BASIC CONCEPTS OF BEHAVIOR AND BEHAVIOR MANAGEMENT

A. Behavior
B. Antecedents
C. Consequences
D. Stimuli
E. Responses
F. Reinforcement
G. Punishment
H. Prompts and Cues
   1. Natural prompts
   2. Verbal prompts
   3. Gestural prompts
   4. Modeling prompts
   5. Physical prompts

BASIC ASSUMPTIONS OF BEHAVIOR AND BEHAVIOR MANAGEMENT

A. Most behaviors are learned.
B. Most behaviors are stimulus-specific.
C. Most behaviors can be taught, changed or modified.
D. Behavior change programs should be individualized.
E. Behavior change programs should focus on the here and now.
F. Behavior change programs should focus on the child’s environment.

MYTHS AND MISCONCEPTIONS ABOUT BEHAVIOR AND BEHAVIOR MANAGEMENT

Myth: Changing another person’s behavior is coercive
Myth: The use of reinforcement to change behavior is a form of bribery.
Myth: Children will learn to behave appropriately only for reinforcement.
Myth: Children should “work” for intrinsic reinforcers.
Myth: All children should be treated in the same way.
GENERAL THEORETICAL STREAMS OF BEHAVIOR MANAGEMENT

A. Classical conditioning
   Relationship between stimuli and reflex responses (conditioned and unconditioned)

B. Operant conditioning
   Relationship between overt events in the environment (antecedents and consequences) and changes in behavior

C. Social learning theory
   Or Cognition theory
   Relationship among behavior and child's social and cognitive development; integrates classical and operant learning principles

D. Behavior therapy
   Practical application of classical conditioning used primarily with covert behaviors and mental illness

E. Applied Behavior Analysis
   Practical applications of operant conditioning in non-laboratory, everyday situations and settings
FORMAL BEHAVIOR ASSESSMENT

Purpose – a) identify student strengths and weaknesses related related to behavior
b) identify antecedents and consequences that maintain behavior
c) evaluate relationship between classroom variables, including curriculum, and behavior
d) plan educational interventions
e) document baseline and intervention data
f) evaluate effectiveness of interventions
g) determine eligibility for Special Education

COMMON FEATURES:
• Interest is on behaviors viewed as direct samples
• Assessment should focus on individual child/family rather than on comparisons to norms
• Assessment is interested situational differences on behavior rather than historical experiences – except in cases of abuse (physical, sexual, etc.)
• Behavior may change as result of context in which it occurs
• Purpose of assessment is to obtain info that will assist in developing intervention strategies
• Multi-method approach is employed
• Decision about specific assessment strategies based on empirical data

ASSESSMENT FOR INTERVENTION PLANNING:
1. Decide if problem exists
2. Determine if intervention is warranted
3. Determine if medical and/or psychological reasons exist
4. Perform functional assessment (FBA)
5. Determine if problem is result of skill/performance deficit
6. Develop behavior intervention plan (BIP)
7. Conduct ongoing evaluation

Important to notice those not demonstrating problem behavior
to insure social validity (age appropriate, maturity, development, etc.)

Early identification important:
Externalizing behavior – aggressive, acting out, oppositional
Internalizing behavior – withdrawal, anxiety

DATA COLLECTION
Done in groups for classroom management
  single subject design for individual/small
group management

Step 1. Does problem exist?
  1. Rating scales and Teacher ranking
  2. Self-ratings
  3. Sociometric techniques
     a. Peer rating
     b. Peer evaluation

  4. Interviews with Parents, Target Students, and others

Step 2. Is intervention warranted?
  1. Checklists and rating by others (Social skills tools, behavioral tools)
  2. Ranking target behaviors – (Classroom App. 2.2)

Step 3. Does medical/psychological reason exist?
  1. Rating scales (emotional, behavior, etc.)
  2. Naturalistic behavior observations – critical
  3. Psychometric assessment – psychologist/psychiatrist
DATA COLLECTION TECHNIQUES

One must understand the importance of direct behavioral observation, the measurement of behavior, and the documentation of these observations and measurements.

TARGET BEHAVIORS
Behavior targeted for observation, measurement, assessment and/or modification. Identified by teachers as needing to be learned, increased or decreased.

