Myths and Facts Surrounding Assistive Technology Devices and Services

U.S. Department of Education

January 2024

This document is designed to increase understanding of the Individuals with Disabilities Education Act's (IDEA's) assistive technology (AT) requirements, dispel common misconceptions regarding AT, and provide examples of the use of AT devices and services for children with disabilities and to highlight the different requirements under Part C and Part B of IDEA.[1]

The document is intended for a wide range of individuals including parents,[2] early intervention service providers, special educators, general educators, related services personnel, school and district administrators, technology specialists and directors, and employees at State lead agencies and educational agencies.

ASSISTIVE TECHNOLOGY DEVICE:

As used in this document and consistent with IDEA, an "assistive technology device" means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of an infant, toddler or child with a disability.[3]

ASSISTIVE TECHNOLOGY SERVICE:

As used in this document and consistent with IDEA, an "assistive technology service" means any service that directly assists an infant, toddler or child with a disability in the selection, acquisition, or use of an AT device. The term includes:

(a) The evaluation of the needs of an infant, toddler or child with a disability, including a functional evaluation of the child in the child's customary environment;

(b) Purchasing, leasing, or otherwise providing for the acquisition of AT devices by children with disabilities;

(c) Selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing AT devices;

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[1] This document contains resources that are provided for the reader's convenience. The inclusion of these materials is not intended to reflect its importance, nor is it intended to endorse any views expressed, or products or services offered. These materials may contain the views and recommendations of various subject matter experts as well as hypertext links, contact addresses and websites to information created and maintained by other public and private organizations. The opinions expressed in any of these materials do not necessarily reflect the positions or policies of the U.S. Department of Education (Department). The Department does not control or guarantee the accuracy, relevance, timeliness, or completeness of any outside information included in these materials.

[2] IDEA broadly defines "parent" to include the biological or adoptive parent of the child, a foster parent (unless State law prohibits the foster parent from acting as a parent), a guardian authorized to act as the child's parent or to make educational decisions for the child (but not the State if the child is a ward of the State), an individual acting in the place of a biological or adoptive parent (including a grandparent, stepparent, or other relative) with whom the child lives, an individual who is legally responsible for the child's welfare, or a surrogate parent who has been appointed consistent with IDEA's requirements in 34 C.F.R. § 300.519. For a complete definition, see 34 C.F.R. §§ 300.30 and 303.27.

[3] 34 C.F.R. §§ 300.5 and 303.13(b)(1)(i). Note that the definition of an AT device excludes a medical device that is surgically implanted, or the replacement of such device.

(d) Coordinating and using other therapies, interventions, or services with AT devices, such as those associated with existing education and rehabilitation plans and programs;

(e) Training or technical assistance for an infant, toddler or child with a disability or, if appropriate, that child's family; and

(f) Training or technical assistance for professionals (including individuals providing education or rehabilitation services), employers, or other individuals who provide services to, employ, or are otherwise substantially involved in the major life functions of infants, toddlers, and children with disabilities.[4]

[4] 34 C.F.R §§ 300.6 and 303.13(b)(1)(ii).

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I. ASSISTIVE TECHNOLOGY REQUIREMENTS UNDER PART B OF THE INDIVIDUALS WITH DISABILITIES EDUCATION ACT

MYTH 1: Assistive Technology (AT) should only be considered at some individualized education program (IEP) Team meetings.

FACT: Each time an IEP Team develops, reviews, or revises a child's IEP, the IEP Team must consider whether the child requires AT devices and services.[5]

Further, when an IEP Team determines AT devices and services are required to enable the child to receive a free appropriate public education (FAPE), the local educational agency (LEA)[6] is responsible for providing and maintaining the AT device and providing any necessary AT service.[7] The IEP Team has discretion in determining the type of AT device and service that the child needs to receive meaningful educational benefit. Specifically, IEPs must include a statement of the special education and related services and supplementary aids and services, which may include AT devices and services, based on peer-reviewed research, to the extent practicable, that will allow the child to: (i) advance appropriately toward attaining the annual goals in a child's IEP; (ii) be involved in and make progress in the general education curriculum; (iii) participate in extracurricular and other nonacademic activities; and (iv) be educated and participate with other children with disabilities and nondisabled children.[8]

MYTH 2: Providing AT devices and services is optional under IDEA and an LEA does not have to provide AT devices and services if there are no funds available for the AT device and service.

FACT: IEP Teams must consider AT devices and services for all children with IEPs and must provide and fully fund the AT devices and services if the IEP Team determines they are necessary to provide FAPE for the child.

As required by IDEA and its regulations, IEP Teams, as part of the development, review and revision of a child's IEP, must consider whether a child needs AT devices and services.[9] AT devices and services must be funded by the LEA and be provided to a child if the IEP Team determines they are required as part of

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[5] 34 C.F.R. § 300.324(a)(2)(v) and (b)(2).

[6] To increase readability, the Department has used the term "LEA" in place of "public agency." Public agency is defined in 34 C.F.R. § 300.33 to include the state educational agency (SEA), LEAs, educational services agencies (ESAs), nonprofit public charter schools that are not otherwise included as LEAs or ESAs and are not a school of an LEA or ESA, and any other political subdivisions of the State that are responsible for providing education to children with disabilities. The program requirements under Part B of IDEA apply to public agencies. See 34 C.F.R. §§ 300.120 and 300.600(b)(2).

