Chapter 13: Functional Assessment and Program Design

Functional Assessment

- A **functional assessment** is a set of procedures by which we can identify connections between a behavior and its antecedents and consequences. They should:
    - Define the target behavior exactly and clearly.
    - Determine which **antecedents** function to produce the behavioral excess or deficit.
    - Reveal how the person's behavior functions to produce reinforcement.
- The function of behavior remains for individuals to *get something they want*. They are categorized as the following:
    - **Escape** is a form of negative reinforcements: We learn many behaviors because they end or postpone aversive circumstances.
    - **Attention** serves as a reinforcement and is usaully intended to compliment us or make us feel better.
    - In **Automatic Reinforcement**, the behavior produces a reinforce directly, such as when we massage an aching muscle to make it feel better. These can be either positive or negative:
        - Positive: The behavior directly leads to a reinforcing stimulus being introduced or added. Ex. Sketching a picture and like what it looks like.
        - Negative: The Behavior directly leads to the reduction or removal of an aversive situation. Ex: Massaging an aching muscle.
    - **Tangible Reinforcements** are reinforced by positive tangible rewards or items such as toys or articles of clothing.

Performing A Functional Assessment

- REVIEW
    - **Behavior excess** – undesirable behavior the person performs too frequently, strongly, or for too long.

- **Behavior deficit** – desirable behavior the person does not perform often, long, well or strongly enough.

- In order to identify antecedents and consequences for behaviors, we must use one of two methods:
  - **Indirect methods**, including interviews or questionnaires, ask questions that relate to the person's performance and nonperformance of a target behavior, assessing antecedents and consequences.
  - **Direct methods** are observations made in one's natural environment. This method is designed to *describe* the behavior and its antecedents and consequences. There are two strategies:
    - **Unstructured descriptive assessment**, in which observations are doen without altering natural events in the environment in any way.
      - We would use the continuous recording procedure (discussed in chapter 2) to make observations.
    - **Structured descriptive assessment**, which involves observations in the natural environment while specific antecedent events are manipulated systematically, but the behavior's consequences are allowed to happen naturally.
      - It is important to conserve resources when observing. We only need to make observations of the target behavior until the behavior has occurred often enough to reveal patterns in the connections between the target behavior and its antecedents and consequences.

- When recording the data, we use the **A-B-C log** – a chronological record of the target behavior's occurrences and nonoccurrence, along with the antecedents and consequences of behavior.
  - After critical analysis, we use the data collected to fill out a summary record form. This form organizes, collates and presents a summary record of the target behavior.

- From the interpretation of our collected data, we should be able to conclude two findings:
    - We should be able to predict when the target behavior is likely to occur / not occur.
    - We should be able to see how different consequences relate to the behavior.
  - If the relationships are not clear, we could:
    - Check the data collection process for flaws, correct the problem and recollect the data.
    - Observe another dozen or so instances of behavior (assuming no problems).

Experimental Methods: Functional Analysis

- A **functional analysis** uses methods of scientific experiments by conducting systematic environmental manipulation, introducing or altering likely antecedents or consequences to see how they affect the target behavior. The two main reinforcers include:
    - Attention – positive reinforcement
    - Escape – negative reinforcement
- The purpose of functional analysis is to:
    - Confirm the data and hypothesis from a descriptive assessment
    - Clarify patterns of relationships that are not yet clear.
- Functional analysis results are considered *analog* assessments because they are not precisely the same antecedents and consequences.

Interpreting Functional Assessment Data

- We focus on the target behavior's occurrence, for behavioral excess, or nonoccurrence for a behavior deficit and correlate them to specific antecedents and consequences.

Strength and Limitations of Functional Assessments

- Functional Assessment procedures have improved in two ways:
    - The application of behavior analysis methods has become more effective and efficient.
    - The intervention techniques used in applied behavior analysis are now more humane.
- There are many feasible limitations when conducting functional analysis.
    - A great deal of resources – mainly time, expense and space may be needed
    - Some problem behaviors may be serious but occur at very low frequencies, such as stealing, which would require a great deal of time for observation.
        - Doing brief versions of functional analysis may be a solution – running few and short sessions.
    - Some medication clients take may affect their behavior during a functional assessment, thereby making the data less useful.
    - Danger presented by target behaviors, such as self-injurious and aggressive acts are addressed in two common ways:
        - Subjects wear protective equipment during assessment and restrict the amount of time of exposure.

        - Precursor behavior is an act the person generally performs immediately before the target behavior – such as yelling before hitting.

- There are two types of methodology issues:
    - Data from interviews and surveys are suspect because they rely on the respondent's memory of events that occurred in the past and people sometimes give bias reports.
    - The questionnaires used in functional assessments often do not have strong evidence of their reliability and validity.