

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 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 viewed as partners throughout 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 regard 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

	Physical Therapist	Occupational Therapist	Speech Language Pathologist	School Psychologist	Consultant-Deaf/Hard-of-Hearing	Consultant-Blind/Visually Impaired	Special Education Teacher
Assessment and Evaluation							
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

	Physical Therapist	Occupational Therapist	Speech Language Pathologist	School Psychologist	Consultant-Deaf/Hard-of-Hearing	Consultant-Blind/Visually Impaired	Special Education Teacher
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				
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

	Physical Therapist	Occupational Therapist	Speech Language Pathologist	School Psychologist	Consultant-Deaf/Hard-of-Hearing	Consultant-Blind/Visually Impaired	Special Education Teacher
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

Name:

Date:

On a scale of 1 (low) to 5 (high), where you would rank your skills as they relate to the following. Please provide a ranking for every skill. Skipped items will receive a score of zero and could skew your results.

ASSESSMENT AND EVALUATION

Related Skills	1	2	3	4	5
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					
Total Assessment and Evaluation					

SPECIFIC KNOWLEDGE

Related Skills	1	2	3	4	5
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					
Total Specific Knowledge					

ABILITIES

Related Skills	1	2	3	4	5
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 student's 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 student's needs					
Observe and measure student's performance with AT after period of initial use					
Troubleshoot AT equipment					
Total Abilities					

COMMENTS



Alt+Shift, encompassing Michigan's Integrated Mathematics Initiative, is an *Individuals with Disabilities Education Act* (IDEA) Grant Funded Initiative through the Michigan Department of Education, Office of Special Education.



ASSISTIVE TECHNOLOGY KNOWLEDGE AND SKILLS SELF ASSESSMENT FOR OCCUPATIONAL THERAPISTS

Name:

Date:

On a scale of 1 (low) to 5 (high), where you would rank your skills as they relate to the following. Please provide a ranking for every skill. Skipped items will receive a score of zero and could skew your results.

ASSESSMENT AND EVALUATION

Related Skills	1	2	3	4	5
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					
Total Assessment and Evaluation					

SPECIFIC KNOWLEDGE

Related Skills	1	2	3	4	5
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 a 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					
Total Specific Knowledge					

ABILITIES

Related Skills	1	2	3	4	5
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 student's 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 student's needs					
Observe and measure student's performance with AT after period of initial use					
Troubleshoot AT equipment					
Total Abilities					

COMMENTS



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ASSISTIVE TECHNOLOGY KNOWLEDGE AND SKILLS SELF ASSESSMENT FOR SPEECH-LANGUAGE PATHOLOGISTS

Name:

Date:

On a scale of 1 (low) to 5 (high), where you would rank your skills as they relate to the following. Please provide a ranking for every skill. Skipped items will receive a score of zero and could skew your results.

ASSESSMENT AND EVALUATION

Related Skills	1	2	3	4	5
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					
Total Assessment and Evaluation					

SPECIFIC KNOWLEDGE

Related Skills	1	2	3	4	5
Knowledge of sensory, motor, cognitive, and social abilities needed to use aided and unaided communication systems					
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, and cost					
Knowledge about a broad array of switches and skills necessary to use them for access					
Knowledge of seating and positioning affect on ability to use AAC system					
Total Specific Knowledge					

ABILITIES

Related Skills	1	2	3	4	5
Adapt and modify tools to meet student's 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 systems with student needs					
Customize AAC systems 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 student's needs					
Observe and measure student's performance with AT after period of initial use					
Troubleshoot AT equipment					
Total Abilities					

COMMENTS



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ASSISTIVE TECHNOLOGY KNOWLEDGE AND SKILLS SELF ASSESSMENT FOR SCHOOL PSYCHOLOGISTS

Name:

Date:

On a scale of 1 (low) to 5 (high), where you would rank your skills as they relate to the following. Please provide a ranking for every skill. Skipped items will receive a score of zero and could skew your results.

ASSESSMENT AND EVALUATION

Related Skills	1	2	3	4	5
Assess literacy in reading and writing					
Assess for cognitive and academic strengths and needs					
Total Assessment and Evaluation					

SPECIFIC KNOWLEDGE

Related Skills	1	2	3	4	5
Knowledge of information and assistive technology resources to enhance children's cognitive and academic skills					
Total Specific Knowledge					

ABILITIES

Related Skills	1	2	3	4	5
Ability to train others on AT in their specialty area					
Modify environment to meet the student's needs					
Total Abilities					

COMMENTS



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ASSISTIVE TECHNOLOGY KNOWLEDGE AND SKILLS SELF ASSESSMENT FOR CONSULTANTS FOR THE DEAF/HARD-OF-HEARING

Name:

Date:

On a scale of 1 (low) to 5 (high), where you would rank your skills as they relate to the following. Please provide a ranking for every skill. Skipped items will receive a score of zero and could skew your results.

ASSESSMENT AND EVALUATION

Related Skills	1	2	3	4	5
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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

Total Assessment and Evaluation

SPECIFIC KNOWLEDGE

Related Skills	1	2	3	4	5
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Knowledge of the environmental context's effect 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

Total Specific Knowledge

ABILITIES

Related Skills

1 2 3 4 5

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 student's needs

Observe and measure student's performance with AT after period of initial use

Troubleshoot AT equipment

Total Abilities

COMMENTS



ASSISTIVE TECHNOLOGY KNOWLEDGE AND SKILLS

SELF ASSESSMENT FOR CONSULTANTS FOR THE BLIND/VISUALLY IMPAIRED

Name:

Date:

On a scale of 1 (low) to 5 (high), where you would rank your skills as they relate to the following. Please provide a ranking for every skill. Skipped items will receive a score of zero and could skew your results.

ASSESSMENT AND EVALUATION

Related Skills	1	2	3	4	5
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					
Total Assessment and Evaluation					

SPECIFIC KNOWLEDGE

ABILITIES

Related Skills

1 2 3 4 5

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

Identify and use AT that can provide access to educational materials that are otherwise inaccessible to some students

Ability to train others on AT in their specialty area

Verify safety of user when using AT device

Modify environment to meet the student's needs

Observe and measure student's performance with AT after period of initial use

Troubleshoot AT equipment

Total Abilities

COMMENTS



ASSISTIVE TECHNOLOGY KNOWLEDGE AND SKILLS SELF ASSESSMENT FOR SPECIAL EDUCATION TEACHERS

Name:

Date:

On a scale of 1 (low) to 5 (high), where you would rank your skills as they relate to the following. Please provide a ranking for every skill. Skipped items will receive a score of zero and could skew your results.

ASSESSMENT AND EVALUATION

Related Skills	1	2	3	4	5
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					
Total Assessment and Evaluation					

SPECIFIC KNOWLEDGE

Related Skills	1	2	3	4	5
Knowledge of the environmental context's effect 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 that influence the use of technology					
Knowledge of the 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					
Total Specific Knowledge					

ABILITIES

Related Skills	1	2	3	4	5
Identify potential physical barriers for students in the environment					
Design, fabricate, and install basic assistive technology					
Adapt and modify tools to meet student's 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 student's 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					
Total Abilities					

COMMENTS



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