[7] 34 C.F.R. § 300.105.

[8] 34 C.F.R. §§ 300.320(a)(4) and 300.324(a)(2)(v) and (b)(2).

[9] 34 C.F.R. § 300.324(a)(2)(v) and (b)(2).

the child's special education, related services or supplementary aids or services.[10] If IEP Team members lack knowledge about AT options to support the child's needs, they must engage other individuals who are knowledgeable about AT options in the decision-making process.[11] IEP Team members could also contact their State or territory AT program for additional technical assistance on appropriate AT devices and services (see Myth/Fact 22).

MYTH 3: Providing an AT device to a child with a disability satisfies the IDEA's AT requirements.

FACT: IDEA requires IEP Teams to consider whether a child with a disability needs AT devices and services.

While providing a needed AT device is a critical component of meeting the IDEA's AT requirement, AT services are important and must be considered by a child's IEP Team because they directly assist a child with a disability in the selection, acquisition, or use of an AT device.[12] AT services also ensure that parents and families, teachers and related service providers receive training on how to use and implement the device as well as ensure coordination so that the AT device provided to the child can be used correctly and consistently both in school and at home. For example, if an IEP Team determines that a child needs a pencil grip as an AT device to improve the child's grasp of a pencil, the AT service could include testing out multiple pencil grips, selecting the appropriate pencil grip, training the child's parents and teachers on the correct way to use the pencil grip and developing strategies to support the child in using the pencil grip throughout the day.

MYTH 4: An AT evaluation must be conducted prior to providing an AT device and service to a child with a disability.

FACT: An AT evaluation can be included as an AT service for a child but is not required under the IDEA.

The specific AT devices and services needed by a child with a disability are determined appropriate by the IEP Team based on the child's needs. Many AT devices and services can be provided without an AT evaluation. For example, a graphic organizer that assists a child to categorize ideas into topics, subtopics, and supporting facts generally would not require an evaluation prior to its use. An AT evaluation may be needed for a child when it comes to determining an appropriate AT device that the child would need to use throughout the school day, such as read-aloud software, or the use of peer readers during different academic periods. IDEA calls this a functional evaluation of the child in the child's customary environment.[13] An AT evaluation may be included as part of an initial evaluation or reevaluation, or it may be a standalone evaluation.[14] If an IEP Team determines that an AT evaluation is needed, consent must be

[10] 34 C.F.R. § 300.105(a).
[11] 34 C.F.R. § 300.321.
[12] 34 C.F.R. § 300.6.
[13] 34 C.F.R. § 300.6(a).
[14] See Office of Special Education Programs (OSEP) Letter to Fisher, December 4, 1995.

obtained from the parent prior to conducting the evaluation.[15] The functional evaluation may include observations of the child's interactions across different locations in school and at home and identify strengths and weaknesses the child has in completing tasks. This evaluation can provide data and information to determine when and why an AT device and service is needed and could then be matched with an appropriate AT device and service based on the child's needs.

MYTH 5: Children can learn to use an AT device on their own; educators have no obligation to provide training to a child or to their family.

FACT: It is the responsibility of the LEA to ensure that the child with a disability, parents, and educators know how the AT device works through the provision of AT services.

Should an IEP Team determine that a child requires an AT device, the IEP Team also needs to consider whether the child requires training or technical assistance on using the AT devices and ensure that the training and technical assistance is provided if required.[16] For example, the IEP Team determines that a four-year-old child who is nonverbal needs an augmentative and alternative communication (AAC) device[17] to support the child's communication with teachers, related service providers and other children in a preschool classroom. To ensure that the child can successfully use the AAC device, the IEP Team needs to consider and potentially provide AT services, including but not limited to:

- Selecting, designing, fitting, customizing, and adapting the AAC device;
- Coordinating and using other therapies, interventions, or services with the AAC device, such as those associated with existing education plans and programs;
- Training or technical assistance for a child with a disability or, if appropriate, that child's family;
- Training or technical assistance for educational professionals or other individuals who are otherwise substantially involved in the major life functions of the child; and[18]
- If determined by the IEP Team, identifying additional individuals who will assist the child in accessing the AAC device and addressing any other communication needs of the child.[19]

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[15] 34 C.F.R. § 300.300(a) and (c).

[16] 34 C.F.R §§ 300.324(a)(2)(v) and 300.6.

[17] While not defined in IDEA, augmentative and alternative communication devices are devices that either supplement a person's speech and language skills (augmentative) or replace a person's speech (alternative). See, for example, the American Speech-Language-Hearing Association website for a description of AAC https://www.asha.org/public/speech/disorders/aac/. For this example, an AAC device is an AT device.

[18] 34 C.F.R. §§ 300.6(c)-(f).

[19] IDEA also requires IEP Teams to consider the communication needs of a child which may require additional special education, related services and supplementary aids and services for the child to receive FAPE. See 34 C.F.R. § 300.324(a)(2)(iv).

MYTH 6: Specific AT decisions do not need to be included in the written IEP document.