A. Defining target behaviors – define precisely – stated in terms that are observable (behavior that you can see occur) and measurable (can quantify the frequency, duration and/or other dimensions of the behavior). Most cases – presented in positive terms

B. Establishing behavioral objectives – describes anticipated behavior, new or modified from current behavior, subsequent to completed behavior change program. Observe behavior in setting in which target behavior occurs (see Table 3.1)

C. Naturalistic behaviors – observe and record behavioral patterns across natural settings and situations, measure dimensions of specific target behaviors, and identify variables with specific target behaviors

D. Anecdotal Observation – ABC Analysis – Antecedent, Behavior, Consequence

E. Functional assessment interviews – identify conditions under which a target behavior is likely and unlikely to occur

I. DIMENSIONS OF BEHAVIOR

A. Frequency – a simple count of the number of times a behavior occurs during specific time period

B. Duration – how long a behavior continues once started or the amount of time consumed when a behavior is performed
C. Rate – frequency of a target behavior divided by the number of minutes or hours of observation time

D. Latency – amount of time it takes for student to begin behavior once he or she has received directions

E. Intensity or magnitude – force or strength of a behavior – useful with behaviors such as acts of aggression, tantrums, etc.

II. MEASUREMENT OF BEHAVIOR – to document what occurred and to identify the variables responsible for the occurrence – provide teachers with objective information with which to make informed programming decisions

A. Frequency recording/event recording – simple count of the behavior every time it occurs during a specific time period

B. Duration recording - important when teachers concerned with amount of time student engages in target behavior

C. Interval recording – the division of a specific observation period into equal interval of smaller time periods

D. Time sampling – divide the total observation period into smaller time intervals and observe behavior at the end of the interval

III. ACCURACY OF BEHAVIORAL OBSERVATION & MEASURES

A. Reactivity – changes to a student’s behavior as result of being observed

B. Observer drift – gradual shift by observer of his or her understanding of target behavior being observed/measured

C. Recording procedure – procedure selected to measure dimension of a behavior

D. Location of the observation – importance of direct observation within natural settings

E. Observer Expectancy – expectations teachers have about the children they observe
F. Characteristics of subject, observers and settings – variables such as gender differences, complexity of behavior being observed, and familiarity with the setting and children being observed

G. Personal values and bias – social, cultural, or religious values that affect a teacher’s perception of students’ behavior

H. Data collection aids – pocket counting; the empty jar; masking tape on the wrist

IV. RELIABILITY OF OBSERVATIONS – the accuracy of date collected across observers – interrater reliability and agreement

I. RECORDING OBSERVATIONS

A. Permanent products – materials produced as a result of behavior, such as a test, audio or video tests

B. Data collection forms – prepared sheet of paper to record raw data

C. Coding systems – list of codes for data collection that assists in observation

VIII. DISPLAYING OBSERVATIONAL DATA – displaying raw data on graphs provides teachers and students a picture of data – students can visually inspect their own progress

Baseline data: measurement of a target behavior prior to the implementation of any intervention plan to modify the behavior.

Intervention data: measurement of a target behavior during the intervention phase or phases of a behavior change program.

Trends: Data are stable when they do not appear to have either an upward or downward trend and the data points do not vary significantly from each other.

Accelerating trend – refers to a pattern of data points that is increasing in value across time.
Decelerating trend – refers to a pattern of data points that is decreasing across time.

Variable trend – refers to a pattern of data points that varies from day to day and does not show a definite accelerating or decelerating trend.

If the baseline data points show an accelerating or decelerating trend, teachers may want to extend the baseline collection period beyond the normal four to five observations until a more stable measurement is obtained. Intervention may be postponed.
## TABLE 9.2 Common Problems in Objectives

