Keeping Students First: Assistive Technology CAN Impact Student Outcomes

SELDA
Macon, Georgia
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Georgia Department of Education
Alignment with State Priorities

Georgia’s Systems of Continuous Improvement

Special Education Division Priorities:
IEP Development and Implementation
Non-Endorsement Statement
Georgia Department of Education

The Georgia Department of Education does not endorse any non-Georgia Department of Education websites or products contained within these pages or through external hyperlinks. These webpages and documents provide only a sampling of available resources and in no way should be considered an exhaustive list of available resources. It is at the discretion of individual districts and schools to determine appropriate resources to serve stakeholders.
Why should we use technology?

- Impacts outcomes for students
- Provide access to the general curriculum
- Allows students to demonstrate what they know
- Supports differentiation
- Provides independence
- May provide an essential support for communication
Introduction to Assistive Technology

The History

- 1973 - Rehabilitation Act of 1973
- 1988 - Assistive Technology Act
- 1990 - Individuals with Disabilities Education Act
- 1994 - Assistive Technology Act
- 1994 - Individuals with Disabilities Education Act
- 1998 - Americans with Disabilities Act
Definition of Assistive Technology Device

§ Section 300.5 Assistive technology device.

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.

The term does not include a medical device that is surgically implanted, or the replacement of such device.

(Authority 20 U.S.C. 1401(1))
Definition of Assistive Technology Service

§ Section 300.6 Assistive technology service.

Any service that directly assists a child with a disability with the selection, acquisition, or use of an assistive technology device.

The term includes-

• (a) The evaluation of the needs of a 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 assistive technology devices by children with disabilities;
Definition of Assistive Technology Service

§ Section 300.6 (Continued)

• (c) Selecting designing, fitting, customizing, adapting, applying, retaining, repairing, or replacing assistive technology devices;

• (d) Coordinating and using other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs;
Definition of Assistive Technology Service

§ Section 300.6 (Continued)

• (e) Training or technical assistance for a child with a disability or, if appropriate, that child’s family; and

• (f) Training or technical assistance for professionals (including individuals or rehabilitation services), employers, or other individuals who provide services to employ, or are otherwise substantially involved in the major life functions of children with disabilities.

    (Authority 20 U.S.C. 1401(2))
Legal Reference

§ Section 300.324 Development, review, and revision of IEP

(1) Consideration of special factors. The IEP team must-
(v) Consider whether the child needs assistive technology devices and services.

(Authority 20 U.S.C. 1414(d)(3)(B))
Legal Mandates for Assistive Technology

- Federal Special Education Legislation
  - Definition of Assistive Technology
  - Provision of Assistive Technology
  - Consideration of Assistive Technology Devices and Services
  - State Rules and Regulations for Special Education
  - Conclusions

Federal Special Education Legislation

The Individuals with Disabilities Education Act (IDEA) mandates the school system’s responsibility to provide assistive technology devices and services to students with disabilities. The following information is included to provide IEP teams with an understanding of the legal context for providing assistive technology devices and services.
Tools to Gauge Progress

Quality Indicators

1. Consideration of AT Needs : (QI1-MS Word) (QI1-PDF)
2. Assessment of AT Needs : (QI2-MS Word) (QI2-PDF)
3. AT in the IEP : (QI3-MS Word) (QI3-PDF)
4. AT Implementation : (QI4-MS Word) (QI4-PDF)
5. Evaluation of Effectiveness of AT : (QI5-MS Word) (QI5-PDF)
6. AT in Transition : (QI6-MS Word) (QI6-PDF)
7. Administrative Support for AT : (QI7-MS Word) (QI7-PDF)
8. AT Professional Development : (QI8-MS Word) (QI8-PDF)

Quality Indicators Matrices

How to use the Quality Indicators Matrices: (Use - Word) (Use -PDF)

