"That Smart Pen Sounded Like it Could Be Pretty Helpful:”

A Thematic Analysis on Using Wireless Technology in the Workplace

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The poster is organized in three columns.

Column 1 Logo; A Blue and Black Logo of Wireless Inclusive RERC

Column 1 Heading 1; Abstract

* Employment is a major part of an adult’s identity and plays a significant role in creating a stable life environment (Chen, 2015).
* Individuals with intellectual or developmental disabilities (IDD) are not an exception.

* Employment creates many of the same benefits for adults with IDD as it does for other working adults like improving perceived self-worth, accessing independent living, and creating social partnerships (Cavkaytar, 2017).

Image of a hand shake of a white hand with Blue coat sleeve and a brown hand with green coat sleeve

* As adults with IDD enter or remain in the workforce they may desire support in order to enhance their success at their place of employment (Arthanat, 2016).
* Workplace support for adults with IDD can differ dramatically depending on the needs of the employee but may include services like increased supervision, accommodations (e.g. larger font, flexible breaks, a service animal), or assistive technology (AT) (Butterworth, 2015).

Image of a phone with a spin wheel on the screen and a sign of a wireless band above the phone.

Heading 2; Background

What is Competitive Integrated Employment (CIE)?

CIE is work performed by a person with disability within an integrated setting. Wages are at least minimum wage or higher and at a rate comparable to workers without disabilities performing the same tasks.

Why is CIE Important?

Competitive integrated employment positions provide *customized* employment and workplace support to meet the specific abilities of the individual with a disability as well as the business needs of the employer.

Research Question:

Can the use of wireless or wearable technologies facilitate competitive integrated employment for individuals with intellectual and developmental disabilities? What type of technology is being used? Is this technology accessible?

Column 2 Heading; Research Methodology

Column 2 divided into 5 sections with different Headings in alternating blue and white background with a spiral line of alternating bold and dotted lines joining the numbers of each section, numbers in alternating blue and red colors.

Column 2, Section 1; Heading; Determine Inclusion Criteria

* Adult with an Intellectual and Developmental Disability
* A family member to an adult with IDD
* A Vocational Rehabilitation Counselor
* A Certified Job Coach
* A Transition Coordinator
* Other Disability Service Provider

Column 2 , Section 1; Image

Left side has an image of a Light Bulb and checked boxes in blue with red checked marks to the left of the Light Bulb with connecting lines between Checked Boxes and the Light Bulb

Column 2, Section 2, Heading; Create Semi-structured Interview Questions

1. Thinking about your work and career, what are some wireless technologies or wearables that you use as part of your employment?
2. What are some barriers or challenges you have experienced with using wireless technologies or wearables in the workplace?
3. What type of assistance (if any) might be helpful for you to use wireless technologies or wearables in the workplace?
4. If you have used wireless technology or wearables in the workplace, which ones were most helpful? Are there other technologies that you think might be helpful in supporting competitive integrated employment?

Column 2; Section 2, Image on the left side is of 3 unidentified mannequins, the 2 on the sides are red in color and the central one is white with dotted lined arrows above their heads and spin wheels above each one also in alternating red and white color

Column2, Section 3, Heading; Conduct Focus Group Interviews

* 3 focus groups (n=3); 90 Minutes Each
* 13 participants in total
* 10 individuals identifying as having disabilities
* 40% currently employed
* 3 parents or caregivers of individuals with disabilities
* Audio recorded each session for transcription

Column2, Section 3, Image to the left of 2 unidentified blue mannequins wearing red ties with a dotted line between the 2 leading up to a rectangular yellow bubble containing 3 images within it to the left is an image of a play sign in red, in the middle is a blue phone image and to the right is an image of a white open book.

Column 2, Section 4; Heading: Qualitative Research Design

* Thematic analysis
* Line-by-line coding
* Determining themes
* Analysis tool: NVIVO 12

Column 2, Section 4; Image of an external white colored cuboid and green internal colored surfaces having 6 radiating arrows from corners

Column 2, Section 5; Use Findings to Inform Research

1. Findings from analysis help inform research and policies around competitive integrated employment
2. Provides information about using technology in the workplace
3. Data tells the story about individuals with disabilities using technology as a support in the workplace
4. Increased percentage of individuals with a disability in the workforce

Column 2, Section 5; Image of 3 unidentified mannequins facing a male mannequin standing by a green board with a white play sign with a pointing stick in his hand pointing at the green board.

