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Interprofessional Practice Aligns with New California Teacher Performance Expectations for Students with Complex Communication Needs

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ABSTRACT

Educators are bound to encounter students with a broad range of speech-language and communication needs in their respective classrooms. According to federal mandates, current and future teachers are required to implement inclusive practices, which involves providing access to communication for all students. This practitioner-focused article shares an interprofessional practice collaborative project developed between a university teacher preparation program and the speech-language pathology division of a large urban school district. As part of a requisite credential course on language development and early literacy skills, pre-candidate students in the education specialist credential program complete a course assignment led by a school-based speech-language pathologist with clinical specialization in augmentative and alternative communication (AAC). As a result, pre-service educational specialists gain valuable knowledge about integrative AAC practices for classroom purposes as aligned with the new California Teacher Performance Expectations for students with complex communication needs (CCN).

*T*o ensure a high quality of life and to participate to the greatest extent possible in functional activities of daily living, all individuals should have access to a means of communication to express their basic needs, wants, interests, ideas, and emotions regardless of modality (see Appendix for Communication Bill of Rights). For decades, federal laws such as the Individuals with Disabilities Education Improvement Act (2004), the Technology-Related Assistance for Individuals with Disabilities Act (P.L. 108-364), and Every Student Succeeds Act (ESSA; P.L. 114-95, 2015) all contain common language that

guarantees access to modalities of communication in school settings for students identified as qualifying for special education and related services. Meeting these mandates is best accomplished through collaborative efforts between allied professionals that may include educational practitioners whether their credential is in general education, special education, or speech-language pathology (SLP); (Dobbs-Oates & Wachter Morris, 2016). Commonly referred to as interprofessional practice (IPP), these relationships allow educators to learn from, with, and about each other's specialized area(s) to better serve and meet all students' unique learning needs (Ludwig & Kerins, 2019).

School-age Students With Complex Communication Needs

Now more than ever the classrooms of today represent diversity in both culture and language (Yamasaki & Luk, 2018). Yet another diversity factor among P-12 students involves ability levels, which includes students who are generally minimal-to-nonverbal communicators who present with complex communication needs (CCN). Nearly one in every 150 school-age students, or less than 1% of the population, presents with CCN and may use some type of augmentative and alternative communication device (AAC) for a variety of reasons (Adler, 2017). According to the American Speech-Language-Hearing Association (ASHA), AAC is augmentative when used to supplement existing speech, alternative when used in place of speech that is absent or not functional, or temporary as when used by patients postoperatively in intensive care (Elsahar et al., 2019; for further details on AAC, go to asha.org and search for ASHA Evidence Maps: AAC). Eligibility and access to an AAC device should be clearly specified in a student's Individualized Education Program (IEP); (ASHA, 2016; Chung & Stoner, 2016). AAC systems can be defined as a collection of different modalities used to compensate for or replace permanent or temporary severe receptive and expressive speech-language developmental disorders (ASHA, 2017; Davidoff, 2017). AAC mechanisms constitute an array of options differentiated between unaided and aided modes. Unaided AAC modalities include the use of an individual's body to communicate via gestures, pointing, and sign language (Downing et al., 2015); while aided AAC modes involve the use of a device such as a picture exchange communication board, speech app, or speech-language generating mechanism (ASHA, 2016). Access to the use of unaided and aided AAC allows students to communicate, participate, and be involved in both curricular and daily life activities in and outside of the classroom. Although students with CCN may represent a small percentage of the total school population, they are not a homogenous group and generally present with highly diverse and individualized communication needs. However, even while embracing inclusive instructional practices, educational practitioners report limited knowledge or understanding in how to assist students with CNN to access to the school curriculum (Andzik et al., 2019; Thistle & Wilkinson, 2015).