FACT: IDEA requires the IEP to include a statement about a child's special education, related services, and supplementary aids and services.

If AT devices and services are being made available as part of the special education, related services, or supplementary aids or services for a child with a disability, they must be included in the IEP.[20] This ensures that the teachers and providers who are responsible for implementing the IEP are aware of the specific AT devices and services that must be provided to the child in accordance with the IEP.[21]

MYTH 7: AT does not need to be considered as part of the secondary transition process (i.e., transitioning out of high school to post-secondary education, employment opportunities or adult services).

FACT: AT should be considered for inclusion in a child's transition plan, as AT devices and services create more opportunities for that child to be successful in their post-secondary plans.

The AT needs of a child with a disability do not necessarily stop when they transition out of high school. If a child requires an AT device and service in their IEP, then it should be discussed and included in their transition plan. IDEA requires that the first IEP after a child turns 16 (or sooner if determined appropriate by the IEP Team or if required by State law) includes transition services. Transition services are a coordinated set of services designed to assist a child with a disability in reaching their envisioned post-secondary goals.[22] If the IEP Team determines that the transition services will consist of special education and related services, then the IEP Team must also consider the child's need for existing or new AT devices and services as part of the transition services.[23] With the consent of the parents (or the child if they are at the age of majority), the LEA must invite any participating agency that is likely to be responsible for providing or paying for transition services to be a member of the IEP Team and collaborate with that agency to ensure that transition services are provided in accordance with the IEP.[24] The child's AT needs should be shared with the participating adult agency, so that AT devices and services can be provided when the child exits the LEA. AT devices and services can support vocational-related or post-secondary education-related tasks. Research has demonstrated positive outcomes for individuals with disabilities, including increased postsecondary education enrollment, improved post-secondary academic outcomes, positive vocational outcomes, and improved independent living skills, who receive AT devices and training on the AT device for their post-secondary life.[25]

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[20] 34 C.F.R. §§ 300.105, 300.320(a)(4), and 300.324(a)(2)(v) and (b)(2). See also OSEP Letter to Anonymous, November 27, 1991.

[21] 34 C.F.R. § 300.323(d).

[22] 34 C.F.R. § 300.43.

[23] 34 C.F.R. §§ 300.43(b) and 300.105.

[24] 34 C.F.R. §§ 300.321(b)(3) and 300.324(c).

[25] Satterfield, B. (2020). Mastery of Assistive Technology in High School and Postsecondary Performance. Assistive Technology Outcomes & Benefits (ATOB), 14.

MYTH 8: AT cannot be used for participation in State academic assessments.

FACT: The Elementary and Secondary Education Act (ESEA) requires States to provide the appropriate accommodations, which includes the use of AT devices for students with disabilities as part of their State assessments.[26]

The ESEA requires States to give academic assessments to all public school students in reading/language arts and mathematics annually in grades 3 through 8 and once in high school and at least once in grades 3-5, 6-9, and 10-12 in science. IEPs must include a statement of any individual appropriate accommodations that are necessary to measure the academic achievement and functional performance of the child on State and districtwide assessments.[27] Generally, assessment manuals for each State assessment provide information on how AT devices and other appropriate accommodations can be utilized when participating in these assessments, and state educational agencies (SEAs) and LEAs must ensure that school personnel know how to administer assessments and how to use appropriate accommodations during assessments for children with disabilities.[28]

Stumbo, N. J., Martin, J. K., & Hedrick, B. N. (2009). Assistive technology: Impact on education, employment, and independence of individuals with physical disabilities. *Journal of Vocational Rehabilitation*, *30*(2), 99-110.

Malcolm, M. P., & Roll, M. C. (2017). The impact of assistive technology services in post-secondary education for students with disabilities: Intervention outcomes, use-profiles, and user-experiences. *Assistive technology*, *29*(2), 91-98.

[26] 34 C.F.R. § 200.6(b).

[27] 34 C.F.R. § 300.320(a)(6)(i).

[28] 34 C.F.R. § 200.6(b)(2)(ii).

II. COMMON MYTHS AND FACTS ABOUT ASSISTIVE TECHNOLOGY DEVICES AND SERVICES

MYTH 9: AT always involves an electronic device and is always high-tech.

FACT: Many AT devices or tools may be computer based, but items like visual schedules and calendars, binder clips, squishy balls, or stickers may also be considered AT.

To illustrate that not all AT devices are electronic devices or high-tech, the IRIS Center — a technical assistance center funded by the U.S. Department of Education's Office of Special Education Programs (OSEP) — develops and disseminates free, online resources about evidence-based instructional and behavioral practices to support the education of all students, particularly struggling learners and those with disabilities. The IRIS Center created a chart that categorizes AT devices into low-tech, mid-tech, and high-tech devices that assists in showing the type of AT device and the relative cost of the device.[29]

Type	Definition	Examples
Low-tech	Devices that are readily available, inexpensive, and typically do not require batteries or electricity	• Specialized rubber pencil grip • Page holder • Modified scissors
Mid-tech	Devices that are usually digital and may require batteries or another power source	• Calculator • Audio book • Digital recorder
High-tech	Devices that are typically computer-based, likely to have sophisticated features, and can be tailored to the specific needs of an individual student	• Tablet • Screen reader • Voice recognition software

MYTH 10: AT devices and services should only be considered for children with certain disabilities.

