


Tutorial: Instructional Routine

WHAT IS AN INSTRUCTIONAL ROUTINE?

As we use the term “instructional routine,” it refers to all of the elements of teaching/learning events other than the specific content to be taught and the specific materials used in the teaching. The elements of instructional routines include:


1. The teacher’s words in getting the student’s attention, explaining the task (lesson, project, activity), giving directions, offering assistance, giving feedback (and correction if necessary), reviewing, summarizing, and the like
2. The materials that are available to help the student, including visual prompts, visual organizational supports, models of the finished product, and the like
3. The student’s role and expected contribution and responses
4. The amount and type of assistance offered to the student
5. The instructional pacing, number of learning trials, ratio of reviewed to new material, and the like
6. Environmental components: place, other students, supports to enhance attentional focus
7. Self-regulation/executive function components: the student’s role in identifying difficulty level, setting goals, making plans, initiating, inhibiting, self-monitoring and evaluating, strategic thinking/planning [See  [Tutorial on Self-Regulation/Executive Function Routines](#)]
8. Motivational components: interest level of the task and materials, engaging style of the teacher, possibilities for fun, rewards for success (e.g., praise), natural consequences for failure (e.g., poor grade), and the like


WHY ARE INSTRUCTIONAL ROUTINES IMPORTANT FOR MOST STUDENTS AFTER TBI?


Students with TBI may have significant memory/learning problems, may have difficulty gaining clear orientation to their tasks, may be disorganized, may have difficulty controlling their attention, may process information slowly, may not be able to determine what will be easy and what will be difficult, may have trouble identifying key from irrelevant information, and may become easily discouraged because tasks that were once easy are now difficult. In any of these cases, well planned and well understood routines of instruction are helpful


WHAT ARE THE MAIN FEATURES OF INSTRUCTIONAL ROUTINES THAT ARE IMPORTANT FOR MANY STUDENTS WITH LEARNING AND OTHER COGNITIVE PROBLEMS AFTER TBI?


It should be noted that some instructional curricula include specific guidance in most of the following domains. Whether they do or do not, it is well for teachers to make deliberate decisions about each of the following elements of an instructional routine.

1. A well established and understood routine: Students should thoroughly understand the sequence of activities that comprise the instructional routine and their role in it. The routine itself should become a habit – or background – so that the student’s cognitive resources can be focused on the material to be learned. The instructional routine includes the transition into the lesson and the transition out of the lesson, which are especially important components for students who have difficulty with transitions. Many students with TBI have difficulty becoming oriented to tasks. They may also have problems regulating their attention and processing information quickly. All of these problems can be addressed to some degree with well established and well understood routines. (See  [Tutorial on Transition Routines](#))


2. The student's understanding that he or she will be successful: Anxiety and discouragement are common among students who have lost some of their abilities as a result of brain injury. Thus it is important that students always know that they can be successful. This understanding is built with a history of success and with the confidence that comes with knowing that the teacher will collaborate with the student to get the job done if it is difficult. [See  Tutorial on [Performance-Oriented versus Support-Oriented \(Apprenticeship\) Teaching](#)]


3. A simple "self-regulation/executive function script/routine" as part of the larger instructional routine: Many students with TBI have reduced insight into their strengths and weaknesses, are not good at setting goals or planning how to achieve them, have difficulty initiating or inhibiting, have difficulty monitoring their own performance and evaluating it, and are not strategic thinkers and learners. These students tend to benefit from "self-regulation/executive function routines". [See  Tutorial on [Self-Regulation/Executive Function Routines](#)]

4. Adequate support to ensure "errorless learning": Many students with TBI have significant memory problems or have a long history of failure, frustration, and associated anxiety. These students benefit from errorless learning procedures. [See  Tutorial on [Errorless Learning](#)]


5. A pace of instruction that is as rapid as the student can process: Many students with TBI have slowed processing of information as a result of diffuse axonal injury [See Diffuse Axonal injury] or other types of injury commonly seen after TBI. While it seems logical to slow the pace of instruction to ensure a student can follow the information provided, slowing the pace may result in increased difficulty maintaining attention and certainly results in fewer learning trials. Once instructional routines are well understood and the procedures to be followed assimilated by the student, the pace of instruction can and should be faster than might otherwise be recommended. [See  Tutorial on [Instructional Pacing](#)]

6. Complete clarity in the student's mind about what is expected: One of the most important features of instructional routines for students with cognitive and learning problems is the clarity of the instructions or other types of task orientation. Often students' mistakes or resistance to tasks are a consequence of poor understanding of what is expected, possibly combined with fear that they will fail. Clarity can be achieved by ensuring that the student is paying attention before giving instructions, repeating the instructions, repeating in different words, writing or picturing as well as verbally presenting the instructions, providing a model of what the task will look like when it is done, and requesting that the student explain what he needs to do before beginning the task.


