Study Guide for Community College Students to Use with the Psychology Textbook

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STUDY GUIDE FOR COMMUNITY COLLEGE STUDENTS TO USE
WITH THE PSYCHOLOGY TEXTBOOK

A Project Report
Presented to
The Graduate Faculty
Central Washington University

In Partial Fulfillment
of the Requirements for the Degree
Master of Education

by
Anne J. Teigen
July, 1981
The need for developing strategies for teaching in the content areas was examined and, as a result, a study guide was developed to aid students in understanding the content of the psychology textbook. Lessons were developed for each of four different chapters to serve as instructional tools for teaching the content of a specific psychology textbook.

The study guide contains twenty-four lessons and answer keys.
ACKNOWLEDGMENTS

I wish to express appreciation to Mrs. Doris E. Jakubek, Dr. Joe Schomer and Dr. Azella Taylor, Chairman, for serving as my committee members. Dr. Taylor has been a friend as well as chairman of my committee, and for that I give her thanks.

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Chapter 1
BACKGROUND OF THE STUDY

The Problem

As Herber (1970) pointed out in his book entitled Teaching Reading In Content Areas, teachers frequently believe that texts required for their courses are too difficult for most students in their classes. The difficulty of texts raises several problems, one of which is vocabulary load. Particularly in science, the content is highly saturated with complicated and abstract terminology. Students find it difficult to read the material because they are unfamiliar with the language of the subject. Teachers generally rely on lectures to convey this information, recognizing that students are unable to obtain it from the text.

A related problem is the concept load. Authors develop abstract concepts with complicated language. Concepts are presented rapidly—faster than many students can absorb—and are not carefully paced. Each subject has its own language and its own technical vocabulary. To study the subject, students must know the language which serves as the basis of communicating ideas within that subject. They do not develop an understanding of this vocabulary by chance, but only by design. The design should include calculated exposure to the technical vocabulary of the subject and opportunity to use the vocabulary sufficiently often to insure familiarity and facility with it. Through the design, meanings of words are reinforced and understandings of concepts extended.
Bruner (1967) stated that the reason for incorporating careful guidance in one's instruction is obvious. When a pupil fails to develop adequate study skills, the educational process may become dull and unpleasant.

Reading guides are designed to show students how to apply skills as they read. Merely telling students what skills they should use is not sufficient, though it is essential. Suggestions as the following are only a partial solution: If we want (the student) to draw general conclusions from the material then we must indicate this purpose before he reads it, preferably by helping him devise questions which require general conclusions. Asking questions that "require" the use of a skill does not necessarily teach the skill. While the skill is being taught, some procedure, other than merely asking questions requiring use of the skill, should be used. According to Bruner (1967) this should be a structure that will give students a conscious experience in the application of the skills and, simultaneously, an understanding of the course content, provide for individual differences in ability and achievement among students in classes and ensure success in the assigned reading. Reading guides can be designed for these purposes.

Bruner (1967) further stated that students have the innate capacity for accurate assimilation of material they read, but to assume that this skill in well-developed form is a natural condition is not valid. Students must acquire skills for deriving information from reading—reading skills. Likewise, it is essential that they acquire skills by which to assimilate and react to ideas acquired through reading—reasoning skills. Guides can be designed to insure profitable experiences
with reading skills; models also can be created to serve as patterns of behavior for students as they learn how to reason critically and creatively about concepts. When students are exposed to such experiences within a subject area, there is growth in their understanding of the course content because their ability to reason about the content is improved (Bruner, 1967).

Independent use of concepts is, indeed, a proper goal for teachers to hold for students. Reasoning guides "walk" students through simulated experiences in the development and use of concepts. These successful experiences, under close guidance, develop a behavior pattern that students can repeat when required to function independently. As students become more proficient, they begin to modify the pattern to suit their own special needs. True independence, then, is achieved. Bruner (1967) said independence is not the starting point but, rather, the end product of good teaching.

The Purpose

The purpose of this project was to develop a study guide for community college students to use with the psychology textbook. The specific series of lessons developed in this project were designed to make the transfer from isolated skills practice of the reading lab to the meaningful reading and comprehension of textbooks of the academic courses.

Definition of Terms

For the purpose of this paper the following terms are defined:
Concept Guides. Guides that assist students in the development of concepts.

Content Area Reading. The process of reading in the subject fields.

Study Guides. Guides that assist students in the development of concepts, generally taking the form of duplicated sheets that engage the students in identifying and classifying information in the text, and in discussion or writing activities aimed at helping them comprehend the textbook.

SQ3R. A study technique using content material to survey, question, read, review and recite information necessary to learning and remembering.

Vocabulary Development. The ability of the child to sort out his experiences and concepts in relation to words and phrases in the context of what he is reading.

Balance of Paper

Chapter two of this paper is a review of the pertinent literature. Chapter three outlines the procedures followed in construction of the project. Chapter four is the study guide itself. Included are student explanations and lessons, guidelines and answer keys. Chapter five summarizes the main points made in chapters one and two, and discusses the strengths and weaknesses of the study guide itself. Recommendations for changes and/or additions are made.
Chapter 2

REVIEW OF SELECTED LITERATURE

The review of selected literature is introduced with a discussion of the problems associated with teaching reading as an isolated skill and students being unable to transfer these reading skills to the content area textbook. Readability of textbooks, study skills techniques, and specific methods and techniques to enhance reading in the content areas are discussed.

Content Area Reading

Transfer of Learning. Sweiger (1977) reported that at the community college, one generally accepted purpose for instruction in reading is to increase the student's reading skills to the degree that he will be able to participate successfully in college academics. This is a rational purpose. However, this assumes that the student will see a relationship between his activities in the reading course and the reading requirements of content textbooks. It is assumed that skills transference will automatically occur. This is not a realistic assumption.

Aron (1978) found that the open door policy of the community college brings to its doors students who are unprepared to do college level work and who in a great many cases are not equipped to read the textbooks in the content classes. Simply providing these students with reading and study skills classes does not solve the problem because there is little
transfer of learning from those classes to the content classes. According to Aron (1978) it would appear, then, that a joint effort by the reading and study skills teachers and the content teachers is necessary to assist these students in developing the ability to read the content textbook with meaning and comprehension.

Anderson, Foley, Dougherty and McGinnis (1974) reported that there is a tendency to equate reading with academic success. Although reading skills are important, in themselves, they are insufficient without study skills. It is possible to credit improving academic progress to newly acquired study techniques rather than to reading. There is a tendency to equate reading skills training with subject-matter reading. Is there a logical connection between a class in reading skills and a class in social studies and biology? How well do isolated reading skills transfer to other subjects?

According to Bullerman (1975) there is not an effective transfer from a reading program to the reading in other areas. This "other" reading is the only defensible reason for the existence of a reading program. The problem seems to stem from the fact that developmental aspects of reading have been taught in isolation with a sublime faith that skills will be automatically applied to reading tasks in all disciplines. Carpenter and Jones (1976) indicated that the transfer of an individual's reading skills, learned in a special reading lab, to actual reading situations within the content area, is likely to occur when direct application of the skills to reading in that content area is made.

According to Vaughn (1977) the typical curriculum of a secondary reading class is not inappropriate, it is insufficient. The ultimate
objective of the program is designed to help students achieve success in their academic classes. The key is that the students be able to transfer their ability from one setting (a reading class) to another setting (a content-area class). But for many students, this transfer cannot occur unless they can retain information as well as understand it. Reading teachers are not limited to, or bound by, material related to any single content field. Hence, reading teachers are often not concerned about whether students learn—that is retain—material they read in a reading class. The result is that the students in a reading class rarely practice the very skills of retention and synthesis which are required for them to succeed in their academic classes.

On the other hand, Dubois (1969) found that college students who receive instruction with subject matter type materials or general reading materials develop greater textbook comprehension skills and general skills than students who receive no special instruction in reading improvement.

After reviewing a number of programs, Spache (1978) said that even when reading instruction is provided for all pupils, provision for transfer to the content fields is usually unsatisfactory. Much research is needed on basic values of reading improvement training which may result in better reading improvement programs.

Fundamental Skills Needed to Read Content. In discussing reading in content, Beard (1970) stated many students experience difficulties in understanding the text. While the teacher is there to draw in the outline it may be comprehensible, but when they are once again on their own they may still not "see it." A way of recalling relevant concepts and principles and arousing "set" in studying is illustrated by a method used in
reading texts in French literature. According to Beard (1970) a preliminary discussion takes place around the theme of the text to be studied and students are asked to predict points that are likely to be made. It is not uncommon for students to bring up in this way all the points touched on in the text before they have ever heard them. The students find it encouraging to realize that they already know so much about the subject through their discussion and they are curious to know how the text treats the same theme. It can be an opportunity to point out the value of their adapting a similar strategy to their personal reading.

Spache (1972) found that a number of fundamental reading skills underlie successful functioning in subject matter areas. Among them, these two seem to be most relevant:

1. Survey material to determine the general value.
2. Examine illustrations and graphic material.

Estes (1950) also concluded that there are three basic reading skills necessary for social studies achievement:

1. Vocabulary knowledge.
2. Comprehension of both literal and critical material.
3. Developing skills in using indexes, tables of content, graphs, charts and tables.

Bleismer (1972) writing about a study made by Stefanich related that poor reading skills and study habits were among the reasons given by the University of Montana dropouts for leaving the University. Among the variables found by Wilson (1971) to be related significantly to first year academic performance of Aberdeen University (Scotland) Arts and Sciences students were study habits.
Driskell (1980) noted that most junior college and college study skills programs emphasize reading comprehension, reading speed, vocabulary building and general study practices by means of workbooks, rate acceleration programs and audiotapes that give practice in discreet comprehension skills. However, as Wilson and Einbecker (1974) noted, there is little evidence from these programs that group gains are reflected in improved academic performance.

Bragstad (1975) reported students involved in a study at a high school were asked "What helps you to remember?" Common answers to these questions were:

1. Understanding what I learn so the logic is clear.
2. Using what has been learned.
3. Reviewing frequently.
4. Seeing relationships one idea to another so I have a visual structure in my mind.
5. Knowing what I am doing and why.

Spache (1972) listed skills which are basic and necessary for successful reading of books in the content areas. They included skills which prepare a learner to understand, to interrelate, to implement and to further explore the knowledge of the field. Because a student's specific reading abilities, skills and interests vary from one subject to another, it is logical to conclude that reading skills and techniques peculiar to a subject should be taught in that subject. Research tends to show that training in how to read and study in a subject area promote greater learning in that subject.

Singer (1970:295) asked "How do reading abilities in specific subject areas differ from general reading comprehension?" Russell and Fea (1963)
summarized the differences as residing in:

1. The technical vocabulary for each field.

2. Patterns of mental organization required to read the printed material of each field.

3. Devices, symbols and illustrations characteristic of each field.

Singer (1970) noted that few experimental studies on teaching reading in the content areas have been conducted. From the research available, the evidence is clear that reading in the content areas can be improved through direct instruction in one or more of its general or specific factors. When specific vocabulary and purposes of reading in the content areas are emphasized, students tend to perform significantly better in comprehending the content.

Shuman and Baird (1976) found that many a student has failed a course because he was never able to come to grips with the vocabulary of the subject and therefore could not gain access to the ideas and processes which he had to understand if he were to have success in the subject. Most high school and college teachers use the vocabulary of their disciplines with considerable ease and do not take the time to give the language lessons from which many of their students might profit.

Carter (1960) suggested that one approach to the problem of dealing with reading improvement at the college level is to set up certain reading skills as the major objectives and then provide opportunities for drill. Another is the work/study technique. The student is shown how to improve his reading skills as he does his regular academic work. He is taught how to use his textbooks effectually, how to read in various subject matter fields and how to read critically for problem solving. In using
this approach the mature student can see for himself the relationship
between his ability to read and success in his academic field. Some
authors recommend that college students be taught to think and to make
effective use of the textbook in the various subject matter fields.
Pauk (1974) substantiated this point of view when he concluded his
description of skills needed in college reading by saying that we must
teach basic reading skills in terms of the students' subjects.