FACT: AT must be considered for all children with IEPs and can play an important role in the provision of FAPE, regardless of the type of disability. AT has been proven to be effective for children with a variety of disabilities.

It is a common misconception that AT is only for children with certain disabilities (e.g., sensory disabilities). AT devices and services must be considered for all children with disabilities.[30]

[29] Assistive technology: An overview. IRIS Center Peabody College Vanderbilt University. (n.d.). Retrieved February 6, 2023, from https://iris.peabody.vanderbilt.edu/module/at/#content

[30] 34 C.F.R. § 300.324(a)(2)(v) and (b)(2).

(See the Section I, above). AT devices and services support children with disabilities with many crucial activities, including, but not limited to, communicating, hearing, writing, typing, attending, walking, academic skills, and daily living skills. For example, a child who is non-verbal may require a communication device to communicate with others. A child who has dyslexia may benefit from an audiobook paired with written text when reading. A child with an intellectual disability or a child with fine motor impairments may need speech-to-text software when writing an essay. IEP Teams should consider the individual needs of the child and make AT decisions accordingly.

MYTH 11: AT devices and services are only needed for the academic classroom and only for use at school.

FACT: A learner's AT device should be used across all environments to both improve the child's use of the AT as well as to ensure the child is provided their required support throughout the day.

IDEA's definition of an AT device "means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability."[31] The term "functional capabilities" is not exclusive to academic classroom time. As a supplementary aid and service, AT devices and services could be utilized during nonacademic and extracurricular activities such as counseling services, athletics, transportation, health services, recreational activities, special interest groups or clubs sponsored by the LEA.[32] Additionally, IDEA states that LEA-purchased AT may be used at home or other locations if the IEP Team determines their use is necessary to provide FAPE to the child.[33] The use of AT devices and services can increase a child's independence while engaging with others at school, home, their community, and eventually, post-school.[34] For example: If a child requires a communication device, they will need this device with them at all times of the day to communicate. A child who requires text-to-speech software should have access to that software in all environments, not just their academic class. This is to ensure they have access to written information in their home, in non-academic classes or settings, socializing with friends, and in their community.

MYTH 12: An AT device and service that works for one child will work for all children.

FACT: AT devices and services need to be responsive to a child's individualized needs.

There are a range of AT options from low-tech to high-tech. To consider appropriate special education, related services, and supplementary aids and services for a child with a disability, IEP Teams must possess knowledge about the child's needs and abilities. IEPs must also contain information about how the child's disability affects the child's involvement and progress in the general education curriculum (i.e., the

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[31] 34 C.F.R. § 300.5.

[32] 34 C.F.R. § 300.107.

[33] 34 C.F.R. § 300.105(b).

[34] Akpan, J. P., & Beard, L. A. (2013). Overview of Assistive Technology Possibilities for Teachers to Enhance Academic Outcomes of All Students. *Universal Journal of Educational Research*, *1*(2), 113-118.

curriculum used with nondisabled children).[35] If the IEP Team determines that AT devices and services are necessary for a child, one or more members of the IEP Team should be knowledgeable about AT options and solutions that will support the child in meeting their goals and objectives, and in making meaningful progress in the curriculum. In many cases, support is available from other professionals within the school, within the LEA, the SEA or other Technical Assistance providers. See Section III, below.

MYTH 13: Accessible technology and AT are the same thing.

FACT: Accessible technology and AT are not the same. Accessible technology is a term used to describe technology that is designed in a way to support many different users, while AT is a term that describes a piece of technology that is selected to perform a specific task for an individual child with a disability.

Accessible technology is a large category of technology that can meet the needs of many users and might have built-in features to help users individualize their experience. On the other hand, AT is intentionally selected to help a person with a disability perform a specific task, and is included on the IEP, as such. Technology can be accessible but not address the needs of a specific child with a disability, which results in the need for an AT device and service. For example, instructional software may include accessible features like proper color contrast and text size, but a child with a print disability or a child who is blind will still require a screen reader (a type of AT) to access the content.[36]

Accessibility	The design of applications, materials, devices, and environments that enables all learners to access equal information, engage in equal interactions, and enjoy equal services with substantially equivalent ease of use.[37]
Accessible Technologies	The hardware and software that are designed to provide all learners with access to the content in digital materials.[38] Examples of accessible technologies include an application that allows the user to write or verbalize their responses, a mobile phone with an optional zoom display, and a PDF with high color contrast.
Assistive Technology (AT)	Any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability.[39] Examples of AT include screen readers, adapted daily living devices (e.g., a toothbrush holder), and communication boards.

[35] 34 C.F.R. § 300.320(a).

[36] Issues regarding the lack of accessibility by grantees funded by the Department is enforced by the Department's Office for Civil Rights (OCR). OCR investigates accessibility issues and whether a lack of accessibility violates Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990. See for example OCR's website on digital accessibility.