The Role of Teacher Preparation Programs and Alternative-Augmentative Communication

University teacher preparation programs have a professional and social justice obligation to train pre-service special education teachers (SETs) to embrace the diverse learning and instructional needs of all students. However, the extant literature indicates that SETs often feel underprepared to meet the broad-spectrum of speech-language-communication needs for students (Adger et al. 2018; Billingsley & Bettini, 2019; Kangas, 2017; Shepherd et al., 2016). Despite significant

advancements in the field of assistive technology, the literature further suggests that SETs confront additional challenges when working with students who require the use of AAC systems that extend beyond instruction, assessment, and intervention (Andzik et al., 2018; Biggs et al., 2022; Da Fonte et al., 2022). For example, SETs need to effectively integrate AAC systems into daily instruction as well as ensure that such devices are used with fidelity during classroom curricular activities (ASHA, 2016). Of equal importance is fostering students' participation in social interactions and use of functional language with classmates, peers, and family members (Biggs & Hacker, 2021a; Biggs & Hacker, 2021b).

Studies specific to teacher preparation programs suggest that great variance exists in how AAC is taught and integrated into the curriculum which leaves some teacher candidates better prepared than others (Chung, & Stoner, 2016; Swett, 2019). While variance exists with regard to teacher preparation programs, California's Commission on Teacher Credentials establishes the rules and regulations specific to the preparation of teachers and the awarding of certification of teaching. Although teacher performance expectations (TPEs) specific to AAC for students with CCN have been a requisite teaching standard for some time, uncertainty prevails in terms of how and the extent to which these standards are addressed. For example, Alexandra Da Fonte et al., (2022) found that majority of SETs received no explicit formal instruction during their credential program on the topic of AAC. As a result, these teachers' self-reported low levels of confidence in their knowledge of AAC, experienced isolation in assisting students with CCN, and felt unprepared to work with students who rely on AAC devices in the classroom.

In contrast, other findings demonstrate positive educational outcomes when SETs, classroom peers, and paraprofessionals received specialized AAC training (Biggs & Hacker, 2021b; Dobbs-Oates & Wachter Morris, 2016). Results show that students who require AAC are better supported to meet their communicative needs in multiple settings when SETs enter the field with high levels of preparation. In another study, Andzik and others (2018) conducted an extensive survey with over three thousand SETs across the United States. Of interest was a better understanding of SETs' shared experiences with AAC specific to university coursework, professional development, consultations with SLPs, parent workshops, and self-initiated training. Findings revealed significant correlations between teachers' level of training experience and levels of support that students with AAC devices received in their classrooms.

In sum, the extant literature demonstrates two primary findings. First, university preparation programs vary in the preparation provided to future teachers specific to serving students with CCN. Second, the training of educational practitioners is highly correlated with effective implementation of AAC within school settings (Andzik et al., 2018). Taking this information into account, of interest is how to best ensure teacher education preparation programs integrate knowledge of AAC and effectively prepare pre-service SETs to implement best instructional approaches for students with CCNs.

California's New Teacher Performance Expectations: Special Education and AAC

Recently, California's Commission on Teacher Credentialing (CTC) developed new program standards and teaching performance expectations (TPEs) for the preliminary Education Specialist Teaching Credential (refer to https://www.ctc.ca.gov/educator-prep/special-education). The research based TPEs are aligned with national teaching standards and outline the body of knowledge and skills that beginning teachers must demonstrate prior to recommendation for a

special education teaching credential (CTC, 2020). There are six broad categories of TPEs: 1) *Engaging and Supporting all Students in Learning*; 2) *Creating and Maintaining Effective Learning Environments for Student Learning*; 3) *Understanding and Organizing Subject Matter for Student Learning;* 4) *Planning Instruction and Designing Learning Experiences for all Students;* and 5) *Assessing Student Learning* and 6) *Developing as a Professional Educator* (see link for more specifics on the six TPE broad areas: https://www.ctc.ca.gov/docs/default-source/educator-prep/standards/tpe-1-6-placemat.pdf?sfvrsn=d9715cb1_2). These categories cover the five special education credential programs offered at California teacher preparation programs: Early Childhood Specialist (ECS), Mild Moderate (MM), and Extensive Support Needs (ESN), Deaf and Hard of Hearing (DHH) and Visual Impairments (VI).

Within each of these domains, and contingent upon credential type, there are universal TPEs and credential specific TPEs that are broken down into sub-components. As a result, there are as many as 88 specific TPEs for any single credential area. In this capacity, all university teacher preparation programs are grounded in a set of expectations or skills that all beginning level teachers should possess to effectively provide instruction that supports the academic growth and development of all students to meet state-level California Common Core Standards (Gao & Lafortune, 2019). Several of these TPE's explicitly mandate coursework and clinical practice to provide opportunities for candidates to demonstrate their knowledge specific to the unique characteristics of students with CCN.