Triggs (1954) agreed when he wrote that the reading skills necessary
to read in the various subject matter areas differ only in emphasis.
In social sciences and humanities, the end result may not be the convey-
ance of precise detail but rather generalizations. In mathematics the
purpose may be to convey the precise details which are to be manipulated
in the solution of the problem.

Readability of Textbooks

There has been a resurgence of interest recently in the readability
of textbooks, particularly in community colleges where the range of
students' reading ability is wide. Although there has been improvement
in producing more readable textbooks, magazines and other written
materials there are still areas in which learning materials for students
are far more difficult than they need to be. However, research suggests
that material cannot be made readable for all readers. Rather than
attempting to simplify all textbooks, reading specialists might better
serve their students by teaching them how to read these difficult, intel-
lectually challenging works (Maxwell, 1978:525).

In a study at Columbia Junior College (Hagstrom, 1971) it was
apparent that the majority of the texts being evaluated were beyond the reading abilities of many of the students for whom they were intended. Hill (1967) and Karlin (1964) also found that the subject-matter textbooks were more difficult to read than books that told a story, and that in every content area the texts may run one or more grade levels above their placement.

Cline (1972) found that fifty percent of community college students had reading abilities below the textbook levels used in their classes. It was recommended that readability analysis should be applied to materials used and where a wide range of reading ability exists perhaps two or three texts at different levels be employed. According to Spring (1975:131) teachers are in agreement that low reading ability is a major problem in the community college. Carter (1960:67) reported that college teachers found that reading levels for their students ranged from fifth grade to thirteenth grade.

Readence (1980) recommended that a teacher use the following procedure to help a student who is having difficulty in comprehending his textbook.

1. Check the readability of the textbook.

2. Take the class on a "trip" through the text in order to point out its organizational patterns.

3. Explain charts, graphs and other pictorial materials which are used in the text.

Other authors have suggested that reading selections can best be analyzed in terms of three basic factors. These factors are:

1. The concepts presented in the material.

2. The language used to convey those concepts.
3. The skills needed by a reader to extract those concepts.

Westphal and Davis (1980) said that there are critical factors which are not taken into account by readability formulas. They were designed to give the teacher an approximate grade level for the materials and do not tell what teacher aids could be supplied in order to make the material more readable. On the positive side, teachers can capitalize on a book's strengths by pointing them out to the students and by using them in class. Study guides can draw attention to important concrete examples and explicit complex relationships. The location of understandable definitions and main ideas can be pointed out. As pointed out by Johnson and Vardian (1973), when students cannot read the textbook the teacher must somehow alter the situation and attempt to alleviate the problems.

Nieratka and Peachy (1975:137) caution, however, that one cannot hope to rewrite or edit all material to suit the needs of a particular student at a particular time, nor should one want to; nevertheless, at some early moments some teacher prepared material may be the only means of providing a successful reading experience.

**Strategies for Learning from the Textbook**

Herber (1970), Bruner (1967), Spache (1972), and Estes (1950) have suggested in their writings that the use of study guides, SQ3R, examination of illustrations and graphic material, teaching of vocabulary, and outlining can help the student understand the subject matter areas.

**Study Guides.** Tutolo (1977) said students' poor comprehension of expository texts is a problem that concerns most content teachers. A contributing factor is the extensive concept load found in most content
area texts. The reader simply does not know what ideas are important and what topics deserve concentrated study.

The teacher can improve student learning by designing study guides which lead the learner to the important concepts explained in the textbook. The study guide is a teaching aid written by the teacher to be used by the student to assist the student in developing reading skills for the purpose of enhancing comprehension of textual material. A guide is usually a typewritten copy keyed to the textbook that can be placed beside the text while a student is reading. The guide represents a plan or strategy to be followed by the learners to enhance comprehension. The guide is a simulator of the experience and understanding which the teacher wants the student to have. It assumes that the students are having difficulty reading the text and must be guided carefully so as to experience success at their level of competence.

Tutolo (1977) further stated that the purpose of a study guide is to provide a plan for reading the text. At any rate, the use of the study guide makes textbook reading easier. The problem is not the textbook, but rather the inflexible use of the textbook. Study guides increase this textbook flexibility and make it possible for students to be more successful in their reading.

Estes and Vaughn (1979) agree that study guides are often useful in providing students with needed guidance and direction, though discretion must be exercised in their use. A study guide should be used where:

1. Students perceive its worth as a help to them in understanding what they are studying. 2. The guide has the potential to develop students' sophistication in comprehension of similar material.
Most content teachers agree with Cunningham (1975:380) that not all portions of assigned reading have equal importance. Teachers know how to read selectively in order to distinguish key ideas from supportive evidence and major from minor points. Unfortunately, many students lack this sophistication. If teachers are to guide students in a systematic attack of the printed material, they must often construct methods which guide the process. And since teachers know the method and practice it, their task becomes the creation of a step-by-step format for modeling their own appropriate behaviors.

Reading authorities agree that guiding the student through the reading of an assignment will result in greater understanding of the content (Herber, 1978, Graves and others, 1976, Singer and Rhodes, 1976) but caution that the ultimate goal is for students to become independent of teachers if they are to continue to learn on their own after they leave school.

**SQ3R.** Study skills for self formulation of questions and for learning from the text require the student to be self directive from the beginning. The oldest and best-known study skill technique is Robinson's (1946) SQ3R technique. This technique is well grounded in research, not only research on SQ3R per se (Robinson, 1969), but also on each of the concepts included in it (Singer and Rhodes, 1976:22).

1. Survey: Surveying the text is done by reading all the headings of a chapter, noting all pictures, graphs, and diagrams, reading the final summary paragraph. Helps students organize ideas.

2. Question: The questioning component of SQ3R requires the reader
to generate questions to focus his attention on the content. Questions are generated by adding who? what? when? how? or why? to the headings.

3. **Read**: Reading is the main part of SQ3R and should be done actively to answer the questions.

4. **Recite**: Reciting is the most time consuming part and if this part is skipped over, the system will not work. Student should stop reading when finished reading under first heading. Look away from the book and recite only from memory, using his own words.

5. **Review**: Memory research indicates that most forgetting takes place shortly after the learning task has been completed. Since immediate review interferes with the forgetting process, the review part is essential to the success of SQ3R.

Tadlock (1978) emphasized that if students believed SQ3R would work they were likely to use it. A necessary prerequisite for such belief is an understanding of why it works.

The SQ3R method is best used with the textbook for it demands that the student take full advantage of the physical and functional aspects of texts. The purpose of SQ3R is to present the reader with information in a clear, organized and developmental manner. It makes full use of the many "learning aid" features incorporated in a textbook format—the student learns to identify those areas in reading which are of major significance (Policastro, 1975).

Kingston (1965) discussed the value of the questioning attitude in the SQ3R method of study. Preliminary skimming appears to accelerate the rate of normal reading while in no way interfering with comprehension. He found that questions available during reading, especially if they are
placed at the beginning of a selection or immediately before the related information are most effective in enhancing delayed and immediate recall for the largest number of meaningful values. This method surpassed both careful reading without questions and rereading the same material.

**Teaching Vocabulary.** "It is an accepted fact that there is a high positive relationship between vocabulary and reading comprehension. Dale and Razik (1963) reviewed 134 studies and found a high positive correlation of vocabulary with virtually every subject area and every measure of cognitive ability and proficiency." (Cunningham, 1976:112).

Rowell (1978) agreed that in reading, vocabulary development is closely aligned with concept development. Lessons on one almost always include attention to the other, and the development of any of the other components of reading is highly dependent on these two complementary components. Vocabulary development is fundamental to comprehension. Concept development is basic to helping a student comprehend written materials. As Spache and Spache (1938) stated, pupils cannot be expected to show successful comprehension in materials with unfamiliar vocabulary, presenting concepts beyond their experiential background (Rowell, 1978).

Rowell (1978) said that vocabulary development is not a one-dimensional process since there are several aspects to such development. Within each dimension of vocabulary there are various strategies for extending word knowledge (while all of these can perhaps be adapted to all dimensions of vocabulary development, some are more effective in one situation than in another.) Research evidence does not point to a single best approach to teaching vocabulary but rather indicates a variety of techniques are useful.

Context has been shown to be of value in determining meaning in
reading, according to Hafner (1967:491). The ability to use context will undergird mature reading. The ability to construct word meanings from context involves seeing relationships among meanings, inferring meanings, and paraphrasing meanings.

Leary (1948:136) asked secondary school teachers about problems in reading. Their answer to the question, what is your greatest problem in reading, was almost unanimously, to find ways of giving boys and girls a vocabulary sufficient to their needs.

In his study of reading in the science classroom, Smith (1972) found that: 1. The vocabulary load, both technical and non-technical, of science texts is quite different from the vocabulary taught in a school reading program. 2. The readability of science texts, generally, measures much higher than the reading level of the students for whom the text especially was designed.

Smith (1972) noted that many students have greater difficulty in comprehending the non-technical words in science books than they have in comprehending technical words. Since it is not feasible that teachers rewrite the science texts, he recommended that development of a systematic program of instruction in comprehension and study skills for content subjects will give students specific practice in learning the concepts presented in their texts.

Outlining. Why such a technique as giving an outline to students before reading should help them remember details has not been established (Miller, 1956). Regardless of the reason, however, having students make an outline of the reading selection before they read it helps them to remember the information.
Hansell (1978) agreed that outlining a section of text is one way students can identify separate ideas and how they fit together. Another way to help students identify and interrelate ideas is to give them carefully designed tasks called post organizers (Barron and Stone, 1973) or arrays (Craft, 1977). An array is essentially a free-form outline which requires that students arrange key words and phrases to show how the author fit them together. The usefulness of the arraying and outlining tasks is that they focus on the primary processes of comprehension—identifying relevant ideas and fitting these into a meaningful pattern. This sort of post organizer has been shown to be effective as a way to help students remember. One of the ways in which post organizers help is in mastering of the specialized vocabulary of the subject area.

**Reading Improvement for Adults.**

Kingston (1973) reports that data concerning many significant facets of adult reading are scarce. Most reading specialists have been more concerned with the problem of teaching a school-age child to read. Few funds for research in the reading behaviors of adults have been made available. Most studies of adult reading have had limited objectives, have utilized restricted population groups and have tried to discover methods and materials which will work with adults who are illiterate. As a result of these and other conditions, it is difficult to draw together a significant body of knowledge concerning the nature of adult reading problems.

As Kingston (1973) also stated, reading improvement for adults is an increasingly important area of study because classes to teach adults are being requested which will enable the adult reader to improve his individual
competencies.

Axford (1969) acknowledged that many studies have been made to better understand the problems of the child, and there has been a tendency to think that if we understand the child and his learning problems we can easily transfer this knowledge to the adult and his problems. Such is not the case. There are many aspects of adult reading that need clarification. "One wonders how many adults are turned off being tested by tests designed to appraise young children or by being taught using materials and methods developed by authorities for teaching children?" (Kingston, 1973:24).

Estes and Vaughn (1979) stated that many adults are, in a sense, handicapped readers because they tend to read everything at the same speed, which reflects an inefficient reading. Inspectional reading is closely akin to the concept of flexibility in reading. The aim of inspectional reading is to examine the surface of a book, to learn everything that the surface alone can teach you.

Turner (1970) recognized the challenge in the development of reading and other skills needed by college students for academic success. Many students come to college reading at an adult rate and are able to read and scan effectively. They lack, however, the important skills of being able to read with full comprehension and they are not able to read critically. College students also need instruction to improve various aspects of comprehension, word study in depth, and study procedures. To accomplish this task, various methods may be used. Students must be introduced to good methods of reading and study. After students have acquired knowledge in methods of reading and study, they should be asked to apply what they have learned to the study of their textbooks. The need
to sharpen the reading skills of college freshmen is apparent. Since reading is an individual matter, no one method is satisfactory for all students. As Moore (1970:21) states, "Teaching a "high-risk" student is a highly skilled, intellectually demanding task, requiring instructors with unique skills."
Chapter 3
PROCEDURES OF THE STUDY

In preparation for the development of this study guide an extensive examination of the literature was undertaken. The purpose was to document the need for such a guide and to determine appropriate strategies for learning the content of the textbook.

