# A CRITIQUE OF REALIZE LANGUAGE: A HIGH-TECH AAC DATA LOGGING SERVICE

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### INTRODUCTION TO THE PROJECT

- Aim of the project:
  - I.) Provide an overview of the Realize Language program
  - 2.) Analyze its utility with a new AAC user who still requires significant amounts of modeling
  - 3.) Provide suggestions to clinicians considering using the program in the future

#### BACKGROUND

- Augmentative and Alternative Communication (AAC) devices give individuals with elaborate communication needs the means to functional communication
- Learning process can be complex for all involved (e.g. client, parent, spouse, sibling)
- Support from all involved is vital for the AAC user to develop communicative competence

#### BACKGROUND

- Modeling from facilitators is often used when an individual is first learning the device
- This use of aided language stimulation helps the individual to start building connections between verbal output, graphical symbols, and their meanings (Biggs, Carter & Gilson, 2018)
- Data collection and progress monitoring with AAC use can be difficult
- AAC devices have a built-in "data logging" feature which tracks all keystrokes/selections

#### **REALIZE LANGUAGE**

- A newly developed program that allows all members of an individual's interdisciplinary team (e.g. caregivers, teachers, aids, speech-language pathologists) to monitor their use of the AAC device
- Data from the log is uploaded from the device into the online service
- Takes logged data and converts it into visual representations that are easy to interpret and understand

### **REALIZE LANGUAGE**

- The data is converted into graphical representations (i.e. "widgets") on different "pages" within the service
  - Overview
  - Use
  - Words
  - Log
  - Analysis









# CASE STUDY

#### STUDY PARTICIPANTS

- Two participants:
  - Client M.N.
  - Clinician R.L.
- Sessions were conducted at University of Delaware Speech Language and Hearing Clinic

### OBSERVATIONS AND DATA COLLECTION

- Four observation sessions across a four-week period with data logging feature turned on client M.N.'s device
- Between 5 to 15-minute intervals of data collection were video recorded, for a total of 58 minutes of recording
- Videos were reviewed and every instance of clinician and client keystrokes was tallied

### RESULTS

- During the observational windows, there was an overall increase in the amount of independent selections made by client M.N. and decrease in number of direct models provided by clinician R.L.
- M.N. appeared to become more proficient in his ability to use and navigate his device



#### DISCUSSION

- Utilizing Realize Language with the data collected from client M.N.'s device led to discovery of pros and cons with the program
- Program can take complex data from the data log and turn it into easy to understand graphical representations
- However, based on this study, the tool does not provide accurate information for new AAC users or those requiring high amounts of modeling

### Pros

### Cons

- Provides simplification of data logged information collected from the AAC device
- Tool can be utilized by all members of the multidisciplinary team (e.g. caregivers, teachers, clinicians)
- Can be used to track and measure progress for independent AAC users not requiring significant amounts of modeling
- Information can be used to create treatment plans or serve to create goals
- Graphical representations from program can be beneficial when presenting at IEP meetings or when describing progress to members of care team

- Aspects of the program are complex (i.e. "Log" page) and would be hard for those without AAC experience to understand
- Impossible to differentiate between who made selection on the device (e.g. client, clinician)
- Does not capture a new AAC user's progress but instead captures all the keystroke selections on the device, leading to skewed data
- Misleading claim that program will depict any user's overall progress
- Subscription cost
- Can take a significant amount of time to learn to use the program

#### CONCLUSION

- New AAC users are going to require considerable amounts of modeling and aided language input
- Realize Language incorporates all keystrokes (regardless of who made the selection) into the visually presented data
- Program did not provide accurate account on how client M.N. was making progress towards becoming an independent user
- Results from this study support that Realize Language should not be used with new AAC users or those who require consistent direct modeling

#### DIRECTIONS FOR FUTURE RESEARCH

- Additional studies including more participants and more diversity
- Studies completed with users who are more independent with their device to check accuracy of Realize Language
- Need for an improved method to track an individual's progress towards independence with their device
- Creation of a checklist to complete prior to using Realize Language to help clinicians when determining if this program would be the right fit for a client

#### SAMPLE CHECKLIST

1. Modeling/aided language input provided by clinician before client selection?

**A.** Often (71%-100%) **B.** Sometimes (31%-70%)

**C.** Rarely (0%-30%)

4.) Amount of nonfunctional or random selections made on the device by the individual?A. Often

**B.** Sometimes

C. Never

2. Accuracy level of independent selections?

**A**. 0%-30% **B**. 31%-70%

**C.** 71%-100%

3. Type of modeling required by individual?A. Direct model on deviceB. Verbal or indirect promptC. Infrequently requires model or prompt

5. Amount others (caregiver, teacher, clinician) use the device?

A. Often

**B.** Sometimes

C. Rarely

6. Interdisciplinary team buy-in for using Realize Language and SGD?

**A.** No; only SLP is using device with the individual

**B.** Yes; team members include caregivers, teachers, and clinicians

**Mostly A Responses:** Individual would not be a candidate for the use of the Realize Language program to track their progress over time.

Mostly B Responses: Individual could be a candidate for Realize Language program if it is understood not all data will be direct reflection of their selections of the device.

#### **Mostly C Responses:**

Individual would be a good candidate for use of the Realize Language program to track their progress over time.

# RESOURCES FOR ADDITIONAL INFORMATION

- Videos for reference when using Realize Language
  - <u>https://realizelanguage.com/info/support/videos</u>
- Trainings
  - https://realizelanguage.com/info/training
- Answers to frequently asked questions
  - <u>https://realizelanguage.com/info/faqs</u>

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## QUESTIONS