Collaborations Between Special Education Teachers and Speech-Language Pathologists

The World Health Organization (2010) defines interprofessional practice (IPP) as a process in which different professionals learn from, with, and about each other's specialized areas or expertise to develop an effective collaboration. One way to ensure SETs are provided with effective classroom support for AAC users is to foster effective collaborative relationships (ASHA, 2017; Biggs et al., 2022). For example, SETs and speech-language pathologists (SLPs) each possess specialized training and performative roles in the provision of valuable educational services for students with CCN (Stehle Wallace et al., 2022). However, and simply stated—the training provided to SETs, when compared to SLPs is inadequate to meet the needs of students with CCN (Johnson & Prebor, 2019; Ogletree et al., 2018). Accordingly, a successful partnership between SETs and SLPs can ensure that students with CCN who require the use of AAC have access to high-quality language learning environments. Furthermore, IPP increases the likelihood that students will experience school success across all academic domains to include social skills, emotional well-being, and adaptive behavioral functioning (Borg & Drange, 2019; Biggs et al., 2022; Heisler & Thousand, 2021, Stehle Wallace et al., 2022).

Because most teachers complete their teacher preparation at higher education institutions, it is incumbent upon such institutions to provide future teachers with the necessary skills to develop and implement interprofessional practice (IPP). As related to AAC and students with CCN, the value of collaboration is particularly noted between school based SLPs and SETs (Biggs & Hacker, 2016; Chung & Stoner, 2016). Interprofessional practice (IPP) calls for mutual respect and shared values among educators; delegation of roles and responsibilities to address the needs of students; and effective communication that fosters a team approach (ASHA, 2017; Interprofessional Education Collaborative, 2016). The classroom settings for students who use AAC are typically one of the most segregated settings within a school district—meaning that neither students nor

SLP have access to peers or communicative partners. The SLP largely holds the expertise in the use of AAC devices (Moorcroft et al., 2019), thus limiting integration of students and teachers alike which further perpetuates an exclusionary working environment. Under these circumstances, the SET, who is primarily responsible for the delivery of specialized instruction, remains excluded and with limited knowledge specific to integration of AAC systems. Accordingly, the communication needs of students with CCNs often go unmet, unnoticed, or ignored. This existing reality not only violates a student's right to access a fitting mode of communication in the classroom but potentially limits language development, acquisition of functional communication skills, and early literacy skills for both reading and writing (Andzik et al., 2019; Ogletree et al., 2018).

As mentioned previously, SLPs provide instructional support services to students with CCN who require access to AAC in clinical and educational practice. Yet in a similar manner to university teacher education programs, many clinical preservice communication science and disorder programs for future SLPs offer minimal AAC training since many faculty and clinical supervisors tend to possess limited expertise in AAC systems and their use (Davidoff, 2017; Johnson, & Prebor, 2019). As a result, both SLPs and SETs may be at risk of completing the required components of their credential program and graduating with minimal-to-no exposure to AAC, with little knowledge or skill in AAC service provision, and thus significantly unprepared for entry-level classroom practice (Heisler, & Thousand, 2021; Waters, 2017).

Interprofessional Practice: Special Education Teachers and Speech-Language Pathologists

In response to addressing the topic of AAC and students with CCN, a faculty member from Special Education Department at an urban Minority Serving Institution contacted the speech and language division of a large urban school district. Through IPP collaboration, which included several discussions via telephone and emails, a meaningful connection was formed between the faculty member who was interested in learning more about the intricacies of AAC and the designated school district SLP who in turn was interested and willing to share their expert knowledge with SETs in training. It is important to remember that, although SLPs complete a clinical master's program, SLPs tend to have a wide range of experiences with AAC. As a result, the partnering school district requires all newly hired SLPs to complete an introductory professional development on AAC specific to the speech and language division's expectations and procedures for AAC screenings and assessments. As a result, this IPP team determined that this presentation, with modifications, would provide beginning SETs with a strong foundation to meet the needs of their P-12 students.