The following strategies were selected:

1. SQ3R Study Sheet.
2. Key words--outlining.
3. Concept guide.
4. Maps, charts, graphs and tables.
5. Technical vocabulary--matching.
6. Technical vocabulary--categorizing.

The psychology textbook used at Tacoma Community College was studied for format, concept development, vocabulary and comprehension. Lessons were developed to assist the student in comprehending the content of the psychology textbook. Four random chapters were selected for this project so that as the student progressed through those four chapters he would develop the necessary skills needed to read all the chapters of any textbook.

In constructing the lessons, consideration was given to the fact that the students would be using the lessons independently in a reading lab or outside the classroom. The materials include specific directions along
with an answer key.

All of the materials developed for student use in the study guide have been "field tested" by students in the reading lab at Tacoma Community College.
Chapter 4

STUDY GUIDE FOR COMMUNITY COLLEGE STUDENTS TO USE
WITH THE PSYCHOLOGY TEXTBOOK

The lessons included in this study guide have been designed to be used by students working independently in a reading lab or outside the classroom. Twenty-four lessons are included to guide the students in learning the content of the psychology textbook.

Six lessons for each of four different chapters have been designed—they included:

1. SQ3R Study Sheet.
2. Key words—outlining.
3. Concept guide.
4. Maps, charts, graphs and tables.
5. Technical vocabulary—matching.

Included with the materials are specific directions and answer keys.
PREVIEWING YOUR TEXTBOOK

1. Name of textbook: __________________________________________

2. List at least three questions or thoughts which the title suggests to you:
   a. __________________________________________
   b. __________________________________________
   c. __________________________________________

3. Take at least five chapter titles listed in the Table of Contents and turn them into questions:
   a. __________________________________________
   b. __________________________________________
   c. __________________________________________
   d. __________________________________________
   e. __________________________________________

4. Does the book contain:
   ________ glossary or vocabulary sections?
   ________ index?
   ________ appendix?
   ________ charts or graphs?
   ________ exercises, questions, problems?
   ________ an answer key?
   ________ chapter summaries?
   ________ a preface or introduction?

5. Write down 3 questions based on impressions you received while checking the items in #4:
   a. __________________________________________
   b. __________________________________________
   c. __________________________________________
LESSON ONE

SQ3R STUDY SHEET


The purpose of surveying your assignment is to get clues to the main ideas about this assignment. Glance at the titles, pictures, charts, maps, words in italics, boldface headings and you might even read the topic sentences on the introduction and summary paragraphs.

1. What is the title of this chapter? ________________________________

2. Write the general question from the chapter title. __________________

3. Turn the following list of headings into questions. The first three are done for you. A question can be constructed by adding who? what? when? or why? to the headings.

<table>
<thead>
<tr>
<th>Headings</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sampling</td>
<td>What is a sampling?</td>
</tr>
<tr>
<td>2. The Survey</td>
<td>What is a survey?</td>
</tr>
<tr>
<td>3. The Case Study</td>
<td>What is a case study?</td>
</tr>
<tr>
<td>4. Naturalistic Observation</td>
<td></td>
</tr>
<tr>
<td>5. The Cross-Cultural Comparison</td>
<td></td>
</tr>
<tr>
<td>6. The Longitudinal Study</td>
<td></td>
</tr>
<tr>
<td>7. The Experiment</td>
<td></td>
</tr>
<tr>
<td>8. Correlational Research</td>
<td></td>
</tr>
<tr>
<td>9. Tests, Psychophysical Measures, and Ratings</td>
<td></td>
</tr>
<tr>
<td>10. Descriptive Statistics</td>
<td></td>
</tr>
<tr>
<td>11. Inferential Statistics</td>
<td></td>
</tr>
<tr>
<td>12. The Self-Fulfilling Prophecy</td>
<td></td>
</tr>
<tr>
<td>13. Problems of Measurement</td>
<td></td>
</tr>
</tbody>
</table>
14. The Replication Requirement

15. Ethical Principles in Psychological Research

Below are questions that should be similar to the questions you wrote in your practice. Predict the most likely answer to each question without reading the chapter. Circle your choice.

<table>
<thead>
<tr>
<th>Question</th>
<th>Possible Answer</th>
</tr>
</thead>
</table>
| 1. What is sampling? | a. A representative of the population from which it is derived  
| | b. A total population study |
| 2. What is a survey? | a. An attempt to estimate the opinions or behavior of a particular population  
| | b. Specific information about a particular population |
| 3. What is a case study? | a. A survey of a large group of people  
| | b. An intensive investigation of one or a few individuals |
| | b. A method used to study the behavior of lower animals under natural conditions |
| 5. What is cross-cultural comparison? | a. Study of behavior patterns in different cultures  
| | b. Study of behavior patterns in a particular culture |
| 6. What is longitudinal study? | a. Studies in which the people of different groups are observed over a long period of time  
| | b. Studies in which the same group of people are observed over a long period of time |
7. What is an experiment?
   a. Method of study which permits the researcher to control or rule out extraneous influences
   b. A method of study where there are no controls

8. What is correlational research?
   a. Method of research which shows the degree of relationship between variables that may be positive or negative
   b. Method of research which indicates cause and effect

9. What are tests, psycho-physiological measures and ratings?
   a. Measurements used to assess group behavior
   b. Measurements used to assess individual behavior

10. What is descriptive statistics?
    a. Reducing data to a form that is more manageable and understandable
    b. A narrative form of describing data

11. What is inferential statistics?
    a. Statistics used to predict the results of an experiment
    b. Statistics used to make inferences after data in an experiment have been described or summarized

12. What is self-fulfilling prophecy?
    a. The fact that an experimenter's expectations may intentionally influence the results of their findings
    b. The fact that an experimenter's expectations may unintentionally influence the results of their findings

13. What are the problems of measurement?
    a. The decision of how to measure the thing one is trying to measure
    b. The decision of what to measure

14. What is the replication requirement?
    a. The attempt to repeat or duplicate a study by a second psychologist
    b. The attempt to repeat or duplicate a study by the same psychologist
15. What are ethical principles in psychological research?
   a. How to carry out investigations with respect for the people who participate and with concern for their dignity and welfare
   b. Investigations carried out with no concern for the people involved

Quickly look through (SCAN) the appropriate sections to locate the answers to each of the above questions. Decide if your choices were correct or incorrect.

READ THE CHAPTER SUMMARY AS PART OF THIS SURVEY.
LESSON TWO

KEY WORDS - OUTLINING


The Key Words under the Heading are: (Find and underline them in your text)

Sampling
1. representative
2. random
3. equal

The Survey
1. interviews
2. questionnaires

The Case Study
1. investigation
2. observation

Naturalistic Observation
1. participant observation

The Cross-Cultural Comparison
1. cross-cultural

The Longitudinal Study
1. longitudinal

The Experiment
1. experiment
2. subjects
3. variables
4. independent
5. experimental
6. control
7. dependent
8. hypothesis

Correlational Research
1. correlation
2. positive
3. negative

Tests, Psychophysiological Measures, and Ratings
1. grades
2. rating
Descriptive Statistics
1. mean
2. central tendency
3. median
4. mode
5. range
6. histogram
7. normal distributions
8. standard deviation
9. correlation coefficient

Inferential Statistics
1. probability
2. statistical significance

The Self-Fulfilling Prophecy
1. expectations
2. self-fulfilling
3. double-blind

Problems of Measurement
1. independent variable
2. dependent variable
3. manipulate
4. experimental conditions
5. control conditions

The Replication Requirement
1. replication
2. modify
3. imprinted

Ethical Principles in Psychological Research
1. unethical
2. conduct of researchers
LESSON THREE

CONCEPT GUIDE


AS YOU READ PAGES 21-47 fill in the right word in the blanks.

1. To be unbiased, a sample must be __________ of the population from which it is derived.

2. A sample is representative if every piece of data in a population has an __________ chance of being selected.

3. Oral surveys, or __________, permit the investigator to interact with the subjects and modify questions as may be appropriate.

4. Written surveys, or __________, have the advantage of taking less time to administer.

5. A __________ is an intensive __________ of one or a few individuals.

6. An important principle in the use of case studies is the __________ of behavior.

7. If members of a research team actually join a group they wish to observe, the method is termed __________.

8. The study of behavior patterns in different cultures is called __________.

9. Studies in which the same group of people is observed over a long period of time are referred to as __________ studies.

10. The __________ permits the researcher to control or rule out extraneous influences.

11. The people (or other organisms) observed in an experiment are called __________, and the factors that may change or vary in an experiment are called __________.

12. In such an experiment subjects might be asked to study a list of words. The group that studied while listening to music would be the __________ group, and the group that studied without music would be the __________ group.

13. The variable that the experimenter deliberately manipulates is called the __________ variable.
14. The variable that the researcher thinks will change when the independent variable changes is called the \underline{\hspace{10cm}} variable.

15. The experimenter's \underline{\hspace{10cm}} is the proposition or belief being tested.

16. A \underline{\hspace{10cm}} is an indication of the degree of relatedness between two variables, a relationship that may be either \underline{\hspace{1cm}} or \underline{\hspace{1cm}}.

17. Subjective impressions may be assessed through the use of \underline{\hspace{10cm}} scales.

18. The \underline{\hspace{10cm}} of a set of scores is the difference between the highest and lowest scores.

19. Another means of describing a group of scores is their \underline{\hspace{10cm}}.

20. The \underline{\hspace{10cm}} is computed by adding up all the scores and then dividing by the number of people who took the test.

21. The \underline{\hspace{10cm}} is the score that falls in the exact middle of a distribution of scores that are arranged from highest to lowest.

22. The \underline{\hspace{10cm}} is the score that is most frequently obtained in a distribution.

23. A \underline{\hspace{10cm}} is a graph of a frequency distribution.

24. The equivalence of the mean, the mode, and the median is a defining characteristic of a symmetrical or \underline{\hspace{10cm}}.

25. The most commonly used measure of variability is the \underline{\hspace{10cm}}.

26. \underline{\hspace{10cm}} is used to describe the strength of a relationship between variables.

27. \underline{\hspace{10cm}} is a complex area of mathematics that deals with the likelihood of certain results occurring.

28. The concept of \underline{\hspace{10cm}} is a convention for deciding when to reject the chance hypothesis.

29. The term \underline{\hspace{10cm}} refers to the fact that the \underline{\hspace{1cm}} of investigators can influence their findings.

30. One way for a researcher to avoid self-fulfilling prophecies is to employ a procedure called the \underline{\hspace{10cm}}.
31. In an experiment a researcher first manipulates the ________ and then measures the effect on the ________ variable.

32. The attempt to repeat or duplicate a study is referred to as ________.

33. The American Psychological Association has developed a set of ten principles to guide the ________ of researchers.
LESSON FOUR

MAPS, CHARTS, GRAPHS AND TABLES


Maps, charts, graphs and tables are pictures that give you information. Sometimes they compare things; sometimes they show how things change according to time or season or area. Maps usually show shapes and distances and locations. Charts and tables and graphs usually compare qualities or quantities or indicate the way things change over a period of time.

If you want to get the most out of your college textbooks you must be able to read maps, charts, graphs and tables; for these materials summarize or supplement what is said in the text. The following steps will help you:

1. Read titles and subtitles.
2. Read the key and the scale of miles, if any.
3. Read the information shown along the sides and the bottom of graphs and charts, if any.
4. Determine your purpose for reading the map, chart, graph or table.
5. Read for your purpose.

