The Importance of Knowing When You Know and When You Don’t Know

Even experienced college students and adults sometimes have difficulty determining when they understand something and when additional (or more likely, different) preparation is required. One of the ways in which I will try to help you determine whether you understand material is by inserting essay questions at the end of major sections. Some of these questions can be answered through memorization. Others will require a level of understanding beyond memorization. They will require integrating key concepts and applying them so that you will appreciate the basis for our current understanding of psychological issues. Test yourself by writing out your answers to these questions. I suspect you will sometimes find that even though you thought you understood the material after you read it, you have difficulty providing a clear, complete, and accurate answer. If this is the case, you will know that it is necessary to review the material until you are able to provide such an answer. For example, can you answer the following question?

Exercise

What is a good strategy for determining whether you understand the material in this textbook?

Take some time to write your answer and try to give yourself a grade. It is very important in life, not just in school, that you be able to objectively evaluate yourself and take steps to improve if you think you can do better. The reason I am giving you many essay problems to solve is that I think this will improve your ability
to answer different essay questions in the future. The reason I believe this is true is because research results demonstrated that subjects improved their performance on a type of problem after being given many different examples of the same type of problem (Harlow, 1949). We will discuss this research when we get to Chapter 7 (Cognition and Intelligence).

As a youngster I participated in team sports and continue to be a fan. Sports can serve as a metaphor for much of the human condition, including school. In order to succeed, one requires natural ability as well as the motivation to perform at one’s best. We mentioned the importance of motivation to getting good grades in school. The role of inherited characteristics in determining your potential abilities will be treated in Chapter 2 (Biological Psychology).

If you were admitted to college or given a job, you were assumed to have the ability to succeed. It has been my experience as a college professor teaching freshmen through seniors (and graduate students) that this is almost always true of my students. Failure to perform to one’s capabilities can occur for a variety of reasons. Some students have family and/or financial responsibilities which prevent them from dedicating sufficient time to their studies. Others have not developed effective time management or study habits. No matter what the sport, playing up to your ability requires playing hard and playing smart. Some times in trying to hit a baseball it looks the size of a grapefruit and sometimes it appears the size of a golf ball. In shooting a basketball, sometimes the rim looks gigantic and other times it looks as though the ball can’t fit. No matter what type of day it is for you as an athlete, it is possible for you to hustle and play smart. In school, that means dedicating sufficient time and effective effort to your studying.
Psychology is an academic discipline (i.e., body of knowledge based upon accepted, standardized methods). Before we consider the structure of the psychology curriculum and how it relates to the organization and content of this book, we will consider where psychology fits within the usual college curriculum. College students are asked (sometimes required) to take courses in many academic disciplines. Many of these courses are taught by departments housed in administrative units known as Arts and Sciences. Psychology is almost always housed within colleges of Arts and Sciences encompassing many disciplines not designed to prepare students for specific career paths (e.g., Art & Music, History, Philosophy, Physics, etc.). This is in contrast to pre-professional academic units such as Education, Business, and Nursing. The undergraduate psychology major prepares students for graduate education and psychology related vocations such as clinical, counseling, school, and industrial psychology. See the Appendix at the end of the book for additional information on the undergraduate major and career opportunities in psychology.

Over the years, many students have asked me why they have to spend so much of their first two years taking courses in Arts and Sciences (often referred to as core courses). They indicate
the desire to just take courses in their favorite department (often referred to as a major). I often respond to such questions by referring to the famous picture based on the poem The Blind Men and the Elephant (Saxe, 1872).