Both the instructor and speech pathologist met to develop the presentation and the course assignment by identifying universal Teacher Preparation Expectations (TPEs) and credential specific elements of the TPEs. The goal was to incorporate newly identified TPEs as per California Teaching Credential Council (CCTC, 2020) to prepare pre-service education specialist teachers so that in turn they can implement best AAC practices (see Table 1). Of importance was to make sure that students in the course were able to understand a multi-modality approach to language development and acquisition.

This foundational course specific to language development and emergent literacy is required for all Educational Specialist Credentials: Mild Moderate Support Needs (MMSN), Extensive Support Needs (ESN), and Early Childhood Special Education (ECSE). There are 6

broad TPEs with each TPE broken down by Universal TPE's for all teachers, then additional sub-components are further broken down by credential area—ECSE, MMSN, and ESN. Table 1 shows the six broad TPE's with two universal TPEs selected for each of the three credential areas that were emphasized in this course assignment.

Table 1. **New TPEs That Address the Goals of the IPP Assignment for Special Education Credential Students**

MM TPE 1: Engaging and Supporting All Students in Learning
 MM_U1.1. Apply knowledge of students, including their prior experiences, interests, and social-emotional learning needs, as well as their funds of knowledge and cultural, language, and socioeconomic backgrounds, to engage them in learning.

ECS TPE 2: Creating and Maintaining Effective Environments for Young Children's Learning
ECS_5. Identify, acquire, and implement assistive technology for individual children and Universal Design for Learning (UDL) for all children, including those with low-incidence disabilities, physical/orthopedic, and other health impaired, to promote access, learning, and participation across learning environments, including using augmentative and alternative strategies and interventions for the development of communication and social skills.

MM TPE 3: Understanding and Organizing Subject Matter for Student Learning
MM_U3.4 Individually and through consultation and collaboration with other educators and members of the larger school community, plan for effective subject matter instruction and use multiple means of representing, expressing, and engaging students to demonstrate their knowledge.

ECS TPE 4: Planning Instruction and Intervention and Designing Learning Experiences for All Young Children
ECS_4: Use and adapt resources, instructional materials, and a range of technology, including assistive technology, to facilitate students' equitable access to the curriculum.

ESN TPE 5: Assessing Student Learning
ESN U_5.4 Use technology as appropriate to support assessment administration, conduct data analysis, and communicate learning outcomes to students and families.

ESN TPE 6: Developing as a Professional Educator
ESN U_6.3 Establish professional learning goals and make progress to improve their practice by routinely engaging in communication and inquiry with colleagues.

Note: Acronyms are listed as Mild. Moderate (MM), Extensive Support Needs (ESN), Early Childhood Specialist (ECS), and Universal (U). The wording for the six broad TPEs is identical across credential areas except where "young" was added specific to ECS expectations as observed in TPEs #2 and #4.

Table 2. Specific Course Assignments on AAC for Education Specialist Candidates

Sequential Steps	Student Responsibilities
Hour #1	Complete an hour-long interactive presentation that introduces and provides extensive information on AAC and students with CCN. The following subtopics were addressed: • Steps to determine good candidates for AAC • Collaborative efforts with stake holders • Forms of non-verbal communication, receptive, and expressive language • Pre-linguistic features: joint attention, turn taking, gestures • Fringe words vs. core words • Types of AAC devices: low to high technology • Early language development and semantic features • Collaborations with educational practitioners, itinerant staff, and others • Students interact with AAC devices and simulate communicating in real-world contexts (examples include conversations with peers, in-class reading, school cafeteria, and in the community with family members)
Hour # 2	Students read, review, and discuss a series of evidenced-based research articles on student users of AAC, English Learners, and IPP • Students summarize and reflect on articles and AAC in the classroom • Students discuss AAC and multilingual/multimodality populations • Students share past experiences, present concerns, and future directions
Hour #3	Students meet in groups to review, prepare, and share case studies on students with CCN • Students develop an action plan for a student user of AAC that includes a beginning referral process, assessments, and IEP meeting • Students review ways to incorporate AAC in the classroom for instructional purposes • Students develop a family-centered approach to support AAC in the school and at home with the family and community