1. Matrices Consideration of AT Needs : (MQI1-MS Word) (MQI1-PDF)
2. Matrices Assessment of AT Needs : (MQI2-MS Word) (MQI2-PDF)
3. Matrices AT in the IEP : (MQI3-MS Word) (MQI3-PDF)
4. Matrices AT Implementation : (MQI4-MS Word) (MQI4-PDF)
5. Matrices Evaluation of Effectiveness of AT : (MQI5-MS Word) (MQI5-PDF)
6. Matrices AT in Transition : (MQI6-MS Word) (MQI6-PDF)
7. Matrices Administrative Support for AT : (MQI7-MS Word) (MQI7-PDF)
8. Matrices AT Professional Development : (MQI8-MS Word) (MQI8-PDF)
Quality Indicators for Consideration of Assistive Technology Needs

Consideration of the need for AT devices and services is an integral part of the educational process contained in IDEA for referral, evaluation, and IEP development. Although AT is considered at all stages of the process, the Consideration Quality Indictors are specific to the consideration of AT in the development of the IEP as mandated by the Individuals with Disabilities Education Act (IDEA). In most instances, the Quality Indicators are also appropriate for the consideration of AT for students who qualify for services under other legislation (e.g., 504, ADA).

1. **Assistive technology devices and services are considered for all students with disabilities regardless of type or severity of disability.**

   **Intent:** Consideration of assistive technology need is required by IDEA and is based on the unique educational needs of the student. Students are not excluded from consideration of AT for any reason. (e.g., type of disability, age, administrative concerns)

2. **During the development of an individualized educational program, every IEP team consistently uses a collaborative decision-making process that supports systematic consideration of each student’s possible need for assistive technology devices and services.**

   **Intent:** A collaborative process that ensures that all IEP teams effectively consider the assistive technology of students is defined, communicated, and consistently used throughout the agency. Processes may vary from agency to agency to most effectively address student needs under local conditions.
Quality Indicators for **Consideration of Assistive Technology Needs**

Quality Indicator
1. Assistive technology (AT) devices and services are **considered for all students with disabilities** regardless of type or severity of disability.

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<thead>
<tr>
<th><strong>UNACCEPTABLE</strong></th>
<th><strong>Variations</strong></th>
<th><strong>PROMISING PRACTICES</strong></th>
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<tr>
<td>1. AT is not considered for students with disabilities.</td>
<td>2. AT is considered only for students with severe disabilities or students in specific disability categories.</td>
<td>3. AT is considered for all students with disabilities, but the consideration is inconsistently based on the unique educational needs of the student.</td>
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<td>4. AT is considered for all students with disabilities and the consideration is generally based on the unique educational needs of the student.</td>
<td>5. AT is considered for all students with disabilities and the consideration is consistently based on the unique educational needs of the student.</td>
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3. IEP team members have the **collective knowledge and skills** needed to make informed assistive technology decisions and seek assistance when needed.

**Intent:** IEP team members combine their knowledge and skills to determine if assistive technology devices and services are needed to remove barriers to student performance. When the assistive technology needs are beyond the knowledge and scope of the IEP team, additional resources and support are sought.

4. **Decisions regarding the need for assistive technology devices and services are based on the student’s IEP goals and objectives, access to curricular and extracurricular activities, and progress in the general education curriculum.**

**Intent:** As the IEP team determines the tasks the student needs to complete and develops the goals and objectives, the team considers whether assistive technology is required to accomplish those tasks.

5. **The IEP team gathers and analyzes data about the student, customary environments, educational goals, and tasks when considering a student’s need for assistive technology devices and services.**

**Intent:** The IEP team shares and discusses information about the student’s present levels of achievement in relationship to the environments, and tasks to determine if the student requires assistive technology devices and services to participate actively, work on expected tasks, and make progress toward mastery of educational goals.
2. During the development of the individualized educational program (IEP), the IEP team consistently uses a **collaborative decision-making process** that supports systematic consideration of each student’s possible need for AT devices and services.