<table>
<thead>
<tr>
<th>Poor Objective</th>
<th>Problem</th>
<th>Improved Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon entering the classroom, Ben will sit in his seat, ready to work.</td>
<td>Criterion is missing. Behavior is not well specified.</td>
<td>Ben will sit in his seat with materials on his desk within 15 seconds upon entering the classroom for 3 consecutive days.</td>
</tr>
<tr>
<td>When given independent seat work, Sarah will improve her on-task performance to 70% of the time.</td>
<td>Behavior is not appropriate. Criteria is incomplete.</td>
<td>When given independent seat work, Sarah will remain on task 70% of the instructional time for 5 consecutive days.</td>
</tr>
<tr>
<td>Jerry will engage in no negative verbalizations.</td>
<td>Condition is not specified. Criterion is incomplete. Objective is negatively worded.</td>
<td>When provided an academic task, Jerry will have no negative verbalizations for 4 consecutive days.</td>
</tr>
<tr>
<td>When engaged in free play activities with other students, Jackie will respect the rights of others 100% of the time for 3 consecutive days.</td>
<td>Behavior is not observable.</td>
<td>When engaged in free play with other students, Jackie will engage in appropriate play behavior 100% of the time for 3 consecutive days.</td>
</tr>
<tr>
<td>When given instructions, Barry will follow them 80% of the time for 3 consecutive days.</td>
<td>Criterion is not complete.</td>
<td>When given at least 10 instructions, Barry will follow 80% of them within 5 seconds across 3 consecutive days.</td>
</tr>
<tr>
<td>Terry will turn in her homework completed 100% of the time for 5 consecutive days.</td>
<td>Condition is not specified. Criterion is not complete.</td>
<td>Within 30 seconds of entering the classroom at the beginning of each school day, Terry will turn in her completed homework for 5 consecutive days.</td>
</tr>
<tr>
<td>Measure</td>
<td>Definition</td>
<td>Example</td>
</tr>
<tr>
<td>----------------------</td>
<td>------------------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Permanent products</td>
<td>Observation of the student’s behavior</td>
<td>Number of windows or chairs broken</td>
</tr>
<tr>
<td>Event recording</td>
<td>Record each behavior as a frequency</td>
<td>Number of times tardy, number of times student uses profanity</td>
</tr>
<tr>
<td>Duration recording</td>
<td>Record the length of time a behavior occurs</td>
<td>Length of a tantrum, length of time engaged in an academic task</td>
</tr>
<tr>
<td>Latency recording</td>
<td>Record length of time between onset of antecedent and behavior</td>
<td>Length of time it takes from instruction to compliance</td>
</tr>
<tr>
<td>Interval recording</td>
<td>Record the presence or absence of a behavior within a specified time frame</td>
<td>See below</td>
</tr>
<tr>
<td>Whole interval</td>
<td>Record behavior if it occurred for the entire interval</td>
<td>On-task behavior, in-seat behavior</td>
</tr>
<tr>
<td>Partial interval</td>
<td>Record behavior if it occurred at least once during the interval</td>
<td>Off-task behavior, out-of-seat behavior</td>
</tr>
<tr>
<td>Momentary time sample</td>
<td>Record if behavior is occurring at the end of the interval</td>
<td>Same as above</td>
</tr>
<tr>
<td>Behavior</td>
<td>Replacement</td>
<td>Uncontrollable</td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Robert</td>
<td>Play alone with read and write to assigned tasks and student remains at desk.</td>
<td>Robert is engaged in task near student while desk is set up.</td>
</tr>
<tr>
<td>Student now gets repetition instruction for reading, some reading is given.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robert</td>
<td>Do anything alone at desk and then reads a reading book.</td>
<td></td>
</tr>
<tr>
<td>Student now gets two more math problems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robert</td>
<td>Finish up at front of class.</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
- Student is not engaged in reading instruction.
- No physical aggression in line for math instruction.
- More math instruction with repeating problems.

**Table 2.3: Functional Replacement Behaviors and Their Benefits**
I. SINGLE SUBJECT DESIGNS - purpose is to demonstrate experimental control and intervention effects, working with one or a few individuals. Used to demonstrate a relationship between a behavior change program and behavior changes exhibited by a single student or a small group of students.

Advantages over large group research designs:
- Study effectiveness of an intervention or several interventions on single subject or small group of subjects
- Results are easy to interpret, usually by visually inspecting charted data points
- Teachers decide when to initiate or modify interventions
- Use of statistics not usually needed

Comparisons made between conditions:
- Baseline condition – collected on a specific target behavior before intervention
- Intervention condition – referred to as Condition B. Data collection continues throughout the intervention

II. TYPES OF SINGLE-SUBJECT DESIGNS
A. A-B Design – only two conditions are used: baseline (A) and intervention (B)
B. A-B-A Design – employment of second baseline condition after withdrawing or terminating the intervention condition. Demonstrates more clearly relationship between student performance and intervention.
C. A-B-A-B Design – intervention condition is reintroduced after the second baseline condition
D. Alternating Treatments Design – involves relatively rapid alternating of interventions for a single subject. Researcher introduces a second, different intervention strategy(C) while continuing to monitor student performance. Does not establish cause and effect as data may reflect cumulative intervention effects. One can return to the baseline condition before introducing each new intervention (repeated-baseline alternating research design.)
E. Changing Criterion Design – used to increase or decrease performance of a single behavior by gradually increasing the criterion for reinforcement across several intervals of time.

