, ___, ____, all in the catalog drawer under

the letter _____.

(3, 2, 1, E)

Now let's review what you have learned so far.

70. The list a library has of all of its books is called the

_____ _____.

(card catalog)

71. The cards in the card catalog are arranged _____.

(alphabetically)

72. The name of any book is its _____, and this is put on an

individual card called a _____ _____.

(title, title card)

73. Every book is also listed alphabetically in the catalog by the

last name of its _____.

(author)

74. Every book has at least two cards in the card catalog, a

    _____ card and an _____ card.

                                        (title, author)

75. In addition to the title card and author card, some fiction

    books and all non-fiction books are also on _____ cards.

                                        (subject)

76. Each non-fiction book, then, would be filed alphabetically on

    separate _____, _____, and _____ cards.

                                        (author, title, subject)

77. Many authors write more than one book. You will find in the

    catalog a separate author card for each book by the _____ _____.

                                        (same author)

78. You can find out if the library has Betty Cavanna's book,

    Date for Diane, by looking in the catalog under the letter ____.

                                        (C or D)

79. If you want to know if your library has a book called "Brain

    Surgery Self-Taught", you would look for a _____ card under

    the letter _____.

                                        (Title, B)

80. Books by the author Joseph J. Cumberland would be on author

    cards filed under: 1. Jo   2. Jj   3. Jc   4. Cu

                                        (4. Cu)

81. The title card for the book The Twenty-six Letters would be

    filed under: 1. Th   2. Le   3. Tw   4. 26

                                        (3. Tw)

82. Are you good at putting things in alphabetical order? It

    takes practice, but in order to find what you are looking

    for in the card file, you will have to be able to know just

    where to look. Try this:

    In filing alphabetically, these words would be found in the

    following order, ___, ___, ____, ____.

    1. Hamilton   2. Halloween   3. Hand shadows   4. Halfpenny

                    (4, 2, 1, 3)

83. These would be filed in this order: ____, _____, _____.

    1. JAPAN - CUSTOMS

    2. JAPAN - HISTORY

    3. JAPAN - DESCRIPTION AND TRAVEL

                    (1, 3, 2)

84. Let's try another. These subject sub-heads are to be filed

    ____, ____, ____, ____.

    1. ART - GALLERIES

    2. ART - STUDY AND TEACHING

    3. ART - HISTORY

    4. ART - EXHIBITIONS

                    (4, 1, 3, 2)

85. These subject cards would all be found in drawer _____.

                    (A)

86. Subject sub-head cards are filed _____.

                    (alphabetically)

87. There is an exception to this rule. The history of a country

    is not filed alphabetically. It is filed chronologically.

Do you know what it means to file something chronologically?
It means that it is filed according to <u>when</u> the events took
place, what time in history.

U.S. - HISTORY may have these sub-headings:

    U.S. - HISTORY - COLONIAL PERIOD

    U.S. - HISTORY - KING WILLIAMS WAR, 1689-1697

    U.S. - HISTORY - FRENCH AND INDIAN WAR, 1755 -1763

    U.S. - HISTORY - REVOLUTION

    U.S. - HISTORY - 1783-1809

    U.S. - HISTORY - WAR OF 1812

and so on. Do you get the idea? They are <u>not</u> filed alphabet-
ically. Although U.S. - HISTORY - CIVIL WAR would come in
the file alphabetically before U.S. - HISTORY - FRENCH AND
INDIAN WAR, if it were filed this way, actually it would be
filed _____ it.

   (after)

This is because it comes after it in history.

88. The sub-head card U.S. - HISTORY - CIVIL WAR would be found
in the catalog drawer under the letters ____.

                                       (Un)

89. You may find guide cards in the file drawer. These cards
have tabs sticking up to help you locate the card you need
more quickly. They may use letters, such as A, Ae, Ag, Al,
or they may use words, such as Automobiles, Aviation,
Bacteria, Birds, Bicycles.

If you had guides like these, between which would you look

to find the subject card, ACTING?
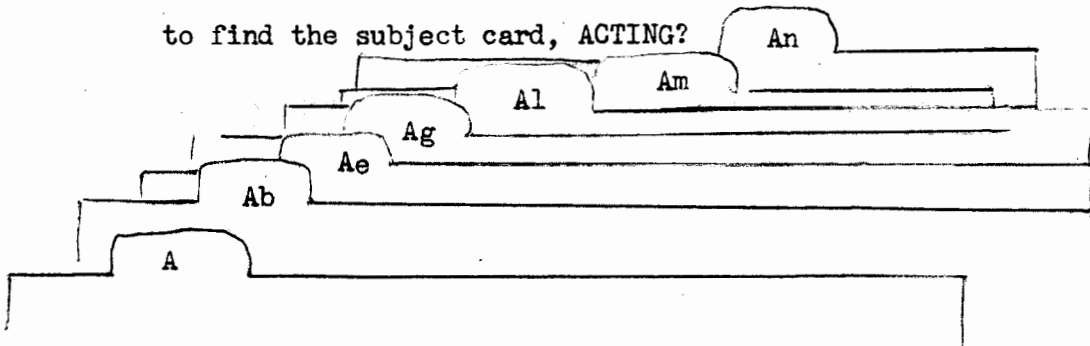
You would find ACTING between _____ and _____.