Blind men and elephant. Retrieved from blindmenandelephant3.jpg - Wikimedia Commons

Often students are asked to take courses in the arts (e.g., history, literature, art or music, philosophy), “natural” (i.e., perhaps more accurately referred to as “laboratory”), and social and behavioral sciences. Psychology, which may be defined as the scientific study of individual thought, feeling, and behavior, is usually included in the last category with disciplines such as Sociology and Political Science. It is usually not included in the next-to-last category with disciplines such as Biology, Chemistry, and Physics even though, as we shall see, much of its research is conducted in laboratories. The arts, natural sciences, and behavioral sciences may be considered blind men with the elephant representing the human condition. Each perspective is attempting to help you place your life within a broader context of time, place, and ideas. History attempts to base its understanding on artifacts obtained over different time periods. Literature attempts to capture the essence of the human condition in different types of creative narratives (e.g., novels, plays, poems). Art and music provide different types of examples of human creativity. Philosophy applies reason and logic to questions regarding the meaning of life. Sometimes students believe since
they have already taken similar courses in high school they will be repeating the same material. We have long known from the cognition literature (see Chapter 7) that repetition improves memory (Ebbinghaus, 1885). Also, you will probably find that your college professors ask you to do more and provide more difficult assignments, even when treating the same material.

Exercise

Describe the structure of most colleges. Define psychology and describe where it fits within this structure?

Psychology and the Structure of this Book

The American Psychological Association guidelines for the psychology major that appear in the appendix do not recommend a specific combination of courses to achieve the learning goals. In fact, there are only three courses which are taken by practically all psychology majors: Introduction to Psychology, Psychological Statistics, and Research Methods. The Introduction to Psychology course is expected to provide a survey of the major content areas and theoretical perspectives including coverage of classic
and contemporary research findings. Complicating the design of the introduction to psychology course (and textbooks) is the fact that most students are not, and will never become psychology majors.

For decades, there has been consensus regarding the organization and content of introduction to psychology texts. They are typically divided in half, the first chapters often described as “psychology as a natural science” and the second group as “psychology as a social science.” Biological psychology, sensation and perception, motivation and emotion, learning, and cognition are examples of the former. Developmental psychology, personality, abnormal psychology, and social psychology are examples of the latter. Another way of distinguishing between the two types of chapters is to consider the first group as consisting of basic processes and the second group as chapters integrating these processes in a holistic manner. I have organized this book into three sections: content areas which may be described as “mostly nature” (biological psychology, sensation and perception, motivation and emotion); “mostly nurture” (direct learning, indirect learning (observational learning and language), cognition; and “nature/nurture” (developmental psychology, personality, abnormal psychology, social psychology). The “mostly nature” chapters describe how human structure relates to our physiological needs and sensory, motor, and nervous systems. The “mostly nurture” chapters review the role of experience in enabling humans to adapt to and transform their environmental circumstances. The “nature/nurture” section describes how these processes are integrated in the
development of individual personality and social relations. Before we begin our discussion of the major content areas of psychology, we will review its early history.

Early History of Psychology

Wilhelm Wundt is given credit for founding the discipline of psychology at the German University of Leipzig in 1879. It is there and then that the first laboratory exclusively dedicated to psychological phenomena was established. Prior to then, research that would be considered psychological in nature was conducted in physics and neurology laboratories. Examples would include Fechner's (1860) psychophysics research investigating just noticeable differences on sensory dimensions and Helmholtz's studies of vision conducted in the 1850s and 1860s (translated into English in 1924).
Wundt (1873, 1896) defined psychology as the scientific study of conscious experience or, as some prefer, the study of the mind. His thinking was influenced by the chemist Dmitri Mendeleev, who formulated the periodic chart of elements. Wundt felt the goal of psychology should be to determine the fundamental elements of conscious experience, a sort of “mental chemistry.” His research suggested that the basic elements were images, sensations, and affective states (i.e., emotions) and that these had the attributes of quality, intensity, and duration. Wundt relied upon introspection (i.e., looking inward) as the exclusive methodology. He felt that, with extensive training, individuals could be taught to make objective judgments regarding the attributes of what they were covertly (i.e., privately) experiencing. Thus, a subject might be placed in front of a desk and asked to describe the intensity and duration of her/his images, sensations, and emotional experiences.