

ASSISTIVE TECHNOLOGY SKILLS INVENTORY

INTRODUCTION:

Every student is capable of amazing things if given the opportunity. To fully realize that opportunity, some students may need support. Assistive Technology can allow students to accomplish things that otherwise might be impossible. Determining the right assistive technology, however, can be very challenging. Fortunately, educators are fantastic problem-solvers! The world of education is filled with knowledgeable individuals with different expertise. When we combine that knowledge thoughtfully, we discover solutions.

Professional organizations for various service providers have identified skills, abilities, and knowledge related to assistive technology that their members are expected to possess. The **Assistive Technology Skills Inventory** was compiled based on this information. The inventory's primary intent is to assist administrators, as well as those involved in coordinating assistive technology services, to identify and support professionals who can contribute knowledge and skills related to the provision of assistive technology. While not reflecting every skill that each professional brings to the discussion, it should serve as a starting point.

ADMINISTRATORS

This resource is intended to promote better understanding amongst administrators regarding the scope of knowledge each profession contributes to the consideration of student assistive technology need. It is critical that administrators support:

- ☞ The involvement of all necessary professionals from consideration through implementation
- ☞ Learning opportunities for professionals to maintain and enhance skills

INDIVIDUALS INVOLVED IN THE COORDINATION OF ASSISTIVE TECHNOLOGY

Assistive technology is too broad to expect any single individual to have all the answers. The key to good coordination is to know who contributes what and to bring those individuals together to make decisions. The Skills Inventory allows the individual responsible for coordinating assistive technology to know:

- ☞ What skills and knowledge each profession contributes
- ☞ The skillset of *specific* professionals within the district

The **Assistive Technology Skills Inventory** reflects many perspectives that need to be included in decisions. It is critical that students, as well as their families, are partners in the process. Additionally, General Education teachers are a vital perspective that must be included.

SELF-ASSESSMENT

The **Self-Assessment** offers a means for professionals to rate their level of proficiency with regards to the knowledge, skills, and abilities associated with their role. Results can be used to identify who would be most beneficial to include in the assistive technology consideration process. Administrators may also use the results to identify areas of need for professional development.

Assistive Technology Skills Inventory

Assessment and Evaluation

	Physical Therapist	Occupational Therapist	Speech Language Pathologist	School Psychologist	Consultant-Deaf/Hard-of-Hearing	Consultant-Blind/Visually Impaired	Special Education Teacher
Assess optimal positioning and postures for movements related to accessing AT	x	x					
Assess and measure for assistive and adaptive equipment for movement	x						
Evaluate and analyze activity demands to determine functional needs	x	x	x		x	x	x
Assess and evaluate hand and fine motor movement		x					
Assess and evaluate full body/gross motor movement	x	x					
Assess and evaluate touch and movement abilities	x	x					
Evaluate for seating and positioning needs	x	x					
Evaluate for computer access needs		x					
Evaluate for communication needs			x				x
Assess pragmatic skills including communication/intent, success and effectiveness of communication			x				
Assess language skills			x				
Assess comprehension of messages conveyed by natural speech, gestures, and graphic symbols			x				
Assess symbol knowledge and literacy			x				
Assess literacy in reading and writing				x			x
Assess students with hearing impairments for AT					x		
Assess students with visual impairments for AT						x	
Assess for cognitive and academic strengths and needs				x			x
Identify functional needs, screen for functional limitations, and identify if the need for a further AT evaluation exists.							x
Recognize poor outcomes regarding technology needs and reevaluate and reinitiate the process as needed.	x	x	x		x	x	x
Specific Knowledge	PT	OT	SLP	Psyc	DHOH	BVI	SE
Knowledge of AT devices related to movement (canes, walkers, wheelchairs, gait trainers, etc.)	x						
Knowledge of optimal positioning for movements related to accessing AT	x	x					
Knowledge of the environmental context on performance of the student and how to modify the environment to achieve successful participation	x	x			x	x	x
Knowledge of sensory, motor, cognitive, and social abilities needed to use aided and unaided communication modes			x				
Knowledge of how language is generated on AAC systems			x				
Knowledge of a broad array of AAC devices and features including methods of access, durability, types of symbols, organization of items, auditory and visual features, modes of output, portability, cost			x				
Knowledge about broad array of switches and skills necessary to use them		x	x				
Knowledge of seating and positioning affect on ability to use AAC system	x	x	x				

