

**Section 1: Foundations**

**A. Philosophical Underpinnings**

- A-1 Identify the goals of behavior analysis as a science (i.e., description, prediction, control).
- A-2 Explain the philosophical assumptions underlying the science of behavior analysis (e.g., selectionism, determinism, empiricism, parsimony, pragmatism).
- A-3 Describe and explain behavior from the perspective of radical behaviorism.
- A-4 Distinguish among behaviorism, the experimental analysis of behavior, applied behavior analysis, and professional practice guided by the science of behavior analysis.
- A-5 Describe and define the dimensions of applied behavior analysis (Baer, Wolf, & Risley, 1968).

**B. Concepts and Principles**

- B-1 Define and provide examples of behavior, response, and response class.
- B-2 Define and provide examples of stimulus and stimulus class.
- B-3 Define and provide examples of respondent and operant conditioning.
- B-4 Define and provide examples of positive and negative reinforcement contingencies.
- B-5 Define and provide examples of schedules of reinforcement.
- B-6 Define and provide examples of positive and negative punishment contingencies.
- B-7 Define and provide examples of automatic and socially mediated contingencies.
- B-8 Define and provide examples of unconditioned, conditioned, and generalized reinforcers and punishers.
- B-9 Define and provide examples of operant extinction.
- B-10 Define and provide examples of stimulus control.
- B-11 Define and provide examples of discrimination, generalization, and maintenance.
- B-12 Define and provide examples of motivating operations.
- B-13 Define and provide examples of rule-governed and contingency-shaped behavior.
- B-14 Define and provide examples of the verbal operants.
- B-15 Define and provide examples of derived stimulus relations.

**C. Measurement, Data Display, and Interpretation**

- C-1 Establish operational definitions of behavior.
- C-2 Distinguish among direct, indirect, and product measures of behavior.
- C-3 Measure occurrence (e.g., count, frequency, rate, percentage).
- C-4 Measure temporal dimensions of behavior (e.g., duration, latency, interresponse time).
- C-5 Measure form and strength of behavior (e.g., topography, magnitude).
- C-6 Measure trials to criterion.
- C-7 Design and implement sampling procedures (i.e., interval recording, time sampling).
- C-8 Evaluate the validity and reliability of measurement procedures.

- C-9 Select a measurement system to obtain representative data given the dimensions of behavior and the logistics of observing and recording.
- C-10 Graph data to communicate relevant quantitative relations (e.g., equal-interval graphs, bar graphs, cumulative records).
- C-11 Interpret graphed data.

**D. Experimental Design**

- D-1 Distinguish between dependent and independent variables.
- D-2 Distinguish between internal and external validity.
- D-3 Identify the defining features of single-subject experimental designs (e.g., individuals serve as their own controls, repeated measures, prediction, verification, replication).
- D-4 Describe the advantages of single-subject experimental designs compared to group designs.
- D-5 Use single-subject experimental designs (e.g., reversal, multiple baseline, multielement, changing criterion).
- D-6 Describe rationales for conducting comparative, component, and parametric analyses.

**Section 2: Applications**

**E. Ethics Behave in accordance with the Ethics Code for Behavior Analysts**

- E-1 Introduction
- E-2 Responsibility as a Professional
- E-3 Responsibility in Practice
- E-4 Responsibility to Clients and Stakeholders
- E-5 Responsibility to Supervisees and Trainees
- E-6 Responsibility in Public Statements
- E-7 Responsibility in Research

**F. Behavior Assessment**

- F-1 Review records and available data (e.g., educational, medical, historical) at the outset of the case.
- F-2 Determine the need for behavior-analytic services.
- F-3 Identify and prioritize socially significant behavior-change goals.
- F-4 Conduct assessments of relevant skill strengths and deficits.
- F-5 Conduct preference assessments.
- F-6 Describe the common functions of problem behavior.
- F-7 Conduct a descriptive assessment of problem behavior.
- F-8 Conduct a functional analysis of problem behavior.
- F-9 Interpret functional assessment data.