AAC Course Assignment and Components

The three-hour in-class presentation led by the SLP (Table 2) introduces basic components of AAC in terms of the types of students who benefit from trial screenings and the implementation of formal

diagnostic assessment considerations (Romski et al., 2015). Of importance was to incorporate a multitude of AAC devices that reflected a range from low- to medium- and high-technology options so that SETs have opportunities to engage in didactic learning experiences. As well the concept of core and functional words is presented along with a variety of available AAC devices across the continuum of low- and high-technology devices. Special education credential candidates become involved in simulating the use of a core communication board specific to a daily routine (e.g., to order food in the school cafeteria) and a challenge to develop the lengthiest utterance specific to a school-based setting (e.g., requesting information, describing a picture, telling a story, playing at recess) via use of a core word picture board. Candidates also begin to understand how AAC does not replace verbal expression but serves as a supplementary approach to support the needs of individuals with CCN. Additionally, SETs learn about pre-linguistic and early language development specific to vocabulary development and core and functional words. As well, an understanding of early semantic development is critical and most often associated with the initial use of single words and the transition to the increase in use of two- and then three-word phrases (Bloom, 1970; Frick Semmler et al., 2023). Added components included in this collaborative training address how SETs and SLPs identify the communication needs of students specific to language form and function, communication developmental milestones, and social communicative intent during peer interactions. After the interactive session, students then complete the assignment by reviewing several peer-reviewed articles on AAC of their choice as well as the development of an action plan that integrates interprofessional practices connected to instruction, assessment, and intervention that is focused on developmental communication goals.

As provided in the course syllabus, an important and final component of this assignment is highlighted in each of the broad TPEs listed below. In this sense, pre-credential students who complete this assignment learn not only about meeting the educational needs of future students in their own classrooms who present with CCN but also how to reach out to colleagues for support, as in this case the school based SLP, to nurture and develop successful IPPs. Provided is a final review of the six broad-based TPEs along with integrated highlights from the course assignment.

#1. Engaging and Supporting all Students in Learning

An important contribution of this assignments is for students to learn and identify appropriate support needs of students with CCN. As a result, pre-service teachers will learn how to introduce learning strategies, provide access, and support auditory comprehension, and develop applicable and realistic language development goals within the IEPs for those students.

#2. Creating and Maintaining Effective Learning Environments for Student Learning

As demonstrated and emphasized during the presentation, of importance is that teachers learn how to support children's access to communication for both curricular and social contexts. Out of necessity, the classroom teacher needs to learn how to implement a broad range of co-teaching and collaborative instructional strategies that are not only family-centered but culturally and linguistically relevant.

#3. Understanding and Organizing Subject Matter for Student Learning

An added emphasis in this assignment is the urgent need for teachers to be prepared to be able to effectively provide pertinent modifications and accommodations for AAC users along with the ability to differentiate the instruction of students with CCN. Pre-service teachers are informed and reminded of the need to facilitate access to the Least Restrictive Environment (LRE) while supporting communication for users of AAC with peers and other school-related staff.

#4. Planning Instruction and Designing Learning Experiences for all Students

Key here is the message of collaborating with the school based SLP in terms of learning how to use evaluation and assessment data on an ongoing basis. The need to establish baseline information and other types of data related to how students with CNN respond to instruction coincide with the need to monitor progress and the steps necessary to reach specific goals and objectives as listed in the student's IEP.

#5. Assessing Student Learning

During the presentation and review of current literature for this assignment, students gain exposure and begin to learn how to administer both formal and informal assessments for users of AAC. For students who use AAC, the lead teacher needs to be able to facilitate and understand how to develop and implement fitting accommodations and modifications so that students with CCN can meaningfully participate in curricular assessment measures.

#6. Developing as a Professional Educator

A fundamental takeaway from this assignment is the emphasis on the importance of creating supportive partnerships with parents, families, teachers, and employees. In this sense, the teacher learns how to coordinate and collaborate with paraprofessionals and others in the classroom to provide instructional, behavioral, social-emotional and sensory feedback to students with CCN. Additionally, SETs should be aware of the need to ask for support from their school administrators to attend conferences or professional development on AAC.