Specific Knowledge, cont.	PT	OT	SLP	Psyc	DHOH	BVI	SE
Knowledge of information and assistive technology resources to enhance children's cognitive and academic skills				x			x
Knowledge about assistive technology for activities of daily living		x					x
Knowledge of unique educational needs of visually impaired students						x	x
Knowledge of appropriate materials for students with visual impairments						x	x
Knowledge of FM systems and other tools for assisting hearing					x		
Knowledge of characteristics of exceptional learners that influence use of technology							x
Knowledge of differences among hearing devices, interfaces, & FM systems					x		
Knowledge of impact of technology on exceptional learners							x
Knowledge of procedures for evaluating computer software and other AT materials for their potential application in special education programs							x
Abilities	PT	OT	SLP	Psyc	DHOH	BVI	SE
Identify potential physical barriers for students in the environment	x	x			x	x	x
Identify postures appropriate for AT use	x	x					
Select, design, fit AT for movement	x						
Design, fabricate, and install basic assistive technology	x	x					x
Match AT to students based on their movement patterns	x						
Adapt and modify tools to meet students abilities	x	x	x				x
Identify, select and adapt computer hardware and software to support education activities		x					x
Position and modify communication devices to facilitate social participation		x	x				x
Design and customize seating devices and mobility equipment	x	x					
Compare and contrast different technology features and access methods in relation to student needs	x	x	x		x	x	x
Repair and maintain basic assistive technology	x	x					x
Make specific AT recommendations to facilitate improved functional ability	x	x	x		x	x	x
Match features of AAC system with student needs			x				
Customize AAC system to meet user needs			x				
Determine the most appropriate AAC system components relative to needs, abilities, preferences, cultural and environmental considerations of the user			x				
Ability to train others on AT in their specialty area	x	x	x	x	x	x	x
Verify safety of user when using AT device	x	x	x		x	x	x
Modify environment to meet the students needs	x	x	x	x	x	x	x
Observe and measure student's performance with AT after period of initial use	x	x	x		x	x	x
Identify and use AT that can provide access to educational materials that are otherwise inaccessible to some students						x	x
Design student learning activities that foster equitable, ethical, & legal use of AT							x
Design, deliver, and assess student learning activities that integrate AT for a variety of student populations							x
Troubleshoot AT equipment	x	x	x		x	x	x

Skills Inventory adapted from: ASHA Augmentative and Alternative Communication: Knowledge and Skills for Service Delivery, AOTA The Role of Occupational Therapy in Providing Assistive Technology Devices and Services, ASHA The Role of the Educational Audiologist, AOTA Specialized Knowledge and Skills in Technology and Environmental Interventions for Occupational Therapy Practice, APTA Assistive Technology and the Individualized Education Program, NASP Standards for the Credentialing of School Psychologists, CEC Standards and Competencies, Quality Programs for the Visually Impaired.



Assistive Technology Knowledge and Skills Self Assessment for Physical Therapists

Directions: Please indicate proficiency level for each statement by placing an "X" in the box that best represents your current skill or knowledge level

Name:

Assessment and Evaluation	High	Moderate	Low	NA
Assess optimal positioning and postures for functional movements related to accessing AT				
Assess and measure for assistive and adaptive equipment for movement				
Evaluate and analyze activity demands to determine functional needs				
Assess and evaluate full body/gross motor movement				
Assess and evaluate touch and movement abilities				
Evaluate for seating and positioning needs				
Recognize poor outcomes regarding technology needs and reevaluate and reinitiate the process as needed.				

Specific Knowledge	H	M	L	NA
Knowledge of AT devices related to movement (canes, walkers, wheelchairs, gait trainers, etc.)				
Knowledge of optimal positioning for functional movements related to accessing AT				
Knowledge of the environmental context on performance of the student and how to modify the environment to achieve successful participation				
Knowledge of seating and positioning affect on ability to use AAC system				



Assistive Technology Knowledge and Skills - Physical Therapists, cont.