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<tr>
<td>1</td>
<td>No process is established for IEP teams to use to make AT decisions.</td>
<td>2</td>
<td>A process is established for IEP teams to use to make AT decisions, but it is not collaborative.</td>
<td>3</td>
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3. IEP team members have the **collective knowledge and skills** needed to make informed AT decisions and seek assistance when needed.

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<td>1</td>
<td>The team does not have the knowledge or skills needed to make informed AT decisions. The team does not seek help when needed.</td>
<td>2</td>
<td>Individual team members have some of the knowledge and skills needed to make informed AT decisions. The team does not seek help when needed.</td>
<td>3</td>
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</tbody>
</table>
6. When assistive technology is needed, the IEP team *explores a range* of assistive technology devices, services, and other supports that address identified needs.

**Intent:** The IEP team considers various supports and services that address the educational needs of the student and may include no tech, low tech, mid-tech and/or high tech solutions and devices. IEP team members do not limit their thinking to only those devices and services currently available within the district.

7. The assistive technology consideration process and **results are documented in the IEP** and include a rationale for the decision and supporting evidence.

**Intent:** Even though IEP documentation may include a checkbox verifying that assistive technology has been considered, the reasons for the decisions and recommendations should be clearly stated. Supporting evidence may include the results of assistive technology assessments, data from device trials, differences in achievement with and without assistive technology, student preferences for competing devices, and teacher observations, among others.

**COMMON ERRORS:**

1. AT is considered for students with severe disabilities only.
2. No one on the IEP team is knowledgeable regarding AT.
3. Team does not use a consistent process based on data about the student, environment and tasks to make decisions.
4. Consideration of AT is limited to those items that are familiar to team members or are available in the district.
5. Team members fail to consider access to the curriculum and IEP goals in determining if AT is required in order for the student to receive FAPE.
6. If AT is not needed, team fails to document the basis of its decisions.
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<td>4. Decisions regarding the need for AT devices and services are based on the student’s IEP goals and objectives, access to curricular and extracurricular activities, and progress in the general education curriculum.</td>
<td>1</td>
<td>Decisions about a student’s need for AT are not connected to IEP goals or the general curriculum.</td>
<td>2</td>
<td>Decisions about a student’s need for AT are based on either access to the curriculum/IEP goals or the general curriculum, not both.</td>
</tr>
<tr>
<td>5. The IEP team gathers and analyzes data about the student, customary environments, educational goals, and tasks when considering a student’s need for AT devices and services.</td>
<td>1</td>
<td>The IEP team does not gather and analyze data to consider a student’s need for AT devices and services.</td>
<td>2</td>
<td>The IEP team gathers and analyzes data about the student, customary environments, educational goals or tasks, not all, when considering a student’s need for AT devices and services.</td>
</tr>
<tr>
<td>6. When AT is needed, the IEP team explores a range of AT devices, services, and other supports that address identified needs.</td>
<td>1</td>
<td>The IEP team does not explore a range of AT devices, services, and other supports to address identified needs.</td>
<td>2</td>
<td>The IEP team considers a limited set of AT devices, services, and other supports.</td>
</tr>
<tr>
<td>7. The AT consideration process and results are documented in the IEP and include a rationale for the decision and supporting evidence.</td>
<td>1</td>
<td>The consideration process and results are not documented in the IEP.</td>
<td>2</td>
<td>The consideration process and results are documented in the IEP but do not include a rationale for the decision and supporting evidence.</td>
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</table>
II. CONSIDERATION OF SPECIAL FACTORS

a) Does the student have behavior which impedes his/her learning or the learning of others? □ Yes □ No
   If yes, consider the appropriateness of developing a Behavior Intervention Plan.

b) Does the student have Limited English proficiency? □ Yes □ No
   If yes, consider the language needs as related to the IEP and describe below.