[37] https://cites.cast.org/more/glossary and https://www2.ed.gov/about/offices/list/ocr/letters/colleague-20100629.html

[38] https://aem.cast.org/get-started/defining-accessibility

[39] 34 C.F.R. § 300.5.

MYTH 14: AT, universal design, universal design for learning (UDL) and accessible educational materials (AEM) are the same thing.

FACT: AT, universal design, UDL and AEM each have their own unique purpose and definitions under Federal law.

Assistive Technology (AT)	Any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability.[40] Each time an IEP Team develops, reviews, or revises a child's IEP, the IEP Team must consider whether the child requires AT devices and services.[41]
Universal Design	A concept or philosophy for designing and delivering products and services that are usable by people with the widest possible range of functional capabilities, which include products and services that are directly accessible (without requiring ATs) and products and services that are interoperable with ATs.[42]
Universal Design for Learning (UDL)	A scientifically valid framework for guiding educational practice that— (A) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and (B) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient.[43] When instruction is intentionally designed using the UDL framework, it allows for a broader population of students to benefit from accessible technologies.
Accessible Educational Materials (AEM)	Print and technology-based educational materials, including printed and electronic textbooks and related core materials that are designed or enhanced in a way that makes them usable across the widest range of learner variability, regardless of format (e.g., print, digital, graphic, audio, video).[44] These activities are required through IDEA section 674(e)(2) (i.e., the National Instructional Materials Access Center).

[40] 34 C.F.R. § 300.5.

[41] 34 C.F.R §§ 300.324(a)(2)(v).

[42] 29 U.S.C. § 3002; 20 U.S.C. § 1401(35); 34 C.F.R. § 300.44.

[43] 20 U.S.C § 1003(24); 20 U.S.C. § 7801(51).

[44] See https://aem.cast.org/get-started/defining-accessibility

MYTH 15: Using AT devices and services will not improve child outcomes.

FACT: Research demonstrates that use of AT devices and services improves child outcomes in all settings.

Research has shown that the use of AT devices and services supports children with disabilities and can lessen the impacts of a child's disability.[45] For example, AT may address reading challenges by providing options for accessing information and customizing the display of information. AT may also reduce writing challenges by providing options for expressing thoughts and knowledge and by supporting spelling.[46] For children with autism, there is a growing use of socially assistive robots to assist with communication skills.[47] For children who are blind or have low vision, there are wearable devices that incorporate computer vision to detect obstacles and allow a child to more fully participate in daily activities.[48]

MYTH 16: The use of AT devices lowers a child's motivation because it does the work for them.

FACT: Research shows that AT increases a child's motivation to complete assignments.

In addition to being a requirement to make AT devices and services available for children with disabilities as needed to provide FAPE,[49] a review of research shows that AT devices and services for children with specific learning disabilities keep them engaged in schoolwork. Specifically, children with disabilities reported that being able to listen to text through their AT devices while also reading assisted in comprehension and completion of assignments.[50] Further, a survey of teachers and parents using a rating scale of 1 to 7 found AT either "very important" or "extremely important" in their child's ability to complete learning tasks successfully during the pandemic.[51]

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[45] Floyd, K., Galyon, C. L., & Floyd-Norris, K. (2020). Overcoming Barriers: Use of Assistive Technology to Access Curriculum. TEACHING Exceptional Children, 52(6), 436–439. https://doi.org/10.1177/0040059920936135. Also see Assistive Technology in The Classroom Empowers Students with Disabilities

[46] Dawson, K., Antonenko, P., Lane, H., & Zhu, J. (2019). Assistive technologies to support students with dyslexia. *Teaching exceptional children*, *51*(3), 226-239.

[47] See research compiled by the National Library of Medicine https://pubmed.ncbi.nlm.nih.gov/35309695/

[48] Tapu, R., Mocanu, B., & Zaharia, T. (2020). Wearable assistive devices for visually impaired: A state of the art survey. *Pattern Recognition Letters*, *137*, 37-52.

[49] 34 C.F.R. § 300.105.

[50] Svensson, I., Nordström, T., Lindeblad, E., Gustafson, S., Björn, M., Sand, C., Almgren/Bäck, G., & Nilsson, S. (2021). Effects of assistive technology for students with reading and writing disabilities. *Disability and Rehabilitation: Assistive Technology*, 16(2), 196-208.

[51] Courduff, J., Lee, H., & Rockinson-Szapkiw, A. (2022). Voices from Academia Assistive Technology/Augmentative & Alternative Communication Implementation: School to Home during COVID-19. *Assistive Technology Outcomes and Benefits AT Services During & After the COVID-19 Pandemic*.

MYTH 17: If a child doesn't want to use AT, a teacher doesn't need to follow up to model and encourage the child to use the AT.

FACT: If a child does not want to use an AT device, it is critical that the IEP Team works with the child to understand and address the root cause of the child's refusal.

