



Augmentative and Alternative Communication Device Considerations for Multilingual Learners with Significant Cognitive Disabilities

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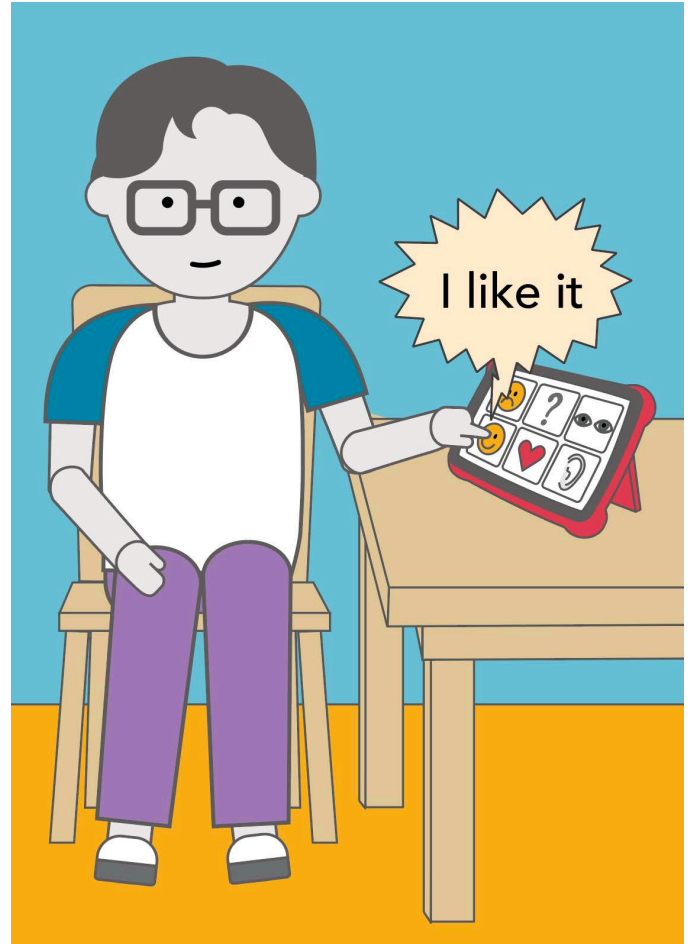
Project Background

The Advancing ALTELLA: Alternate Assessment Redesign project applies lessons learned from research on successful instructional practices, accommodations, and assessment of English learners with the most significant cognitive disabilities to inform development of alternate English language proficiency assessments.



Who are Multilingual Learners with Significant Cognitive Disabilities?

Christensen, Gholson, and Shyyan define English learners with significant cognitive disabilities as “individuals who have one or more disabilities that significantly limit their intellectual functioning and adaptive behavior as documented in their Individualized Education Programs, and who are progressing toward English language proficiency in speaking, reading, writing, and understanding” (2018, p. 3). This brief uses the term multilingual learners instead of English learners to emphasize the existence of this population of students’ multiple languages and diverse communication needs (Christensen, Mitchell, Shyyan, & Ryan, 2018; Shyyan & Christensen, 2018).



Introduction

Multilingual learners with significant cognitive disabilities are a small but important subpopulation of students in U.S. schools. These students may use multiple modes of communication, including speech as well as augmentative and alternative communication devices. These devices may include communication boards, tablets, or eye gaze-operated systems (Christensen, Mitchell, Shyyan, & Ryan, 2018; Huff & Christensen, 2018). Such devices are important for multilingual learners with significant cognitive disabilities who need alternative communication methods because these devices enable these students to demonstrate their multilingual language development, communicate needs or wants, and access content instruction. For multilingual learners who use these devices to have optimal learning experiences, their devices must be programmed appropriately for each student according to their disability-related needs. Educators and families must have a clear understanding of how each student’s device(s) works, how to program the device, and how the student communicates.

