

Training in Augmentative and Alternative Communication for Professionals in Educational Settings: A Review of the Literature, Family Perspectives, & Ideas to Bridge the Knowledge Gap

Carolyn Burchfield, B.A., SLP Trainee; Janessa Klein, B.A., SLP Trainee; Amira Khalafalla, M.A., Family Trainee

Research Mentor and other collaborators:

Deb Downey, PhD, CCC-SLP; Laura Fisher, MA, CCC-SLP; Paige Burden, MA, CCC-SLP

Objective:

Literature supports that many professionals working with students that use augmentative and alternative communication (AAC) in educational settings experience barriers to successful AAC implementation in the classroom. One such barrier reported across multiple published studies is a lack of education, training, and overall knowledge of AAC. Additionally, this concern has been raised by family members and caregivers of AAC users. To address this gap, it could be beneficial for educators to be exposed to AAC at the pre-professional level before entering the workforce, allowing them to be more comfortable, confident, and competent in supporting individuals who use AAC in the classroom. The goal of this project was to identify what the literature currently supports as barriers to successful AAC implementation, as well as training ideas to bridge this gap in knowledge.

Method:

A review of the literature was conducted using InfoHawk+ through the University of Iowa Libraries and Google Scholar. Search terms included "AAC in general education," "education on AAC," "preservice education AAC," "AAC preservice training," and related terms. Articles published prior to 2010 were excluded from review (apart from one article on parent perspectives, published in 2008) due to the rapidly changing nature of AAC technology, especially high-tech, speech-generating devices (SGDs). Abstracts of relevant articles were read. 11 studies were selected using these criteria, read through in detail, and utilized for our literature review, discussion, and proposed training ideas.

Results:

Lack of Training

Many studies discovered that there was a lack of training for professionals who work directly with students who use AAC devices. In 2010, Costigan & Light found that many preservice programs (i.e., Speech-Language Pathology, Special Education, Occupational Therapy) offer little to no AAC content within courses and oftentimes these courses are not required for the professionals before graduation. Johnson & Prebor (2019) had similar findings in that many AAC courses were not required for speech-language pathology programs but found that there was an increase in courses offered with primary content in AAC. With the contrast between these two studies, programs may be growing in their offerings of AAC content within courses (specifically within SLP programs), but there is still an immense need for an increase of specialized coursework focused on AAC usage and implementation for all preservice

professionals who will be working with students who use AAC devices (e.g., special education teachers, OTs).

Barriers to Implementation

Multiple published studies examine what barriers exist to effective implementation of AAC in the classroom (Subihi, 2013; Andzik et al., 2019; Leatherman & Wegner, 2022). Across studies, similar barriers were reported, including a lack of collaboration between speech-language pathologists (SLPs) and teachers and a lack of time for trainings, preparation, and collaboration. Most notably, both studies cited a lack of knowledge or competence in AAC across all individuals who work with children using AAC in schools. This lack of knowledge was attributed to a lack of training and education at the preservice level (e.g., when in school to receive the necessary degree to work in their current setting), a lack of hands-on experience with AAC prior to working with a child who used AAC, and a lack of formal AAC training through the school district or funded by the school district.

Family Perspectives

A student's family plays an integral role in their educational outcomes, and this is especially true for students who use AAC. AAC buy-in, or belief in the use of the device and holding expectations across settings, is incredibly important to maintain growth, skill, and use of AAC devices for communication across settings. A student's teachers, paraprofessionals, SLPs, and family members or caregivers must all see the importance of the device and use it with consistent expectations. If this buy-in is not consistent across the board, the student's outcomes can be put in jeopardy. Due to the importance of the family in AAC implementation and outcomes, the literature also included the perspectives of family members of individuals who use AAC and their thoughts on barriers to successful AAC implementation (McNaughton et al., 2008). Families described many barriers to learning about AAC and how to use their child's device, including a lack of trained professionals, inconsistent use of the device, and challenges in promoting communication in the community. Amira Khalafalla, a researcher on this project, has a daughter who uses an AAC device. Amira shared that one of the challenges that she and her daughter's teacher faced was inadequate training. In Amira's words, "If the adults do not know how to navigate and edit the communication app, then they cannot train their student so they will never use the device to its full potential" (Khalafalla, 2024). Family perspectives such as these provide invaluable insight into barriers to successful AAC implementation.