There could be a variety of reasons a learner does not want to use a specific AT, such as disliking a certain device, feeling stigmatized, or not understanding how to use the AT device correctly. Examples of ways a teacher can support a child's use of an AT device include training the child on how to use the device, using the device themselves, if appropriate, connecting the use of the device to real life (non-school) functions, if appropriate, and generally supporting the various uses of technology in their classroom. The IEP Team should meet to develop a plan to further understand the root cause of the learner's refusal and to determine possible recommendations to be carried out by the Team — potentially through an AT evaluation.[52] If the AT evaluation determines that the child either does not like the particular AT device and/or refuses to use it, then the IEP Team should incorporate strategies into the IEP that will create greater comfort using the AT device or alternatively choose a different AT device and revise the IEP accordingly.[53]

MYTH 18: When children are using their own devices for AT, there is less responsibility on the school or educator.

FACT: AT devices and services written into the IEP are the responsibility of the LEA. There may be flexibility if the parent and the LEA agree on using a child's device instead of using an LEA's AT device.

AT devices and services that are part of a child's special education, related services, or supplementary aids and services must be provided at no cost to the child. See IDEA's definition of FAPE.[54] If the LEA and the parent agree that a child's AT device (e.g., a smartphone) should be used instead of an AT device provided by the LEA, there are issues that should be addressed to ensure that both the parent and the LEA understand their responsibilities. These issues can be addressed in the child's IEP, or in another document that is available to the parent and relevant staff in the school and the LEA. Potential topics include:

- Acknowledging that the use of the child's own AT device is voluntary, and the parent may choose an LEA-supplied AT device at any time;
- Determining when an AT device may be used as part of the child's special education, related services and supplementary aids and services, and when the device should not be used;
- Providing professional development, training or technical assistance of LEA staff on how to support the child using the AT device;

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[52] 34 C.F.R. § 300.6(a).

[53] 34 C.F.R. §§ 300.6(c), 300.320(a)(4), and 300.324(a)(2)(v) and (b)(2).

[54] 34 C.F.R. § 300.17. See also 34 C.F.R. § 300.105(a).

- Factoring additional costs associated with the AT device including subscriptions, software/app costs, data usage, maintenance, repair and replacement costs;
- Installing and updating security software if the AT device connects to the LEA's network; and
- Ensuring that the LEA will not discipline the child for using their own device as an AT device.

Ultimately, if the LEA and the parent cannot come to agreement on the use of the child's own device as an AT device, the LEA must make an appropriate AT device available for the child.

III. Common Myths and Facts about Deploying Assistive Technology Devices and Services

MYTH 19: Buying AT devices takes a long time and won't give timely services to the child as required.

FACT: IDEA requires that as soon as possible following the development of the IEP, special education and related services are made available to the child in accordance with the child's IEP.[55] This includes AT devices if they are required as part of the child's special education or related services.[56]

AT devices vary greatly in their availability, cost, and needed customization prior to their use by a child with a disability. Some AT devices may be downloaded and printed off a computer and shared with the child immediately, such as a graphic organizer. Other devices may be purchased at a local office supply store with minimal customization needed, such as a larger keyboard. Some children may require specialized AT devices that are unique to the child and uniquely sized for the child's needs, such as a communication device with specific communication software. Regardless of the type of AT device the child needs, IDEA requires that as soon as possible following the development of the IEP, special education and related services are made available to the child in accordance with the child's IEP.[57] If the IEP Team believes that a child's AT device will likely take time to order and customize, the IEP Team should consider other strategies to support the child until the appropriate AT device is delivered. The IEP could include a statement explaining how the AT device will be ordered and appropriately fitted for the child and identify interim AT devices and services that will be provided pending final deployment of the AT device.[58] Since IDEA considers AT devices and services to be part of a child's special education, related services and supplementary aids and services,[59] if there is a delay in the timely provision of AT devices and services, a child's IEP Team may determine that compensatory services are necessary to mitigate the impact of disruptions and delays in providing appropriate AT devices and services to the child.[60]

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[55] 34 C.F.R. § 300.323(c)(2).

[56] 34 C.F.R. § 300.105.

[57] 34 C.F.R. § 300.323(c)(2).

[58] 34 C.F.R. § 300.6(b)-(c).

[59] 34 C.F.R. § 300.105(a).

[60] See question D-6 of the Return to School Roadmap: Development and Implementation of Individualized Education Programs (Sept. 30, 2021).

MYTH 20: All AT devices must be approved by an LEA's information technology (IT) department.

FACT: The IEP Team makes the determination on what AT device and service is necessary to meet the child's needs.

IEP Team members should be familiar with a child's AT needs and engage in regular communication with other personnel such as IT and LEA leaders to support the timely provision of AT devices and services in accordance with the child's IEP. The IT department is a valuable resource for the IEP Team to build a partnership with and collaborate regarding potential and needed AT.

MYTH 21: Only staff who specialize in AT can deploy AT devices or provide AT services.

FACT: IDEA requires the IEP Team to have representatives of the LEA who are qualified to provide or supervise the provision of specially designed instruction to meet the unique needs of children with disabilities.

The individuals or process needed to select, purchase, and provide AT devices and services varies by the child's unique needs as determined by the IEP Team. In many cases, the AT device and service is delivered by the child's regular classroom teacher, special education teacher, or related services provider. If there are complex AT needs, either the parent or the LEA can include other individuals who have knowledge or special expertise regarding the child as a member of the child's IEP Team.[61] An LEA may also access technical assistance with a Section 4 State or Territory AT Act program (State or Territory AT program) in their State regarding AT needs for a child.

