Benefits of visual schedules

Visual schedules are graphic teaching supports that can be used within many environments for a variety of tasks aimed at individuals with autism spectrum disorder or other developmental disabilities. Visual schedules have many benefits and are often used as interventions to help individuals transition between activities, structure independent work within a variety of settings, and manage downtime. In addition, visual schedules have been shown to help increase the amount of time spent on tasks and increase independence, language and compliance (Mesibov, Browder, & Kirkland, 2002).

What does a visual schedule look like?

A visual schedule can be constructed based on a user's own level of understanding. For individuals who can read, a schedule may show a list using only the words of the tasks to be completed. Those who are still working to recognize words may require an image or symbol to go along with the word. The format of the schedule can be vertical or horizontal. However, the user must be taught to understand that the activity on top (in vertical format) or the activity on the left (in horizontal format) is to be selected first. Visual schedules should be portable, especially when they are used in different locations and environments. Regardless of the style or format used to create a visual schedule, they are all used in similar ways.

Teaching the use of a visual schedule

Many individuals must be taught how to use a schedule. When first introduced, the instructor should have the learner place the visual schedule in close proximity to the environment or tasks to be performed so it can serve as a visual reminder. Over time, the visual schedule should be placed further away from the task or environment to decrease reliance and to facilitate independence. Typically, users begin by learning one task within a single environment (or setting) at a time. The task/environment to be taught may be in the form of a symbol, a word or both, and can be presented on a schedule strip, lined paper, electronically, etc. In order to teach the relationship between the schedule and the action to be completed, users should match the environment/task to the activity/skill. Matching typically occurs just before starting the task. Users may also place an icon on the back of the schedule strip immediately before beginning the task. For learners who can read, the item may be marked out after the task is finished.

The use of a visual schedule may be challenging at first. An instructor may help when necessary and praise the learner after checking the schedule and completion of an activity. However, assistance should be limited and faded out over time to increase independence. Once the user is able to complete a schedule that has one task/environment, more activities can be added, gradually increasing to as many as is appropriate for the individual learner. When two activities are listed, the user is taught to choose the first activity on the list.

Reinforcement

In order to obtain the best results, the learner must be reinforced after correct responses. Reinforcement can be given in many different forms. Common methods of reinforcement are verbal or social praise ("good job" or "way to go"), tangible or edible items (toys or candy), or sensory stimulations (spins or piggy back rides). It is important to note that reinforcing items vary from person to person. In order to use reinforcement properly, one must identify an individual's preferences in order to identify proper reinforcers to increase the likelihood of learning (Cooper, Heron, & Heward, 2007).

Token economy systems and visual schedules

A token economy system is a method in which a learner earns tokens for positive behavior. Earned tokens can be exchanged for desired rewards (e.g. activities, items or privileges), also referred to as reinforcers. Token systems are similar to visual schedules in that they require a pre-determined number of items to be completed by a learner to earn a reinforcer. In contrast, visual schedules require a task to be completed before earning the reinforcer. Stars, tokens, or dollars are only a few examples of what an individual may earn. The items earned are known as conditioned reinforcers. As they are paired with reinforcing things the learner understands that they symbolize reinforcement. A learner must earn a predetermined number of tokens before receiving the big reinforcer.

Token systems may be used to keep a person on task and can help to teach the learner how to follow a visual schedule. When using a token economy system to teach an individual to follow a visual schedule, the learner may earn one token after finishing one task. This is called a continuous schedule of reinforcement. Once the learner can independently follow one task on the visual schedule, the schedule of reinforcement may be gradually decreased. In a variable ratio schedule the learner may be reinforced after two correct responses, but next time they may be reinforced after three correct responses. An alternative to this is as a fixed ratio schedule where the expectation of correct responses is a set number (Cooper, Heron, & Heward, 2007).

Additional uses for token economy systems

Using a token economy system can help to increase appropriate behaviors and decrease unwanted behaviors as well. Token economy systems can be time-based. The user may receive a token for the absence of an undesirable behavior during a given amount of time or the completion of a pre-determined amount of work within a given amount of time.

Token economy systems may benefit individuals within the home, academic and vocational settings. In practice, they are easily implemented to increase attention, task performance and compliance, similar to what visual schedules provide.

Use of visual schedules

Schedules are useful in many different environments. When structuring downtime at home or within a school or vocational setting, schedules may be used to list the various activities that must be completed. An example of this type of schedule is a "task bin" system. This system helps to increase independence and provide structure during downtime. Activities included in each task bin should be ones that the learner is able to complete independently. In order to use this system, the instructor shows the learner a schedule of completed activities, which are listed in picture form, written word, or any symbol that can be matched to the activity. The schedule should indicate the order in which the tasks are to be performed. The individual begins by checking the schedule and matching the icon to the corresponding activity. After finishing the first activity, the individual checks the schedule again to see what should be done next. The schedule is followed until each activity is completed.

Another use of a visual schedule is to show the steps of a behavior chain. A behavior chain is a skill that has many different steps which must be done together to achieve one final task. When teaching a behavior chain for a skill like washing dishes, each step is broken down and shown to the learner for them to follow while working on the task. The learner starts with the first step of the chain, completes it and moves on to the second step of the chain, etc. This method of teaching a skill has been shown to increase independence. Using a visual schedule also helps to ensure that the skill is practiced the same way every time. By following the steps in order, the response expectation is clear.

When structuring downtime, a schedule may list various locations that the individual may be required to go to perform a task. An example of this is an individual's nightly routine at home; a schedule may give the user information that provides direction regarding the different rooms he or she must go to in order to complete the routine. Visual schedules used when going to different environments can also increase the chance of an individual's ability to transition appropriately (Mesibov, Browder, & Kirkland, 2002). Depending on the learner's level, schedules may be broad or more specific in detail. Daily schedules across environments may give the user information as to what room(s) he or she is required to go to. Learners who need more detail may use a schedule that states when it is time to stand up, walk to a given location, and sit down.

References

Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). Applied Behavior Analysis (2nd Ed).

Upper Saddle River, NJ: Merrill/Prentice Hall.

Mesibov, G. B., Browder, D. M., & Kirkland, C. (2002).

Using individualized schedules as a component of positive behavior support for students with developmental disabilities. Journal of Positive Behavior Interventions, 4(2), 73-79.