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Systematic Instruction Following Brain Injury: An Introduction

Family members, caregivers, and professionals are charged with helping individuals with brain injury learn what they need to become more independent. There are so many different kinds of skills and information to learn or re-learn following a brain injury—cooking, navigating the community, remembering important names and information, using technology—it can be overwhelming. Systematic instruction is one of the most important yet often over-looked aspects of helping individuals with brain injury regain skills and develop independence. In this Brief, we will provide an overview of the systematic instruction process.

Step 1. Before instruction — Conduct a Needs Assessment

Who (learner background) Who is the learner? What are his or her unique strengths and challenges? Think about the learner's past experiences, motivation, current cognitive abilities, motor skills, vision, hearing, etc.

Why/What (goals) What goals does the learner want to achieve? What does the learner need to know or be able to do? Why is this important?

Where & When (environment) Where, when, and with whom will the learner need to use the new information or skills?

Step 2. Before instruction — Design the Instruction

Identify Instructional Targets What does the individual need to learn?

(a) **Information/Concepts:** Facts such as name or phone number or concepts such as colors (e.g., useful when working on a clothes sorting task) or main ideas vs. supporting details (e.g., useful when working on reading comprehension).

(b) **Multi-step Skills:** Specific tasks such as cooking a meal or entering an appointment into a smart phone.

(c) **Cognitive Strategies:** Procedures for improving learning and performance across general and specific tasks. For example, a self-talk strategy such as "I need to check my work" is generally applicable to a wide variety of tasks. In contrast, use of a graphic organizer for writing stories is specific to that task.

Break it Down Break the information, skill, or strategy into components or steps. This is called a "task" or "instructional analysis."

Select Examples Select and sequence multiple teaching examples. It is critical to consider the range of examples needed to teach most efficiently. For example, to teach a simple cooking task, it is important to work with a variety of recipes (e.g., recipes involving using both the stove and oven; salads, soups, and casseroles). To teach entering appointments into a smart phone, a range of examples of appointments is needed (e.g., doctor's appointments, family visits, across days and times). A limited example selection (e.g., a limited set of recipes, only doctor's appointments on one day of the week) may result in a lack of generalization. A broad range of examples can increase the generalizability of the teaching.

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Identify Clear Instructional Wording Make sure directions/models are worded simply and clearly; it's useful to develop an instructional script to keep wording consistent across examples. Instructors often make the mistake of saying too much, thereby cluttering their input with irrelevant information and confusing the learner. ***Less is more.***

Step 3. Deliver the Instruction — Remember "Practice Makes Perfect"

Model Demonstrate first so the learner understands. Teach one chunk or step at a time. For example, when teaching cooking with a recipe, Step 1 might be to "organize ingredients," followed by Step 2, "read the first few lines of the recipe," and so on. For entering appointments into a smart phone, Step 1 might be "turn on phone," followed by Step 2, "press calendar icon on main screen." Train each step/chunk until the learner makes very few or no mistakes, then link these together. The key here is to facilitate the learner's success, using the learner's performance to guide how many steps to teach at a time and when to fade support.

Practice-Review Provide the learner with multiple practice opportunities distributed throughout each training session and across sessions. Many individuals with brain injuries say that repetition is key to learning and retention. ***Be patient.***

Pacing Pace instruction at a rate consistent with the learner's processing speed. Don't go too fast or too slowly; base your pace on the learner's performance.

Feedback With kindness and clarity, provide immediate corrective feedback in response to learner errors; reinforce correct performance in a way consistent with the learner's preferences (e.g., quickly acknowledge when he or she gets it right, but don't overdue it).

Mastery Train to a high level of accuracy before introducing new material. Avoid teaching too many things at once. ***Again, less is more.***

Remember, *Location-Location-Location* Whenever possible, conduct training in the context in which the skills/information will be used (see **Where** and **When** in the Needs Assessment above). This may be the classroom, out in the community, at work, home, etc.

Step 4. On-going Assessment — Determine Effectiveness

Collect Data Observe and record the learner's performance on instructional targets whenever possible. Talk to the learner and together determine whether the instruction is effective and new skills/information are having the intended impact (i.e., the **What/Why** portion of the Needs Assessment above).

Reflect On / Analyze Patterns Determine the level of mastery and the need to modify the design and delivery of instruction. The learner may be having difficulty for a variety of reasons. Assess the learner's motivation and attitude to ensure continued engagement in the instructional process.

Where can I find out more information?

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