

I'm Looking for a Frog Instead of a Circle": The Lived Experiences of Speech Language Pathologists of Making Icon Selections on Augmentative and Alternative Communication Devices for Individuals with Autism Spectrum Disorders

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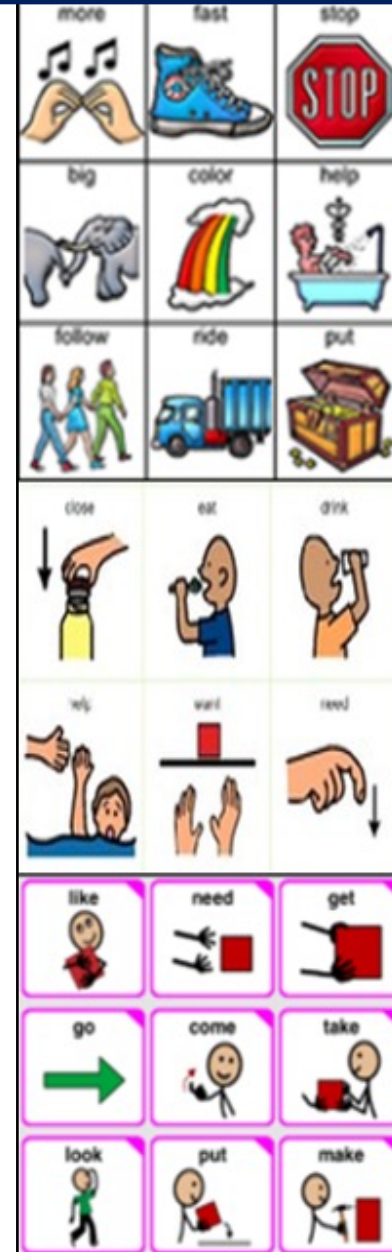


Overview

- Introduction
- Problem Statement and Research Goal
- Literature Review
- IPA Methodology
- Data Collection | Analysis
- Findings
- Questions

Problem Statement | Goal

- No standard guidelines for the selection of icons and symbols on AAC devices for individuals with ASD
 Hartley and Allen (2014).
- Expressed the need for more research to better understand how symbols are selected for AAC devices by SLPs for a specific populations (Pampoulou & Fuller, 2020)
- The goal of the research was to identify the factors that influence symbol selection for SLPs for when they implement an AAC device for individuals with ASD and to use the results to help develop recommendations to assist SLPs in the process.



Literature Review

Autism and Communication

- Characteristics of ASD
- Processing of information (Weak Central Coherence Theory) (Kunda & Goel, 2011)
- Communication challenges (Hartley, C., Trainer, A., & Allen, M. L., 2019).

Speech-Language Pathologist

- Education of SLPs
- Roles and responsibilities (Clarke, K. A., & Williams, D. L., 2020)

AAC Devices

- Definition of AAC
- Types of AAC devices (Moorcroft, A., Scarinci, N., & Meyer, C., 2019)

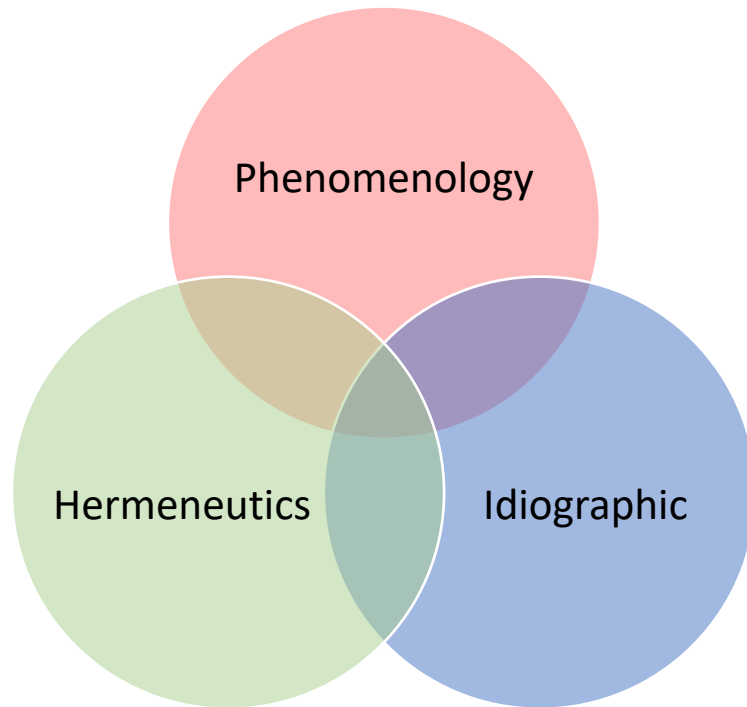
Iconicity

- DeLoache Model (DeLoach, J., 1995)
- Types of icons (Pampoulou, E., & Fuller, D. R., 2020)

