APSE Connections
ADVANCING EMPLOYMENT. CONNECTING PEOPLE.

Lights, Camera, Action - Part I

The Use of Video-based Supports and iPods in Employment Settings

By Toni Van Laarhoven, Traci Van Laarhoven-Myers, Edward Cancio & Anna Brady

It's important for working-age youth and adults to be gainfully employed in order to lead happy, healthy, self-sufficient lives. Supporting oneself through earned wages and benefits is the goal of most adults, and achieving this milestone typically signifies adulthood or "living in the real world."

Individuals with disabilities, particularly those with significant needs, are no exception. Indeed, the Employment First initiatives indicate that employment is the first priority and preferred outcome of persons with disabilities, with integrated, competitive employment options being the ultimate vocational outcome (Niemiec, Lavin, & Owens, 2009).

Because some individuals require supports to learn job-related tasks and sustain employment, different strategies for providing supports are frequently used in the field. These may include visual or auditory supports, task lists, alarms, environmental adaptations, workload accommodations, or the use of other assistive devices.

Many of these supports can be reduced once the employee learns the job tasks. Some supports may become permanent, especially if they are universally designed supports that are helpful to all employees at a work site. As a result, it's beneficial to establish and arrange supports that have universal appeal to most employees.

Video-based Supports

One relatively new strategy for supporting learners on the job involves the use of video-based supports — either presented on computers, portable DVD players, or mobile devices such as iPods and cell phones. Mobile devices are desirable because they're portable, relatively inexpensive, and used frequently among individuals with disabilities — which makes their use socially acceptable and reinforcing.

The purpose of this two-part article is to provide an overview of different strategies for supporting learners through video-based supports — whether they are presented as a rehearsal strategy (prior to going to work), or as a support used to prompt task completion in employment settings (through the use of iPods or other portable devices).

Self-management Strategies

One of the primary goals of vocational programming is to assist individuals in performing job-related tasks as independently as possible so they can become competitively employment and sustain employment while limiting their reliance on other personnel (Lancioni & O'Reilly, 2001).

Several researchers have demonstrated the effectiveness of using visual supports, such as pictures, to support learners on the job (Copeland & Hughes, 2000; Fisher, 1984; Martin, Mithaug, & Burger, 1990; Martin, Mithaug & Frazier, 1992; Wacker & Berg, 1983), while others have demonstrated the effectiveness of using picture and/or auditory supports presented on handheld devices for promoting self-management among learners with intellectual disabilities in vocational settings (Cihak, Kessler, & Alberto, 2007; Cihak, Kessler, & Alberto, 2008; Davies, Stock, & Wehmeyer, 2002a; 2002b; Furniss, et al., 2001; Riffel, et al., 2005; Spence-Cochran & Pearl, 2009).

The use of handheld mobile technologies, when used as prompting systems, are effective for promoting independence and time management among individuals with disabilities. They are also effective in reducing reliance on staff during task engagement.

For example, in a recent study, Spence-Cochran and Pearl (2009) compared the effectiveness of visual and auditory prompts delivered on a handheld device versus modeling of tasks presented by staff. Although both interventions were effective at increasing learners' independent performance, all participants required fewer prompts from staff *when they used the handheld device*. This suggests that

the use of technology to support individuals with disabilities has the potential to increase their level of independence and decrease reliance on staff in employment settings.

Although portable handheld devices appear to be useful for instructing individuals with disabilities, much of the research to date has focused primarily on the presentation of photos, auditory prompts, and cueing systems (vibration or alarms) with these devices. This is unfortunate considering that recent research has indicated that video-based instruction may be more effective and efficient than picture-prompting strategies when teaching functional skills to individuals with autism and/or developmental disabilities (Mechling & Gustafson, 2008, 2009; Van Laarhoven, Chandler, McNamara, & Zurita, 2009; Van Laarhoven, Kraus, Karpman, Nizzi, & Valentino, in press).

The remainder of this article — and its conclusion next month — will focus mainly on how video-based supports can be used in employment settings.

Types of Video-based Supports

❖ ***Video modeling*** refers to an instructional approach in which learners view an entire video-skill sequence prior to engaging in a task. This has also been referred to as "video priming" (Schreibman, Whalen, & Stahmer, 2000) or "video rehearsal" (Van Laarhoven & Van Laarhoven-Myers, 2006). Video modeling involves having the learner view the entire skill sequence prior to engaging in the task. Learners can review a video of their work tasks at home or school prior to going to work, or they can review a video model of the entire sequence prior to engaging in each task while in the employment setting.

For example, Van Laarhoven, Van Laarhoven-Myers, and Zurita (2007) used video modeling presented on a Pocket PC to support two young men with intellectual disabilities who were completing job-related tasks in community-based employment settings. One of the young men worked at Applebee's. One of his tasks required him to portion vegetables for different dishes. Each of the portioning recipes had subtle differences (e.g., different baggies used, different weights, etc.). Viewing how to portion each recipe through a video model prior to engaging in the tasks helped this individual immensely.

He often became confused with specific details when switching recipes, which resulted in frequent errors and increased assistance from his supervisor. However, as soon as he began viewing videos of each recipe prior to portioning them, his independent correct performance increased considerably. The other young man worked at Red Robin and had similar results. However, in some cases, tasks were too complex to use video modeling. In other words, in some instances the tasks may be too difficult for some individuals to remember all of the steps in the skill sequence. In these cases, video prompting may be more beneficial.

❖ ***Video prompting*** is an instructional approach that involves showing each step or *chunk* in a skill sequence on video — followed immediately by engagement with the particular task step (Cannella-Malone, et al., 2006; Mechling, Gast, & Fields, 2008; Mechling & Gustafson, 2008; Mecling, Gast, & Seid, 2009; Sigafoos et al., 2005; 2007; Van Laarhoven, Johnson, Van Laarhoven-Myers, Grider, & Grider, 2009).

This type of prompting requires learners to have access to a television, computer, iPod, portable DVD player, cell phone or other mobile device in the environment where the skill is being practiced. This enables the learner to watch a clip, perform the step, and then return to the device to complete the remainder of the steps.

Mobile devices such as iPods are particularly useful when video supports are provided in community environments. For example, Van Laarhoven, et al., (2009) worked with a young man who was employed at a pet shelter. He had several complex tasks to complete, such as cleaning the public bathrooms, mopping floors, and cleaning kennels. Prior to receiving video-prompting supports on an iPod, he required a great deal of prompting to complete the tasks and relied on the support of a job coach.

However, as soon as he began using a video iPod to prompt steps in his skill sequences, his independent correct responding increased immediately, and his reliance on his job coach decreased dramatically. In addition to using video prompting for this young man, the authors also used error correction video feedback to correct errors. ■

NEXT MONTH: Error correction video feedback, self-evaluation video feedback, and fading supports will be discussed.

Toni Van Laarhoven is an associate professor at Northern Illinois University; Traci Van Laarhoven is a vocational coordinator for Indian Prairie School District #204; Edward Cancio is an assistant professor at the University of Toledo; Anna Brady is a research assistant at Northern Illinois University and a special education teacher for Bi-County Special Education Cooperative. References for this article can be found on the Wiki - http://denali.cedu.niu.edu/groups/videosupportsipods.