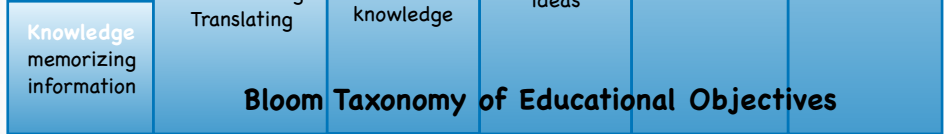


Instructional Design Theory: Behavioral-Inspired

Behaviorism approach learning instruction should provide experiences that facilitate expected behavioral changes as a result of conditioning in the environment. Shaping, chaining, positive and negative reinforcement, punishment, scheduled reinforcement, contiguity and contingency should be part of it.

Instruction by Behaviorism Characteristics and Strategies

- Expected outcomes are demonstrated or described
- Stimuli are used to prompt expected behavior
- Reinforcement is used to strength relationship between stimuli and expected response
- Potential environmental distractions are removed
- Small chunks of content are presented and mastered before moving to new content
- Frequent testing of stimuli-response



Example of the CAI for ESL adult instruction can be found in **My English Lab: Focus On Grammar** site. There are a series of automatic-graded activities that utilizes videos and sounds. Incorrect responses will prompt more remedial and practice and corrected responses advance in a higher level of difficulty. Students' performance is saved and teachers can monitor progress for face-to-face feed back.

Programmed Instruction (PL) Skinner

(Specify, Identify, Develop, Provide)

Content is presented in a series of individual pieces

- lineal steps
- Logical order
- active responding
- shaping
- immediate reinforcement
- self-paced learning



Computer-Assisted Instruction (CAI)

- automatic follow-up frames
- videos/animations
- Record and maintain data
- Progress can be monitor
- Provide instruction when teachers are not available



Branching program (Crowder)

- Progress in larger steps
- More info in each frame
- Incorrect response=remedial frame/practice
- Correct responses=move on



Better Option

- CAI can lead to better academic results
- better opportunities to apply behavioral concepts:
stimuli-response-reinforcement=expected results
- wide variety of innovations: interactive, illustrative, animation, sounds
- group learning promote effective study strategies and immediate feedback

Mastery Learning (ML)

Learners must master the unit materials to a high level of proficiency before moving to the next unit

Keller's Personalized System Instruction (PSI)

- used at college level
- emphasizes on individual study units exams
- supplementary instructional techniques
- use of proctors
- PSI doesn't lecture
- students find their own way through content
- some students never meet the criteria

- ML is based on Shaping
- small discrete units
- a logical sequence (task analysis)
- demonstration
- concrete/observable criterion
- additional remedial
- complete assignments at own speed
- additional enrichment exercises

- higher achievement
- retain information longer
- avoid procrastination
- better for low achiever students
- quick learners receive less instruction and need to wait for others to finish
- Work on their own pace
- Teachers need to keep track

An example of ML in adult ESL education is the use of board games to learn or review grammar concepts. It's divided in small pieces, constant test and reward, can't move on until it's done and good.