c) Does the student have blindness/visual impairment? □ Yes □ No
   If yes, provide for instruction in Braille and the use of Braille, unless the IEP Team determines that instruction in Braille is not appropriate for the student after an evaluation of the student’s reading and writing skills, needs, and appropriate reading and writing media, including evaluation of future needs for instruction in Braille or the use of Braille. Describe below.

d) Does the student have communication needs? □ Yes □ No
   If yes, consider the communication needs and describe below.

e) Is the student deaf or hard of hearing? □ Yes □ No

f) Does the Student need assistive technology devices or services? □ Yes □ No
   If yes, describe the type of assistive technology and how it is used.
   If not, describe how the student’s needs are being met in deficit areas.

g) Does the student require alternative format for instructional materials? □ Yes □ No
   If yes, specify format(s) of materials required below.
   □ Braille  □ Large type  □ Auditory  □ Electronic text
This is WHY it is Important!

GRADUATION
High Incidence Disabilities and Assistive Technology

- 99.8% Graduate
- 80.9% Attend Post Secondary
- 80.0% Paid Job after Graduation

- 79.6% Graduate
- 40.1% Attend Post Secondary
- 50.8% Paid Job after Graduation

High Incidence Disabilities Graduation Rate

Graduation Groups

With AT: 99.8
No AT: 79.6
High Incidence Disabilities Attend Post Secondary

With AT: 80.9

No AT: 40.1
High Incidence Disabilities
Paid Job after Graduation

80.0

With AT

50.8

NO AT
• Assistive Technology use Nationally - All Disabilities

All Special Education Students

91.10%

8.90%

www.NLTS2.org
2016 Georgia Students with an IEP

192,383

80.2%

19.8%

ALL Students in GA w an IEP

Go IEP - Students with IEP
GO-IEP District Data

N = 36,524

- High Incidence w AT Device: 2,256 (10.6%)
- High Incidence Disabilities: 36,524 (58.2%)
- Total: 38,780 (100%)

Bar chart showing:
- Green bar for High Incidence w AT Device
- Orange bar for High Incidence Disabilities

Pie chart showing:
- 80.2% of total
- 19.8% of total
Consideration of Special Factors is an IMPORTANT consideration

II. CONSIDERATION OF SPECIAL FACTORS

a) Does the student have behavior which impedes his/her learning or the learning of others? □ Yes □ No
   If yes, consider the appropriateness of developing a Behavior Intervention Plan. □ Yes □ No
   Behavior Intervention Plan developed? □ Yes □ No
   Refer to Behavior Intervention Plan for additional information.

b) Does the student have Limited English proficiency? □ Yes □ No
   If yes, consider the language needs as related to the IEP and describe below.

c) Does the student have blindness/visual impairment? □ Yes □ No
   If yes, provide for instruction in Braille and the use of Braille, unless the IEP Team determines that instruction in Braille is not appropriate for the student after an evaluation of the student’s reading and writing skills, needs, and appropriate reading and writing media, including evaluation of future needs for instruction in Braille or the use of Braille. Describe below.

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   □ Braille □ Large type □ Auditory □ Electronic text
What is the district procedure for addressing AT in the district?
Is this procedure written and what role does general supervision play in addressing consideration?
Assistive Technology Consideration Process

Student is making adequate progress on current IEP.

Student is able to access the general education curriculum. The IEP team indicated, no AT is needed.

Student is successfully using Assistive Technology in their classroom settings.

Document on IEP
Assistive Technology Consideration

Student is **NOT** making adequate progress on current IEP.

Currently NO Assistive Technology is in place.

The IEP TEAM is aware of AT devices and can provide the device.

1. Document on IEP
2. Provide AT Device
3. Establish Trial Criteria

1. Contact AT resource specialist for assistance
2. Document on IEP
3. Reconvene IEP Team

Student currently has AT in place and is **NOT** making adequate progress.

