Using Google Glass Technology with Young Adults with Intellectual Disabilities

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Introduction

Google Glass is a new technology launched in March 2012. It is an augmented reality head-mounted display that projects an image onto the eye. This technology is in beta testing and research is underway to evaluate its performance. To date, little research has been conducted using this technology and no study has been conducted using this technology specifically with individuals with intellectual disabilities (ID). The purpose of this study was to determine how young adults with ID orient to using this new technology and its unique features.

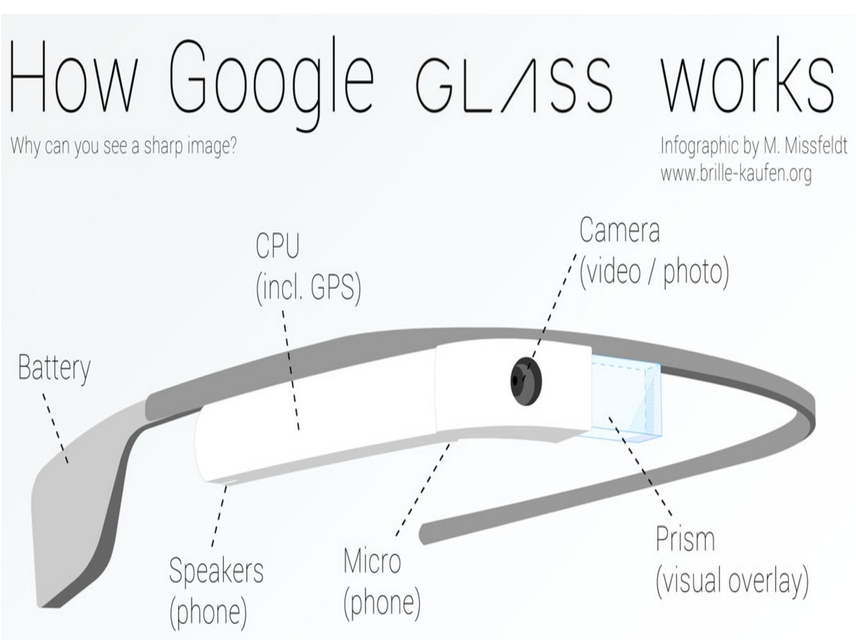
Setting and Participants

Rural accredited university and surrounding community located in southeastern United States

- ✧ 3 young adults with mild to moderate ID
- ✧ Carla: 20 year old Caucasian female with mild ID
- ✧ Trent: 19 year old Caucasian male with moderate ID
- ✧ Mariah: 20 year old Caucasian female with mild ID
- ✧ All lived and participated in a fully inclusive postsecondary program for young adults with ID

