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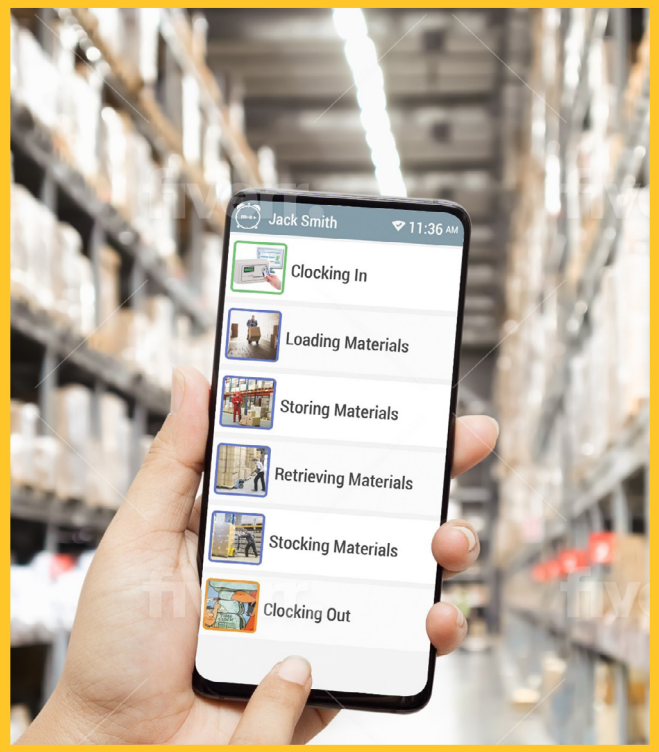
Why and How Electronic Job Coaches Improve Employment for People with Disabilities [English and Spanish versions]

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Why and How Electronic Job Coaches Improve Employment for People with Disabilities

Takeaways

- + Policies that aim to improve the competitive integrated employment (CIE) of people with disabilities cannot be realized without effective and efficient job supports.
- + People with intellectual disabilities (ID) thrive with and prefer electronic job coaches that guide them through tasks needed for successful employment outcomes over outdated job supports like laminated binders.
- + Job coaches and supervisors do not have the time for labor intensive, individualized and job specific instructional prompts and may not have the skills required to develop clear, accurate task analysis.
- + An electronic job coach solution was developed and tested that empowers providers with an efficient, logical task analysis method. This job coach simplifies the process of creating step-by-step working assignments for employees with ID, and allows providers to customize the level of detail and type of interaction offered to the employee.
- + Research showed that this electronic tool reduced the time spent by a job coach with each person with ID by 32 hours, and that 92% of the people with ID surveyed reported increased enjoyment and engagement at work when using the app.



“ A central problem for employment supports is that “hands-on” and on-site job supporters do not have the time and may not be proficient at making clear and accurate instructional prompts for multiple workers, who have different needs, in different settings. Coaches and supervisors need tools that can help them effectively and efficiently build, record, and adjust prompts and instructions as changes occur in real-time.

The Story Behind Developing an Electronic Job Coach Application

Even though the 2014 Workforce Innovation and Opportunities Act strengthens federal and state commitments to employing people with disabilities, there remain millions of Americans with mild to moderate intellectual disabilities (ID) who are still unemployed.

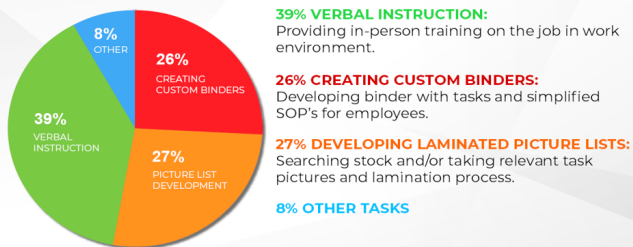
- + To succeed in competitive employment, workers with ID require help with memory, task sequence and planning, and time management; skills that are often referred to as

executive functioning. Typically, employers do not have the training to manage people with ID with these challenges. This task falls to job coaches, job developers or employment specialists (e.g., providers) and the agencies that provide such services.