READ THE GRAPHIC MATERIAL ON FIGURE 2.3, page 28 in the way suggested above. Your purpose will be to answer the questions below:

1. What is the purpose of this graph? ________________________________

2. What had the strongest influence on whether a childhood behavior pattern died out or survived into adulthood? ________________________________

3. What childhood behavior pattern had the highest correlation or degree of relatedness? ________________________________

READ TABLE 2.2 ON PAGE 29.

1. How many components were involved in the experiment? __________________

2. Which room had the most movement? ________________________________

3. Which room had the most verbal communication? ________________________________

4. What was the hypothesis of this experiment? ________________________________
Page two - Lesson Four

READ FIGURE 2.7, PAGE 33.

1. What is the name of the graph? ________________________________

2. What is the mean score for the gas station attendants? _________

3. What is the mean score for the dentists? ________________________

4. How do the mean, median, and mode compare in this graph? _______

FIGURE 2.14, PAGE 39.

1. What information can be read from this graph? Circle your choice.

   a. In early grades the "bloomers" gained in IQ greater than
      "nonbloomers."
   b. The effect was strong in the higher grades.
   c. The effect was strong in the lower grades.
   d. Among first graders, the "bloomers" gain an average
      of 15 IQ points more than control "nonbloomers."

2. In what grade was the highest IQ growth? Circle your choice.

   1  2  3  4

FIGURE 2.17, PAGE 43.

1. What is the purpose of this graph? ______________________________

2. What was the single most effective procedure used to soothe a baby?

3. What was the least effective procedure used to soothe a baby? _____
LESSON FIVE

TECHNICAL VOCABULARY - MATCHING


In Column B there are definitions for the words listed in Column A. Match each word and its definition. Place the letter of the definition on the line in front of the word it defines. If you are in doubt as to the definition of a term you may look in your text to determine its meaning. Next to each term you will find in parentheses three numbers which will locate the term in your text. The first number is the page, the second is the column, and the third is the paragraph.

EXAMPLE (33;1;2) page 33, column 1, paragraph 2.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. mean (33;1;2)</td>
<td>a. equal chance of being selected</td>
</tr>
<tr>
<td>2. representative (23;1;2)</td>
<td>b. intensive investigation of one</td>
</tr>
<tr>
<td>3. observation (24;1;1)</td>
<td>c. close look at</td>
</tr>
<tr>
<td>4. dependent variable (28;2;5)</td>
<td>d. members of research join group being observed</td>
</tr>
<tr>
<td>5. negative correlation (31;1;1)</td>
<td>e. study of behavior in different cultures</td>
</tr>
<tr>
<td>6. random (23;1;1)</td>
<td>f. study of groups over long periods of time</td>
</tr>
<tr>
<td>7. cross-cultural (26;2;3)</td>
<td>g. example of</td>
</tr>
<tr>
<td>8. self-fulfilling prophecy (38;2;3)</td>
<td>h. controlled procedure</td>
</tr>
<tr>
<td>9. replication (42;1;2)</td>
<td>i. person or thing discussed or treated</td>
</tr>
<tr>
<td>10. mode (33;1;4)</td>
<td>j. the manipulated variable</td>
</tr>
<tr>
<td>11. participant observation (26;1;2)</td>
<td>k. belief being tested</td>
</tr>
<tr>
<td>12. independent variable (28;2;5)</td>
<td>l. degree of relatedness</td>
</tr>
<tr>
<td>13. experiment (27;2;3)</td>
<td>m. opposite</td>
</tr>
<tr>
<td>14. probability (36;2;2)</td>
<td>n. difference between highest and lowest</td>
</tr>
</tbody>
</table>
15. correlation (30;2;3) o. middle value
16. histogram (32;2;3) p. average
17. hypothesis (28;2;6) q. middle exact
18. central tendency (33;1;1) r. most frequent score
19. subjects (28;2;2) s. graph of frequency
20. median (33;1;3) t. strength of relationship
21. case study (24;2;2) u. what the chances are
22. longitudinal study (27;1;2) v. certain
23. positive correlation (30;2;3) w. influenced by expectations
24. range (32;2;3) x. repeat or duplicate
25. correlation coefficients (34;2;5) y. variable expected to change
LESSON SIX

TECHNICAL VOCABULARY - CATEGORIZING

FOLLOWING THE LIST OF WORDS BELOW THERE ARE FOUR CATEGORIES. PLACE EACH WORD UNDER THE CATEGORY TO WHICH IT BELONGS. IF YOU BELIEVE A WORD PROPERLY BELONGS UNDER MORE THAN ONE CATEGORY, YOU MAY LIST IT MORE THAN ONCE. THERE ARE THREE DONE FOR YOU.

| principles | standards | longitudinal |
| mean | mode | case study |
| representative | participant observation | normal distribution |
| conduct | independent | median |
| observation | experiment | subjects |
| dependent | standard deviation | investigation |
| negative | probability | interviews |
| random | expectations | hypothesis |
| rating | correlation | questionnaires |
| experimental | independent | control |
| cross-cultural | double blind technique | histogram |
| self-fulfilling | correlation coefficients | sample |
| replication | positive | regulations |

Gathering Data  
Analyzing Data  
Method Problems  
Ethical Problems

sample  
representation  
observation  
mean  
more  
range  
replication  
double blind  
technique  
conduct  
principles  
standards  
sample  
regulations

The purpose of surveying your assignment is to get clues to the main ideas about this assignment. Glance at the title, pictures, charts, maps, words in italics, boldface headings and you might even read the topic sentence on the introduction and summary paragraphs.

1. What is the title of this chapter? ____________________________

2. Write the general question from the chapter title. ____________________________

3. Turn the following list of headings into questions. A question can be constructed by adding who? what? when? or why? to the headings. The first three are done for you.

<table>
<thead>
<tr>
<th>Headings</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Learning</td>
<td>What is learning?</td>
</tr>
<tr>
<td>2. Learning and Performance</td>
<td>What is learning and performance?</td>
</tr>
<tr>
<td>3. Two views of learning</td>
<td>What are two views of learning?</td>
</tr>
<tr>
<td>4. Classical Conditioning</td>
<td></td>
</tr>
<tr>
<td>5. Establishing Conditioned Response</td>
<td></td>
</tr>
<tr>
<td>6. CS-UCS</td>
<td></td>
</tr>
<tr>
<td>7. Extinction of a Classically Conditioned Response</td>
<td></td>
</tr>
<tr>
<td>8. The Behaviorist Interpretation</td>
<td></td>
</tr>
<tr>
<td>9. Operant Conditioning</td>
<td></td>
</tr>
<tr>
<td>10. Reinforcement</td>
<td></td>
</tr>
<tr>
<td>11. Establishing Operantly Conditioned Responses</td>
<td></td>
</tr>
<tr>
<td>12. Maintaining Operantly Conditioned Responses</td>
<td></td>
</tr>
</tbody>
</table>
**Page two - Lesson Seven**

13. Extinction of Operantly Conditioned Responses

14. Comparison of Classical and Operant Conditioning

15. Discrimination and Generalization

16. Conditioned Reinforcers

17. Aversive Conditioning

18. Learning and Cognition

19. Latent Learning

20. Observational Learning

**Below are questions that should be similar to the questions you wrote in your practice. Predict the most likely answer to each question without reading the chapter. Circle your choice.**

<table>
<thead>
<tr>
<th>Question</th>
<th>Possible Answer</th>
</tr>
</thead>
</table>
| 1. What is learning?            | a. Learning in an inferred change in behavioral potential  
|                                 | b. Learning is something that can be seen            |
| 2. What is performance?         | a. Performance probably would be a temporary change in behavior  
|                                 | b. Performance probably would be a permanent change in behavior |
| 3. What are the two views of learning? | a. Associationist and cognitive  
|                                 | b. Thinking and observing                            |
| 4. What is classical conditioning? | a. Reflex behavior                                   
|                                 | b. Voluntary behavior                                |
|                                 | b. Evoking a stimulus                                |
|                                 | b. Common stimulus and uncommon stimulus             |
| 7. What is extinction?          | a. Fast disappearance                                
|                                 | b. Slow disappearance                                |
Page three - Lesson Seven

8. What is the behaviorist interpretation?  
   a. Learning can be explained within the framework of classical conditioning  
   b. All learning can be explained through classical conditioning

9. What is operant conditioning?  
   a. Applies to voluntary behavior  
   b. Applies to reflexes

10. What is reinforcement?  
    a. Reward  
    b. Punishment

11. How do we establish operantly conditioned responses?  
    a. Shaping the behavior  
    b. Elicit with an obvious stimulus

12. How do we maintain operantly conditioned responses?  
    a. Various schedules of reinforcement and stimulus control  
    b. No definite reinforcement of stimulus control

13. When is extinction of operantly conditional responses?  
    a. Too much reinforcement  
    b. Response is no longer reinforced

14. How do we compare classical and operant conditioning?  
    a. Reflexive or voluntary behavior  
    b. Are not distinctly different

15. What is discrimination?  
    a. The application of a learned response to a number of similar stimuli  
    b. The application of a learned response to a particular stimulus

16. What is generalization?  
    a. Learning to make a particular response to similar stimuli  
    b. Learning to make a particular response to a particular stimuli

17. What is aversive conditioning?  
    a. Negative reinforcement or punishment  
    b. pleasant reinforcement

18. What is cognition?  
    a. A particular method of learning  
    b. Mental process by which a person learns

19. What is latent learning?  
    a. Learning which occurs in the absence of obvious reinforcement  
    b. Learning which occurs with immediate reinforcement
20. What is observational learning?

a. Learning restricted to humans
b. Learning by observing the behavior of others

Quickly look through (SCAN) the appropriate sections to locate the answers to each of the above questions. Decide if your choices were correct or incorrect.

READ THE CHAPTER SUMMARY AS PART OF THIS SURVEY.
LESSON EIGHT

KEY WORDS - OUTLINING


As you read pages 73-97 complete the outline by filling in the key words under each heading.

Learning and Performance
1. behavior potential
2. inferred change
3. 
4. 

Two Views of Learning
1. associationist school
2. cognitive school
3. Thorndike
4. 
5. 
6. 

Classical Conditioning
1. reflexive response
2. 

Establishing a Conditioned Response
1. stimulus
2. response
3. conditioned stimulus
4. 
5. 
6. 

CS-UCS relationships
1. contingency
2. 
3. 
4. 

Extinction of a Classically Conditioned Response
1. 

The Behaviorist Interpretation
1. John B. Watson
2. 

Operant Conditioning
1. instrumental conditioning
2. respondent behavior
3. 

Name ________________________________
Page two - Lesson Eight

Reinforcement
1. reward
2. punishment
3.
4.

Establishing Operantly Conditioned Responses
1. shaping
2.

Maintaining Operantly Conditioned Responses
1. schedules of reinforcement
2. continuous reinforcement
3.
4.
5.
6.

Extinction of Operantly Conditioned Responses
1. extinction
2.

Comparison of Classical and Operant Conditioning
1. reflexive behavior
2.

Discrimination and Generalization
1. stimulus generalization
2.

Conditioned Reinforcers
1. primary reinforcers
2.

Aversive Conditioning
1. negative reinforcement
2.

Latent Learning
1.

Observational Learning
1. modeling
2.
3.
CONCEPT GUIDE


AS YOU READ PAGES 73-97 fill in the right word in the blanks.

1. Learning is an inferred change in ________, and it is not ________.

2. ________ is both observable and measurable.

3. The ________ views learning as the formation of associations between ________.

4. The ________ emphasizes the role of thinking and reasoning in learning.

5. ________ was the first proponent of what has come to be called ________ association theory.