**G. Behavior-Change Procedures**

- G-1 Use positive and negative reinforcement procedures to strengthen behavior.
- G-2 Use interventions based on motivating operations and discriminative stimuli.
- G-3 Establish and use conditioned reinforcers.
- G-4 Use stimulus and response prompts and fading (e.g., errorless, most-to-least, least-to-most, prompt delay, stimulus fading).
- G-5 Use modeling and imitation training.
- G-6 Use instructions and rules.
- G-7 Use shaping.
- G-8 Use chaining.
- G-9 Use discrete-trial, free-operant, and naturalistic teaching arrangements.
- G-10 Teach simple and conditional discriminations.
- G-11 Use Skinner's analysis to teach verbal behavior.
- G-12 Use equivalence-based instruction.
- G-13 Use the high-probability instructional sequence.
- G-14 Use reinforcement procedures to weaken behavior (e.g., DRA, FCT, DRO, DRL, NCR).
- G-15 Use extinction.
- G-16 Use positive and negative punishment (e.g., time-out, response cost, overcorrection).
- G-17 Use token economies.
- G-18 Use group contingencies.
- G-19 Use contingency contracting.
- G-20 Use self-management strategies.
- G-21 Use procedures to promote stimulus and response generalization.
- G-22 Use procedures to promote maintenance

**H. Selecting and Implementing Interventions**

- H-1 State intervention goals in observable and measurable terms.
- H-2 Identify potential interventions based on assessment results and the best available scientific evidence.
- H-3 Recommend intervention goals and strategies based on such factors as client preferences, supporting environments, risks, constraints, and social validity.
- H-4 When a target behavior is to be decreased, select an acceptable alternative behavior to be established or increased.
- H-5 Plan for possible unwanted effects when using reinforcement, extinction, and punishment procedures.
- H-6 Monitor client progress and treatment integrity.
- H-7 Make data-based decisions about the effectiveness of the intervention and the need for treatment revision.
- H-8 Make data-based decisions about the need for ongoing services.
- H-9 Collaborate with others who support and/or provide services to clients.

**I. Personnel Supervision and Management**

- I-1 State the reasons for using behavior-analytic supervision and the potential risks of ineffective supervision (e.g., poor client outcomes, poor supervisee performance).
- I-2 Establish clear performance expectations for the supervisor and supervisee.
- I-3 Select supervision goals based on an assessment of the supervisee's skills.
- I-4 Train personnel to competently perform assessment and intervention procedures.
- I-5 Use performance monitoring, feedback, and reinforcement systems.
- I-6 Use a functional assessment approach (e.g., performance diagnostics) to identify variables affecting personnel performance.
- I-7 Use function-based strategies to improve personnel performance.
- I-8 Evaluate the effects of supervision (e.g., on client outcomes, on supervisee repertoires).

**BCBA 5th Edition Task List Vocabulary**

**Description:** is a collection of facts about an observed event.

**Prediction:** repeated observations reveal that observing other events can consistently result in accurately anticipating an outcome

**Control:** a specific change in one event can be reliably produced by scientific manipulation or variables.

**Radical behaviorism:** is a branch of behaviorism that includes thoughts and feelings in addition to the observable events

**Generality/Generalization:** Behavior change that lasts over time, appears in environment other than the environment which it was taught and spreads to other behaviors not targeted by the intervention

**Effective:** behavior that changes in a practical manner that results in clinical or social significance

**Technological:** all procedures of an intervention, data and results of an experiment or study are clearly outlined in detail so they can be understood, replicated and implemented by anyone

**Applied:** the commitment of effecting improvements in people's behaviors to enhance their quality of life.

**Conceptually systematic:** all procedures used in practice should be related to the basic behavioral principles of behavior analysis from which they were derived.

**Analytic:** when the experimenter has demonstrated a reliable change and functional relation between the manipulated events of a target behavior.

