Systematic Instruction
LASARD Summer Institute 2011

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Discussion

How many of you know what Systematic Instruction is?

- How many of you are familiar with PECS?
  - PECS is based on the principals of Systematic Instruction.
Systematic Instruction
Word Game

- Prompts
- Response
- Latency
- Prompt Fading
- Positive
- Reinforcement
- Data Collection
- Data Analysis

RULES

1. [Image of a thinking face]
2. [Image of eyes]
3. [Image of lips saying “Answer”]

“Answer”
Systematic Instruction is a combination of:

- Prompts/Prompting Hierarchy
- Response Latency
- Positive Reinforcement/Reinforcement Procedures
- Data Collection
- Data Analysis
- Stimulus
- Error Correction Procedures
- Generalization and Maintenance Procedures
Breaking it down...

- S.I. is a method of teaching where the same procedures/teaching techniques/instructional strategies are used on a repeated basis when teaching a certain skill.

- SAME procedures EACH time.

- Research has shown that repeated and precise instruction leads to quicker mastery of the identified skill.
LAQI Says…

- I 29 - Systematic Instructional procedures are evident.
- I 31 - Systematic Error Correction procedures are evident.
- I 33 - Systematic use of reinforcement is evident.
- I 35 - The teacher is observed collecting data on student performance.
- I 40 - Ongoing assessments demonstrate maintenance of skills over time (progress monitoring)

http://www.hdc.lsuhs.edu/lasard/pdf/LAQISynthesisFINAL.pdf
Positive Reinforcement

What are some of your favorite things?
What will YOU work for?
Positive Reinforcement

- First step is to complete a preference assessment
- Try to have at least the top 3 reinforcers on hand
- Make a plan to decide how often reinforcers are given.
- Try not to make them only food reinforcers, try to include natural reinforcers
- ALWAYS have a reinforcer that the student is working for = motivation.
PROMPTS
KLF Chart on Prompts
Prompts

- Name some prompts that you use or that you “Know” under the K column on your chart.
- As we go along write things you “Learned” under the L column on your chart.
- If I say something that you want more information on, jot that down under the F column for “Follow-up”.

Prompts

- Hierarchy:
  - Full Physical
  - Partial Physical
  - Model
  - Pictorial / 2 Dimensional
  - Verbal
  - Gestural
Prompts

- **Hierarchy:**
  - **Full Physical**
    - Pro: allows no errors  Con: highly intrusive
  - **Partial Physical**
    - Pro: useful when vision is limited  Con: some students do not like to be touched
  - **Model**
    - Pro: can be used with a group  Con: requires students to attend
  - **Pictorial/Written**
    - Pro: promotes independence  Con: must be understood and some actions are hard to illustrate
  - **Verbal**
    - Pro: no visual/physical and its natural  Con: may be hard to fade.
  - **Gestural**
    - Pro: more natural cue  Con: must be seen and understood

(Snell and Brown pg 137-138, Table 4-8)
Response Latency

- After an instructional prompt is given by teacher, response latency is the “time allowed for a student to respond without assistance…”

(Snell and Brown pg 136)
Response Latency

- To discover a child’s response time: ask the child a question he KNOWS the answer to (name). The time it takes for him to respond is his response latency time.

- “Without the opportunity to initiate, students may become prompt dependent and FAIL to learn the target response.” (Snell and Brown pg 136)

- A response latency should be allowed before and after a prompt is given.
Prompting Systems:

- As part of a prompting system, prompts can either be used alone or in combination; or arranged according to a hierarchy (least to most, most to least)
- Each prompting system works differently
  - Constant Time Delay
  - Simultaneous Prompting
  - System of Least Prompts
  - Progressive Time Delay
  - Most- to- Least Prompt Hierarchy
  - Graduated Guidance

(Snell and Brown pg 138-141, Table 4-9)
Prompting Systems:

- Research has shown that “Constant time delay is one of the most effective and efficient prompting methods and is also versatile across a range of academic, and communication…”

(Snell and Brown pg 142)
Model of Constant Time Delay

- Student learning "penny" and its value.

1. Teacher starts off with 0 sec. delay

2. Following several successful 0 sec. delay trials, the teacher uses a 4 sec. delay (response latency) before giving a verbal prompt.
Constant Time Delay Cont’d

3. Following several successful 4 sec. delay trials the student is able to i.d. coin and value with no prompting.

4. Nickel is introduced.

5. 0 sec. delay is used, followed by 4 sec. delay, etc.

How would we as teachers maintain this skill?
Model of System of Least Prompts

- Going to the Bathroom:
  - Teams decides to teach ALL steps in task
  - 3 sec. Latency
  - No response/Error- Gestural Prompt
  - 3 sec. Latency
  - No response/Error- Gestural AND Physical Prompt.
Going to the Bathroom:

Teacher: “Time for Bathroom”

Student: No response

Teacher: Meet student and gesture to bathroom

Student: No response

Teacher: put hand on students back to guide him to bathroom AND points to bathroom.

Student: walks to bathroom door.

Teacher: “Great Job!”
Not-So-Good-News….

- “None are easy to use….” as related to prompting systems
- “Each requires practice for teachers to become fluent users.”

(Snell and Brown pg 139)
GOOD NEWS...

“One of the main advantages of these systems, IF used CORRECTLY, is that the students generally learn with few errors.”

(Snell and Brown pg 138-141)
Prompt Dependence

How many of you know of a student who is prompt dependent in at least 1 area?
Video example
Prompt Fading: A “How To” Guide

- Keep in mind the Hierarchy
- Goal is to use LEAST intrusive prompt.
- Careful to not fade too fast (would raise errors)
- Reduce prompts from combined to a single prompt
- Reduce amount of physical control
- Aim for natural cues: teach student to watch peers for directions.
True or False...

- Two components of Systematic Instruction are: Data Collection and Reinforcement.
- Three types of prompts are: Verbal, Full Physical, and Dancing.
- Response Latency is the time allowed for the student to respond with assistance.
Be a Sponge...