6. The ________ was formulated by Thorndike to account for the strengthening and weakening of SR associations.

7. The cognitive (or "thinking") approach to understanding the learning process can be traced to ________.

8. The classical conditioning or ________ conditioning involves ________ response.

9. The salivary reflex, like other reflexes, is evoked by ________—food in a dog's mouth—that elicits a ________.

10. The food in the mouth is the unconditioned stimulus which elicits the ________ or (__________) of salivation.

11. The new stimulus that comes to elicit salivation is called the ________.

12. The animal's salivation response to the conditioned stimulus is called the ________ (or conditioned reflex).

13. The ________, or predictablness of the time relationship, between the conditioned and the unconditioned stimuli is an important requirement in CS-UCS relationships.

14. The phenomenon of ________ means that the repeated presentation of a stimulus results in a decrease in behavior in response to the stimulus.

15. The disappearance of the CR when the CS is no longer followed by the UCS is referred to as ________.
Page two - Lesson Nine

16. _____________, the founder of American behaviorism, was very impressed by Pavlov's work.

17. _____________ or instrumental conditioning applies to voluntary behavior.

18. Reflexes are sometimes called _____________.

19. The procedure in which a consequence increases the frequency of behavior is called _____________ or _____________.

20. The procedure in which a consequence decreases response frequency is called _____________.

21. In _____________, the frequency of a response increased because the response is followed by a reward, such as food when one is hungry.

22. In _____________, the frequency of a response increases because the response removes or enables one to avoid a negative (painful or unpleasant) stimulus.

23. The best known device or apparatus used to carry out operant conditioning has come to be called the _____________.

24. A procedure called _____________ is when the animal is reinforced for displaying closer approximations of the desired behavior.

25. Once a response has been shaped it may be maintained by various _____________.

26. When reinforcement is provided each time a behavior occurs it is called _____________ reinforcement schedule.

27. On the _____________ schedule the organism is rewarded each time it makes a specified number of responses.

28. On a _____________ schedule the rat is rewarded for bar pressing at the end of a fixed interval of time, say one minute, regardless of the number of responses made.

29. A reward may be proved an average of once every ten responses (__________) or an average of once per minute (__________).

30. The effect of _____________ is to produce a gradual (decrease or increase) in responding until the animal stops altogether.

31. Classical conditioning involves _____________ behavior, while operant conditioning involves largely _____________ behavior.
32. The process called _____________ is the application of a learned response to a number of similar stimulus.

33. The process called _____________ is learning to make a particular response only to a particular situation.

34. The _____________ (such as food) are the original reinforcers that established the response.

35. Reinforcing stimuli that occur immediately after a response, and that precede primary reinforcing stimuli, are called _____________, or conditioned reinforcers.

36. When a response increases in frequency because it terminates an aversive event, that termination is called _____________.

37. When a response decreases in frequency because it is followed by an aversive event that event is called _____________.

38. _____________ is so called because the organism does not demonstrate what it has learned until some time later, when reinforcement is available.

39. The process of learning through _____________ is variously called modeling, imitative learning, or _____________ learning.
Maps, charts, graphs and tables are pictures that give you information. Sometimes they compare things; sometimes they show how things change according to time or season or area. Maps usually show shapes and distances and locations. Charts and tables and graphs usually compare qualities or quantities or indicate the way things change over a period of time.

If you want to get the most out of your college textbooks you must be able to read maps, charts, graphs and tables; for these materials summarize or supplement what is said in the text. The following steps will help you:

1. Read titles and subtitles.
2. Read the key and the scale of miles, if any.
3. Read the information shown along the sides and the bottom of graphs and charts, if any.
4. Determine your purpose for reading the map, chart, graph or table.
5. Read for your purpose.

READ THE GRAPHIC MATERIAL ON FIGURE 4.1, page 77 in the way suggested above. Your purpose will be to answer the questions below.

1. What is the purpose of the graph? ________________________________

2. What is the neutral stimulus before conditioning? __________________

3. What is the neutral stimulus paired with which elicits the unconditioned response? ____________________________________________

4. What happens with the repeated pairing of the tone and the food? _____

5. The tone is no longer neutral because it elicits salivation, but is now __________________________.

6. What does a test with the tone alone show after conditioning? ______

READ THE GRAPHIC MATERIAL ON FIGURE 4.2, page 78.

1. What does figure A show? ________________________________________

2. What does figure B show? ________________________________________

3. How many trials before drops of salivation reach 10? ________________
4. What do the numbers on the left side of the graph stand for? _______

5. What do the numbers at the bottom of the graph stand for? _______

READ THE GRAPHIC MATERIAL ON FIGURE 4.4, page 79.

1. What is the purpose of the graph? ________________________________

2. What is the conditioned stimulus in this figure? ________________

3. What is the unconditioned stimulus in this figure? ________________

4. What is the CR in this figure? _________________________________

5. What happened to the CR when the CS is presented repeatedly without the UCS? ________________________________

READ THE GRAPHIC MATERIAL ON FIGURE 4.8, page 82.

1. What is the purpose of this figure? ______________________________

2. What are Y and T mazes used for? ______________________________

3. What does Y maze do that the others don't? ______________________

READ THE GRAPHIC MATERIAL ON FIGURE 4.10, page 84.

1. What does this graph illustrate? ________________________________

2. What orients the rat towards the food box and bar? ______________

3. What is the reinforcer? _______________________________________

4. When is the shaping process complete? __________________________

READ THE GRAPHIC MATERIAL ON FIGURE 4.12, page 91.

1. What is the purpose of the graph? ________________________________

2. What is the peak of the generalization for both pigeons? _________

3. Which pigeon treated the colors as more distinct? ________________
LESSON ELEVEN

TECHNICAL VOCABULARY - MATCHING


In Column B there are definitions for the words listed in Column A. Match each word and its definition. Place the letter of the definition on the line in front of the word it defines. If you are in doubt as to the definition of a term you may look in your text to determine its meaning. Next to each term you will find in parentheses three numbers which will locate the term in your text. The first number is the page, the second is the column, and the third is the paragraph.

EXAMPLE (96;1;2) page 96, column 1, paragraph 2.

Column A

1. modeling (96;1;2)
2. extinction (79;1;1)
3. observable (74;2;2)
4. contingency (78;1;3)
5. stimulus (76;2;3)
6. punishment (93;2;2)
7. operant conditioning (80;1;4)
8. associationist school (75;1;2)
9. voluntary (80;2;1)
10. observational learning (76;1;1)
11. conditioned response (76;2;3)
12. fixed-interval (85;1;3)
13. primary reinforcers (92;1;1)
14. instrumental conditioning (80;1;4)

Column B

a. no previous experience with stimulus
b. agent which evokes behavior
c. demonstrated later
d. can be seen
e. imitative learning
f. observing behavior
g. application to similar stimulus
h. conditioned reinforcers
i. thinking and reasoning
j. reinforcement each time
k. predictableness
l. reinforcement
m. operant conditioning
n. frequency of response increase
**Page two - Lesson Eleven**

15. reflexive behavior (80;2;1)  
16. negative reinforcement (81;1;2)  
17. reward (81;1;1)  
18. latent learning (95;2;2)  
19. fixed ratio (85;1;3)  
20. variable interval rates (85;1;5)  
21. cognitive school (75;1;2)  
22. generalization (90;1;3)  
23. positive reinforcement (81;1;2)  
24. shaping (83;1;2)  
25. secondary reinforcers (92;1;1)  
26. unconditioned stimulus (76;2;3)

- o. original reinforcer  
- p. slow disappearance  
- q. voluntary behavior  
- r. reinforcement of desired behavior  
- s. operant or instrumental  
- t. followed by reward (response)  
- u. response to conditioned stimulus  
- v. unpleasant stimulus  
- w. respondent behavior  
- x. reinforcement for specific number  
- y. associations between stimulus and response  
- z. reinforcement unpredictable
LESSON TWELVE

TECHNICAL VOCABULARY - CATEGORIZING

FOLLOWING THE LIST OF WORDS BELOW THERE ARE FOUR CATEGORIES. PLACE EACH WORD UNDER THE CATEGORY TO WHICH IT BELONGS. IF YOU BELIEVE A WORD PROPERLY BELONGS UNDER MORE THAN ONE CATEGORY, YOU MAY LIST IT MORE THAN ONCE. THERE ARE THREE DONE FOR YOU.

modeling fixed interval primary reinforcers
Law of Effect instrumental conditionings schedules of
extinction reflexive response reinforcement
observable apparatus unconditioned
John B. Watson Pavlovian stimulus
contingency habituation variable ratio
stimulus Thorndike imitative learning
punishment reflexive behavior behavior potential
associationist school stimulus response negative
voluntary variable interval reinforcement
behaviorism operant behavior reward
conditioned response generalization latent learning
observational learning positive reinforcement fixed ratio
respondent behavior negative reinforcement cognitive school
shaping discrimination measurable
secondary reinforcers continuous reinforcement response
reinforcement unconditioned response

CLASSICAL CONDITIONING OPERANT CONDITIONING BEHAVIOR CONTROL LEARNING
stimulus voluntary fixed-ratio Law of Effect
response reward fixed interval associationist
Pavlovian reinforcement variable-ratio latent learning
LESSON THIRTEEN

SQ3R STUDY SHEET


The purpose of surveying your assignment is to get clues to the main ideas about this assignment. Glance at the titles, pictures, charts, maps, words in italics, boldface headings and you might even read the topic sentences on the introduction and summary paragraphs.

1. What is the title of this chapter? ________________________________

2. Write the general question from the chapter title. ________________

3. Turn the following list of headings into questions. A question can be constructed by adding who? what? when? or why? to the headings.

<table>
<thead>
<tr>
<th>Headings</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Memory</td>
<td></td>
</tr>
<tr>
<td>2. Memory and Attention</td>
<td></td>
</tr>
<tr>
<td>3. Sensory Gating</td>
<td></td>
</tr>
<tr>
<td>4. Selective Attention</td>
<td></td>
</tr>
<tr>
<td>5. Memory Storage</td>
<td></td>
</tr>
<tr>
<td>6. Sensory Storage</td>
<td></td>
</tr>
<tr>
<td>7. Short Term Memory</td>
<td></td>
</tr>
<tr>
<td>8. Long Term Memory</td>
<td></td>
</tr>
<tr>
<td>9. Recognition and Recall</td>
<td></td>
</tr>
<tr>
<td>10. Relearning</td>
<td></td>
</tr>
<tr>
<td>11. Remembering and Reconstructing</td>
<td></td>
</tr>
<tr>
<td>12. Confabulation</td>
<td></td>
</tr>
<tr>
<td>13. State Dependent Memory</td>
<td></td>
</tr>
<tr>
<td>14. Imagery</td>
<td></td>
</tr>
<tr>
<td>15. Decay of Memory Traces</td>
<td></td>
</tr>
</tbody>
</table>
16. Interference

17. Motivated Forgetting

Below are questions that should be similar to the questions you wrote in your practice. Predict the most likely answer to each question without reading the chapter. Circle your choice.