**Behavioral:** Observable and measurable behavior that must be the behavior in need of improvement.

**7 dimension of behavior:** GET A CAB

**Behavior:** an organism interaction with the environment "Dead man's test"

**Response:** a specific instance of behavior

**Stimulus:** events in the environment that affect the behavior of an individual

**Stimulus class:** a group of stimuli that are similar along one or more dimensions ( for

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example, they look or sounds similar, they have a common effect on the behavior, or they at similar times relative to the response).

**Respondent conditioning:** a learning process wherein a previously neutral stimulus (which would not alter behavior) acquires the ability to elicit a response (alter behavior).

**Operant conditioning:** consequences that results in an increase or decrease the frequency in the same type of behavior under similar conditions (remember operant behaviors are controlled by their consequences)

**Positive reinforcement:** a response is followed by the presentation of a stimulus that results in an increase in behavior under similar circumstances

**Negative reinforcement:** a response is followed by the removal of a stimulus that results in an increase on behavior under similar circumstances.

**Fixed Ratio (FR):** a schedule of reinforcement where reinforcement is provided after a fixed number of responses occur

**Fixed Interval (FI):** a schedule of reinforcement where reinforcement is provided after a fixed amount of time elapses.

**Variable Ratio (VR):** a schedule of reinforcement where reinforcement is provided variably after an average amount of responses are emitted.

**Positive punishment:** the presentation of a stimulus (punishment) follows a response, which then results in a decrease in the future frequency of the behavior.

**Negative punishment:** the removal of a stimulus (punishment) follows response, which then results in a decrease in the future frequency of the behavior.

**Automatic contingencies:** behaviors maintained by automatic contingencies can be said to produce their own consequences, without another person changing the environment in anyway in response to the behavior interest

**Socially mediated contingencies:** contingency delivered in whole or in part by another person.

**Unconditioned reinforcer:** reinforcement that works without prior learning in ( In other words, living things came into the world with a need for these things "built in' to their biology.

**Conditioned reinforcer:** a reinforcer which becomes reinforcing only after a learning history.

**Generalized reinforcer:** a consequence that has been paired with access to many different reinforcing consequences until it took on reinforcing properties

**Unconditioned punisher:** punishment that works without prior learning ( in other words, living things come into the world with a need to avoid these things "built in" to their biology.

**Conditioned punisher:** A stimulus change that decreases the future frequency and occurrences of behavior that is based on an organism's learning history with other punishers (in other words, organisms are not born wanting to avoid these things).

**Generalized punisher:** a consequence that has been paired with many different experiences of punishment until it took on punishing properties itself

**Operant extinction:** withholding all reinforcing from a previously reinforced behavior maintained by its consequences

**Stimulus control:** rates of responding happen exclusively, or at a higher rate, in the

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presence of a stimulus rather than in its absence.

**Discrimination:** occurs when a limited number of stimuli occasion a response.

**Generalization:** occurs when a variety of stimuli occasion a certain response.

Generalization occurs across different individuals, environments and times.

**Maintenance:** following the removal of an intervention, the extent to which a response remains in an individual's repertoire over time.

**Motivating Operations** (Establishing Operations and Abolishing Operations): MO is an umbrella term that captures both EOs and AOs within it. MOs are environmental variables that alters the reinforcing or punishing effectiveness of a stimulus.

**Establishing Operations (EO):** A type of motivating operation that makes a stimulus more desirable (more effective as a reinforcer).

(Increases)

**Abolishing Operations (AO):** A type of motivating operation that makes the stimulus less desirable (less effective as a reinforcer). (decrease)

**Conditioned Motivating Operation Reflexive (CMO-R):** A condition or object that signals a worsening or improving of conditions.

Example in clinical context: A client sees their behavior analyst walk through the door and sit down in the free play area (improving condition). This client loves working with their behavior analyst, so the value of the free play area increases.

**Conditioned Motivating Operation Transitive (CMO-T):** An environmental variable that establishes/abolishes the effectiveness of another stimulus as a reinforcer.

Example in everyday context: Your house is locked. This establishes the reinforcing value of a key to unlock your house.