Conclusion:

Outcomes after Trainings

Due to the many findings that a lack of training and knowledge about AAC devices were the reason that many professionals do not feel comfortable implementing AAC strategies, some studies that implemented AAC training were reviewed. Overall, the studies showed positive outcomes for both professionals and students in their usage and implementation of AAC devices after receiving direct training either at the preservice level or at the professional level (Kim & Choe, 2023; Hanline et al., 2018; McCoy & McNaughton, 2018). Some common findings were increased self-efficacy after completing both an instructional course and fieldwork (Kim & Choe, 2023), increased confidence in their abilities to implement AAC strategies and create an

inclusive classroom (Hanline et al., 2018), and increased quality and quantity of educational professionals' immediate implementation of low-tech AAC protocols (McCoy & McNaughton, 2018). One concerning finding was that some of these AAC strategies were lost or reduced after the trainings were implemented, showing mixed results in the trainings' effectiveness in maintenance and generalization of AAC implementation skills (Costigan & Light, 2010; McCoy & McNaughton, 2018).

Ideas for AAC Training Implementation

Due to the above review of the literature, there are certain competencies and guidelines that should be addressed for professionals who will work with students who use AAC devices for communication, specifically in the classroom. First, training and knowledge of AAC devices should begin at the preservice level to allow for best practices going forward and to lay a foundation for professionals. This should also include fieldwork and/or hands on training with students who use AAC in the classroom and the community provided by strong clinical models who have experience with AAC device implementation (Brittlebank & Sowers, 2023). Furthermore, Da Fonte & Boesch (2016) provide specific competencies that could be addressed within the training. These include competencies in communication skill development and interaction, collaborative practices, role and functions of AAC systems, and instructional strategies on AAC and assistive technology use. Therefore, training on AAC devices in the classroom should include foundational knowledge about AAC devices and different programs, and strategies for collaboration and communication skill development. Furthermore, training should provide avenues and ideas to allow for regular collaboration with all members of students' educational team, including family members and/or caregivers, teachers, and any additional professionals working with the student. Lastly, trainings on AAC strategies and implementation should be ongoing for all individuals that work with students who use AAC (e.g., SLPs, OTs, SEs, general education teachers, paraprofessionals, family members) to prevent loss of skills after training.

References:

- Andzik, N. R., Chung, Y. C., Doneski-Nicol, J., & Dollarhide, C. T. (2019). AAC services in schools: A special educator's perspective. *International Journal of Developmental Disabilities*, 65(2), 89-97.
- Brittlebank, S., & Sowers, D. J. (2023). Developing Augmentative and alternative communication competence in Preservice Speech-language pathologists: A collaborative model for clinical educators. *American Journal of Speech-Language Pathology*, 33(1), 1-15.
- Costigan, F. A., & Light, J. (2010). A review of preservice training in augmentative and alternative communication for speech-language pathologists, special education teachers, and Occupational Therapists. *Assistive Technology*, 22(4), 200-212.
- Da Fonte, M. A., & Boesch, M. C. (2016). Recommended augmentative and alternative communication competencies for special education teachers. *Journal of International Special Needs Education*, 19(2), 47-58.
- Hanline, M. F., Dennis, L. R., & Warren, A. W. (2018). The outcomes of professional development on AAC use in preschool classrooms. *Infants & Young Children*, 31(3), 231-245.

- Johnson, R. K., & Prebor, J. (2019). Update on preservice training in augmentative and alternative communication for speech-language pathologists. *American Journal of Speech-Language Pathology, 28*(2), 536–549.
- Kim, S., & Choe, Y. (2023). Linking clinic with classroom in intensive focused preservice education on augmentative and alternative communication. *American Journal of Speech-Language Pathology, 32*(6), 2922–2939.
- Leatherman, E. M., & Wegner, J. R. (2022). Augmentative and alternative communication in the classroom: Teacher practices and experiences. *Language, Speech, and Hearing Services in Schools, 53*(3), 874-893.
- McCoy, A., & McNaughton, D. (2018). Training education professionals to use the Picture Exchange Communication System: A review of the literature. *Behavior Analysis in Practice, 12*(3), 667–676.
- McNaughton, D., Rackensperger, T., Benedek-Wood, E., Krezman, C., Williams, M. B., & Light, J. (2008). “A child needs to be given a chance to succeed”: Parents of individuals who use AAC describe the benefits and challenges of learning AAC technologies. *Augmentative and alternative communication, 24*(1), 43-55.
- Subihi, A. S. (2013). Saudi special education student teachers' knowledge of augmentative and alternative communication (AAC). *International Journal of Special Education, 28*(3), 93-103.