7. Organizational supports: Students with TBI often have organizational problems. [See  Tutorial on [Organization and Organizational Supports](#)] These organizational problems are often more serious than they appear on the surface to be. Therefore, students usually benefit from advance organizational support. Advance organizers can be as simple as a checklist or outline of a task. Often the advance organizer is a graphic organizer for the task (e.g., a series of boxes and connecting arrows depicting the key elements of a story and their organization). In some cases the organizer can be as explicit as a series of photos kept in the student's organizer to outline the steps required in a given task.

8. Provision of a large number of learning trials: Repetition and Review: Students with learning difficulties after TBI require considerable repetition – a larger numbers of learning trials than their peers – in order to learn and internalize new material. They also need considerable review of what they have learned and cumulative review as they continue to learn in the school year. The trick for teachers is to provide additional repetition and review that the students need while also making the lessons interesting and fun. [See  Tutorial on [Learning Trials](#)] Taping of new materials might allow the student additional options for repetition of new information to enhance learning.

9. Sufficient variation in presentation of learning trials: Ensuring large numbers of learning trials can easily result in boredom. Equally dangerous, if the materials and instructional tasks do not change, the student


may create such specific associations that the learned material or skill will not generalize or transfer to other materials or settings or topics. Therefore, the presentation of the learning task should be varied to some degree over the learning trials (stimulus generalization) and the response from the student should be varied to some degree over the learning trials (response generalization).  [See Tutorial on Transfer of Training: Generalization](#)


10. Gradual progression from easy to more difficult: All learning should progress from easy to more difficult tasks. There are two importantly different ways to guarantee this progression:

(a) Break a complex task into parts and teach the parts separately: The teacher can break difficult or complex tasks into component parts and teach the parts separately so that each step, skill, or concept is easier to master than if they were taught together within a unified whole. For example, the task of remembering the sequence of events in a story may be made easier by engaging students in “sequencing exercises” (e.g., beginning-middle-end) prior to expecting this skill to be applied to multi-component stories. Once the student demonstrates mastery in the sequencing exercises, he can be asked to retell a sequence of activities in a story. The presumed advantage of this procedure is that it makes it possible for the student to succeed with relatively simple tasks. The disadvantage is that it fails to retain the meaningfulness of the story. Furthermore, it assumes transfer of cognitive skills like sequencing from decontextualized exercises to functional application. This assumption is questionable.  [See Tutorial on Transfer of Training: Generalization](#)

(b) Maintain the integrity of the task, but complete the task collaboratively: For example, the teacher can engage the student in story listening and retelling, but within that integrated activity, give the student responsibility for only one or two components while the teacher does the rest. For example, the teacher and the student can collaboratively retell the entire story, with the student contributing only one or two components. The components of a story and their organization are then taught within the functional activity of listening to or reading stories and then retelling them. The advantages of the latter approach is that the meaning of the entire story is held together rather than being fragmented into parts and the concern about transfer or generalization is substantially decreased. Perhaps most important is that the task has been made easy enough for the student to be successful.

In either case, components of complex tasks are added as the student gains mastery.

11. Possibly varied student roles: Traditionally students play relatively passive roles during instruction. They are expected to follow instructions, complete assignments, answer questions, and the like. More active roles are sometimes useful to help manage behavior, heighten attention and engagement, and deepen understanding of the material. Active roles might include: (1) being the teacher’s assistant, (2) providing peer support, (3) being engaged in “self-regulation/executive function routines” during the instruction.  [See Tutorial on Self-Regulation Routines](#)

12. Motivational supports: Motivators can be tangible rewards like stickers or points that can be “cashed in” later for valued rewards. These are called “extrinsic” motivators because they are not related in any direct or natural way to the task. Alternatively, a student may be motivated to read a story because he wants to understand and enjoy the story. This is called “intrinsic” motivation: the reward is internal to the activity.  [See Tutorial on Intrinsic and Extrinsic Motivation](#)

The advantage of extrinsic motivators is that they may be more effective for young or discouraged students. The disadvantage is that the use of extrinsic motivators has a tendency to destroy internal motivation. Therefore, systems of extrinsic motivators should evolve into a system of more natural and internal motivators as quickly as possible. This includes interesting materials and tasks that help to engage the student in learning without relying on extrinsic rewards that are not naturally related to the learning task.

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