Student needs AT, the IEP team is **not aware** of what type of technology is needed.
This is WHY it is Important!

Graduation and Post School Outcomes
**AT Resources**

**Tech Matrix** is an online searchable database of assistive and educational technology tools and resources to support learning for students with disabilities and their classmates.

**Tech Finder** is an online database of expert approved apps and games for children with learning and attention difficulties.

**AppFinder** - Welcome to the Tools for Life Database - Our Favorite Apps for Living, Learning, Working and Playing!


**AEM Navigator**

Process to guide a team through specialized formats of printed instructional material

**AEM Explorer**

A free simulation tool that combines grade level text with common access features to most text reader
NATE — the National Assistive Technology in Education Network — brings together information from the many fields and disciplines that are involved in assistive technology services in educational settings. We provide that information in a cohesive, integrated manner, so that people from all disciplines can access it.

https://www.natenetwork.org/
Assistive Technology Team Supports

**Resources:**

- National Assistive Technology in Education Network (NATE) resources
  [http://www.natenetwork.org/manuals-forms](http://www.natenetwork.org/manuals-forms)

- Special Education Technology British Columbia (SETBC) – Series of free videos at ‘The Learning Centre’ -
2 Minute Discussion
Through your Students eyes!

Understood.org

Your Parent Toolkit

Through Your Child’s Eyes
Through your Students eyes!

Experience It
Tailor the simulation, expert advice and child’s story by selecting your child’s issue(s) and grade level—or select a child from your profile.

Explore More
Want to try your hand at all of the simulations? Or hear more children’s stories? Choose from the options below.

Simulations
These game-like experiences are a fun way to help you see why learning and attention issues can be so frustrating.

- Reading issues
- Writing issues
- Attention issues
- Math issues
- Organization issues
Leverage What You Own!

Building Relationships with district IT

Building Relationships with Curriculum and Media Specialists
Immersive Reader

• If you are an Office 365 district or use Microsoft Office Suite, you have access to this support!
Office 2016 – Home Tab
• Styles— Title, Heading and Normal
• Dictate

Office 2016 – Review Tab
• Read Aloud – Speech
• Translate -
Office 2016 – View

• Learning Tools
  • Column Width
  • Page Color
  • Line Focus
• Text Spacing
• Syllables
• Read Aloud
One Note

• Translate
• Office Lens app, and link to OneNote
• Immersive Reader
Google Docs

- Share Documents
- Voice Typing
- Explore (Research)
- Dictionary
Impacts Outcomes for Students

• When Gavin spoke about his life before Snap&Read, it was clear he needed a moment to compose himself. His emotions welled up when describing how he stayed up until midnight struggling with homework. Just trying to make sense of words on a page was overwhelming.

• By the time he reached fifth grade, Gavin was reading independently at a first grade level. The IEP team at Leggee Elementary in Huntley, IL faced the decision of placing Gavin in a self-contained classroom. But the team felt this student was capable of much more. They only needed a way to bring out his true potential. So, his teacher assessed him with uPAR.

• **It was a move that has changed his life....**

• Hear Gavin and his teachers tell what happened next!
Access to the General Curriculum

Accessing technology will remove barriers and impact student engagement.

- Text to Speech
- Speech to Text (Dictation)
- Using Extensions on the Internet browser
- Digital Text
- Graphic Organizers - Paper or Digital
It can support students that are struggling

Google Chrome and or Google Docs
Ease of Access - PC

The **Ease Of Access in Windows 10** lets you make your computer more accessible, based on your needs. You can change a lot of settings to make your PC work the way you want it to and can be useful to you if you are differently abled.