MYTH 22: There are no resources available to LEAs who can provide technical assistance on AT devices (e.g., loaning and testing of AT devices).

FACT: Every State has a State or Territory AT program that can provide device demonstrations and device loans to LEAs so they may evaluate an AT device's effectiveness prior to purchasing.

It can be difficult to justify purchasing an AT device when the IEP Team is unsure of what device to purchase and whether that device will prove effective. Through the 21st Century Assistive Technology Act[62] (AT Act), administered through the U.S. Department of Health and Human Services Administration for Community Living, States receive funding to provide technical assistance (i.e., share knowledge and resources) to a wide range of individuals including those with disabilities, parents and educators across their State.[63] Through these State or Territory AT programs, IEP Team members (including parents) can receive support from a specialist to:

- Discuss and learn about various devices that may work for a specific child;

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[61] 34 C.F.R. § 300.321(a)(6).

[62] 29 U.S.C. § 3001 et seq.

[63] A listing of State or Territory AT programs can be found at https://at3center.net/state-at-programs/

- Request a demonstration of any device;
- Borrow a device for a short time period; and
- Learn about how to purchase the device through the school or financing and loan options.

Through these resources, an LEA can assess an AT device by collecting data on the child's performance during the short-term borrowing period to determine whether the device is effective and should be purchased or if a different device should be obtained. If the data shows that the child's performance decreased or remained the same, the IEP Team can obtain additional support from the AT program in their State or Territory and explore other AT devices that are appropriate for the child.

IDEA also funds technical assistance centers to support the use of AT devices and services. For example, the Center on Inclusive Technology and Education Systems (CITES), funded under an IDEA Part D grant from the U.S. Department of Education, supports LEAs in creating and sustaining inclusive technology systems that serve all students, including students with disabilities who require assistive technology or accessible educational materials. CITES also provides resources for families.

IV. ASSISTIVE TECHNOLOGY REQUIREMENTS UNDER PART C OF THE INDIVIDUALS WITH DISABILITIES EDUCATION ACT

MYTH 23: Infants, toddlers, and their families do not benefit from AT devices and services.

FACT: AT devices and services can and often do support infants, toddlers, and their families in meeting the developmental needs of an infant or toddler with a disability and the needs of the family to assist appropriately in the infant's or toddler's development.

Similar to the ways that AT devices and services increase, maintain, or improve the functional capabilities of school-age children with disabilities, AT devices and services play a role in supporting infants and toddlers with disabilities and their families in meeting developmental milestones. There are numerous AT devices and services that can be deployed to support an infant or toddler with a disability and their family who requires an AT device and service. Examples of AT devices and services for infants and toddlers with disabilities and their families include:[64]

- A functional AT evaluation to assess if an infant or toddler could benefit from AT devices and services;
- AAC devices[65] (e.g., pictures of activities or objects, or a handheld tablet) that help infants and toddlers express wants and needs;
- Tactile books that can be felt and experienced for infants and toddlers with sensory issues;
- Helmets, cushions, adapted seating, and standing aids to support infants and toddlers with reduced mobility; and
- AT training services for parents to ensure that AT devices are used throughout the infant or toddler's day.

Just like AT devices and services for school-age children, AT devices can vary from low-tech to high-tech devices and services (see Myth/Fact 9, above).

[64] See Rhoads, L., & Seiler, R. (2007). Assistive technology for infants and toddlers with disabilities: A handbook for parents and caregivers. *Moscow, ID: Idaho Assistive Technology Project*.

[65] See Myth/Fact 5, above, for a description of AAC devices.

MYTH 24: IDEA Part C does not contain any provisions regarding AT devices or services.

FACT: Both the IDEA and its implementing regulations include AT devices and services as an early intervention service.

Part C of IDEA and the implementing regulations include both AT devices and AT services within the definition of early intervention service.[66] Therefore, if an individualized family service plan (IFSP) Team, in collaboration with a parent, determines that an AT device or service will be required to meet the developmental needs of an infant or toddler with a disability and the needs of the family to assist appropriately in the infant's or toddler's development, then the AT device or service must be provided to the infant, toddler or family members at no cost.[67] As an early intervention service, the IFSP Team must document the AT device and service in the infant or toddler's IFSP[68] and the AT device and service must be included in the periodic review and annual evaluation of the IFSP.[69]

MYTH 25: AT does not need to be considered when a toddler transitions from early intervention services to special education services at the preschool level.

FACT: AT must be considered when a toddler is transitioning from early intervention services to preschool, regardless of whether the child currently receives AT services through an IFSP.

For all toddlers whom the early intervention service providers (EIS providers) believe may be eligible for special education or related services by an LEA, the EIS provider must convene (with the consent of the family) a transition conference at least 90 days before the toddler's third birthday to discuss any special education, related services, and supplementary aids and services the toddler may receive from an LEA (usually through an IEP).[70] If the toddler is currently receiving AT devices and services as an early intervention service, it should be discussed during the transition conference with an EIS provider knowledgeable of the child's AT needs in attendance, and potentially be included in the transition plan.[71] At the initial IEP Team meeting for a child who received early intervention services, the LEA, at the request of the parent, must invite the Part C service coordinator or other representatives of the Part C system to assist with the smooth transition of services—which could include existing AT devices and services.[72] At the initial IEP Team meeting, the IEP Team must consider (regardless of whether a child received AT devices and services as early intervention services) whether a child needs AT devices and services.[73] See Myth/Facts 1 and 2, above.