(Ab and Ae)

90. Cards with tabs which stick up above the other cards, and

which are to help you find a certain part of the alphabet

are called _____ _____.

(guide cards)

91. A book on Amana would be listed between _____ and _____.

(Am/an)

92. African literature will be found between _____ and _____.

(Ae/Ag)

93. A book about Alaska would be found between _____ and _____.

(Al and Am)

You are doing fine!

What you have learned so far is:

1. The kinds of catalog cards and how they are organized,

2. How to find if the book you want is offered by the

library, and

3. How to find books on a particular subject.

94. You still have more to learn about finding what you want.

You go to the library to find information about birds. You

know you want, not a fiction book, but a _____ book.

(non-fiction)

95. You are wise enough to go first to the card catalog where

you know that every non-fiction book in the library is listed

on a _____, _____, and _____ card.

(author, title, subject)

96. Since you don't know the author or title of any books on

birds, you look for the _____.

(subject)

97. You would go to the ____ and look up the word _____.

(B drawer, BIRDS)

98. You would find this between the guide cards:

B - Be, Be - Bi, Bi - Bl, Bl - Bo, Bo - Br

(Bi - Bl)

99. You know that if it is in capital letters, it is a _____

card.

(subject)

100. There are many cards with the subject BIRDS. These cards

are then arranged alphabetically by the author. Therefore,

a book about birds by Simon would be listed after a book by

Lemmon, but _____ a book by Wetmore.

(before)

101. A book may have more than one subject card. If it is a book

about an orphan boy who joins the circus, it may have a

subject card for CIRCUS - FICTION and one for ORPHANS AND

ORPHANS' HOMES - FICTION, in other words, it would have ___

subject cards.

(2)

PART II   THE CARD

Now that you understand the kinds of cards there are, how to find
if the library has your book, and how to find books on certain
subjects, let's take a closer look at the catalog card itself.
Here is a sample set of cards for one book.

1.
```
        BEAVERS - STORIES
591     Fisher, Aileen
Fish      Summer of little rain;  drawings by
        Gloria Stevens.  Nelson, c1961.
          151p. illus.
```

2.
```
591     Fisher, Aileen
Fish      Summer of little rain; drawings by
        Gloria Stevens.  Nelson, c1961.
          151p. illus.
```

3.
```
        Summer of little rain
591     Fisher, Aileen
Fish      Summer of little rain; drawings by
        Gloria Stevens.  Nelson, c1961.
          151p. illus.

        A wildlife story about a family of squirrels
and a family of beavers who struggle for survival
when a forest fire and a drought change their
woodland into a hot, barren wilderness.
        "Selected Biography": p159
```

102. Card no. 1 is a _____ card.

(subject)

103. Card no. 2 is an _____ card.

(author)

104. Card no. 3 is a _____ card.

(title)

105. Another card which a book may have is an illustrator card. Not all books have one. If it is an illustrator card, it will say "illus." after the name.

```
          Beech, Carol  illus.
jFic    Cheney, Cora
Chen      Doll of Lilac Valley; illus. by
          Carol Beech.  Knopf, c1959
          112p.  illus.
```

If you see "illus." after a name, you know that the person is the _____.

(illustrator)

106. Each card of a set is the same except for the line above the author on each card. Look at the sample set of cards again. Only the top line is different. After the author, title, and **illustrator** is the name of the company who published the book, or the _____.

(publisher)

107. The number after the publisher is the copyright date. This means that no one else can copy the book without permission. For some books it doesn't make any difference when the book was published, but for others it is very important. Can you think of why?

If you had to chose between two books on atomic energy, you would probably want the most _____ one.

(recent)

108. Science books may go out of date as soon as new information is found. A fiction book would not become outdated as fast, so it

would not be so important to know the _____ date.

(copyright)

109. Besides the author, title, illustrator, publisher, and copyright date, there is more information on the catalog card. Look at the next line of the samples. It ways "151p" What do you think the p stands for? _____.

(pages)

This tells you how many pages the book has. It may be important for you to know how big a book it is. The illus. again is an abbreviation, but this time it means "illustrated", or in other words, the book has pictures. Pictures can also be called _____.

(illustrations.)

110. The next paragraph on the sample cards gives a description of the book. Not all cards include this, but if they do, it is a big help in deciding if the book is what you are looking for. The book in the samples is about _____ _____ and _____.

(squirrels, beavers)

111. Next it says "selected bibliography". Bibliography means a list of books on the same subject or subjects. So the bibliography in the book of the sample cards would list books about _____ and _____.

Squirrels, and beavers

112. Now you know what is on the card except for one more important item. Look in the upper left hand corner of the card. This is called the "call number". This is the address of the book.

