

Future of AAC, ABA & Autism

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Advances in Technology



- Tremendous growth in development of technology applications for special needs
- More and more mainstream, off-the-shelf consumer products appear that can easily be turned into applications for users with disabilities
- Some future trends may be the following:

Social Prosthetics



Augmented Reality



Virtual Reality



Need for Effective Instructional Approaches



- Technological advances and their transformation to Assistive Technology (AT) solutions by themselves do not ensure success in AT intervention!
"Simply equipping an individual with an AT device alone will, in most cases, not result in an immediate remediation of functional limitations. Ongoing intervention and monitoring of progress are key to AT success." (Wendt, 2011, pp. 519-520)

⇒ Application of ABA instruction with technology

Promising Intervention: Matrix Training

		Objects				
		Ball	Cup	Spoon	Fork	Apple
Actions	Point to					
	Drop					
	Take out					
	Put in					
	Shake					

Promising Intervention: Matrix Training (cont.)

		Objects				
		Ball	Cup	Spoon	Fork	Apple
Actions	Point to	✓			✓	
	Drop		✓	✓		
	Take out		✓	✓		
	Put in				✓	✓
	Shake	✓				✓

Matrix Training: Generalization

		Objects				
		Ball	Cup	Spoon	Fork	Apple
Actions	Point to	✓	💡	💡	✓	💡
	Drop	💡	✓	✓	💡	💡
	Take out	💡	✓	✓	💡	💡
	Put in	💡	💡	💡	✓	✓
	Shake	✓	💡	💡	💡	✓

Matrix Training App: SPEAKmore!

1. Hear Prompt
2. Watch Video
3. Select Symbols
4. Animated Feedback
5. Success = Stars

Engaging ♦ Reinforcing ♦ Motivating

Specifically tailored to processing and learning characteristics in severely autistic students (Yip, Davis, & Wendt, 2011)

From SPEAKall! to SPEAKmore!

SPEAKmore! (language learning) will enhance training by **SPEAKall! (speech output, AAC)**

- Giving child a voice to speak

- Teaching language concepts
- Increasing vocabulary
- Targeting generalization

Further Applications of Matrix Training

- Training of pre-literacy skills (Axe & Sainato, 2010)
- Early literacy skills (Mueller, Olmi, & Saunders, 2000)
- Spelling (Kinney, Vedora, & Strohmer, 2003)
- Play skills (Dauphin, Kinney, & Stromer, 2004)

Questions ???



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