Philosophical Foundation

- **Realism** - reality as directly given to the senses, objective, observable, measurable. Can be examined experimentally.

- Experimental Psychology – Wundt, Pavlov, Watson
Learning is based on the association of elements, the building of connections in the brain.

All responses are learned.

Complex forms are based on the association of other simpler forms through branching, stringing or other combining processes.
Levels of behavior

- Reflexes (innate/automatic)
- Respondents (conditioned)
- Habits (habituated)
- Conscious choices (mediated)
Conditioning

- Classical: SR (Pavlov, Watson)
- Operant: SRC (law of effect)
  - Thorndike, Skinner
- Mediated Operant: SROCK
- Learning is facilitated through management of these components in building and reinforcing associations
- Generalization, Discrimination, Extinction
Consequences and Contingencies

- Antecedents (stimulus control)
  - Cueing, prompting, task analysis

- Consequences and effects
  - Positive and negative reinforcement
    - Primary and conditioned reinforcers
  - Positive and negative punishment
  - Extinction

- Contingencies
  - Continuous, interval, ratio
Applied Behavior Analysis

- The importance of the baseline in the ABAB model
- Description of the behavior
- Why and to whom is the behavior a problem or a desired outcome?
- Analysis of the antecedents and current reinforcers
- Design, implementation and evaluation of intervention
Steps in Implementing Behavior Management

- Observe and specify behaviors
- Set Behavioral Goals
  - Objectively described observable outcomes
- Determine appropriate reinforcers
- Select procedures for changing behavior
- Implement procedures and record results
- Evaluate progress and revise
  - Generalize; move to self maintenance
Interventions

- Premack principle
  - High frequency and low frequency behaviors
- Task analysis and shaping
- Positive practice
- “Catch them being good”
- Reinforcement teaches more than punishment
- It takes more reinforcement to make an impression
## Maintenance Strategies

<table>
<thead>
<tr>
<th>Reinforcement occurs consistently</th>
<th>Reinforcement Contingent on Responses</th>
<th>Reinforcement Contingent on Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinforcement occurs intermittently</td>
<td>Variable Ratio Random opportunities for bonus points</td>
<td>Variable Interval Spot quizzes</td>
</tr>
</tbody>
</table>

- **Reinforcement Contingent on Responses**
  - Fixed Ratio: One point off for each word spelled wrong
  - Fixed Interval: Weekly spelling test

Adapted from Driscoll, 2000
Generalization

- Stimulus generalization – somewhat like over generalization in language, people may over generalize a response
- CER’s – conditioned emotional responses often compound generalization and create problems for discrimination (classically conditioned)
- Stimulus discrimination – Identifying key elements of stimulus which differentiate it from other similar stimuli
Some Common Classroom Strategies

- Expectations, rules and consequences MUST be known up front and enforced uniformly
- Public records
- Group consequences
- Token systems; Classroom/school store
- Contingency contracts
Cautions

- Punishment does not teach positive behavior; it only stops behavior. It must always be paired with reinforcement of behavior to be learned.
- You cannot use behavioral theory effectively unless you know the baseline characteristics of your learners.
- Strategies must be learner specific.
- You must continually observe and adapt.
Food for thought

- Children can only act in ways they have in their repertoire and can match to stimuli
- Self-management is the goal
- Mastery and self-paced learning
- Learned helplessness - a response to continuous aversive or conflicting stimuli
- Match between instruction and assessment
- Ethical benefits and challenges