F. Multiple Baseline Designs – replication is achieved across a small sample of subjects, behaviors, or settings.
   1. Multiple-baseline-across-subjects design – same intervention employed across three children.
   2. Multiple-baseline-across-behaviors design – applied to a single child across three different behaviors.
   3. Multiple-baseline-across-settings design – same intervention applied to a single child across three different settings.
CURRICULUM BASED ASSESSMENT

Curriculum-based assessment (CBA) – strategy for determining instructional needs of students in an effort to match the students’ needs and abilities with the classroom curriculum. Primary goal – to eliminate curriculum mismatches between students’ skills and teachers’ classroom assignments and expectations.

DEFINITION OF TERMS:
Present performance level – level of academic work at which the student succeeds at, or near, 100%. Represents mastery level of assessed subject area.
Inter-student variability – variability (in academic levels) among students.
Intra-student variability – dramatically different entering skills in various subjects with an individual student.
Probes – primary tool for curriculum-based assessment. Often teacher-made, functional, criterion-referenced tests that the teacher builds directly from his/her own curriculum (reading, writing, math). Should be administered before, during and following instruction.
Error Analysis – used in conjunction with probes – will help you understand the types of errors your students are making. How did you arrive at your answer?

CRITICAL ELEMENTS:
a) CBA is a general education initiative intended to prevent academic problems from escalating. It is to be used with all students.
b) CBA obtains direct and frequent measures of a student’s performance on a series of objectives, ranging from easy to difficult, derived from the curriculum the teacher uses in the classroom.
c) CBA requires that teachers focus upon what students can do rather than describe their deficiencies.
d) CBA uses a student’s classroom performance measured by instruments built from the classroom’s curriculum to determine most effective strategies.

Materials must be presented at an instructional level rather than frustration level. Instructional demands must be tied to each student’s academic entering skill and not to group goals or curriculum goals unrelated to what the teacher is doing in the classroom.
FUNCTIONAL BEHAVIORAL ASSESSMENT

All behavior serves a purpose to the student. Learning that purpose is the goal of functional behavioral assessment.

- Verify the functions that the problem behavior serves
- Identify alternative behaviors that could serve the same function
- Identify effective reinforcers for behaviors to be increased

U.S. Department of Education (1999, p.45) outlined five steps for conducting a functional behavioral assessment:

Step 1. Define the problem behavior. Create a concrete definition of the problem behavior and the conditions under which it typically occurs.

Step 2. Gather information about environment and behavior. Use multi-method approach to determine what precedes and follows the behavior.

Step 3. Hypothesize the function of the behavior. What is the purpose that the behavior serves for the student?

Step 4. Develop a behavioral intervention plan (BIP). Determine and teach an appropriate behavior that serves the same function for the student.

Step 5. Monitor behavior to verify hypothesis and validate intervention.

INFORMATION DERIVED FROM FUNCTIONAL ASSESSMENT:

a. description of student’s problem behavior

b. discovery of the setting events, in and out of school, that triggers the occurrence of the student’s undesired behavior:
   Proximate Setting Events – can include the time of day, day of the week, a classroom’s activities or their cancellation, and the adult (ex. substitute) in front of the room.
   Distant Setting Events – occur well before school begins, usually at home or in transit.

c. identification of the consequences used by teachers and school officials that may be maintaining the problems behaviors
CRITICAL DETERMINANTS

Find out where problem behaviors are least likely to occur

What purpose does the behavior serve? All behavior accomplishes one of two goals: to get something or to avoid something

STEPS TO GUIDE YOU THROUGH FBA:
Identify what the student is doing that you perceive as undesired and interfering.

Determine what active behavior you wish the student to do instead.

Determine conditions and circumstances when both the desired and undesired behavior is most and least likely to occur.

Determine how the environment is responding to both the desired and undesired behaviors.

Determine what you need to do to provide desired payoffs to the desired behaviors.

Question: What desired behavior on the part of the student could produce the same consequences that appear to be maintaining the undesired behavior?