Abilities	High	Moderate	Low	NA
Identify potential physical barriers for students in the environment				
Identify postures appropriate for AT use				
Select, design, fit AT for movement				
Design, fabricate, and install basic assistive technology				
Match AT to students based on their movement patterns				
Adapt and modify tools to meet students abilities				
Design and customize seating devices and mobility equipment				
Compare and contrast different technology features and access methods in relation to student needs				
Repair and maintain basic assistive technology				
Make specific AT recommendations to facilitate improved functional ability				
Ability to train others on AT in their specialty area				
Verify safety of user when using AT device				
Modify environment to meet the students needs				
Observe and measure student's performance with AT after period of initial use				
Troubleshoot AT equipment				



Assistive Technology Knowledge and Skills Self Assessment for Occupational Therapists

Directions: Please indicate proficiency level for each statement by placing an "X" in the box that best represents your current skill or knowledge level

Name:

	High	Moderate	Low	NA
Assessment and Evaluation				
Assess optimal positioning and postures for functional movements related to accessing AT				
Evaluate and analyze activity demands to determine functional needs				
Assess and evaluate hand and fine motor movement				
Assess and evaluate full body/gross motor movement				
Assess and evaluate touch and movement abilities				
Evaluate for seating and positioning needs				
Evaluate for computer access needs				
Recognize poor outcomes regarding technology needs and reevaluate and reinitiate the process as needed.				
Specific Knowledge	H	M	L	NA
Knowledge of optimal positioning for functional movements related to accessing AT				
Knowledge of the environmental context on performance of the student and how to modify the environment to achieve successful participation				
Knowledge about broad array of switches and skills necessary to use them for access				
Knowledge of seating and positioning affect on ability to use AAC system				
Knowledge about assistive technology for activities of daily living				



Assistive Technology Knowledge and Skills - Occupational Therapists, cont.

Abilities	High	Moderate	Low	NA
Identify potential physical barriers for students in the environment				
Identify postures appropriate for AT use				
Design, fabricate, and install basic assistive technology				
Adapt and modify tools to meet students abilities				
Identify, select and adapt computer hardware and software to support education activities				
Position and modify communication devices to facilitate social participation				
Design and customize seating devices and mobility equipment				
Compare and contrast different technology features and access methods in relation to student needs				
Repair and maintain basic assistive technology				
Make specific AT recommendations to facilitate improved functional ability				
Ability to train others on AT in their specialty area				
Verify safety of user when using AT device				
Modify environment to meet the students needs				
Observe and measure student's performance with AT after period of initial use				
Troubleshoot AT equipment				



Assistive Technology Knowledge and Skills Self Assessment for Speech-Language Pathologists

Directions: Please indicate proficiency level for each statement by placing an "X" in the box that best represents your current skill or knowledge level

Name: _____

	High	Moderate	Low	NA
Assessment and Evaluation				
Evaluate and analyze activity demands to determine functional needs				
Evaluate for communication needs				
Assess pragmatic skills including communication/intent, success and effectiveness of communication				
Assess language skills				
Assess comprehension of messages conveyed by natural speech, gestures, and graphic symbols				
Assess symbol knowledge and literacy				
Recognize poor outcomes regarding technology needs and reevaluate and reinitiate the process as needed.				
Specific Knowledge	H	M	L	NA
Knowledge of sensory, motor, cognitive, and social abilities needed to use aided and unaided communication modes				
Knowledge of how language is generated on AAC systems				
Knowledge of a broad array of AAC devices and features including methods of access, durability, types of symbols, organization of items, auditory and visual features, modes of output, portability, cost				
Knowledge about broad array of switches and skills necessary to use them for access				
Knowledge of seating and positioning affect on ability to use AAC system				



Assistive Technology Knowledge and Skills - Speech-Language Pathologists, cont.

Abilities	High	Moderate	Low	NA
Adapt and modify tools to meet students abilities				
Position and modify communication devices to facilitate social participation				
Compare and contrast different technology features and access methods in relation to student needs				
Make specific AT recommendations to facilitate improved functional ability				
Match features of AAC system with student needs				
Customize AAC system to meet user needs				
Determine the most appropriate AAC system components relative to needs, abilities, preferences, cultural and environmental considerations of the user				
Ability to train others on AT in their specialty area				
Verify safety of user when using AT device				
Modify environment to meet the students needs				
Observe and measure student's performance with AT after period of initial use				
Troubleshoot AT equipment				



Assistive Technology Knowledge and Skills Self Assessment for School Psychologists

Directions: Please indicate proficiency level for each statement by placing an "X" in the box that best represents your current skill or knowledge level

Name: _____

	High	Moderate	Low	NA
Assessment and Evaluation				
Assess literacy in reading and writing				
Assess for cognitive and academic strengths and needs				
Specific Knowledge	H	M	L	NA
Knowledge of information and assistive technology resources to enhance children's cognitive and academic skills				
Abilities	H	M	L	NA
Ability to train others on AT in their specialty area				
Modify environment to meet the students needs				



