The AAC Learning Center:
Sharing Knowledge, Building Capacity, & Assessing Impact

PennState   RERC on AAC   IDEAs that Work

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The Challenge

Over 5 million Americans have significant speech-related disabilities
- Autism, cerebral palsy, intellectual and developmental disabilities
- Limited educational opportunities often result in low levels of literacy, employment, and community participation
- Augmentative and alternative communication (AAC) can support communication and participation
- Pre-service programs at colleges and universities must prepare teachers and speech-language pathologists (SLPs)[1] to support AAC

Role of the AAC Learning Center

The AAC Learning Center provides support for pre-service and in-service instruction in AAC.

AAC Learning Center activities include:

- Webcasts (31)
  - Consumer Perspectives
  - Research to Practice

- On-line learning modules (11)
  - Co-authored with AAC users
  - Video, text, interactive activities
  - Guided notes
  - Assessment activities
  - Certificates of Completion

- Supports for in-class activities

Uptake and Feedback

AAC Learning Center modules are in use at over **100 colleges and universities**, and pre-service teachers and SLPs completed over 10,800 modules in 2023-2024.

- Over **95% of students** who complete a module would **recommend** the Learning Center to other students
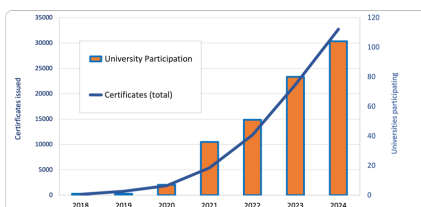
Research on Impact of Modules

Adapted Literacy Instruction[2]
- *90% of people who need or use AAC do not have functional literacy skills*
- SLPS and teachers who participated in training demonstrated significant gains in instructional skills with children who need AAC[3]
- Completed by 3,740 pre-service professionals
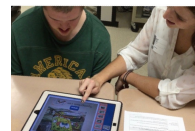
Culturally Responsive Practice[4]
- *Children of color are more likely to have severe disabilities, and less likely to receive needed AAC services*
- Pre-service professionals who participated in training demonstrated significant gains in the knowledge, skill, and disposition for CRP[5]
- Completed by 160 pre-service professionals

Family Centered Services[6]
- *Parents of children who need AAC report that SLPs and teachers do not provide family-centered services*
- Pre-service professionals who participated in training demonstrated significant gains in knowledge, skill, and disposition for FCS[7]
- Completed by 670 pre-service professionals

Visual Supports for Communication[8]
- *Visual supports can enhance participation and communication*
- Pre-service professionals who participated in training demonstrated significant gains in knowledge, skill, and disposition for visual supports[9]
- Completed by 440 pre-service professionals

Under Development

First-Person Narratives on Impact of AAC[10]
- *Only 10% of adults with developmental disabilities who need AAC, have access to AAC*
- To raise public awareness and expectations, we are sharing webcast presentations from the *Future of AAC Research Summit (2024)*

AI Support for Content Area Reading[11]
- *Students who use AAC do not receive needed supports to take rigorous academic classes*
- This module will provide instruction and practice in using AI to create individualized reading materials for use in content area classes

Development Process

Development Process
- Topics are identified by people who use AAC
- Content is written by
  - People who use AAC,
  - Family members of people who use AAC
  - PSU faculty and graduate students
- New modules are evaluated with Penn State students in special education, general education, and speech language pathology, and then made freely available
- OSEP supported scholars have investigated impact of 5 modules and co-authored peer-reviewed publications and presentations[3,5,7,9]

Available Modules

https://aac-learning-center.psu.edu/moodle/

- AAC and Children (5,340)
- Alternative Access (5,230)
- Culturally Responsive Practice (160)
- Developing AAC for Children (4,200)
- Family-Centered Services (670)
- Family-Centered Skills: Active Listening for SLPs (2,700)
- Funding for AAC (43,500)
- Literacy and AAC (3,740)
- Literacy and AAC: Letter-Sound Correspondences (3,200)
- Patient-Provider Communication (1,600)
- Visual Supports for Participation and Communication (440)

References

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(2) McNaughton, D., Light, J., Caron, J., & Babb, S. (2019). *Literacy and AAC: Letter-sound correspondences* [Instructional Resource]. AAC Learning Center.

(3) Caron, J. G., O'Brien, M., & Weintraub, R. (2022). Online training to improve service provider implementation of letter-sound correspondence instruction for individuals who use augmentative and alternative communication. *American Journal of Speech-Language Pathology, 31*(3), 1114-1132.

(4) Galley, K., McNaughton, D., & Light, J. (2024). *Culturally responsive practice in AAC*. [Instructional resource]. AAC Learning Center.

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(6) Armendariz, K., McNaughton, D., & Ocasio-Stoutenburg, L. (2023). *Family-Centered Services: 5 Key Principles* [Instructional Resource]. AAC Learning Center.

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(8) Liang, Z. & McNaughton, D. (2023). *Visual supports for participation and communication*. [Instructional Resource]. AAC Learning Center.

(9) Liang, Z. (2024, March). *Evaluation of online training on visual schedules for pre-service teachers*. Poster Session at Council for Exceptional Children (CEC) Convention, San Antonio, Texas.

(10) McNaughton, D., Patenaude, D., Romano, N., Steffen, K. (2024). *First-person narratives on the impact of AAC*. [Instructional Resource]. AAC Learning Center.

(11) Redmon, S. & McNaughton, D. (2024). *AI support for content area reading materials for students who use AAC*. (In development)

Acknowledgements