Augmentative and Alternative Communication Devices

Multilingual learners with significant cognitive disabilities can communicate in multiple ways. Augmentative and alternative communication devices act as a voice for students with significant cognitive disabilities to assist in communication. These devices incorporate symbols, aids, techniques, and strategies to assist users in communicating with others and may also generate speech (American Speech-Language-Hearing Association, n.d.). Students may use these devices in all communication interactions or supplement their language abilities by using the device moderately.

The American Speech-Language-Hearing Association categorizes augmentative and alternative communication devices into two groups, unaided and aided systems. Unaided systems consist of nonverbal communication methods such as gestures, facial expressions, and American Sign Language. Aided systems include communication boards or devices such as tablets or computers with symbols. These symbols may encompass pictures, photographs, and printed words. These symbols can digitally speak through the device to generate speech for the augmentative and alternative communication user. Additionally, within aided-systems, devices can be classified as high-tech or low-tech. (American Speech-Language-Hearing Association, n.d.) An example of a high-tech device is touching a button on an electronic device and the machine talking out what was pressed. Low-tech communication systems could be a book of pictures that a student points at to communicate.

Students who use augmentative and alternative communication devices typically have a congenital or acquired disability diagnoses (American Speech-

Language-Hearing Association, n.d.). Congenital conditions include autism spectrum disorder, cerebral palsy, sensory impairments, genetic syndromes, intellectual disability, and multiple disabilities, whereas acquired disabilities include conditions from disease, stroke, or head injury. It is necessary to acknowledge the experience of multilingual learners who use these devices. Multilingual learners with significant cognitive disabilities may have multiple, diverse ways in which they communicate. Many of these students may be non- or minimally verbal and may need to use another mode of communication (Christensen, Mitchell, et al., 2018).



What is an Augmentative and Alternative Communication Device?

An augmentative and alternative communication device is a device that is used by individuals with disabilities that incorporates symbols, aids, techniques, and strategies to assist in communicating with others.

Considerations

This section addresses linguistic, cultural, and contextual considerations for the use of augmentative and alternative communication devices.

Consider where the student will need to use the device

It is important for a student who needs access to an augmentative and alternative communication device to use the device in different contexts and environments (e.g., school, home, community). If the child has difficulties to communicating in various capacities, the child could find engaging in learning and achieving academic standards to be very challenging. Under the Individuals with Disabilities Education Act (1997), a school must provide assistive technology services if they are required as part of special education, related services, or supplementary aids and services. In addition, the use of these devices in the home or other settings is required if the child's Individualized Education Plan team determines that the student needs access to the device to receive a free, appropriate public education.

Teachers and families are encouraged to consult with the school speech and language pathologist and occupational therapist as resources. Speech and language pathologists are trained to assess speaking, understand language, and find the optimal device that fits a student's language needs (American Speech-Language-Hearing Association, n.d.). Occupational therapists employed in schools are trained to observe students and assess how they function in their environment and contexts, and to identify the demand of activities placed on the student throughout the course of instruction (American Occupational Therapy Association, 2015). For example, occupational therapists could assist in surveying and adapting the classroom environment or recommend proper accommodations or modifications for the student to have proper access to their device or system. Speech and language pathologists and occupational therapists can help the educator program the augmentative and alternative communication device to meet the student's language needs in all contexts.

Pay attention to the expressive and receptive language domain needs of each student

For multilingual learners with significant cognitive disabilities, language domains may present differently than typical students, depending on a particular student's disability. If the student has low motor skills and uses an augmentative and alternative communication device, their writing may not look typical, requiring the educator to understand how the student will show their writing skills. Augmentative and alternative communication devices can be used to gather information about a student's expressive (speaking and writing) or receptive (listening and reading) language skills. Special attention should be paid to how the student accesses language domains in instruction and assessment to show their skills in the expressive or receptive domains.