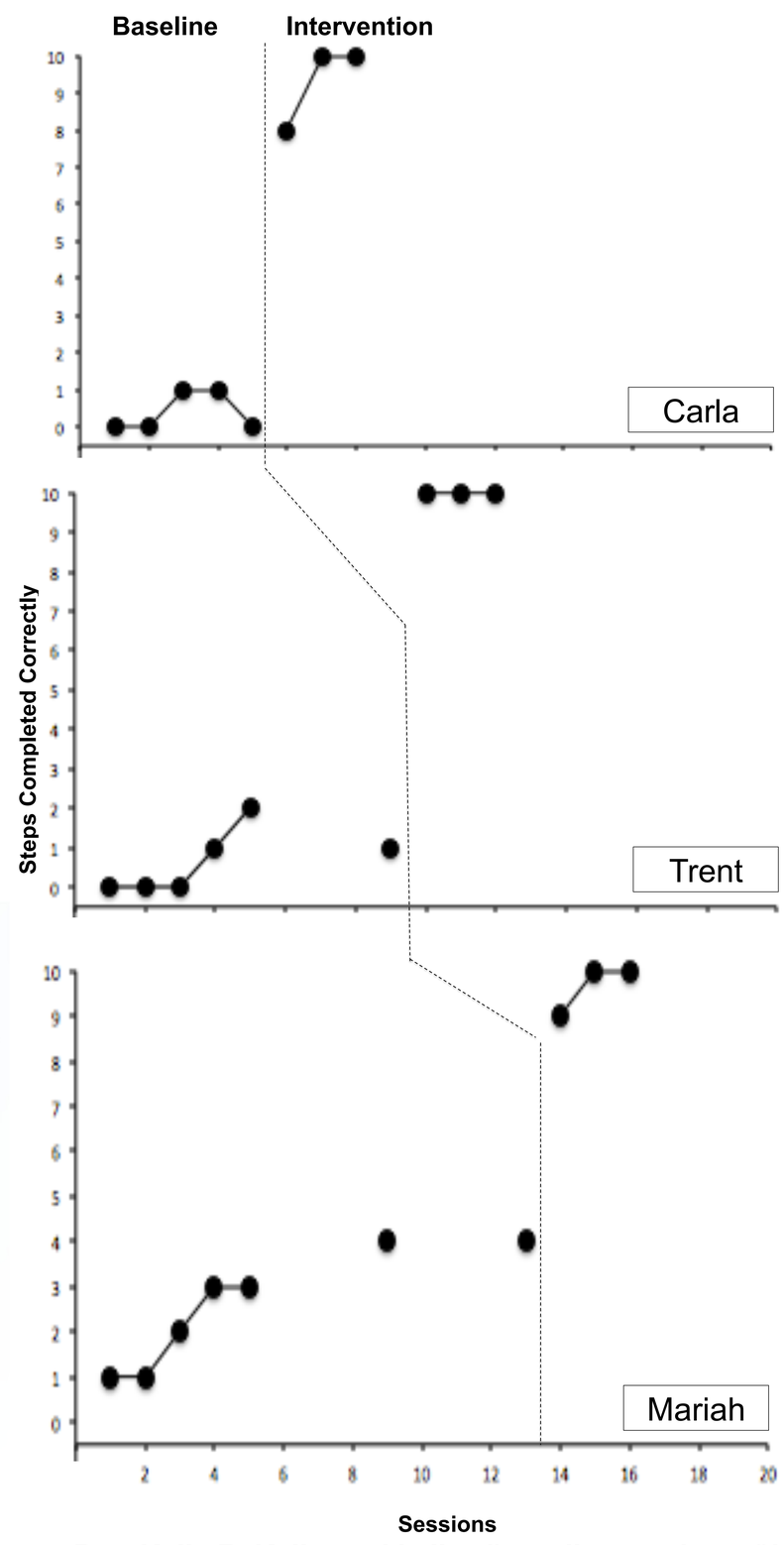
Design

A multiple probe across participants design was used to evaluate the Google Glass orientation collected during baseline and after implementing systematic instruction.



GLASS

Results



Steps Taught Using Google Glass

- ✧ Powering device on
- ✧ Waking up device when asleep (Ok Glass)
- ✧ Navigating timeline with a forward swipe
- ✧ Navigating timeline with a backward swipe
- ✧ Taking a photo with a voice command (Take a picture)
- ✧ Sharing a photo with a contact through a voice command (Ok Glass, Send this to…)
- ✧ Accessing a photo on the timeline using the trackpad
- ✧ Swiping down to exit a timeline and go to main menu
- ✧ Using a voice command through Google to determine today's weather
- ✧ Powering device off and charging

Discussion

- ✧ A functional relation was established between the explicit instruction and student performance with Google Glass orientation.
- ✧ Social validity indicated agree or strongly agree on all six questions based on a 5-pt Likert scale.
- ✧ Participants indicated they liked using the Google Glass specifically with internet, taking pictures, and when Glass talked to them.

Future Research and Implications for Practice

- ✧ Pair Google Glass with daily living tasks for increased independence and technology support
- ✧ Secure Google Glass set up based on participant needs (e.g., speech detection, visual acuity, user accounts)
- ✧ Provides evidence that direct and systematic instruction may be needed to teach mobile/wearable technology skills

Limitations

- ✧ Cost and expense of Google Glass
- ✧ Limited wifi access and firewall blocks
- ✧ Limited software due to beta testing
- ✧ Overheating of Google Glass
- ✧ Frequent charging needed for long term use
- ✧ Set up time for bluetooth and wifi across users
- ✧ Visual acuity and unintelligible speech can limit use at times
- ✧ Initial study with small number of participants, limited generalization, and maintenance measures

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