Usability

- Importance of usability (Aguiar, Y. P. C., Galy, E., Godde, A., Trémaud, M., & Tardif, C., 2020)

Research Method: Interpretative Phenomenological Analysis (IPA)



- IPA was applied to allow the researcher to gain a better understanding of the experiences SLPs have with AAC devices and their use with individuals diagnosed with ASD.
- The use of phenomenological inquiry enabled the researcher to provide more context and detail to factors that influence an SLPs decisions related to the selection of symbols on AAC devices for individuals diagnosed with ASD.
- Generates a narrative of the participant's background and knowledge of symbol selection, and insights into how their understanding of symbols directly impacts their decision-making process (Pampoulou & Fuller, 2020)

Data Collection

- Each participant had an extensive background in speech language pathology and had worked with individuals diagnosed with ASD.
- The interview protocol included 10 open-ended questions
- Face-to-face Interviews were conducted on-site
- Audio recordings of the interviews were done to ensure accuracy

Analysis

- The interviews were transcribed verbatim from the recordings
- The research analysis was guided by Smith et al. (2009) recommend steps for analyzing responses
- Developed an interpretive narrative of the themes to develop the super/subordinate themes

Findings: Themes

Customizing for Iconicity and Usability
Tailoring to the Individual and Their Ability
Accurate Iconicity
Motivation
External Influences
Influences From Software and Apps Developers
Device Manufacturers Representatives and Training
Funding Sources
Other Facilitators
Learning as You Go
Limited Graduate Training
Trial and Error
Remaining Flexible
Progress Through Reinforcement

Superordinate Theme 1: Customizing for Iconicity and Usability: all SLPs expressed the influence of usability and iconicity as a factor in their selection of symbols.

Subordinate Themes

1a: *Tailoring to the Individual and Their Ability*

“The main difference is just there's a wide range of ability, so I think you just have to really look at the individual student and see where they're at and where you kind of need to start. (Carolyn)”

1b: *Accurate Iconicity*

“ If I see a frog in real life, and I want to identify it on my device, I'm going to look for a frog, something that looks similar to that instead of, I don't know, a circle, So I think that would help kids more. If deciding on symbol selection, I try to pick something that's similar to that thing (Abigail)”

1c: *Motivation*

“It's so important to have pictures and icons and words on their device that are motivating for them and that are part of their everyday functional because that's going to give-- that's it's going to get buy into the device. (Josephine)

Superordinate Theme 2: External Influences-all SLPs shared about the impact that device manufacturers and app developers had on their decision-making process. The limitations established by the developers made their choices difficult at times.

Subordinate Themes

2a: Influences From Software and Apps Developers

“With my kids I haven't noticed the icons being too much of an issue or the symbols being an issue. ***But some of our kids, it's easier for them to have a black background versus a white just because things pop more. It helps them be able to focus*** (Allison)”

2b: Device Manufacturers Representatives and Training

“I've gone to two trainings for two different AAC companies and basically, **they teach you how to use the device, but they also teach you about symbols too.** (Maya)”

2c: Funding Sources

“Depending on their funding sources, it gets complicated. Usually with Medicaid, as long as you have the evidence supporting this trial period that you did with the kid-- I can't remember what the time length is, ***but you trial a few different devices with the kid.*** (Abigail)”

2d: Other Facilitators

“He really likes this Blue Mountain Dew. The mother asked, ***'Can you please make a button just for Blue Mountain Dew because green won't do. Red won't do either. We need a Blue Mountain Dew icon because that's so specific.'*** (Josephine)

Superordinate Theme 3: Learning as You Go: all SLPs spoke about the lack of training they received during their collegiate studies not only in the area of AAC, but also ASD. They stated that they participate in on-the-job training opportunities through professional development, peer-to-peer training, or sessions offered by the device manufacturers.

Subordinate Themes

3a: *Limited Graduate Training*

“ I think in undergrad, everything was very general. It was speech and hearing science, so I feel like I had a really big overview of everything, but ***I didn't have any training in apps or AAC or the ins and outs of speech pathology.*** (Carolyn)”

3b: *Trial and Error*

“Because there's-- like I said that one kid, he did not respond well to LAMP. He didn't like it at all. So, ***I tried something else that was a little more picture-based and it worked a lot better. So, it's just kind of trial and error*** with what they are more drawn to (Maya).”