<table>
<thead>
<tr>
<th>Question</th>
<th>Possible Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is memory?</td>
<td>a. Retention of past experience</td>
</tr>
<tr>
<td></td>
<td>b. Unique pattern of electrical activity</td>
</tr>
<tr>
<td>2. What is attention?</td>
<td>a. Ability to focus on specific information while listening to other information</td>
</tr>
<tr>
<td></td>
<td>b. Ability to focus on specific information while simultaneously ignoring other information</td>
</tr>
<tr>
<td>3. What is sensory gating?</td>
<td>a. Toning down or dampening of other sensory channels</td>
</tr>
<tr>
<td></td>
<td>b. Information coming in through several sensory channels</td>
</tr>
<tr>
<td>4. What is selective attention?</td>
<td>a. Simple phenomenon that occurs within several sensory channels</td>
</tr>
<tr>
<td></td>
<td>b. Complex phenomenon that occurs within a single sensory channel</td>
</tr>
<tr>
<td>5. What is memory storage?</td>
<td>a. Observable storage ability</td>
</tr>
<tr>
<td></td>
<td>b. Process of information retention</td>
</tr>
<tr>
<td>6. What is sensory storage?</td>
<td>a. Momentary persistence of sensory information</td>
</tr>
<tr>
<td></td>
<td>b. Storage of information for long time</td>
</tr>
<tr>
<td>7. What is short term memory?</td>
<td>a. Retain small amount of information for several seconds</td>
</tr>
<tr>
<td></td>
<td>b. Retain small amount of information for recall on test</td>
</tr>
<tr>
<td>8. What is long term memory?</td>
<td>a. A limited amount of information which can be recalled later</td>
</tr>
<tr>
<td></td>
<td>b. Storage of permanent knowledge</td>
</tr>
</tbody>
</table>
9. What is recognition?
   a. Presented with something we have not seen before and asked about it
   b. Presented with something and asked if we have seen or heard of it before

10. What is recall?
    a. Asked to retrieve specific information through search of our memory
    b. Recovering information on the basis of a great deal of cues

11. What is relearning?
    a. Learning same material again in shorter time period
    b. Learning same material again in same time period

12. How do we remember and reconstruct?
    a. Place information in the context of original situation
    b. By attacking the problem directly

13. What is confabulation?
    a. Inventing information to fill in a gap
    b. Deliberately making up a memory

14. What is state dependent memory?
    a. Certain drugs can cause loss of memory
    b. Retrieval ability

15. What is imagery?
    a. Hooking words to an image
    b. Remember an image

16. What is decay of Memory Traces?
    a. Process applies to longer term memory
    b. Decay, or wear away, with the passage of time

17. What is interference?
    a. Other material blocks out the memory
    b. Explains all forgetting

18. What is motivated forgetting?
    a. Conscious or unconscious desires to forget unpleasant memories
    b. Always caused by decay or interference

QUICKLY LOOK THROUGH (SCAN) THE APPROPRIATE SECTIONS TO LOCATE THE ANSWER TO EACH OF THE ABOVE QUESTIONS. DECIDE IF YOUR CHOICES WERE CORRECT OR INCORRECT.

READ THE CHAPTER SUMMARY AS PART OF THIS SURVEY
LESSON FOURTEEN

KEY WORDS - OUTLINING


AS YOU READ PAGES 101-123 COMPLETE THE OUTLINE BY FILLING IN THE KEY WORDS UNDER EACH HEADING.

Memory and Attention
1. Attention
2.

Sensory Gating
1. Sensory gating
2.

Selective Attention
1. Selective attention
2.

Memory Storage
1. Sensory storage
2.
3. Longer term memory
   a. Memory trace
   b.
   c.
   d.
   e.

Memory Retrieval
1. Recognition
2.

Relearning
1. Relearn
2.

Remembering as Reconstructing
1.

Confabulation
1.

State Dependent Memory
1.
Page two - Lesson Fourteen

Imagery
1. Mnemonic
2.
3.

Decay of Memory Traces
1. Decay
2.
3.

Interference
1. Interference
2.
3.

Motivated Forgetting
1. Suppression
2.
3.
LESSON FIFTEEN

CONCEPT GUIDE


AS YOU READ PAGES 101-123 FILL IN THE RIGHT WORD IN THE BLANKS.

1. When we speak of memory, we have in mind the retention of our past
   ____________________________.

2. It is difficult to separate the study of memory from the study of
   ____________________________.

3. Three processes that effect memory are ____________, ____________
   ____________, and ____________________________.

4. The ability to focus on specific information from the environment
   is ____________________________.

5. The toning down or dampening of other sensory channels is ________
   ____________________________.

6. ____________________________ is a somewhat more complex phenomenon that
   occurs within a single sensory channel.

7. ____________________________ describes our ability to retain a great deal
   of sensory information for an instant after stimulus is no longer
   present.

8. ____________________________, means that the sensory system that receives
   the information is in the same one that stores it.

9. Memory for events for a short while after they have occurred is
   called ____________________________.

10. Information will disappear from short term storage unless it is
    actively ____________________________.

11. The capacity of the short term memory system appears to be about
    ____________________________ items, plus or minus two.

12. Information which is stored indefinitely and used over and over
    again, is stored in the ____________________________.

13. When a person is unable to remember information encountered after
    the damage to the brain it is called ____________________________.

14. When a person is unable to remember information occurring shortly
    before an injury to the brain it is called ____________________________.
15. Certain drugs can increase transfer and consolidation when the brain is injured. This is called ____________________.

16. In __________________ we are presented with something and asked if we have seen it before.

17. In __________________ we are asked to retrieve specific pieces of information on the basis of certain clues.

18. Even when memory is severely impaired a subtle trace of information seems to be retained, since we are able to __________________ information in less time than the original learning required.

19. The difference in the number of trials (or in the time) it takes to learn a list between the original and subsequent learning sessions is called a ____________________.

20. Information is easier to retrieve when it is placed in the ______ __________________ of the original situation.

21. __________________ involves inventing information that seems appropriate, to fill in a memory gap.

22. Confabulation is more likely to occur under high _____________ states, which can be induced through the use of ________________.

23. Several drugs, including alcohol, can produce memory ______________, a separation between the storage and retrieval processes.

24. Many popular ______________, or memory assisting devices rely on visual imagery.

25. Imagery is most helpful to verbal memory when the items to be remembered are _______________ rather than abstract.

26. If a person has the ability to recall a visual scene with photograph clarity it is called ________________.

27. The oldest theory of forgetting states that memories wear away or ________________.

28. Decay theory appears to account for loss of information from ________________, but it is much less successful in accounting for loss from ________________.

29. When other material blocks out the memory it is called ____________.

30. Apparently, the ongoing activities during waking ______________ with the storage of new information.
Page three - Lesson Fifteen

31. When material memorized later interferes with remembering material memorized earlier it is called ____________________.

32. When material previously learned interferes with the retrieval of material learned more recently it is called ____________________.

33. ____________________ occurs when a person has a conscious or unconscious desire to forget unpleasant memories.

34. Some evidences of motivated blocking, ____________________ or repression is found when persons exhibit fumbling and physiological signs of _____________.

LESSON SIXTEEN

MAPS, CHARTS, GRAPHS AND TABLES

Maps, charts, graphs and tables are pictures that give you information. Sometimes they compare things; sometimes they show how things change according to time or season or area. Maps usually show shapes and distances and locations. Charts and tables and graphs usually compare qualities or quantities or indicate the way things change over a period of time.

If you want to get the most out of your college textbooks you must be able to read maps, charts, graphs and tables; for these materials summarize or supplement what is said in the text. The following steps will help you:

1. Read titles and subtitles.
2. Read the key and the scale of miles, if any.
3. Read the information shown along the sides and the bottom of graphs and charts, if any.
4. Determine your purpose for reading the map, chart, graph or table.
5. Read for your purpose.

READ THE GRAPHIC MATERIAL ON FIGURE 5, page 108 in the way suggested above. Your purpose will be to answer the questions below.

1. What does the graph measure?
2. What do the numbers on the bottom of the graph mean?
3. What was the frequency of correct recalls in 9 seconds?
4. What was the implication of the graph?

READ FIGURE 5, page 112.

1. What is the name of this figure?
2. What do the black dots represent?
3. What do the numbers on the bottom of the graph represent?
4. How many lists of words were given?
5. Which words was memory the best?
6. At what point in the list was memory the weakest?
READ FIGURE 5.16, page 119.
1. What is the purpose of the graph?
2. How many subjects are graphed?
3. What does the red line represent?
4. What does the blue line represent?
5. When the subjects were allowed to sleep during the time interval, what happened?

READ FIGURE 5.17, page 121.
1. What does this figure represent?
2. What does the box represent?
3. What are the elements within the box?
4. What are the outside elements that can be manipulated, controlled and measured in memory experiments?
LESSON SEVENTEEN

TECHNICAL VOCABULARY - MATCHING

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>___1. short term memory (107;1;1)</td>
<td>a. wear away</td>
</tr>
<tr>
<td>___2. modality specific (107;2;2)</td>
<td>b. invention of appropriate information</td>
</tr>
<tr>
<td>___3. attention (104;1;1)</td>
<td>c. invention of appropriate information</td>
</tr>
<tr>
<td>___4. anxiety (120;2;3)</td>
<td>d. unable to recall past</td>
</tr>
<tr>
<td>___5. past experience (102;1;3)</td>
<td>e. stress</td>
</tr>
<tr>
<td>___6. confabulation (114;1;3)</td>
<td>f. photographic memory</td>
</tr>
<tr>
<td>___7. decay (119;1;3)</td>
<td>g. focus on specific information</td>
</tr>
<tr>
<td>___8. rehearsal (108;1;2)</td>
<td>h. forward interference</td>
</tr>
<tr>
<td>___9. recognition (112;2;3)</td>
<td>i. motivated forgetting</td>
</tr>
<tr>
<td>___10. suppression (120;2;3)</td>
<td>j. memory</td>
</tr>
<tr>
<td>___11. mnemonic (115;2;1)</td>
<td>k. retain information for an instant after stimulus</td>
</tr>
<tr>
<td>___12. interference (119;2;2)</td>
<td>l. repetition</td>
</tr>
<tr>
<td>___13. memory storage (106;1;2)</td>
<td>m. storage of permanent knowledge</td>
</tr>
<tr>
<td>___14. retrograde amnesia (111;2;2)</td>
<td>n. identify as previously known</td>
</tr>
<tr>
<td>___15. long term memory (109;2;4)</td>
<td>o. retain lessons of experience</td>
</tr>
<tr>
<td>___16. memory retrieval (112;2;2)</td>
<td>p. other material blocks out memory</td>
</tr>
</tbody>
</table>
Page two - Lesson Seventeen

17. eidetic imagery (118;1;2) q. unable to retain new experiences

18. retroactive interference (120;1;3) r. information available for several seconds

19. dissociation (114;2;3) s. sensory storage

20. proactive interference (120;1;3) t.

21. sensory storage (107;1;2) u. backward interference

22. recall (113;1;1) v. separate between storage and retrieval

23. anterograde amnesia (110;2;4) w. retrieval of information
LESSON EIGHTEEN

TECHNICAL VOCABULARY - CATEGORIZING

FOLLOWING THE LIST OF WORDS BELOW THERE ARE FOUR CATEGORIES. PLACE EACH WORD UNDER THE CATEGORY TO WHICH IT BELongs. IF YOU BELIEVE A WORD PROPERLY BELongs UNDER MORE THAN ONE CATEGORY, YOU MAY LIST IT MORE THAN ONCE. THERE ARE TWO DONE FOR YOU.

short term memory savings score
modality specific retrograde amnesia
attention drug facilitation
confabulation hypnosis
anxiety dissociation
experience motivated forgetting
decay relearn
rehearsal sensory gating
recognition selective attention
suppression motivational
learning proactive interference
mnemonic long term memory

MEMORY AND ATTENTION
FORGETTING MEMORY STORAGE MEMORY RETRIEVAL
attention decay short term memory recognition
sensory gating interference sensory storage recall
LESSON NINETEEN

SQ3R STUDY SHEET


The purpose of surveying your assignment is to get clues to the main ideas about this assignment. Glance at the titles, pictures, charts, maps, words in italics, boldface headings and you might even read the topic sentences on the introduction and summary paragraphs.

1. What is the title of this chapter? __________________________

2. Write the general questions from the chapter title. ____________

3. Locate the headings of the chapter and turn them into questions.

Questions

1. ______________________

2. ______________________

3. ______________________

4. ______________________

5. ______________________

6. ______________________

7. ______________________

8. ______________________

9. ______________________

10. ______________________

11. ______________________

12. ______________________
Below are questions that should be similar to the questions you wrote in your practice. Predict the most likely answer to each question without reading the chapter. Circle your choice.