**Conditioned Motivating Operation Surrogate (CMO-S):** A stimulus that acquired its effectiveness as an MO by being paired with another, previously established, MO.

**Ruled-governed behavior:** behavior that is under the control of a verbally mediated rule; behavior insensitive to immediate contingencies.

**Contingency-shaped behavior:** behavior selected by direct consequences

**Mand:** a type of verbal operant in which the speaker asks/requests what they need or want.

**Tact:** a type of verbal operant which the speaker names things and actions that the speaker has direct contact with through any of their senses ( see, feel, smell, touch)

**Echoic:** a type of verbal behavior that occurs when the speaker repeats the word of another speaker.

**Intraverbal:** verbal behavior that is under the control of someone else's verbal behavior.

**Derived stimulus relations:** a relation between two or more stimuli that is not directly trained and not based on physical properties of the stimuli. If A, B, and C all correspond to the same thing, and only A-B and B-C are directly trained, the relation drawn between A and C are derived.

**Operational definition:** an observable, measurable description of a target behavior.

**Direct measure:** a way of taking data on a behavior of interest by observing the behavior itself and recording observable and measurable information about it

**Indirect measures:** data that are obtained by interviews, checklists and rating scales which include an individual's subjective experience of target behavior. indirect measures

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still gather information about the behavior of interest using interactions with people, but not through direct observations.

**Product measures:** measuring a behavior after it occurred by examining the effects the behavior produced in the environment.

**Frequency:** count (how often a behavior occurs)

**Rate:** count/time (a measure of how often a behavior occurs over an amount of time.

REMEMBER rate is like frequency, except with a time component added.

**Percentage:** a measurement expressed as a portion of each hundred

**Duration:** the amount of time during which the behavior happens: how long the behavior takes.

**Latency:** the time between an opportunity to emit a behavior and when the behavior is initiated

**Interresponse time:** The amount of time that elapses between two consecutive instances of a behavior. IRT is measured from the end of the first response to the beginning of the second response (and so forth if there are more than two responses).

**Topography:** what the behavior looks like

**Magnitude:** the force, intensity and/or severity of a behavior.

**Determinism:** events that occur in the universe do not happen "out of the blue", rather they occur in an orderly and predictable manner

**Empiricism:** requires the manipulation of the independent variable to see the effects on the dependent variable in order to demonstrate a functional relation

**Experimentation:** requires the manipulation of the independent variable to see the effects on the dependent variable in order to demonstrate a functional relation

**Replication:** the repeating of already completed experiments in order to determine the reliability and usefulness of findings.

**Parsimony:** ruling out all simple, logical explanations before considering more complex or abstract explanations. The simplest explanation should be the first explanation.

**Philosophical doubt:** Continue to question the truth of what is regarded as fact.

Exercising philosophical doubt means having a very open, and very critical, mind about everything all the time!

**Pragmatism:** The philosophical attitude that something has value, or is true, to the extent that it leads to successful outcomes when practically applied. ("Truth is an effective action.")

**Selectionism:** (phylogeny and ontogeny): All life forms naturally and continually evolve through their learning history and evolutionary development. This happens at an individual level, and also on a species level.

**Ontogeny:** How the environment changes one individual over their lifetime.

**Phylogeny:** The natural evolution of a species which includes the inheritance of survival characteristics passed down from one generation to the next.

**Behaviorism:** The philosophy of the science of behavior. It emphasizes objective methods of investigation and is rooted in the assumption that behavior results from interactions between the environment and individual variables (such as prior learning history).

**Experimental analysis of behavior (EAB):** the scientific study of behavior to study for its

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own sake.

**Applied behavior analysis:** the application of behavioral principles to human subjects as it related to areas that matter to people (classroom, management, instructional method, generalization and maintenance of learning, health and fitness, communication.

**Practice Guided by the Science of Behavior Analysis:** Delivery of interventions to clients that are guided by the principles of behaviorism and the research of experimental analysis of behavior and applied behavior analysis.