

Assistive Technology for Workplace Training in a School Classroom - Case Example

Charles E Eberle, OTS – Creighton University
Carol DeValle, OTR/L – Anchorage School District

BACKGROUND

Supported Employment (SE) is a federally mandated program enacted by the Rehabilitation Act of 1973, that blends resources to provide support services for individuals with disabilities to be successful in a competitive work environment. Supports can include training, job coaching, and direct 1:1 assistance.

Under the Individuals with Disabilities Education Act (IDEA), public schools are required to provide students who have an individualized education plan (IEP) with transitional planning, which may include career education, skills training, and job sampling.

In the school setting, Occupational Therapists (OTs) work as part of a collaborative team to support academic and non-academic skills for students with disabilities. Specific interventions may include performing environmental assessments to remove barriers and provide Assistive Technology (AT) to support student success.

An AT device is any item, piece of equipment, or product system used to increase, maintain, or improve the functional capabilities of an individual with disabilities. An important role of an OT is to make specific recommendations for the most appropriate AT that will facilitate improvement to an individual's ability to complete functional tasks.

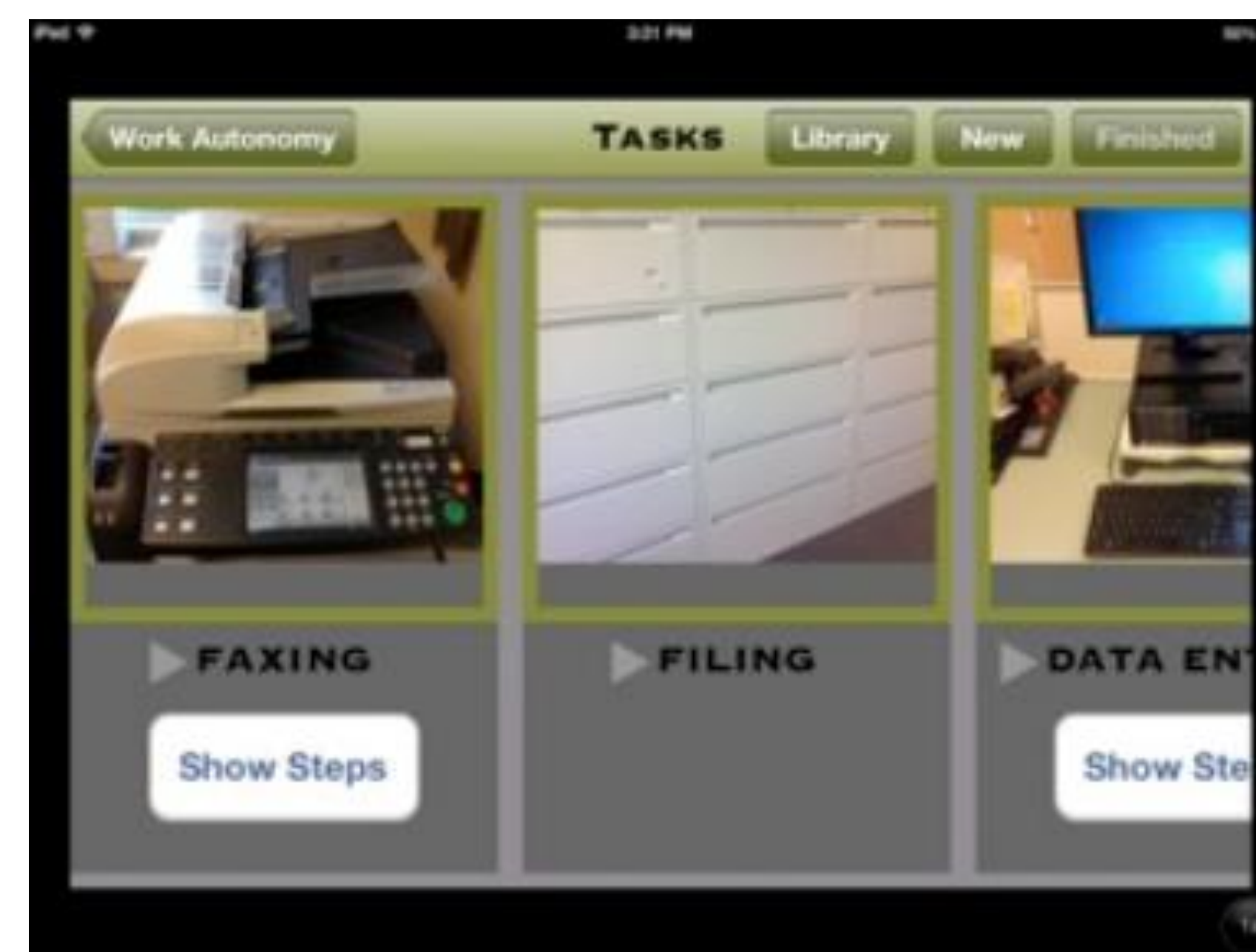
The AT used in this case example is an application produced by an organization named Able Opportunities Inc. The organization's rationale for the utility of the Work Autonomy (WA) app is that as it allows users to capture, customize, and edit steps for completing any task. By allowing users to fully customize task cues has the potential to provide individuals with increased ownership, self-efficacy, and independence. Additionally, this may help individuals perform tasks with less need for external prompting and cues from a job coach or personal assistant.