<table>
<thead>
<tr>
<th>Question</th>
<th>Possible Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What are the basic concepts?</td>
<td>a. Three processes central to intellectual development</td>
</tr>
<tr>
<td></td>
<td>b. A fixed trait resulting in intelligence</td>
</tr>
<tr>
<td>2. How many periods of intellectual development?</td>
<td>a. seven</td>
</tr>
<tr>
<td></td>
<td>b. four</td>
</tr>
<tr>
<td>3. What is infancy?</td>
<td>a. Brief period between birth and early childhood</td>
</tr>
<tr>
<td></td>
<td>b. Tiny baby</td>
</tr>
<tr>
<td>4. What is the infant's capacity for learning?</td>
<td>a. Capable of learning from moment of birth</td>
</tr>
<tr>
<td></td>
<td>b. Undeveloped learning capacity</td>
</tr>
<tr>
<td>5. What is sensorimotor intelligence?</td>
<td>a. Thinking about what is happening</td>
</tr>
<tr>
<td></td>
<td>b. Learning to act in the world</td>
</tr>
<tr>
<td>6. What is the object concept?</td>
<td>a. Conceiving objects as having an existence of their own</td>
</tr>
<tr>
<td></td>
<td>b. Conceiving objects as having no existence of their own</td>
</tr>
<tr>
<td>7. What are the cognitive skills of the preschooler?</td>
<td>a. Engagement in representational thought</td>
</tr>
<tr>
<td></td>
<td>b. Capable of following all visible movement of objects</td>
</tr>
<tr>
<td>8. What are the cognitive skills of the older child?</td>
<td>a. Intuitive thinking</td>
</tr>
<tr>
<td></td>
<td>b. Beginning of logical thinking</td>
</tr>
<tr>
<td>9. What is systematic experimentation?</td>
<td>a. Considering all possible combinations of factors that produce an event</td>
</tr>
<tr>
<td></td>
<td>b. Considering some combinations of factors that produce an event</td>
</tr>
<tr>
<td>10. What are hypothetical ideas?</td>
<td>a. Ideas bound by physical reality</td>
</tr>
<tr>
<td></td>
<td>b. Ideas imagined contrary to facts</td>
</tr>
<tr>
<td>11. What is abstract thinking?</td>
<td>a. Less concrete level of thinking</td>
</tr>
<tr>
<td></td>
<td>b. More concrete level of thinking</td>
</tr>
</tbody>
</table>
12. What are cognitive skills in early and middle adulthood?
   a. Time of peak intellectual accomplishment
   b. Time of declining intellectual accomplishment

13. What are the cognitive skills in later adulthood?
   a. Decline of intellectual performance
   b. Tendency to "slow down" only

QUICKLY LOOK THROUGH (SCAN) THE APPROPRIATE SECTIONS TO LOCATE THE ANSWER TO EACH OF THE ABOVE QUESTIONS. DECIDE IF YOUR CHOICES WERE CORRECT OR INCORRECT.

READ THE CHAPTER SUMMARY AS PART OF THIS SURVEY.
LESSON TWENTY

KEY WORDS - OUTLINING


AS YOU READ PAGES 175-193 COMPLETE THE OUTLINE BY FILLING IN THE KEY WORDS UNDER EACH HEADING.

Basic Concepts
1.
2.
3.
4.

Periods of Intellectual Development
1.
2.
3.
4.

The Infant's Capacity for Learning
1.
2.
3.
4.
5.

Sensorimotor Intelligence and the Object Concept
1.
2.

Cognitive Skills of Preschooler
1.
2.
3.
4.
5.
6.
7.

Cognitive Skills of the Older Child
1.
2.
3.

Adolescents - Systematic Experimentation
1.
2.
3.
Hypothetical Ideas and Abstract Thinking
1.
2.

Cognitive Skills in Early and Middle Adulthood
1.
2.
3.

Cognitive Skills in Later Adulthood
1.
2.
3.
4.
5.
LES SON TWENTY ONE

CONCEPT GUIDE


AS YOU READ PAGES 175-193 fill in the right word in the blanks.

1. A _______ is a recurrent action pattern that leads to practical knowledge about one's environment.

2. _______ is the incorporation of new knowledge through the use of existing schemes.

3. When the new knowledge does not fit the existing schemes, the individual must change the schemes through the process of _______.

4. Cognitive development is explained in terms of the mind's constant search for an _______ (a balance) between the two processes.

5. The period from birth to two years is the _______ period.

6. The period between two to five or seven years is the _______ period.

7. The period between five or seven to adolescence is the _______ _______ period.

8. The period between adolescence through adulthood is the _______ _______ period.

9. Experiments have shown that a baby only two to four days old is capable of learning, _______ , and _______ simple contingencies through conditioning.

10. The infant's affinity for learning is at least partially _______.

11. It has been suggested that babies derive a form of _______ _______ from simple problem solving.

12. Sensorimotor intelligence, or _______ , refers to an infant's learning to act in the world.

13. An important aspect of sensorimotor intelligence is the development of an object concept, the concept of _______ .

14. Piaget labels the preoperational state of intellectual growth the _______ _______ .

15. During the _______ period, children are able to deal with invisible or hidden movements, because they are developing the capacity to engage in _______ .
16. The preoperational child learns to use deferred ____________ and insight learning and begins to play "make believe".
17. Most importantly, the preoperational child begins to use ________.
18. ____________ is the inability to take into account points of view other than the child's own.
19. ____________ is jumping from one idea to another without coordinating the ideas into a meaningful whole; and the inability to carry out those that provide no external cues and that require self directed thinking.
20. Between the ages of five and seven, children begin to understand ________________.
21. The concept of ________________ is an example of a gradually developing concrete operational concept.
22. The two main skills needed to master ________________ are the ability to understand the addition of classes and the ability to multiply classes.
23. What Piaget calls ________________ emerges around the beginning of adolescence.
24. The adolescent is able to think ________________ and in ________________ terms.
25. During Formal-operational stage the individual is able to engage in ________________ by considering all possible combinations of factors that may produce a particular event.
26. The adult in middle years is at the ________________. It has been found that IQ generally increases into the middle years.
27. Young adults usually perform better than they ever have before and are usually most ________________ at this time.
28. The only decline of an adult in the middle years may be in _____.
29. The most characteristic change of old age is the tendency to "__________", which is believed to be caused by a process called ________________.
30. Neural aging produces several changes, among them impairment in ________________.
31. Some researchers have suggested replacing the concept of ____________ ____________ with that of ________________ - a measure not of years but of how well a person performs on a variety of mental and physical tasks.
LESSON TWENTY TWO

MAPS, CHARTS, GRAPHS AND TABLES


Maps, charts, graphs and tables are pictures that give you information. Sometimes they compare things; sometimes they show how things change according to time or season or area. Maps usually show shapes and distances and locations. Charts and tables and graphs usually compare qualities or quantities or indicate the way things change over a period of time.

If you want to get the most out of your college textbooks you must be able to read maps, charts, graphs and tables; for these materials summarize or supplement what is said in the text. The following steps will help you:

1. Read titles and subtitles.
2. Read the key and the scale of miles, if any.
3. Read the information shown along the sides and the bottom of graphs and charts, if any.
4. Determine your purpose for reading the map, chart, graph, or table.
5. Read for your purpose.

READ THE GRAPHIC MATERIAL ON FIGURE 8.2, page 185 in the way suggested above. Your purpose will be to answer the questions below.

1. What is the purpose of this graph? 
2. What does the top figure show?

READ FIGURE 8.4, page 188.

1. What is the child doing in figure 8.4 B?
2. What does diagram C show?

READ FIGURE 8.5, page 188.

1. What does this diagram demonstrate?
2. When is the understanding of the principle so that the beam in C can be balanced reached?

READ FIGURE 8.6, page 189.

1. What is the purpose of this graph?
2. What is the problem being graphed?

3. How many bottles are included in the experiment? What are they labeled?

4. At what stage must children be to conceive of such a procedure as this shows?

READ FIGURE 8.8, page 191.

1. What does this graph show?

2. What is the projected median age of people in the year 2030?

3. What year will the median age be 31?

READ FIGURE 8.9, page 192.

1. What does chart A represent?

2. What approach does chart B represent?

3. Which studies suggest more decline?

4. On chart A what do the black lines represent?

5. What does the orange line represent?

6. What does the yellow line represent?

7. At what age charted for the year 1970 does the intellectual ability have the most increase?
LES SON TWENTY THREE

TECHNICAL VOCABULARY - MATCHING


In Column B there are definitions for the words listed in Column A. Match each word and its definition. Place the letter of the definition on the line in front of the word it defines. If you are in doubt as to the definition of a term you may look in your text to determine its meaning. Next to each term you will find in parentheses three numbers which will locate the term in your text. The first number is the page, the second is the column, and the third is the paragraph.

EXAMPLE (176;2;3) page 176, column 2, paragraph 3.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. scheme (176;2;3)</td>
<td>a. cause of &quot;slow down&quot;</td>
</tr>
<tr>
<td>2. primary neural aging (191;2;2)</td>
<td>b. adolescence on</td>
</tr>
<tr>
<td>3. object permanence (180;2;2)</td>
<td>c. balance</td>
</tr>
<tr>
<td>4. functional age (193;2;3)</td>
<td>d. incorporation of new knowledge</td>
</tr>
<tr>
<td>5. complexive thinking (183;1;3)</td>
<td>e. measure of years</td>
</tr>
<tr>
<td>6. equilibration (177;2;1)</td>
<td>f. practical intelligence</td>
</tr>
<tr>
<td>7. egocentrism (183;1;1)</td>
<td>g. ability to judge amount in different forms</td>
</tr>
<tr>
<td>8. chronological age (193;2;3)</td>
<td>h. first two years</td>
</tr>
<tr>
<td>9. concrete operational period (178;1;1)</td>
<td>i. own point of view</td>
</tr>
<tr>
<td>10. concept of conservation (184;1;2)</td>
<td>j. measure of performance</td>
</tr>
<tr>
<td>11. formal operational period (178;1;1)</td>
<td>k. modification</td>
</tr>
<tr>
<td>12. assimilation (177;1;2)</td>
<td>l. based on intuition</td>
</tr>
<tr>
<td>13. classification (185;1;2)</td>
<td>m. object has ongoing existence</td>
</tr>
</tbody>
</table>
14. intuitive phase \( (182;1;3) \)
15. sensorimotor intelligence \( (180;2;1) \)
16. sensorimotor period \( (178;1;1) \)
17. accommodaton \( (177;1;2) \)
18. preoperational period \( (178;1;1) \)

n. overall integration
o. recurrent action period
p. preschool years
q. addition and multiplication of classes
r. between fifth and seventh year
LESSON TWENTY FOUR

TECHNICAL VOCABULARY - CATEGORIZING


FOLLOWING THE LIST OF WORDS BELOW THERE ARE FOUR CATEGORIES. PLACE EACH WORD UNDER THE CATEGORY TO WHICH IT BELONGS. IF YOU BELIEVE A WORD PROPERLY BELONGS UNDER MORE THAN ONE CATEGORY, YOU MAY LIST IT MORE THAN ONCE.

scheme intellectual pleasure classification assimilation practical intelligence accommodation object permanence equilibration intuitive phase hypothetically abstract

sensorimotor preoperational representational thought formal operational systematic experimentation imitation intellectual prime intellectually flexible self motivated concept of conservation chronological age

language unlearning functional age "slow down" conditioning primary neural aging motor skills relearning egocentrism complexive thinking concrete operations

ADOLESCENCE ADULTHOOD INFANCY CHILDHOOD
Lesson One - SQ3R Study Sheet

1. a
2. a
3. b
4. b
5. a
6. b
7. a
8. a
9. b
10. a
11. b
12. b
13. a
14. a
15. a

Lesson Three - Concept Guide

1. representative
2. random
3. interviews
4. questionnaires
5. case study, investigation
6. observation
7. participant observation
8. cross cultural studies
9. longitudinal
10. experiment
11. subjects
12. experimental, control
13. independent
14. dependent
15. hypotheses
16. correlation, positive, negative
17. rating
18. range
19. central tendency
20. mean
21. median
22. mode
23. histogram
24. normal distribution
25. standard deviation
26. correlation coefficient
27. probability
28. statistical significance
29. self fulfilling prophecy, expectations
30. double blind technique
31. independent variable, dependent
32. replication requirement
33. conduct