Include all languages the student uses on the device

Multilingual learners with significant cognitive disabilities are students who may be learning one or more languages alongside English. These students use all of their languages in different settings—in school, at home, and in their community (Christensen, Mitchell, et al., 2018), and are entitled to clear, meaningful, and culturally and linguistically appropriate communication (Brady et al., 2016). Therefore, these students should have all of their languages programmed into their devices. The addition of all of the student's languages, including their home language, may help them develop their English language abilities because they can use their home language to scaffold their acquisition of English.

Program the student's device to promote language development

Educators can program augmentative and alternative communication devices to help students use new, complex sentence structures and vocabulary. Multilingual learners with significant cognitive disabilities need to acquire English so they can participate in school and community settings as well as access content instruction (e.g., English language arts, math, science, social studies). Therefore, these students need opportunities to learn and use new words, phrases, and sentence structures. The teacher should consider each student's English language proficiency level and determine how best to help the students enhance their language abilities and incorporate new, academic vocabulary.

Consider how culture affects how student communicate and use their devices

Multilingual learners with significant cognitive disabilities have diverse cultural backgrounds that may affect how they communicate (Christensen, Mitchell, et al., 2018; Christensen & Shyyan, 2018). Culture does not only imply difference in ethnicity, country of origin, or region. It includes other factors such as disability, gender, sexual orientation, and religion. Students' families may have similar cultural beliefs and varying attitudes toward augmentative and alternative communication devices. Researchers such as Ripat and Woodgate (2011) point out that some families may not use devices if the device is not programmed to fit their family's preferred communication style. Thus, the student's augmentative and alternative communication devices needs to be programmed to fit family needs as well.

Engage family and school professionals in best practices

Teachers can learn from families how students use their augmentative and alternative communication devices in the home and in the community. This knowledge will broaden the educator's understanding of how a student communicates and can further assist in the student acquiring, developing, and producing language. A simple way to acquire this information is asking the family questions such as these:

- How frequently does your child use this device at home? In the community?
- What actions or prompts help your child engage with the device?
- In a new setting, how does your child use their device?
- Are there environmental considerations to be aware of to best support your child in the school setting?

Assistive technology specialists, speech and language pathologists, and occupational therapists are professionals who have extra resources and guidance about the best ways to facilitate the use of an augmentative and alternative communication device within the school environment. These individuals have specific knowledge of the devices, how language is supported in that device, proper use of the device, and assessments to determine which assistive technology device is appropriate. Ultimately, a multidisciplinary approach among all school professionals who are or will be working with a student that uses an augmentative and alternative communication device is highly recommended. These professionals includes teachers, therapists, and English language acquisition specialists.

Selected Resources

The following resources may be helpful in thinking about augmentative and alternative communication devices as well as other related topics for multilingual learners with significant cognitive disabilities:

The Advancing Alternate English Language Proficiency Assessment (Advancing ALTELLA) Project: advancingaltella.org

The Alternate English Language Learning Assessment (ALTELLA) Project: altella.wceruw.org

American Occupational Therapy Association: www.aota.org

American Speech-Language-Hearing Association, Service with Culturally Diverse Students: www.asha.org/NJC/Service-With-Culturally-Diverse-Individuals/

Council for Exceptional Children, Division for Culturally and Linguistically Diverse Students: <https://community.cec.sped.org/ddel/home>

Wisconsin Assistive Technology Initiative: www.wati.org

Questions to Consider

1. What is the best kind of device to use considering the student's disability-related needs?
2. Are educators and special education assistants trained to use the devices?
3. What are the needs of a particular student to readily access expressive and receptive language domains? How will this student use augmentative and alternative communication devices in instruction and assessment?
4. Which languages can be put into a student's device to improve English language proficiency? For example, if the student is scoring at level 2 on their state English language proficiency assessment, what language can be programmed into the device to raise their proficiency to a level 3?
5. Is each classroom equipped for a student that uses high- and low-tech devices?
6. How can lessons expand the use of language to help the student develop English language proficiency?
7. What are the challenges in accommodating the classroom for the student?
8. Does the student stay in the same classroom each day? If not, is the augmentative and alternative communication device easily transferable from different locations throughout the day?

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