Implications and Future Directions

University education preparation programs are responsible for recommending candidates who are well prepared to embrace the many challenges of today's classrooms. All teachers but more specifically, SETs will most likely encounter students with CCNs who use an AAC device. Unfortunately, many SETs enter the field feeling underprepared to do so. Therefore, it is imperative that beginning SETs have the skills and knowledge needed to effectively implement AAC with students who have CCNs. In efforts to ensure SETs are ready to meet the needs of all students, new TPE's were implemented in Fall, 2022. Essential to the implementation of these TPE's, is the need for university education preparation programs to provide interdisciplinary professional training opportunities for SETs to identify supportive best practices for students who present with CCNs. It is hoped that the information presented here that describes this IPP between an SLP and SET is one strategy that will be of assistance to other teacher preparation faculty members seeking to ensure their candidates are prepared to effectively and with fidelity use AAC devices within their classrooms—thus improve communicative abilities of students with CCNs. Further, these authors recommend collaboration between faculty across as well as within

institutions to develop instructional materials that can be shared with other professionals seeking to increase SETs' ability to collaborate with colleagues, strengthen interprofessional practices, and develop AAC plans.

References

Adger, C. T., Snow, C. E., & Christian, D. (Eds.). (2018). *What teachers need to know about language* (Vol. 2). Multilingual Matters.

Alder, E. C. (2017). *English and Non-English-speaking families utilizing augmentative and alternative communication (AAC) at home* [Unpublished master's thesis]. California State University, East Bay.

Alexandra Da Fonte, M., Boesch, M. C., DeLuca, E. R., Papp, S. K., Mohler, A. E., Holmes, E. E., & Urbano, R. (2022). Current preparation status in AAC: perspectives of special education teachers in the United States. *Augmentative and Alternative Communication*, 1-12. https://doi/10.1080/07434618.2022.2046851

American Speech-Language-Hearing Association, (2016). Information for AAC users, https://www.asha.org/public/speech/disorders/InfoAACUsers.htm

American Speech-Language-Hearing Association. (2017). Interprofessional practice engagement survey results, March 2017. https://www.asha.org/uploadedFiles/2017- Interprofessional-Practice-Survey-Results.pdf

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. https://doi.org/10.1080/20473869.2017.1368909

Andzik, N. R., Schaefer, J. M., Nichols, R. T., & Chung, Y. C. (2018). National survey describing and quantifying students with communication needs. *Developmental Neurorehabilitation*, *21*(1), 40-47. https://doi:10.1080/17518423.2017.1339133

Barman, B. E., Dubasik, V. L., Brackenbury, T., & Colcord, D. J. (2023). Graduate students' perceived preparedness and confidence to work with individuals who use augmentative and alternative communication. *American Journal of Speech-Language Pathology*, 1-17. https://doi.org/10.1044/2023_AJSLP-22-00282

Biggs, E. E., Bumble, J. L., & Hacker, R. E. (2022). Professional networks of special educators and speech-language pathologists working with students who use augmentative and alternative communication. *Remedial and Special Education.* https://doi.org/10.1177/07419325221128497

Biggs, E. E., & Hacker, R. E. (2021a). Ecological systems for students who use AAC: Stakeholders' views on factors impacting intervention and outcomes. *Research and Practice for Persons with Severe Disabilities*, *46*(4), 259-277. https://doi.org/10.1177/154079692110523097

Biggs, E. E., & Hacker, R. (2021b). Engaging stakeholders to improve social validity: Intervention priorities for students with complex communication needs. *Augmentative and Alternative Communication*, *37*(1), 25-38. https://doi.org/10.1080/07434618.2021.1881824

Billingsley, B., & Bettini, E. (2019). Special education teacher attrition and retention: A review of the literature. *Review of Educational Research*, *89*(5), 697-744.

Bloom, L. (1970). *Language development: Form and function in emerging grammars.* Cambridge: MIT.

Borg, E., & Drange, I. (2019). Interprofessional collaboration in school: Effects on teaching an learning. *Improving Schools*, *22*(3), 251-266. https://doi:10.177/1365480219864812

Chung, Y. C., & Stoner, J. B. (2016). A meta-synthesis of team members' voices: What we need and what we do to support students who use AAC. *Augmentative and Alternative Communication*, *32*(3), 175-186. https://doi.org/10.1080/07434618.2016.1213766

Commission on Teacher Credentialing (2020). *Education Specialists Teaching and Other Related Services Credential Program Standards*.