Research Question

How can Assistive Technology support workplace training in the high school setting, and what is the potential role of Occupational Therapy?

CLIENT HISTORY

- Client is an 18-year old male student enrolled in a local high school with an IEP secondary to multiple diagnoses including cognitive impairment, autism (ASD), and ADHD.
- Client factors include difficulty with visual processing, working memory, attention, and verbal communication.
- Student's day consists of travelling throughout the school attending general education classes as well as classes in the supportive "life skills" setting.
- Student goal includes obtaining a job after graduation. During identified periods of the day, the student participates in "coffee-shop" barista role, crafting coffee orders for select staff members and students.

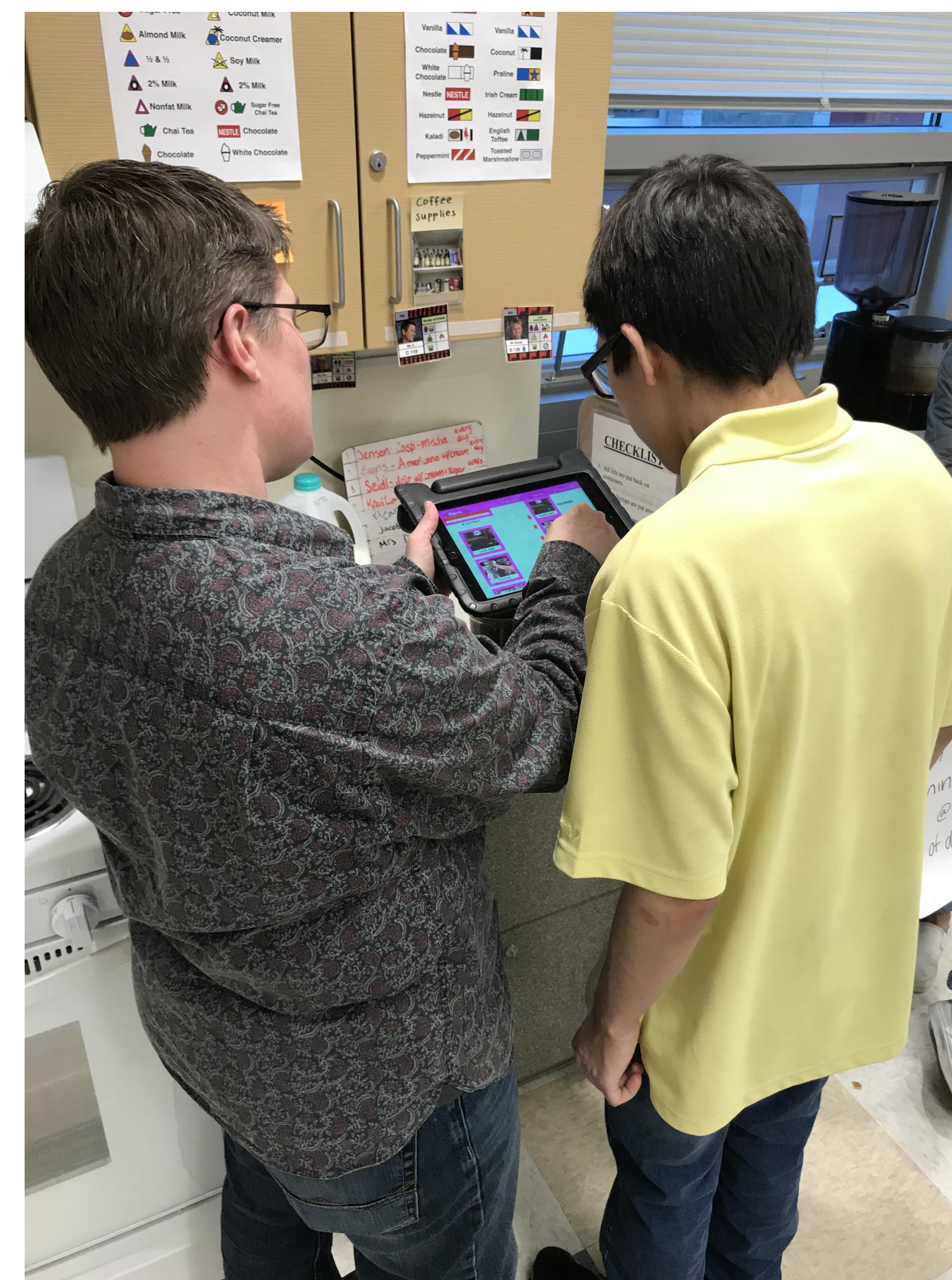


METHODS

- Qualitative case study
- Participants: Individual (1) student with mild-moderate intellectual disability (ID)
- Design: Direct observation and semi-structured interviews with individual student and support staff.
- Author of this study performed client training, using graded cues to facilitate the use of the WA app in assisting with student goal of independently producing coffee drinks with professional barista equipment.

ASSISTIVE TECHNOLOGY USED

- Device: Apple® iPad
- Application Software: Work Autonomy, created by Able Opportunities, Inc.
- Application Purpose: Person-centered communication tool with a design focus on empowering the user to program and track concrete information about tasks. This includes the ability to utilize the camera on the iPad device to capture images or video for each task and includes the capability to describe the step with recorded audio or text.



RESULTS

- When asked a question regarding his perception of his current performance level, the student indicated he was "happy" with the APP support and "wants to get a job because he is 18" (years old).
- Direct support staff was interviewed, stating that the student demonstrated functional use of the app software, but required verbal cues to continue relying on the app for visual reminders to complete each step. When not utilizing the app, his performance reflected approximately 80% accuracy when completing each task from memory.

BOTTOM LINE FOR OT