- + Without effective and efficient tools to support the executive functioning of individuals with ID, policies that aim to affect their competitive integrated employment can result in an unmanageable burden on the provider.
- + Today’s jobs are more complex. Providers need tools that can help them effectively and efficiently build, record and adjust prompts and instructions as changes occur in real-time. However, they may not have the time and/or the skills required to make clear, accurate instructional prompts for multiple workers with ID in different settings.

Traditional approaches to supporting workers with ID are time consuming and less effective

JOB COACH RESPONSIBILITIES PER PERSON SERVED WITHOUT ASSISTIVE TECHNOLOGY



Prior Research Confirmed that Electronic Job Coach Apps are a Better Solution

Prior research has confirmed that workers with ID thrive with—and prefer—electronic coach apps that deliver the instructional prompts over onsite “helicopter supervision”. The benefits of these coaching technologies have been demonstrated in multiple research projects^{1,2,3}. Workers simply run the instructional coaching app on their phone or mobile device that they either carry with them or strap on their arm for hands-free instruction. A common approach in these electronic coaches is that the changes in

the environment or in the worker’s action are synchronized with the app to advance to the next instructional prompt. In this way, the instructional prompts guide the worker through each step of their scheduled tasks.

The Quest to Build an Improved Electronic Job Coach App

CreateAbility Concepts, Inc. received federal funding from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) through two small business innovation grants to conduct research in this area.

To identify the needs of employers, providers, and workers with ID, the CreateAbility research team collected data from supervisors, employers and providers of employment services to workers with ID. These interviews were used to determine the requirements of an ideal system that would help them better instruct, coach, track progress and manage teams of employees with ID. Providers were asked to report on the main challenges they face when supporting workers with ID. Results are displayed in **Figure 1**.

Figure 1: Executive Functioning Challenges Experienced by Individuals with ID at Work.



Additional research asked supervisors and coaches to prioritize a list of features and functions they would like to see in an electronic coach. The results from 42 respondents are displayed in **Table 1** on the following page.

Table 1: Ranked priority of Top Features and Functions of an Electronic Coach (N = 42 supervisors / employers)

Ranked Priority	Top Features and Functions
1	Track productivity
2	Detect and re-direct off-track employees
3	Build consensus with staff
4	Generate reports and documentation
5	Find similar example to leverage
6	Modify slightly and re-use
7	Re-order instruction sequence
8	Change prompt delivery method

The research also included a survey of 33 workers with ID to determine the requirements of the ideal system that would help them to complete their assigned tasks. Results are in **Table 2**, which can be seen below.

Table 2: Ranked priority of Top Features and Functions (N = 33 workers with ID)

Ranked Priority	Top Features and Functions
1	Help me remember what to do next.
2	Tell [e.g., remind] me where to go next.
3	Tell my boss I'm doing good.
4	Tell me if my boss is looking for me.
5	Tell me before I run out of _____. [e.g., of supplies / materials]
6	Count how many _____ I did. [e.g., units completed]
7	Be quiet sometimes. [e.g., prompt when needed]
8	Help me know if I'm behind. [e.g., too slow / late]

The research identified a problem: **Coaches and supervisors need tools that can help them effectively and efficiently build, record, and adjust prompts and instructions for each individual person as changes occur in real-time.**

Research was done to identify the specifics of this new electronic coaching tool for coaches and supervisors. The app was refined, and in-depth lab and workplace evaluations were conducted to assess the impact of the app with both supervisors and their employees with ID.

Devising an Electronic Job Coach Based on Research Results

“WhenWear Advisor” is a cloud-based interactive electronic job coaching app that was developed for providers based on the research conducted by CreateAbility. Using this app providers can efficiently convert work assignments into the essential details required by the mobile worker with ID, and then wirelessly transfer the appropriate instructions to the targeted worker’s electronic coach. It empowers providers with an efficient, logical task analysis method that simplifies the process of creating step-by-step working assignments for employees with ID by:

- + **Tracking productivity in real-time.** This includes timestamps as tasks are completed and notifications when tasks are not completed by a specific time. The app enables supervisors, employers, and providers to track the employee’s task completion remotely, via a web-based dashboard.
- + **Automatically promoting fading techniques** or gradually reducing the frequency of prompts for tasks to reduce reliance on supports.

