**CHAPTER 1 – INTRODUCTION TO PSYCHOLOGY AND METHODS OF RESEARCH**

**Module 1 – Foundations of Modern Psychology**

After you have mastered the information in this unit, you will be able to:

* Define psychology
* Discuss the origins of psychology
* Outline the major early schools of psychology
* Discuss the major contemporary perspectives in psychology

Key Terms and Concepts:

Psychology

Psychophysics

Introspection

Structuralism

Functionalism

Natural selection

Stream of Consciousness

Behaviorism

Gestalt Psychology

Gestalt

Unconscious

Psychodynamic Perspective

Psychoanalysis

Behavioral Perspective

Social-Cognitive Theory

Behavior Therapy

Humanistic Psychology

Humanistic Perspective

Physiological Perspective

Evolutionary Psychology

Cognitive Perspective

Sociocultural Perspective

Positive Psychology

1. Origins of Psychology
   1. Roots in ancient philosophy
      1. Socrates—“know thyself”
      2. Plato—rely on thought and reason
      3. Aristotle—rely on experience, observation
      4. Confucius—concerned with the nature of the human
   2. Influences on modern psychology (nineteenth-century German physiologists)
      1. Fechner—psychophysics
      2. Helmholtz—perceiving color
   3. Wilhelm Wundt—1879—transition from philosophy to science
      1. Founder of modern psychology
      2. First true psychological laboratory
      3. Leipzig, Germany
2. Major Early Schools of Psychology
   1. Structuralism
      1. Introspection
      2. Components or building blocks of the mind
   2. Functionalism
      1. William James—United States
      2. The mind adapts us to our environment
      3. Understand the mind by understanding how it functions
   3. Behaviorism
      1. John Watson—early 1900s
      2. Study only overt behavior
      3. Experience, environment mold us
      4. B. F. Skinner—operant conditioning—consequences are crucial to learning
   4. Reinforcer—pleasant consequence; increases behavior
   5. Punishment—unpleasant consequence; decreases behavior
   6. Gestalt psychology
      1. Max Wertheimer—contemporary of Watson
      2. Unified, organized patterns
      3. “Whole is greater than the sum of the parts”
   7. Sigmund Freud and psychoanalysis
      1. Austrian physician (early 1900s)
      2. Focus on the unconscious
      3. Sexual and aggressive impulses motivate
      4. Importance of early childhood experience
      5. Dynamic conflict between unconscious desires and acceptable behavior
      6. Psychoanalysis developed—“talk therapy”
3. Contemporary Perspectives in Psychology
   1. Behavioral perspective
      1. Modeled after school of behaviorism
      2. Observable behavior; emphasis on experience and learning
      3. Broader variation: social-cognitive theory
      4. Environment and cognitive factors
      5. Values, goals, and expectations important
      6. Social cognitive theory: psychology should include study of mental processes, not only behavior itself
      7. Behavior therapy—applying learning principles to treat psychological problems
   2. Psychodynamic perspective
      1. Neo-Freudians include emphasis on self-awareness and choices
      2. Focus remains on unconscious drives and early childhood experience
      3. Criticized because scientific study difficult
   3. Humanistic perspective
      1. Known as “third force” in psychology (besides psychodynamic and behavioral)
      2. Each human has unique abilities and potential
      3. Free will, personal choice: crucial aspects of this perspective
   4. Physiological perspective
      1. Biological processes influence behavior
      2. Nervous system (especially brain) and body chemicals at root of human functioning
      3. Heredity an important consideration
      4. Subfield: Evolutionary psychology
         1. Study non-human species as well as humans
         2. Genetic programming creates behavioral tendencies, predispositions
   5. Cognitive perspective
      1. *Cognitio* means knowledge
      2. Study of mental processes; acquiring knowledge of ourselves and the world
      3. How we learn, think, reason, remember, and use language
      4. Criticized by behaviorists as beyond scientific study
   6. Sociocultural perspective
      1. Behavior and attitudes are influenced by culture
      2. Social and economic experiences have impact
      3. Ethnicity, age, gender, sexual orientation, and disability are considered
      4. Increasing diversity of contemporary society
         1. Whites no longer such a majority
         2. “Race” not a very useful concept
         3. Blurring racial boundaries
      5. Good research includes sociocultural aspects—can’t generalize from limited samples
   7. Summary of contemporary perspectives
      1. No one perspective is the “correct” one
         1. Each focuses on different aspects of behavior and functioning
         2. None is complete; each has something unique to offer
      2. Positive psychology—a growing movement
         1. Emphasis on human virtues and strengths