Lesson Four - Maps, Charts, Graphs and Tables

Figure 2.3, page 28
1. Depict continuity between childhood and adult behavior
2. Traditional sex roles
3. Achievement ages 6-10

Table 2.2, page 29
1. 5
2. black
3. white
4. The changes in lighting caused the changes in the behavior

Figure 2.7, page 33
1. histogram
2. about 21
3. 32
4. same

Figure 2.14, page 39
1. a, c, d
2. 1

Figure 2.17, page 43
1. Show the effects of different types of constant stimulation on babies
2. swaddling
3. constant light

Lesson Five - Technical Vocabulary-Matching
1. o
2. g
3. c
4. y
5. m
6. a
# Lesson Six - Categorizing

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<tr>
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<th>Analyzing Data</th>
<th>Methodological Problem</th>
<th>Ethical Problems</th>
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<td>rating</td>
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Lesson Seven - SQ3R Study Sheet

1. a
2. a
3. a
4. a
5. b
6. a
7. b
8. a
9. a
10. a
11. a
12. a
13. b
14. a
15. a
16. b
17. a
18. b
19. a
20. b

Lesson Eight - Outlining

3. observable
4. measureable

4. stimulus response
5. Law of Effect
6. Tolman

2. Pavlovian

4. unconditioned stimulus
5. conditioned response
6. unconditioned response

2. habituation
3. CS
4. UCS

1. extinction
2. behaviorism
3. operant behavior

3. positive reinforcement
4. negative reinforcement
2. apparatus
3. fixed-interval
4. variable-ratio
5. variable interval
2. spontaneous recovery
2. voluntary
2. stimulus discrimination
2. secondary reinforcers
2. punishment
1. latent learning
2. imitative learning
3. observation

Lesson Nine - Concept Guide
1. behavior potential, measureable
2. performance
3. associationist school, stimulus and response
4. cognitive school
5. Thorndike, stimulus response
6. Law of Effect
7. Edward Tolman
8. Pavlovian, reflexive response
9. stimulus, response
10. unconditioned response, unconditioned reflex
11. conditioned stimulus
12. conditioned responses
13. contingency
14. habituation
15. extinction
16. John B. Watson
17. operant
18. respondent behavior
19. reinforcement, reward
20. punishment
21. positive reinforcement
22. negative reinforcement
23. apparatus
24. shaping
25. schedules of reinforcement
26. continuous reinforcement schedule
27. fixed-ratio schedule
28. fixed interval
29. variable ratio, variable interval
30. extinction
31. reflexive, voluntary
32. generalization
33. discrimination
34. primary reinforcers
35. secondary
36. negative reinforcement
37. punishment
38. latent learning
39. observation, observational learning

Lesson Ten - Maps, Charts, Graphs and Tables

Figure 4.1, page 77

1. Shows relationship of events in classical conditioning
2. tone
3. food – unconditioned stimulus
4. elicits salivation
5. conditioned stimulus
6. Tone can elicit salivation alone without the food

Figure 4.3, page 78

1. acquisition of a conditioned response
2. extinction of a conditioned response
3. four
4. drops of saliva
5. trials of tests

Figure 4.4, page 79

1. Shows relationship of events in extinction of classically conditioned response
2. tone
3. food
4. saliva
5. extinction of slow disappearance

Figure 4.8, page 82

1. to show various kinds of learning mazes
2. discrimination problems
3. presents a series of choice points rather than just one
Figure 4.10, page 84

1. Shaping  
2. Clicking sound  
3. Food  
4. When the rat eats the food

Figure 4.13, page 91

1. Shows generalization gradients for two pigeons in a test of color  
2. Yellow light  
3. The one with the discrimination training

Figure 4.17, page 96

1. Illustrates latent learning  
2. Error score  
3. Number of days  
4. Group I  
5. Group II  
6. Group III  
7. Seventh

Lesson Eleven - Technical Vocabulary-Matching

1. e  
2. p  
3. d  
4. k  
5. b  
6. v  
7. s  
8. y  
9. m  
10. f  
11. u  
12. j  
13. o  
14. q  
15. n  
16. w  
17. l  
18. c  
19. x  
20. z  
21. i  
22. g  
23. t  
24. r  
25. h  
26. a
### Learning

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<td>Thorndike</td>
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### Classical Conditioning

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<td>reflexive response</td>
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<td>Thorndike</td>
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<td>response</td>
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### Operant Conditioning

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### Behavior Control

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Lesson Thirteen - SQ3R Study Sheet

1. a
2. b
3. a
4. b
5. b
6. a
7. a
8. b
9. b
10. a
11. a
12. a
13. a
14. a
15. a
16. b
17. a
18. a

Lesson Fourteen - Outlining

2. memories
2. sensory channels
2. single sensory channel
2. short term memory
6. free recall experiments
c. anterograde amnesia
d. retrograde amnesia
3. drug facilitation
2. recall
2. relearning score
1. hypnosis
1. dissociation
2. imagery
3. eidetic imagery
2. short term memory
3. long term memory
2. proactive interference
3. retroactive interference

2. repression
3. anxiety

Lesson Fifteen - Concept Guide

1. experience
2. learning
3. attention, memory storage, memory retrieval
4. attention
5. sensory gating
6. selective attention
7. sensory storage
8. modality specific
9. short term memory
10. rehearsed
11. seven
12. long term memory
13. anterograde amnesia
14. retrograde amnesia
15. drug facilitation
16. recognition
17. recall
18. relearn
19. savings score
20. context
21. confabulation
22. motivational, hypnosis
23. dissociation
24. mnemonic
25. concrete
26. eidetic imagery
27. decay
28. short term memory, long term memory
29. interference
30. interfere
31. retroactive interference
32. proactive interference
33. motivated forgetting
34. suppression, anxiety
Lesson Eighteen - Technical Vocabulary - Categorizing

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<td>anterograde amnesia</td>
</tr>
<tr>
<td></td>
<td>drug facilitation</td>
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Lesson Nineteen - SQ3R Study Sheet

1. a
2. b
3. b
4. a
5. b
6. a
7. a
8. b
9. a
10. b
11. a
12. a
13. b
Lesson Sixteen - Maps, Charts, Graphs and Tables

Figure 5.9, page 112
1. Serial position curve
2. Percentage of correct recalls
3. Position of the word on the list
4. Last few
5. Middle

Figure 5.16, page 119
1. To determine which subjects remember most and when
2. Two
3. Sleep time
4. Wake time
5. They remembered more

Figure 5.17, page 121
1. An overview of memory process
2. The individual
3. Attention, consolidation, memory, remembering and forgetting
4. Sensory information, rehearsal, and performance

Lesson Seventeen - Technical Vocabulary-Matching

1. r
2. s
3. g
4. c
5. e
6. j
7. b
8. l
9. n
10. i
11. a
12. p
13. o
14. d
15. m
16. t
17. f
18. u
19. v
20. h
21. k
22. w
23. q
Lesson Twenty - Outlining

1. Scheme
2. Assimilation
3. Accommodation
4. Equilibration

1. Sensorimotor period
2. Preoperational period
3. Concrete-operational period
4. Formal operational period

1. Conditioning
2. Unlearn
3. Relearn
4. Self motivation
5. Intellectual pleasure

1. Practical intelligence
2. Concept of object permanence

1. Intuitive phase
2. Representational skills
3. Imitation
4. Language
5. Egocentrism
6. Complexive thinking
7. Preoperational

1. Concept of conservation
2. Concrete operation
3. Classification

1. Formal operational intelligence
2. Experimentation
3. Systematic experimentation

1. Hypothetical
2. Abstract

1. Intellectual prime
2. Motor skills
3. Intellectually flexible

1. "Slow down"
2. Primary neural aging
3. Short term memory
4. Chronological age
5. Functional age
Lesson Twenty One - Concept Guide

1. scheme
2. assimilation
3. accommodation
4. equilibration
5. sensorimotor
6. preoperational
7. concrete operational
8. formal operational
9. unlearning, relearning
10. self-motivated
11. intellectual pleasure
12. practical intelligence
13. object permanence
14. intuitive phase
15. representational thought
16. imitation
17. language
18. egocentrism
19. complexive thinking
20. concrete operations
21. conservation
22. classification
23. formal operational intelligence
24. hypothetically, abstract
25. systematic experimentation
26. intellectual prime
27. intellectually flexible
28. motor skills
29. "slow down", primary neural aging
30. short term memory
31. chronological age, functional age

Lesson Twenty Two - Maps, Charts, Graphs and Tables

Figure 8.3, page 185

1. Classifying by color
2. How a child can multiply two bases for classification (shape and color)

Figure 8.5, page 188

1. Formal operational intelligence
2. When formal operations are acquired
1. To show a problem that requires systematic examination of hypothesis for its solution
2. To determine how the color yellow is produced
3. 5, 1, 2, 3, 4, and g
4. Formal operational period

Figure 8.8, page 191

1. Projected Median age of U.S. Population
2. 37
3. 1985

Figure 8.9, page 192

1. Cross sectional approach
2. Longitudinal approach
3. cross sectional
4. Age at year 1956
5. Age at year 1963
6. Age at year 1970
7. 47

Lesson Twenty Three — Technical Vocabulary-Matching

1. o
2. a
3. m
4. j
5. n
6. c
7. i
8. e
9. r
10. g
11. b
12. d
13. q
14. l
15. f
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Lesson Twenty Four - Technical Vocabulary - Categorizing

<table>
<thead>
<tr>
<th><strong>Infancy</strong></th>
<th><strong>Childhood</strong></th>
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<tbody>
<tr>
<td>sensorimotor</td>
<td>intuitive phase</td>
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<tr>
<td>unlearning</td>
<td>representational thought</td>
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<td>conditioning</td>
<td>imitation</td>
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<td>self motivated</td>
<td>language</td>
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<td>intellectual pleasure</td>
<td>egocentrism</td>
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<td>practical intelligence</td>
<td>complexive thinking</td>
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<td>object permanence</td>
<td>concrete operations</td>
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<td>relearning</td>
<td>concept of conservation</td>
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<td>functional age</td>
<td>functional age</td>
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<td>chronological age</td>
<td>classification</td>
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<tr>
<td>scheme</td>
<td>chronological age</td>
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<td>assimilation</td>
<td>scheme</td>
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<td>accommodation</td>
<td>assimilation</td>
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<tr>
<td>equilibration</td>
<td>accommodation</td>
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<td></td>
<td>equilibration</td>
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<thead>
<tr>
<th><strong>Adolescence</strong></th>
<th><strong>Adulthood</strong></th>
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<tbody>
<tr>
<td>hypothetically</td>
<td>formal operational</td>
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<tr>
<td>abstract</td>
<td>intellectually flexible</td>
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<tr>
<td>systematic experimentation</td>
<td>motor skills</td>
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<td>motor skills</td>
<td>&quot;slow down&quot;</td>
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<td>primary neural aging</td>
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<td>functional age</td>
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</table>
lessons were developed in a programmed sequence and can be used by the student independent of the teacher.

Conclusions

Based on students' reactions and teacher observations the activities included in the study guide were effective in teaching the content of the psychology textbook and teaching the student how to use isolated reading skills to gain meaningful comprehension of the textbook.

The students were able to follow the instructions given in the lessons and could complete the assignments without any guidance from the teacher. As the materials in the study guide continue to be used, teachers and students will be asked to make suggestions for improvements in the lessons.

Recommendations

Because of the positive feedback received by teachers and students who used these materials, it is recommended that lessons be developed for other content textbooks. For research purposes, to determine their effectiveness, formal control and experimental groups could be structured.

Carter, Homer. "Effective Use of Textbook in the Reading Program." *Starting and Improving College Reading Programs,* 8th Yearbook of the National Reading Conference, 1959, p. 155.


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Dawson, Mildred A. "Developing Comprehension Including Critical Reading." International Reading Association, 1968.


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