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[66] IDEA section 632(4)(E)(xiii) and 34 C.F.R. § 303.13(b)(1).

[67] Unless the State has an approved system of payments that allows for insurance co-payments, premiums, deductibles or for family fees for early intervention services. See 34 C.F.R. §§ 303.520-303.521.

[68] 34 C.F.R. § 303.344(d).

[69] 34 C.F.R. § 303.342(b) and (c).

[70] 34 C.F.R. § 303.209(c).

[71] 34 C.F.R. § 303.209(d).

[72] 34 C.F.R. § 300.321(f).

[73] 34 C.F.R. § 300.324(a)(2)(v) and (b)(2).

MYTH 26: State lead agencies and EIS providers are not eligible to access technical assistance from State AT programs.

FACT: State AT programs serve all individuals of any age, including infants and toddlers, and with any type of disability.

It can be difficult to justify purchasing an AT device when the IFSP Team is unsure of what device to purchase and whether that device will prove effective. Through the AT Act, States receive funding to provide technical assistance (i.e., share knowledge and resources) to early interventions service providers across their State.[74] Through these State or Territory AT programs, parents and IFSP Team members can receive support from an AT specialist to:

- Discuss and learn about various devices that may work for a specific child;
- Request a demonstration of any device;
- Borrow a device for a short time period; and
- Learn about how to purchase the device through the school or financing and loan options.

Through these resources, an EIS provider can assess an AT device by collecting data on the infant or toddler's performance during the short-term borrowing period to determine whether the device is effective and should be purchased or if a different device should be obtained. If the data shows that the AT device is not working for the infant or toddler or will not assist the infant or toddler in meeting developmental milestones, the EIS provider can obtain additional support with the State or Territory AT program and explore other AT devices that are appropriate for the infant or toddler.

[74] A listing of State or territory AT programs can be found at https://at3center.net/state-at-programs/

V. COMMON MYTHS AND FACTS ABOUT ASSISTIVE TECHNOLOGY COSTS AND FUNDING SOURCES

MYTH 27: AT is expensive.

FACT: While some AT may be expensive, there are many forms of AT devices and services with little to no cost.

AT can be any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability.[75] Some AT devices may be expensive, such as an electronic braille display that allows children who are blind to read on devices such as a tablet. However, there are many low-cost examples of AT devices, including binder clips or sticky notes, to help a child organize themselves or keyboard stickers to provide color contrast for children with low vision. Further, with technology development in recent years, many accessibility features, such as large text or a text-to-speech feature may be included in existing software owned by the LEA and may meet the AT needs of a child with a disability. Ultimately, a child's AT devices and services should be determined by the child's needs rather than the cost.

MYTH 28: There are limited funding sources for AT devices and services.

FACT: There are multiple funding sources for AT devices and services.

In addition to State and local funding for early intervention services and special education and related services, the following are some examples of Federal funding sources for AT devices and services:

a. For infants and toddlers with AT devices and services that are required as part of their IFSP, IDEA Part C grants may be used as a funding source. IDEA Part C grants support early intervention services for infants and toddlers with disabilities and their families.[76]

b. For children with AT devices and services as part of their IEP, IDEA Part B grants may be used as a funding source. IDEA Part B grants assist States and LEAs in providing a FAPE in the least restrictive environment for children with disabilities. There are two grant programs (IDEA section 611 and IDEA section 619), both of which allow for a portion of funds to be reserved at the State level and require the remainder to be allocated to eligible LEAs.[77]

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[75] 34 C.F.R. §§ 300.5 and 303.13(b)(1)(i).

[76] See https://www2.ed.gov/programs/osepeip/index.html

[77] See https://www2.ed.gov/programs/osepgts/index.html (IDEA section 611) and https://www2.ed.gov/programs/oseppsg/index.html (IDEA section 619)

For children with disabilities aged 3-5, the following IDEA Part B funds may be used to provide AT devices and services:

- IDEA section 619 funds reserved by States for authorized State-level activities other than administration (34 C.F.R. § 300.814(b))
- IDEA section 611 funds reserved by States for authorized State-level activities other than administration (34 C.F.R. § 300.704(b)(4)(v))
- IDEA sections 611 and 619 subgrants to LEAs (34 C.F.R. §§ 300.202(a), 300.705, and 300.815)

For children with disabilities aged 3-21, the following IDEA Part B funds may be used to provide AT devices and services:

- IDEA section 611 funds reserved by States for authorized State-level activities other than administration (34 C.F.R. § 300.704(b)(4)(v))
- IDEA section 611 subgrants to LEAs (34 C.F.R. §§ 300.202(a) and 300.705)

The U.S. Department of Education's Office of Educational Technology released a Dear Colleague Letter on Leveraging Federal Funds for Teaching and Learning with Technology in February 2023, which includes guidance on leveraging Federal funds to purchase AT devices and services.