PART III   FINDING THE BOOK

Remember that the books are divided into two general types,

books of imagination, or _____ and books of fact,

or _____ .

(fiction, nonfiction)

113. Fiction books are in a special section of the library, and are

arranged alphabetically by the last name of the _____ .

(author)

114. To locate a fiction book, you would go to the _____ section

of the library and look for it under the author's last name.

(fiction)

115. On the catalog card, the call letters will be Fic, then under

that will be the first four letters of the last name of the

author. A fiction book by Richard Flood will have the call

letters _____

_____ on the card.

(Fic
Floo)

116. A book of non fiction will have a number in the upper left hand

corner. This number is called a Dewey Decimal number. The Dewey

Decimal System groups the non-fiction books according to subjects.

For instance the book Summer of Little Rain is a science book.

All science books have numbers in the 500's, so you know that

Summer of Little Rain will have a number in the _____ .

(500's)

117. The books are grouped one shelf at a time, and then on the shelf

directly below it, starting in the corner of the library.
When that shelf is full from top to bottom, move one shelf
to the right, as in illustration:
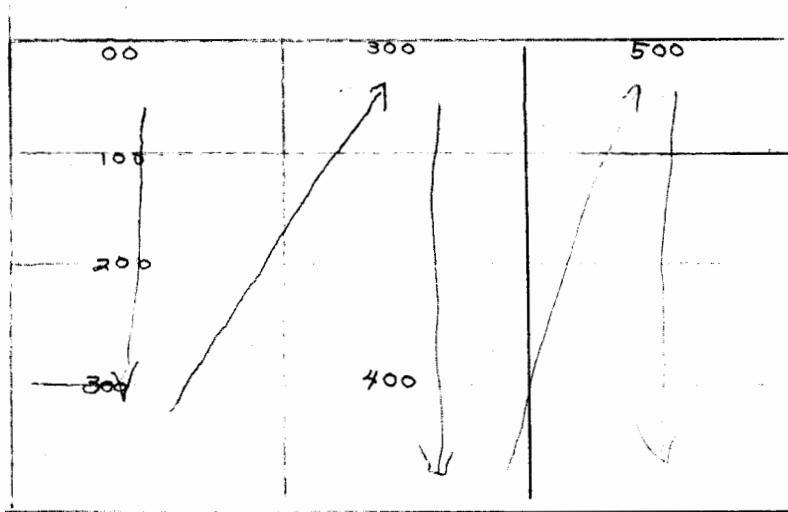
118. The numbers are all in order, 500, 501, 504, 510, 510.7, 523,
and so on. A book with a call number of 523 would be _____
one with 530.

(Before)

119. Don't get confused when you go to find your book. If you try
to go by number only, you may grab the wrong book. Many books
on the same subject would have the same call number, only the
first four letters of the author's name under the number would
be different. If two books by the same author on the same subject
are in the library, the call numbers would be the same. If you
are finding one book on a subject, you may find others that are
what you need right beside them on the shelf. This is because,
with the Dewey Decimal System, books are grouped according to

_____.

(subject)

120. Books on birds have the call number 598.2. Any book with the number 598.2 is about _____ .

(Birds)

They would all be found in the same place in the library.

121. The system we use to organize or classify our books according to subjects is called the _____ _____ _____ .

(Dewey Decimal System)

You will learn more about the Dewey Decimal System when you go to the library. Notice the labels on the shelves, and what subjects are listed with each number.

122. We find what books are available in the library by checking the

_____ _____ .

(Card catalog)

You are ready to do this now that you have completed this booklet. If you are in doubt about any of the information, go back and review. If not, go to the library and use it!

APPENDIX C

PRACTICAL PROBLEMS IN THE USE OF THE CARD CATALOG

The following items were listed separately on cards to be used by
the students when they had finished the lessons on the card catalog.
When finished with one, they could trade with someone for another card.

1. Who is the author of The Ghost Wore White?

2. Locate the book, The Stars, by Zim.

3. What book has Margaret Mitchell written, and how many pages does
   it have?

4. Find The Yellow Fairy Tales book.

5. How many books on Alaska, both fiction and non-fiction, does our
   library have?

6. Find the title of any book about Dogs.

7. What subject subtitles can you find for HORSES?

8. When was the book, the Sky is our window published?

9. How many books does the library have in the "We were there" series?

10. How many books do we have which have been illustrated by Garth
    Williams?

11. Who wrote Charlotte's Web?

12. Find the author of a book about dinosaurs.

13. What is the call number for a book on swimming?

14. How many books do we have on George Washington Carver?

15. What is our most recently published book about the atom?

16. How many Books in the library begin with the number 3? Find one
    of the books on the shelf.

17. Who illustrated Strawberry Girl?

18. What is the subject of <u>The Purple Tide</u> ?

19. Find the title of a book by Kenneth Graham.

20. How many books do we have by Jim Kjelgaard, and what type of books do they seem to be?