Background Information

- Examined the consistency with which neurotypical adults and adults with severe TBI organized semantic information.
  - Neurotypical adults used a superordinate-subordinate hierarchy.
    - Focus group
  - Individuals with TBI were less consistent and more idiosyncratic than their peers in placing exemplars within ordinate and superordinate categories.
- With repetition of the experimental task, some individuals with TBI achieved higher general consensus scores, but did not reach a level comparable to their peers.
- Authors argued that participants' consistency across sessions and agreement with the general consensus warrant further examination.

Brown, Hux, Kenny, & Funk, 2015
My project aims to understand how SLPs approach AAC vocabulary selection and organization when using grid displays.
• Lack of research in how SLPs make decisions regarding AAC for these populations.
• If SLPs disagree and/or demonstrate inconsistency over time, that presents problems for those who rely on SLPs to help them with their communication.
• This type of research can inform classroom and clinical instruction in master's programs, creating more consistency and quality of service.

Why SLPs?

• Scope of practice
• (In)consistency across time or among SLPs may have implications for individuals who are trying to access semantic items using AAC devices

Future Directions

Research Questions
1. How do SLPs **organize** a set of pictures belonging to a single theme in a grid?

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2. When given a set of pictures, which words do SLPs **select** based on importance?

- Vital
- Related
- Unrelated

3. Is vocabulary organization and selection **consistent among SLPs**?

4. Is vocabulary organization and selection **consistent over time**?

**Procedures**
Procedures: Participants

- Actively working
- Nationally-certified, state-licensed SLPs
- Serve adults at least 25% of the time
- Have reliable Internet access

Procedures: Recruitment

SIGs
Social Media
Flyers
Word of Mouth

Procedures: Logistics

- Qualtrics software
- 3 experimental sessions over 3 weeks
  - Each session 1 week apart
  - Remotely
Procedures:
- Tasks
  - 2 Tasks
  - Vocabulary selection (vital, related, unrelated)
  - Vocabulary organization (into a grid)
  - 15 themes
  - 15 items/theme

Procedures:
- Stimuli
  - Pictures
    - Reduce confusion (e.g., nail on hand vs. nail and hammer)
  - Literacy concerns
  - Commonly used
  - Validated stimuli with undergraduate students

Procedures:
- Questions
  - First session
    - Inclusion/exclusion criteria
    - Consent
    - Demographic information
    - Caseload information
    - Background information (e.g., “did you receive instruction related to AAC during your graduate program?”)
  - Tasks
  - Second session
    - Tasks
  - Third session
    - Tasks
    - Questions about decision-making

Data Analysis
Data Analysis

- All participants who complete session 1 will be included
- Variance in the stimulus item placed in each grid space and in each category

Dependent variable 1 compares vocabulary selection and organization across participants.

Dependent variable 2 compares participants to themselves over time.

Overall consistency proportion (OCP)

How do SLPs organize a set of pictures belonging to a single theme in a grid?
• 15 pictures • 15 spaces • 3 experimental sessions • 25 to 40 participants = ????

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- Items that are placed in the SAME grid space earn a score of 1
- Items that are placed in a DIFFERENT grid space earn a score of 0

Data Analysis: Overall Organization Consistency Proportion

Brown, Hux, Kenny, and Funk (2015)
When given a set of pictures, which words do SLPs select based on importance?

Vital | Related | Unrelated

Data Analysis: Overall Selection Consistency Proportion

Brown, Hux, Kenny, and Funk (2015)

Data Analysis: Clusters

Cluster analysis to see what explains variance
- Demographic?
- Caseload-related?
- Years of experience?
- AAC instruction?

Two-fold question:
- Open-ended first
  - What would you MOST prioritize given XX diagnosis (e.g., TBI, aphasia) OR XX age (e.g., young adult (i.e., 18-30 years))?
- Ranking task
  - Rank, in order, the factors you consider when making decisions related to vocabulary selection and organization.
    - Patient diagnosis (e.g., TBI, aphasia) and characteristics related to that diagnosis
    - Type of visualization (e.g., icons vs. written)
    - Patient age
    - Factors related to semantic items (e.g., frequency of use)
    - Caregiver input
    - Other
    - ??
Future Research Questions and Goals

- How can we examine this in individuals with TBI? (issues with Qualtrics—working memory load!)
- How can we examine this in individuals with metacognitive impairments?
- Other populations for whom this may be relevant
  - Aphasia
  - Dementia

Questions

- Research questions—how to measure (in)consistency among SLPs?
- Factors to consider when organizing semantic items?
- Statistical method?

Major Research Questions

My project aims to understand how SLPs approach AAC vocabulary selection and organization when using grid displays. My specific research questions include:

1. How do SLPs organize a set of vocabulary words belonging to a single theme in a grid?
2. When given a set of pictures, which vocabulary do SLPs select based on importance?
3. Is the organization and selection of vocabulary consistent among SLPs?
4. Is the organization and selection of vocabulary consistent across time?

References


Approaches to Augmentative and Alternative Communication Design by Speech-Language Pathologists

Kristen Ackley, M.S. CF-SLP
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