WhenWear Advisor offers multiple options to make task creation easy for providers:

1. **Task library** with 200+ pre-programmed generic common tasks that providers can choose from (which can then be modified if needed), e.g.:
 - + **Custodial:** sweeping, mopping, making beds, cleaning restrooms, kitchen maintenance, etc.
 - + **Foodservice:** customer service, refilling condiments, cleaning tables, trash maintenance

- 2. **A Private repository** for tasks that are specific/ proprietary to a single agency, provider, or corporation (i.e., McDonald’s, Walmart, Panera Bread, etc.)
- 3. **A platform for creating custom tasks** for any tasks not found in the public or private repository. Providers can “create a new task”, name the task, and record instructions on their phone or tablet.
- + **Optimizing the task search process** by enabling the provider to enter a minimal set of information to describe the work to be accomplished and then let the automatic capabilities of the system find the best match in the library—or generate a template that they can follow to create a new set of instructional prompts. Providers can use the app, at any time, to deliver tasks to the employee with ID using the format that works best for the employee.

WhenWear Advisor is Customizable Based Upon the Employee’s Need

It can help employees with ID:

- + Work more confidently without immediate supervision
- + Stay on task with task alerts
- + Receive customized task instructions relevant to the work environment/job requirements
- + Utilize different task instruction types to “fade” into less reliance on their device



See WhenWear Advisor in Action

**Now Let’s Watch
WhenWear Advisor in Action**

Presented by Steve Sutter
Study Principal Investigator,
President and CEO at CreateAbility
Concepts, Inc.

Watch [the video](#) on the CeKTER YouTube channel to see how WhenWear works.

This Research-Based App Is Beneficial for Everyone Involved

WhenWear Advisor Empowers Providers by:

- + Tracking productivity in real-time — enabling job coaches to track the employee’s task completion remotely, via a web-based dashboard.
- + Automatically promoting fading techniques to reduce reliance on supports.

WhenWear Advisor Simplifies Job Placement for Providers:

- + Employers appreciated that employees require less supervision and made fewer errors
- + Employees like the increased independence and flexibility
- + Job coaches fade faster (due to the extensive library of examples, task analysis, and remote monitoring) and gain back time lost to outdated support systems

WhenWear Advisor: Benefits to the Job Coach

The app was validated as a platform for helping coaches and providers create work assignments more independently with less assistance and with fewer errors (as compared to current methods), thereby enabling employees with ID to correctly accomplish work-related tasks.

- + Providers experienced an average of 32-hours' time reduction per person served because of:
 - + A 44% combined reduction in time spent developing and maintaining binders/ picture lists.
 - + A 45% combined reduction in verbal instruction needed, and time spent resolving training issues.
 - + A 12% saving because of reducing unnecessary travel to the employer locations to resolve the employee issues including memory and sequencing problems.
 - + An 11% reduction in time spent doing additional support tasks, such as verifying that the work is been performed correctly, and with the proper quality. (because of the picture verification feature).
- + Employers and providers can proceed with hiring people with ID, without the need for special training in task analysis and chaining. Providers were able to increase the length of time of employees were on-the-job which enabled them to increase reimbursements from 38% to 62%.
- + Providers can fade more quickly with an app, enabling them to focus on bringing new employees up to speed.
- + Employers were more receptive to hiring additional employees with intellectual disabilities with the use of an app.



Benefits of WhenWear Advisor for the Worker with ID:

- + 99 of the 121 persons-served in the study (82%) adopted the use of their app as their preferred form of job coaching.
- + 112 (92%) felt that they had an increased level of enjoyment and engagement at work with using the app.
- + Those who preferred the app as their primary form of job coaching used it an average of 87% of the time that they spent in the workplace.
- + Workers with ID had increased feelings of independence and less anxiety about their work because they had their coach (app) with them all the time.



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For More Information

“WhenWear Advisor” is now commercially available as MeMinder. For more information and to get the MeMinder App visit: <https://www.createabilityinc.com/the-employment-suite>

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