**MODULE 1.2 PSYCHOLOGISTS: WHO THEY ARE AND WHAT THEY DO**

After you have mastered the information in this unit, you will be able to:

* Describe the two general types of research that psychologists conduct
* Define the various specialties in psychology
* Discuss the changes that have occurred in the ethnic and gender characteristics of psychologists over time

Key Terms and Concepts:

Basic Research

Applied Research

Experimental Psychologists

Comparative Psychologists

Physiological Psychologists

Clinical Psychologists

Psychiatrists

Counseling Psychologists

School Psychologists

Educational Psychologists

Developmental Psychologists

Personality Psychologists

Social Psychologists

Environmental Psychologists

Industrial/Organizational (I/O) Psychologists

Health Psychologists

Consumer Psychologists

Neuropsychologists

Geropsychologists

Forensic Psychologists

Sports Psychologists

1. Types of Research
   1. Basic—expanding our knowledge
   2. Applied—research for a specific objective
2. Traditional Major Specialty Areas of Psychology
   1. Experimental psychologists—use the experimental research method (to establish cause and effect) for study of behavior and mental processes
   2. Comparative—study animals and their behavior
   3. Physiological—study biological processes related to behavior
   4. Clinical psychologists—study individuals with psychological disorders
   5. Counseling psychologists—treat individuals with less severe psychological disorders
   6. School psychologists—work directly with children to aid in their school experience
   7. Educational psychologists—research and/or apply learning and instructional advances
   8. Developmental psychologists—study human growth and changes over the entire lifespan
   9. Personality psychologists—study unique personal characteristics and behaviors
   10. Social psychologists—focus on the individual as a member of a group
   11. Environmental psychologists—study the relationship between people’s behavior and their physical environment
   12. Industrial/Organizational (I/O) psychologists—research and/or apply ways to improve the work setting
   13. Health psychologists—study the relationship between psychological factors and physical well-being
   14. Consumer psychologists—investigate people’s purchases and reactions to advertising
3. Emerging Specialty Areas in Psychology
   1. Neuropsychologists—study the brain specifically for its relationship to behavior
   2. Geropsychologists—investigate the psychological impact of aging
   3. Forensic psychologists—work with individuals involved in the legal system
   4. Sport psychologists—study competition and ways to maximize athletic performance
4. Professional Psychology: Becoming More Diverse
   1. Early psychologists (nineteenthcentury)
      1. White male, European background
      2. Women and minorities faced many barriers
      3. Ph.D. not awarded to women, though doctoral work may be completed
      4. 1920: first Ph.D. awarded to African-American
   2. Current demographics among psychologists
      1. Women now majority of recipients of psychology degrees
      2. Ethnic minorities in psychology slowly increasing

**MODULE 1.3 RESEARCH METHODS IN PSYCHOLOGY**

After you have mastered the information in this unit, you will be able to:

* Describe the major objectives of science
* Define the scientific method and identify its four general steps
* Describe the major research methods used by psychologists
* Discuss the ethical guidelines psychologists must follow in their research
* Provide an example of a specific ethical guideline

Key Terms and Concepts:

Empiricle Approach

Inferences

Theories

Variables

Scientific Method

Theory

Statistic

Statistical Significance

Replication

Survey Method

Structured Interview

Questionnaire

Population

Samples

Random Sampling

Social Desirability Bias

Volunteer Bias

Naturalistic Observation Method

Correlation Coefficient

Experimental Method

Independent Variables

Dependent Variables

Control Groups

Random Assignment

Placebo

Placebo Effects

Single-Bind Studies

Double-Bind Studies

Ethics Review Committees

Informed Concent

1. Objectives of Science
   1. Description—clear, accurate and objective information; based on observation
   2. Explanation—tying information together to make sense of it (such as with theories)
   3. Prediction*—*understanding and expectation regarding future events
   4. Control—managing events and circumstances for human well-being
2. The Scientific Method
   1. Develop a research question
   2. Frame the research question in the form of a testable hypothesis
   3. Gather evidence to test the hypothesis
   4. Draw conclusions regarding the outcome
3. Research Methods
   1. Case study*—*thorough, careful study of one or a few individuals
      1. Advantage: detailed and extensive information
      2. Disadvantage: not necessarily representative of others
   2. Survey
      1. Information from a sample to reveal features of a population
      2. Interviews or questionnaires most often used
      3. To generalize accurately, sample must be representative
         1. A few thousand people may sufficiently represent U.S. trends
      4. Advantage: broad range of information if done correctly
      5. Disadvantage: may be biases in responses
   3. Naturalistic observation
      1. Studying humans (or animals) in familiar, everyday environment
      2. Researcher observing must be inconspicuous
      3. Advantage: greatest likelihood of genuine, authentic behavior
      4. Disadvantage: least amount of control over events that will take place
   4. Correlational—relationship between two variables, represented mathematically
      1. Advantage: helpful for prediction, suggests further study
      2. Disadvantage: does not establish causality, though may be (wrongly) interpreted as such
      3. Correlation coefficients range from -1.00 to +1.00
         1. The farther the value is from 0, the stronger the relationship
   5. Experimental
      1. Can truly establish cause and effect
      2. Involves independent and dependent variables
      3. Control group helps establish causality
      4. Random assignment helps assure no pre-existing differences
      5. Advantages and disadvantages
         1. Advantage: learn why an effect actually happens
         2. Disadvantage: expectations (e.g., placebo effect) may influence results
4. Ethical Principles in Psychological Research
   1. Ethical standards protect research participants
   2. Review committees at institutions verify ethical procedures
   3. Some basic ethical guidelines for research
      1. Informed consent
         1. Research participant knows what will happen in study
         2. Willingly agrees, based on explanation given, to be part of study
         3. Aware can withdraw from study at any time
      2. Confidentiality—keep records on clients and research participants private
   4. Animal research—protect animal from harm unless no other research alternative
      1. Ethics review panel must give permission
      2. Benefits from such research must be substantial
5. Exploring Psychology: Anatomy of a Research Study: Shooter Bias
   1. Question: Will race or ethnicity of a target figure affect a police officer's decision to shoot a suspect?
   2. Procedure: Experimental method
      1. Pictures of targets flashed on a screen; participants had to decide which ones were armed and shoot only those
   3. Results: Officers were quicker to shoot armed African American targets than armed Whites, and they were more likely to mistakenly shoot unarmed African Americans than unarmed Whites

**MODULE 1.4 APPLICATION: BECOMING A CRITICAL THINKER**

After you have mastered the information in this unit, you will be able to:

* Outline the key features of critical thinking

1. Background Factors in Critical Thinking
   1. How do we determine what is really the truth?
   2. Critical thinking—adopting a questioning attitude, willingness to challenge conventional thinking of the day
   3. Base beliefs on reasons, not on “gut feelings”
2. Features of Critical Thinking
   1. Question everything
      1. Do not blindly accept claims
      2. Keep an open mind, weigh the evidence
   2. Look for clarification of terms
   3. Avoid oversimplifying
   4. Avoid overgeneralizing
   5. Maintain distinction between correlation and causality
   6. Consider assumptions on which claims are based
   7. Carefully examine all sources for timeliness, credibility
   8. Question evidence—is it sound, rational, objective?
   9. As a precaution, think of other ways the findings might be interpreted besides the one presented
3. Thinking Critically About Online Information
   1. Anyone can create or post to Internet sites
   2. Not all information is accurate; retain critical thinking approach
   3. Best sources still scientific journals, credible and respected agencies and organizations