The available Ease of Access settings are:

1. Display
2. Cursor & Pointer
3. Magnifier
4. Color filters
5. High Contrast
6. Narrator
7. Audio
8. Closed captions
9. Speech
10. Keyboard
11. Mouse
Specialized Format

Provides access to text in an optimal format

- Large Type Books
- Braille
- Audiobooks
- Electronic Books (ebooks)

- AIM Simply Said (video) GIMC website

Additional Information: The National Center on Accessible Education Materials
PDF Reading Software

Visual and auditory - provides speech access to unlocked PDFs, may highlight as it reads

• Adobe Reader
• Advanced Reading Aids
PDF Reading Software
Adobe Reader

Talking Calculators

A talking calculator is simply a calculator with a speech synthesizer. When number, symbol, or operation keys are pressed, they are vocalized/spoken by a built-in speech synthesizer. In this way, the user receives simultaneous auditory feedback for checking the accuracy of visual-motor operations. Once a calculation has been made, the number can be read back via the synthesizer. This feature enables the user to double-check the answers being transferred from calculator to paper.

It is important to note that the speed at which calculations are performed may be problematic, because it takes longer to have operations spoken than visually displayed. Second, some people may experience “stimulus overload” when having to contend with both visual and auditory feedback. As with all technologies, individual profiles and preferences will have to be considered.

Electronic Math Worksheets

Electronic math worksheets can help the user organize, align, and navigate through basic
Text Reading Software

Programs that can be used to read text on the computer display. They provide text-to-speech via speech synthesizer software.

- Natural Reader
- E-Text Reader
- Snap & Read
Text Reading Software

Programs that will display specially formatted text on the computer and/or mobile devices – free versions + paid premium versions

CaptiVoice
Talking Calculators

A talking calculator is simply a calculator with a speech synthesizer. When number, symbol, or operation keys are pressed, they are vocalized/spoken by a built-in speech synthesizer. In this way, the user receives simultaneous auditory feedback for checking the accuracy of visual-motor operations. Once a calculation has been made, the number can be read back via the synthesizer. This feature enables the user to double-check the answers being transferred from calculator to paper.

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Electronic Math Worksheets

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Text Reading Software

Programs that can be used to read text on the computer display. They provide text-to-speech via speech synthesizer software.

- Natural Reader
- E-Text Reader
- Snap & Read
Mobile Devices and Apps

Kindle

Mini Tablets

iPad

Blio
Kindle
E Books
Story Creator
Talking Books

Prizmo
Text grabber
Scanning apps
Adobe Acrobat
PDF
Voice Dream Reader
Text to Speech

Tablets

ComiC Life
for iPad
Speak Selection (iPad)
"They have none of them much to recommend them," replied he; "they are all silly and ignorant like other girls; but Lizzy has something more of quickness than her sisters."

"Mr. Bennet, how can you abuse your own children in such a way? You take delight in vexing me. You have no compassion for my poor nerves."

They are my old friends. I have heard you mention them with consideration these last twenty years at least."

"Ah, you do not know what I suffer."
Claro Applications

- Claro ScanPen
- ClaroPDF Pro
- Claro Speak
It can be a true measure of what the student has learned

Using text to speech to hear the content or the question.

Using speech to text (dictation) to respond.
Supports Differentiation

Differentiation means tailoring instruction to meet individual needs. Whether teachers differentiate content, process, products, or the learning environment, the use of ongoing assessment and flexible grouping makes this a successful approach to instruction.

What does the student need to have access to the content and to be able to show what they have learned?
Top 10 Assistive Technology Supports for Every Classroom

• Using the technology/AT that is currently in the classroom
• Text to Speech (TTS)
• Audiobooks and/or Digital Books
• Speech to Text (Dictation)
• Built in Accessibility Options
  • PC - Ease of Access
  • Mac Book - Accessibility Options
  • Mobile Devices – Accessibility Options
• Graphic Organizers
• Using Extensions and/or Add-ons with internet browsers
• Mobile Devices
• Visual Supports (classroom and/or behavior management)
• Closed Captioning
Contact Information
Georgia Department of Education
Division for Special Education Services and Supports

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