Every Student Succeeds Act, 20 U.S.C. § 6301 (2015). congress.gov/114/plaws/publ95/PLAW 114publ95.pdf

Da Fonte, M.A., Boesch, M.C., DeLuca, E.R., Papp, S.K., Mohler, A.E., Holmes, E.E., Katie A. Clouse, K.A., Young, R.D., & Urbano, R. (2022) Current preparation status in AAC: perspectives of special education teachers in the United States, *Augmentative and Alternative Communication, 38*(1), 29-40. https://doi.org/10.1080/07434618.2022.2046851

Davidoff, B. E. (2017). AAC with energy—earlier: Research shows that children with communication challenges do best when introduced to augmentative and alternative communication as early as 12 months. *The ASHA Leader*, *22*(1), 48-53. https://doi.org/10.1044/leader.FTR2.22012017.48

Dobbs-Oates, J., & Wachter Morris, C. (2016). The case for interprofessional education in teacher education and beyond. *Journal of Education for Teaching*, *42*(1), 50-65. https://doi.org/10.1080/02607476.2015.1131363

Downing, J. E., Hanreddy, A., & Peckham-Hardin, K. (2015). *Teaching communication skills to students with severe disabilities*. Brookes.

Elsahar, Y., Hu, S., Bouazza-Marouf, K., Kerr, D., & Mansor, A. (2019). Augmentative and alternative communication (AAC) advances: A review of configurations for individuals with a speech disability. *Sensors*, *19*(8), 1911. https://doi.org/10.3390/s19081911

Frick Semmler, B. J., Bean, A., & Wagner, L. (2023): Examining core vocabulary with language development for early symbolic communicators, *International Journal of Speech Language Pathology*, *17*(10). https://doi.org/10.1080/17549507.2022.2162126

Gao, N., & Lafortune, J. (2019). Common Core State Standards in California: Evaluating Local Implementation and Student Outcomes. *Public Policy Institute of California*.

Heisler, L. A., & Thousand, J. S. (2021). A guide to co-teaching for the SLP: A tutorial. *Communication Disorders Quarterly*, *42*(2), 122-127. https://doi.org/10.1080/02607476.2015.1131363

Individuals with Disabilities Education Improvement Act, Amendments of 2004, 20 U.S.C. § 1400 *et seq.* (2004). http://www.ed.gov/policy/speced/leg/idea/ idea.pdf.

Interprofessional Education Collaborative. (2016). *Core competencies for interprofessional collaborative practice:* 2016 update. Washington, DC.: Interprofessional Education Collaborative.

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. https://doi.org/10.1044/2018_AJSLP-18-0004

Kangas, S. E. (2017). "That's where the rubber meets the road": The intersection of special education and dual language education. *Teachers College Record*, *119*(7), 1-36.

Ludwig, D. A., & Kerins, M. R. (2019). Interprofessional education: Application of interprofessional education collaborative core competencies to school settings. *Perspectives of the ASHA Special Interest Groups*, *4*(2), 269-274. https://doi.org/10.1044/2018_PERS-SIG2-2018-0009

Moorcroft, A., Scarinci, N., & Meyer, C. (2019). A systematic review of the barriers and facilitators to the provision and use of low-tech and unaided AAC systems for people with complex communication needs and their families. *Disability and Rehabilitation: Assistive Technology*, *14*(7), 710-731. https://doi.org/10.1080/17483107.2018.1499135

Murphy, K. L. (2020). Civil Rights Laws: Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973: IA v. Seguin Indep. Sch. Dist. 881 F. Supp. 2d 770. *Journal of Physical Education, Recreation & Dance*, *92*(1), 57-59. https://doi.org/10.1080/07303084.2021.1844555

No Child Left Behind Act, 20 U.S.C.S. § 6301 *et seq.* (2001); 34 C.F.R. § 200.1 *et seq.* (2003).

