Thoughts on Selecting the Most Appropriate AAC Tool for Children with Autism?

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Introduction

The iPad is a popular recreational and educational tool for children with autism. The availability of numerous AAC Apps often leads parents and/or professionals to select the use of an iPad over other approaches such as PECS (Picture Exchange Communication System), Tangible Symbols or Sign Language. When beginning to explore use of an AAC system, some of the questions that need to be to asked include, "Is an iPad with *xyz* App, the most effective option for my child or student?" What AAC tool(s) will enable my child/student to create novel sentence?   Is there a tool that matches my child's needs and abilities that supports classroom participation? What is the most appropriate tool to facilitate communication in social situations?

Depending upon your student or child's age, abilities, and communication needs, the list of questions will vary. Each child or student is an individual. Because one tool works for another child, it does not mean it is the best approach for yours. The more questions you ask, and the more options you *systematically* explore, the more likely it is that you will select the most appropriate system enabling effective communication.

It is important when selecting an appropriate AAC device to evaluate the pros and cons of each option and to match the device to your child's abilities. Only then will you be able to determine what is best for the child or student.

Remember to Explore the Evidence

Various researchers have conducted studies on numerous AAC devices and specifically, how children with autism learn to use each device. In this blog two evidence-based articles have been selected for review. Each provides some insight that can be applied to selecting an AAC device as a communicate system for use by children with autism.

Agius and Vance, 2016 conducted a study that compares PECS (Picture Exchange Communication System) to iPad/SGD (speech generating device) and how three preschoolers with autism learn to use each device for requesting. The study measured the rate of which preschoolers learned to request on each device, what device the preschooler preferred to use to communicate, and if the preschoolers were able to utilize advanced operations to navigate the iPad. When teaching the use of AAC devices to preschoolers, researchers used motivational toys/items to encourage the children to use the device to request desired toys/items. Preschoolers participated in 21-23 sessions of 20 minutes each.

Results for Agius and Vance indicated that even though all three children learned how to request using each device independently, PECS required less support to request from the instructor, indicating that PECS was easier for the child to use than the iPad. In the beginning of the study, all three students chose the iPad over the PECS board. This could have been because the students previously used an iPad for leisure purposes and were familiar with the layout. During the post-

session after the study, the preference was divided as two students chose the PECS board for a majority of the requests and one student continued to use the iPad.

Couper et al. conducted a study that compared nine children between the ages of 4 and 13 with autism receiving communication aids such as manual signs, picture exchange, and iPad/SGD. Similarly to Agius and Vance, 2016, instructors also used motivational toys to encourage the child to request using their device and each child was give multiple opportunities to request using the device.

Results for Couper et al indicated that five out of nine children learned to effectively use all three devices to request. Children demonstrated most difficulty learning manual signs. Research suggested learning manual signs place a higher demand on working memory and short term memory when compared to picture exchange and iPad/SGD. Manual signs also require fine motor skills that can be limited, and can be difficult for the instructor to proficiently teach. Eight out of nine children preferred to communicate via iPad/SGD. Similarly to Agius and Vince, researchers suggest children prefer technology because they are likely to have previous experience operating/ navigating the device.

Key Points

Teaching the client to navigate the device is a contributing factor to optimal communication performance. Formulating messages often requires multi-step sequences. The device should be designed/organized in a way that is customized to the client to access pages efficiently. Children are motivated to use a device when it matches their abilities and they can easily find the targeted symbols to formulate their message.

It is also important to facilitate use of the device in multiple environments. This can help determine if the selected device meets the range of targeted needs and goals. It is also key, as the child needs to generalize learned skills across settings.

Overall, selecting an appropriate AAC device is not a "one size fits all." Choosing an AAC device required careful considerations of numerous variables such as the abilities of the client, the environments the client will be communicating in, and the wants/needs of client. It is important to consult with professionals to assist in indicating the best-fit communication device for the client and to seek out evidenced-based research to guide decision-making.

References

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