Training individual students to use the WA app to support workplace training is inherently client-centered in that it allows the user to create custom task-supports to support client goals. This has the potential to compensate for client-factors that interfere with functional completion of work-related tasks such as difficulties with memory, attention, sequencing, and receptive communication. It has the potential to decrease the burden on in-class teacher/aide supports and provides opportunity for carryover to different settings due to its portability.

Skilled OT services may be appropriate in order to assist with training for individuals and staff to successfully utilize equipment to meet student and IEP goals. OT's role can also be to advocate and perform environmental analyses to ensure that AT such as the WA app is used in a way that best supports the student. OT may be recommended to identify and eliminate physical or perceived barriers to access and training for individuals and support staff alike.

STUDY LIMITATIONS

Limitations include a lack of standardized measure to assess client/school staff perceptions regarding the use of AT. Study would benefit from an increased sample size and outcome data to determine use or abandonment of the software post-transition to work.

Due to school closure secondary to Covid-19 outbreak in March, 2020, student and direct service staff were not accessible to provide meaningful outcome data post-intervention.

REFERENCES

- Able Opportunities Inc. (n.d.) Work Autonomy: A Person-Centered Accommodation Tool [powerpoint slides]. Retrieved from <https://www.ableopps.com/work-autonomy>
- American Printing House for the Blind. (n.d.). *What Parents Need to Know About Supported Employment for Individuals with Multiple Disabilities*. Retrieved March 4, 2020, from <https://www.familyconnect.org/info/multiple-disabilities/the-future-starts-now/supported-employment/135>
- Goodrich, B. & Garza, E. (2015) *The Role of Occupational Therapy in Providing Assistive Technology Devices and Services*. The American Occupational Therapy Association Inc. <https://www.aota.org/About-Occupational-Therapy/Professionals/RDP/assistive-technology.aspx>
- Lee, A. M. I. (2019, October 18). IEP Transition Planning: Preparing for Young Adulthood. Retrieved from <https://www.understood.org/en/school-learning/special-services/ieps/iep-transition-planning-preparing-for-young-adulthood>