Ogletree, B., McMurry, S., Schmidt, M., & Evans, K. (2018). The changing world of augmentative and alternative communication (AAC): Examining three realities faced by today's AAC provider. *Perspectives of the ASHA special interest groups*, *3*(12), 113-122. https://doi.org./10.1044/persp3.SIG12.113

Robertson, P., McCaleb, K. N., & McFarland, L. A., (2022) Preparing *all* educators to serve students with extensive support needs: An interdisciplinary approach, *The New Educator, 18*(1-2), 87-109. https://doi.org/10.1080/1547688X.2022.2055248

Romski, M., Sevcik, R. A, Barton-Hulsey, A., & Whitmore, A. S. (2015). Early intervention and AAC: What a difference 30 years makes. *Augmentative and Alternative Communication, 31*(3), 181–202. https://doi.org/10.3109/07434618.2015.1064163.

Sauerwein, A.M., & Burns, M. M. (2022). Augmentative and alternative communication course design features: A survey of expert faculty and instructors. *American Journal of Speech-Language, 31,* 221-238, https://doi.org/10.1044/2021_AJSLP-20-00070

Stehle Wallace, E., Senter, R., Peterson, N., Dunn, K. T., & Chow, J. (2022). How to establish a language-rich environment through a collaborative SLP–teacher partnership. *TEACHING Exceptional Children*, *54*(3), 166-176.

Shepherd, K. G., Fowler, S., McCormick, J., Wilson, C. L., & Morgan, D. (2016). The search for role clarity: Challenges and implications for special education teacher preparation. *Teacher Education and Special Education*, *39*(2), 83-97.

Swett, N. V. (2019). *The readiness of special educators to teach using augmentative and alternative communication (AAC);* [Unpublished doctoral dissertation]. San Diego State University.

Thistle, J. J., & Wilkinson, K. M. (2015). Building evidence-based practice in AAC display design for young children: Current practices and future directions. *Augmentative and Alternative Communication*, *31*(2), 124-136. https://doi:10.3109/07434618.2015.1035798

Thistlethwaite, J., Moran, M., & World Health Organization Study Group on Interprofessional Education and Collaborative Practice. (2010). Learning outcomes for interprofessional education (IPE): Literature review and synthesis. *Journal of Interprofessional Care*, *24*(5), 503-513. https://doi.org/10.3109/13561820.2010.483366

Waters, J. (2017). What ESSA plans are saying about collaboration. https://education-first.com/collaborationin-essa/

World Health Organization. (2010). Framework for action on interprofessional education and collaborative practice. https://www.who.int/hrh/resources/framework_action/en/

Yamasaki, B. L., & Luk, G. (2018). Eligibility for special education in elementary school: The role of diverse language experiences. *Language, Speech, and Hearing Services in the Schools*, *49*(4), 889-901. https://doi.org/10.1044/2018_LSHAA-DYSLC-19-006

Appendix

Communication Bill of Rights: National Joint Committee for the Communication Needs of Persons with Severe Disabilities (NJC).

All people with a disability of any extent or severity have a basic right to affect, through communication, the conditions of their existence. Beyond this general right, a number of specific communication rights should be ensured in all daily interactions and interventions involving persons who have severe disabilities. To participate fully in communication interactions, each person has these fundamental communication rights:

1. The right to interact socially, maintain social closeness, and build relationships.
2. The right to request desired objects, actions, events, and people.
3. The right to refuse or reject undesired objects, actions, events, or choices.
4. The right to express personal preferences and feelings.
5. The right to make choices from meaningful alternatives.
6. The right to make comments and share opinions.
7. The right to ask for and give information, including information about changes in routine and environment.
8. The right to be informed about people and events in one's life.
9. The right to access interventions and supports that improve communication.
10. The right to have communication acts acknowledged and responded to even when the desired outcome cannot be realized.
11. The right to have access to functioning AAC (augmentative and alternative communication) and other AT (assistive technology) services and devices at all times.
12. The right to access environmental contexts, interactions, and opportunities that promote participation as full communication partners with other people, including peers.
13. The right to be treated with dignity and addressed with respect and courtesy.
14. The right to be addressed directly and not be spoken for or talked about in the third person while present.
15. The right to have clear, meaningful, and culturally and linguistically appropriate communications.

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Note: Download a PDF version of the *National Joint Committee's Communication Bill of Rights* [PDF].