

Supplemental Material S1. Operational definitions of targeted skill areas addressed in children’s IEP goals.

Skill Area	Operational Definition	Goal Example
Augmentative and Alternative Communication (AAC)	Goals and objectives that target use of both aided and unaided augmentative and alternative communication strategies. Any mention of an AAC strategy within a child’s goal statements automatically qualified it for inclusion in this category. Therefore, this category represents a wide range of goals that specify a mode of AAC, as well as incorporate an additional communication-focused goal to reach academic and functional purposes. Examples of AAC keywords that qualified goals for this category are device, auditory scanning, reaching, touching, switch use, eye gaze, talker, head switch, communication book, and facial expressions. Examples of communication functions combined with a specified AAC modality include appropriate social interaction, literacy-based activities, clarification of emotional states, physical safety, response to yes/no questions, emailing, completing vocational tasks, demonstration of schedule awareness, choice of preferred activities, participation in physical education games.	Given a switch with a preprogrammed phrase, XX will press the switch at an appropriate time to participate in an activity with no more than two prompts or cues at least 8/10 opportunities with minimal cues as observed by clinician, teacher or other care giver
Hearing	Goals and objectives that target use of assistive hearing technologies. Examples of goal areas included achieving independence in maintaining hearing aids, demonstrating listening strategies in noisy environments, building self-advocacy skills in asking for help with technology, and building awareness of when help from a teacher or professional is needed. This group only includes goals related to the isolated skill of receiving auditory input and excludes goals related to receptive language skills such as understanding spoken directions and comprehending instructions.	Given a real life situation, XX will be able to provide three difficult listening environments and at least one strategy he could use to maximize auditory access in difficult listening environments in 3 of 4 opportunities by November 2019 as reported by his Deaf/Hard of Hearing teacher during 1:1 sessions
Executive Functioning	Goals and objectives that target skills related to inhibitory control, emotional control, task initiation, planning, working memory, attention, flexibility, and task transitioning. Goals in this category may not explicitly state communication outcomes but rather tend to	When given a task or direction, XX will begin the task within 1 minute and remain on task for a minimum of 10 minutes independently with no

	focus on a student’s cognitive control of their own behavior within the expectations of their school environment. Examples of goal areas include time management skills, self-advocacy/awareness of needs, organization of school assignments, awareness of personal skills, emotional/behavioral control, reducing impulsive behaviors, focusing attention appropriately, maintaining oversight of a project, and initiating/starting a task	more than 2 prompts on 8 out of 10 independent tasks, as measured by staff data
Speech	Goals and objectives that target skills related to increasing speech intelligibility with a communication partner. Goals that mentioned producing speech accurately at the sound, syllable, word, or phrase level; controlling the four subsystems of speech production: respiration, phonation, resonance, and articulation; or repairing/identifying communication breakdowns were included in this category. Examples of goal areas in this category include repairing communication breakdowns by use of trained strategies, increasing articulation accuracy with an explicit list of targeted phonemes, or manipulation strategies with speech subsystems such as controlling breath support and phrasing while speaking.	XX will improve her ability to independently repair communication breakdowns with peers and adults by identifying and employing strategies such as (but not limited to) increased loudness, repeating, or asking questions in 4 out of 5 opportunities
Language	Goals and objectives that target skills in both receptive, expressive, and pragmatic language skills. Goals that specifically mentioned a communication modality of spoken communication (speaking) or auditory comprehension skills (listening) were assigned to this category. If goals included language about reading and writing as communication modalities, they were sorted into the literacy category, even though those goals may also be targeting language-based skills. If a goal was difficult to place between the language and literacy categories and had no specific mention of communication modality, it was placed in the language category by default. Goals and objectives that target the social components of communication with familiar and unfamiliar partners (pragmatic language) were also included in this category. Examples of goal areas in this category are vocabulary development, answering <i>Wh</i> -questions, creating spoken sentences, incorporating vocabulary words into grammatically correct sentences, answering questions	XX will demonstrate comprehension of 75% of targeted vocabulary words by providing a definition, synonym, or using the word in a meaningful sentence. The targeted words are the following: fact, opinion, predict, evidence, compare, contrast, describe, estimate

	appropriately, making predictions, and using word recall exercises, communicating appropriately with peers and adults, understanding unwritten social rules, knowledge and adherence to socially appropriate personal space, generating comments and questions during a conversation, providing relevant information to communication partners, asking related follow up questions, and identifying/explaining social rules.	
Literacy	Goals and objectives that target skills related to reading and writing. Goals that specifically mentioned a communication modality of reading and writing were assigned to this category, including the modality of typing/writing on a computer. Goals specific to the fine motor components of operating a keyboard were excluded from this category. Examples of goal areas in this category are national common core standards for literacy development, references to a structured reading classification system (e.g., Fountas and Pinnell), reading comprehension strategies, ability to write first and last name, decoding skills, organization skills in writing such as formatting and paragraph structure, editing skills in writing (e.g., spelling, punctuation, capitalization), persuasive writing, identification of relevant details in text, knowledge of story grammar in text, reading fluency, and citing textual evidence to support a claim.	XX will increase his reading comprehension skills from answering comprehension questions with 60% accuracy at level I/J/K to answering comprehension questions at level K with 80% accuracy.