Assistive Technology Knowledge and Skills Self Assessment for Consultants for the Deaf/Hard-of-Hearing

Directions: Please indicate proficiency level for each statement by placing an "X" in the box that best represents your current skill or knowledge level

Name: _____

	High	Moderate	Low	NA
Assessment and Evaluation				
Evaluate and analyze activity demands to determine functional needs				
Assess students with hearing impairments for AT				
Recognize poor outcomes regarding technology needs and reevaluate and reinitiate the process as needed.				
Specific Knowledge	H	M	L	NA
Knowledge of the environmental context on performance of the student and how to modify the environment to achieve successful participation				
Knowledge of FM systems and other tools for assisting hearing				
Knowledge of differences among various devices, interfaces, and FM systems				
Abilities	H	M	L	NA
Identify potential physical barriers for students in the environment				
Compare and contrast different technology features and access methods in relation to student needs				
Make specific AT recommendations to facilitate improved functional ability				
Ability to train others on AT in their specialty area				
Verify safety of user when using AT device				
Modify environment to meet the students needs				
Observe and measure student's performance with AT after period of initial use				
Troubleshoot AT equipment				



Assistive Technology Knowledge and Skills Self Assessment for Consultants for the Blind/Visually Impaired

Directions: Please indicate proficiency level for each statement by placing an "X" in the box that best represents your current skill or knowledge level

Name: _____

	High	Moderate	Low	NA
Assessment and Evaluation				
Evaluate and analyze activity demands to determine functional needs				
Assess students with visual impairments for AT				
Recognize poor outcomes regarding technology needs and reevaluate and reinitiate the process as needed.				
Specific Knowledge	H	M	L	NA
Knowledge of the environmental context on performance of the student and how to modify the environment to achieve successful participation				
Knowledge of unique educational needs of visually impaired students				
Knowledge of appropriate materials for students with visual impairments				
Abilities	H	M	L	NA
Identify potential physical barriers for students in the environment				
Compare and contrast different technology features and access methods in relation to student needs				
Make specific AT recommendations to facilitate improved functional ability				
Ability to train others on AT in their specialty area				
Verify safety of user when using AT device				
Modify environment to meet the students needs				
Observe & measure student's performance with AT after period of initial use				
Identify and use AT that can provide access to educational materials that are otherwise inaccessible to some students				
Troubleshoot AT equipment				



Assistive Technology Knowledge and Skills Self Assessment for Special Education Teachers

Directions: Please indicate proficiency level for each statement by placing an "X" in the box that best represents your current skill or knowledge level

Name: _____

	High	Moderate	Low	NA
Assessment and Evaluation				
Evaluate and analyze activity demands to determine functional needs				
Evaluate for communication needs				
Assess literacy in reading and writing				
Assess for cognitive and academic strengths and needs				
Identify functional needs, screen for functional limitations, and identify if the need for a comprehensive AT evaluation exists.				
Recognize poor outcomes regarding technology needs and reevaluate and reinitiate the process as needed.				
Specific Knowledge	H	M	L	NA
Knowledge of the environmental context on performance of the student and how to modify the environment to achieve successful participation				
Knowledge of information and assistive technology resources to enhance children's cognitive and academic skills				
Knowledge about assistive technology for activities of daily living				
Knowledge of unique educational needs of visually impaired students				
Knowledge of appropriate materials for students with visual impairments				
Knowledge of characteristics of exceptional learners the influence the use of technology				
Knowledge of impact of technology on exceptional learners				
Knowledge of procedures for evaluating computer software and other AT materials for their potential application in special education programs				



Assistive Technology Knowledge and Skills - Special Education Teachers, cont.

Abilities	High	Moderate	Low	NA
Identify potential physical barriers for students in the environment				
Design, fabricate, and install basic assistive technology				
Adapt and modify tools to meet students abilities				
Identify, select and adapt computer hardware and software to support education activities				
Position and modify communication devices to facilitate social participation				
Compare and contrast different technology features and access methods in relation to student needs				
Repair and maintain basic assistive technology				
Make specific AT recommendations to facilitate improved functional ability				
Ability to train others on AT in their specialty area				
Verify safety of user when using AT device				
Modify environment to meet the students needs				
Observe and measure student's performance with AT after period of initial use				
Identify and use AT that can provide access to educational materials that are otherwise inaccessible to some students				
Design student learning activities that foster equitable, ethical, and legal use of AT by students				
Design, deliver, and assess student learning activities that integrate AT for a variety of student populations				
Troubleshoot AT equipment				