Column 3;

Column 3 Logo; A Blue and Grey Logo of Georgia State University, Center for Leadership in Disability.

Column 3 is divided into 3 sections

Column 3, Heading; Findings

Column 3, Section 1; Table Heading; Common themes from focus group sessions

Theme: Challenges + Barriers to using technology in the workplace

Breaking / No longer working

Technology not allowed / Not supported in the workplace

WiFi connection slow or not working

Not sure how to use technology

Privacy concerns

Theme: Assistance with using technology

Assistance from Family/ Caregiver

Assistance Tech Support

Assistance from someone at work

Self-Assist

Theme: How would you classify yourself?

Tech Savvy

Some tech know-how

Infrequent user of tech

Theme: Type of Technology Used in workplace

Wireless Technology examples

Uses of tech in the workplace

Wearable technology examples

Column 3, Section 2;

Column 3, Section 2, Heading; Figures 1 to 10: Quotes from focus group participants

Figure 1 Quote; Electronic pens can work in hospitals with patients that have multiple symptoms, disorders, that can help in the hospitals and in the workplace.

Figure 1 is pale Pink in color with a faint superimposed image of a light bulb at the lower left corner.

Figure 2 Quote; Which puts some people at a great disadvantage where they could be a better worker if they could utilize it.

Figure 2 is pale peach in color with a faint superimposed image of 2 happy face masks at the lower left corner.

Figure 3 Quote; I'm thinking employers, some of them being willing and understanding of the need for these things so that people are able to do their best job and are being supported.

Figure 3 is pale orange in color with a faint superimposed image of 2 unidentified mannequins shaking hands at the left corner.

Figure 4 Quote; Depending on the level of their disability or comprehension, some of the things [are hard to understand]... I don't have a disability, but I'm confused.

Figure 4 is peach colored with a faint superimposed image of a human brain at the left corner.

Figure 5 Quote; Bose has the noise canceling headphones or the noise busters. [It can] tune out all the noise around you so that people can work and not deal with distractions.

Figure 5 is Pink in color with a faint superimposed image of an unidentified mannequin holding an open book.

Figure 6 Quote; Just like identity theft and all that kind of stuff, it can happen to an individual with special needs as well.

Figure 6 is pale pink in color with a faint superimposed image of a male mannequin lifting weight above his head.

Figure 7 Quote; I can be hired but I still need this device because it's part of my life.

Figure 7 is Red colored with a faint superimposed image of a hand shake.

Figure 8 Quote; That's $75 for the whole month, so cost.

Figure 8 is Peach Colored with a faint superimposed image of an unidentified mannequin with a thinking blub above and to the right of his head in the right corner.

Figure 9 Quote; [I use technology] probably 50% of the time.

Figure 9 is pale Orange colored with a faint superimposed image of the world in the lower mid-section.

Figure 10 Quote; I'm technically savvy.

Figure 10 is Pink colored with a faint superimposed image of the head of an unidentified mannequin wearing a graduation hat at the right hand corner.

Column 3, Section 3, Heading; Conclusions

One method of support that can facilitate and maintain successful employment is assistive technology.

Where do we go from here?

Educate and influence fiscal dollars

Support development of new technologies

Increase awareness surrounding technology in the workplace

Improve access and use of wireless technologies

Footnote;

Footnote is in 3 columns

Column 1, Logo; A Blue and Grey Logo of 10 years Anniversary Center for Leadership in Disability.Inclusion, Innovation, Impact

Column 2,

NOTE: The contents of this poster were developed under a grant from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant number 90RE5025).  NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS). The contents of this poster do not necessarily represent the policy of NIDILRR, ACL, HHS, and you should not assume endorsement by the Federal Government.

Column 3, Heading; References

1. Arthanat, Sajay., Lesner, Kasey., Sundar, Vidya. (2016). An evaluation framework to measure usability of assistive technology at workplace: A demonstration study. Journal of Vocational Rehabiliation. 44. 213-226.
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