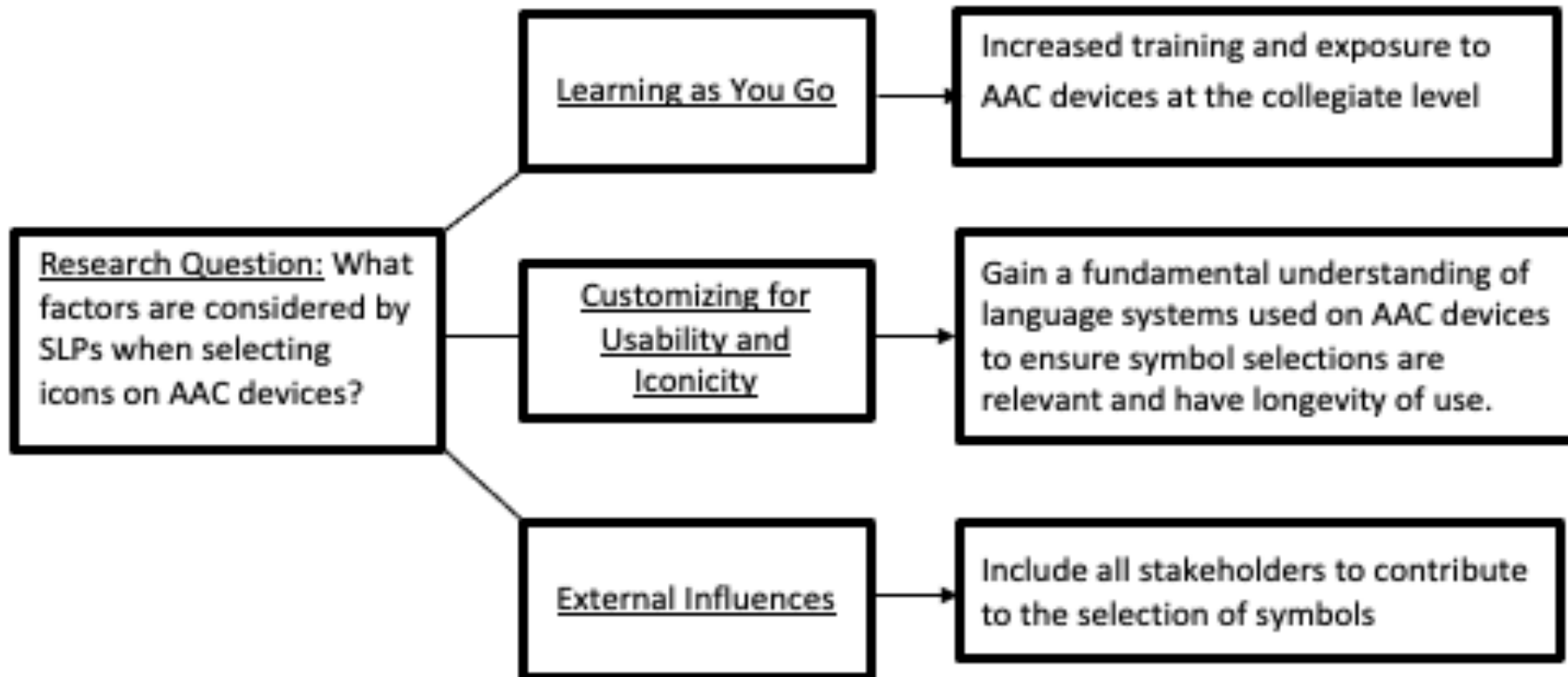
3c: *Remaining Flexible*

“You don't go in with a plan and stick to the plan. ***It is just the opposite of what they teach you in grad school.*** They tell you, ‘You got to come in with a lesson plan and everything that you want [the client] to learn or everything that you want to teach today.’ I don't make lesson plans anymore. I go in with an idea of maybe today, if I'm working with a kid on a device, we want to get them to two and three word sentences. (Josephine)

3d: *Progress Through Reinforcement*

“***Once they realize that this is to help them communicate, then we'll add a little more of the symbols and pictures.*** First, I start more on that core vocab like eat, play, and want. Just with those highly reinforcing items to get them to like I said, use the device. (Abigail)”

Recommendations for Speech Language Pathologists



Questions ?

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