

Systematic Instruction: The Key to Successful Employment

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In the late 1960's into the 1970's, emerging leaders in the disability field combined research and values in developing teaching strategies for individuals with significant disabilities. Among these leaders were Marc Gold at the University of Illinois, Paul Wehman at Virginia Commonwealth University, Rehabilitation Research and Training Center, Lou Brown at the University of Wisconsin, and Tom Bellamy at the University of Oregon, Specialized Training Program. Each of these pioneers believed that:

- People with developmental disabilities had much more potential than anyone realized.
- All people with disabilities should have the opportunity to live their lives much like everyone else.
- Everyone can learn if we can figure out how to teach them.
- A lack of learning should first be interpreted as insufficient use of teaching strategies rather than inability of the learner.

Based on these beliefs, teaching strategies were developed such as Marc Gold's "Try Another Way" and Tom Bellamy's "Systematic Instruction." In the early 1980's, considerable efforts were made to train direct service professionals on how to best use these techniques, particularly for individuals who were exiting state institutions and for those with greater challenges in learning new and complex tasks. Over time, systematic instruction became somewhat of a lost art. In today's environment of Employment First and full participation, it has become even more important to provide good training for individuals in order for them to access good paying jobs in the community.

A systematic instruction approach allows for consideration of tasks/jobs that may have been perceived as too complex or technical for supported employment candidates in the past. It may be needed when a) "loose" teaching is not getting the person where they want or need to be, b) a person's learning style is best accommodated by a more structured and systematic instruction approach, and c) an activity or task has an element of risk if not done correctly.

Important Components

There are three important components to systematic instruction: 1) Preparing to teach, 2) Teaching, and 3) Assessment.

Preparing to Teach includes task design or standardizing the work, and task analysis.

Task Design involves determining the "best" method for completing a task so there is consistency among all workers. Strategies include:

1. What do you see that would make this task/job easier to learn? (Natural cues within the job or task that you will teach to)

2. The natural, existing cues that exist in a task are the “clues” about what step is next. We need to be prepared to teach to the cues in the task from the first time through or we run the risk of becoming the “cue.”
3. What do you learn about this task/job that would make it easier to do? (physical demands of the job or task: lifting, fine motor, difficult manipulations)
4. What might you add to make it easier to remember? (adding or highlighting cues, self-management strategies)
5. Is there an opportunity to design the task so that the possibility of errors would be eliminated or minimized?

Task Analysis

The outcome of task design is a simple written description of the safest, highest quality and most efficient way known to perform a particular process or task. This is referred to as a task analysis. It is a useful tool when the complexity of the task is presenting challenges to the learner or trainer.

A written task analysis focuses the trainer attention on the specific demands of the task and cues within the task. It breaks the task into discrete, observable steps and lists them in order. It provides useful data and is an efficient method to track skill acquisition, productivity, and safety. It is also sensitive to small gains and highlights the steps that are difficult, which may need a change in design or teaching strategy.

Teaching:

After task design and task analysis have been completed, the teaching begins. The trainer will be delivering and fading assistance or prompts, identifying and teaching to cues of the task, correcting errors, assessing progress, and addressing difficult steps.

Prompts or Methods of Assistance

The purpose of prompts or assistance is to bring the learner’s attention to cues within the task when additional information is needed to perform the task correctly. There are several ways to provide this information:

- Verbal – this method can be effective when the learner receives information well verbally. Keep in mind verbal prompts are often ineffective when a learner has difficulty with auditory processing. Any verbal instruction should be brief and specific to the task.
- Written and visual (picture) lists – these can often remain as tools to self-manage movement through a task.
- Modeling – “showing how”; can range from single steps to whole task.
- Visual Prompts – gestures showing movement expected.
- Physical Guidance – also referred to as manual guidance or hand-over-hand. Physical guidance can range from very light touch to full physical guidance to complete a step or steps. As with all forms of assistance, the decision to use physical guidance should be based on the need of the learner and faded to the least amount necessary to successfully complete the task. Physical guidance should never be used to force movement or compliance.

The big questions include which teaching method to use, how much assistance to provide and when to provide it. Some helpful tips include:

1. Take your cue from the learner; learner performance (learning style) will guide you.
2. When providing assistance, give no more than necessary to get a correct response.
3. "Tie" your assistance to the cues in the task and not to you!
4. Fade your assistance as the learner performs steps accurately. This will include moving away from the learner as s/he becomes more proficient.
5. Delay your prompts to see if the learner can perform the steps without your assistance.

When an Error Occurs

Learners are bound to have errors in their work and your teaching approach will differ between those who are "early" in learning and those who are "late" in learning. When an error occurs early in the training, interrupt the learner as soon as possible using a neutral and non-punishing tone of voice. Back up to the cue for that step and support the learner with assistance as needed to complete the step correctly. When error occurs "late" in the person's training, wait to see if s/he self-corrects. You can give prompts with less information such as "what comes next?" or "what did you forget?"

Strategies for Teaching Difficult Steps:

When certain steps in a task are repeatedly incorrect or the learner is making little or no progress the following strategies may be helpful:

- Consider changes in the task design to facilitate learning and performance
- Modify the task and adjust your assistance from "easy to hard"
- Consider mass trials of the difficult step by removing it from the task sequence for repeated practice

Assessment

In the words of David Hingsburger, "The most important tool for teaching is the willingness to evaluate what you are doing on a moment by moment basis." Task analysis provides an opportunity for formal assessment while informal assessment is ongoing throughout the teaching process. The trainer should always be looking for information from the learner's behavior to make appropriate training decisions about what is causing a difficult step, what is needed for modifications in the task design, what are the social skill demands, and, is the reinforcement effective.

Trainers will be more effective if they implement the teaching strategies described above. It is a true joy to see learners master difficult tasks that allow them to gain meaningful employment.

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