Instructional Leadership Workshop

Instructional Practices that Improves Outcomes for Students with Disabilities

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February 12, 2019
Macon Marriott City Center
Assistive Technology and Its Impact on Students with Disabilities

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Alignment with State Priorities

Georgia’s Systems of Continuous Improvement

Special Education Division:

Priority IEP Development and Implementation
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))
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.
This is WHY it is Important!

GRADUATION
2017 Governor's Office of Student Achievement

9 - 12 ALL Students 104059 (80.56%)
9 - 12 Students w/out a disability 95715 (83.2%)
9 - 12 Students w/ a disability 8344 (58.86%)
2017 Governor's Office of Student Achievement

9 - 12 ALL Students 21,500 (3.8%)
9 - 12 Students w/out a disability 17,719 (3.5%)
9 - 12 Students w/a disability 3,781 (5.7%)
High Incidence Disabilities and Assistive Technology

**Received Assistive Technology**

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

**DID NOT Receive Assistive Technology**

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

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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 Payed Job after Graduation

<table>
<thead>
<tr>
<th>With AT</th>
<th>NO AT</th>
</tr>
</thead>
<tbody>
<tr>
<td>80.0</td>
<td>50.8</td>
</tr>
</tbody>
</table>
• Assistive Technology use Nationally

- All Special Education Students
  - 91.10%
  - www.NLTS2.org
  - 8.90%

2/12/2019
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

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Incidence w AT Device</td>
<td>2,256</td>
<td>10.6%</td>
</tr>
<tr>
<td>High Incidence Disabilities</td>
<td>21,285</td>
<td>58.2%</td>
</tr>
<tr>
<td>Total</td>
<td>36,524</td>
<td>100%</td>
</tr>
</tbody>
</table>

N = 36,524

**Pie Chart**

- **High Incidence w AT Device**: 19.8%
- **High Incidence Disabilities**: 80.2%
Consideration of Special Factors is an IMPORTANT consideration

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.
2019 Federal Child Count by Disability Area Ages 6-21

The 3 Largest Areas = 67%
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.

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.

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
Leverage Technology for Reading and Language

• Text to Speech (TTS)
• Audiobooks and Digital Text to Speech Books
• Optical Character Recognition (OCR)
• TTS, audiobooks and digital TTS books all let students hear text read aloud.
let me show you how Learning Tools make it easier to read.
Text to Speech (TTS)

• Lets look at a PDF document.
Text to Speech (TTS)

Microsoft Office offers built-in text to speech on its 2010 and 2013 office products. Text to Speech (TTS) can support students by giving them audio feedback (playback) of the text on the page. Depending on the configuration of the student’s computer and the TTS engine that is installed, the student could hear most text that appears on their screen in Word, Outlook, PowerPoint and OneNote.

The Quick Access Toolbar is a customizable toolbar that contains a set of commands that are independent of the tab that is currently displayed.
Text to Speech (TTS)

The Quick Access Toolbar, pull down menu: Under Customize the Quick Access Toolbar, Click More Commands; then click All Commands, scroll down to speak, click ADD, click OK.
Text to Speech (TTS)

- Office 365
Audiobooks and Digital TTS Books

• **Project Gutenberg** - Project Gutenberg offers over 57,000 free eBooks. Choose among free e-pub books, free kindle books, download them or read them online. You will find the world's great literature here, with focus on older works for which copyright has expired. Thousands of volunteers digitized and diligently proofread the eBooks, for enjoyment and education. No fee or registration is required.

• **Tar Heel Reader** - Tar Heel Reader is a growing library of accessible, beginning level readers for students of all ages.

• **Bookshare** - For students with a 504 or an IEP, Bookshare makes reading easier. People with dyslexia, blindness, cerebral palsy, and other reading barriers can customize their experience to suit their learning style and find virtually any book they need for school, work, or the joy of reading.
Audiobooks and Digital TTS Books

• **Storynory** offers free audiobooks for young children. Titles include fairy tales like *Little Red Riding Hood* and classics like *Alice in Wonderland*. Each audiobook includes the digital text of the book.

• **Lit2Go** provides free audiobook versions of books that are no longer protected by copyright laws. (Other sites, like LibriVox, provide a similar service.) Lit2Go offers downloadable PDFs of books so your child can read along as she listens to classics like *The Call of the Wild*. The site also categorizes books by reading level.
Audiobooks and Digital TTS Books

• Bookshare
Audiobooks and Digital TTS Books

• Project Gutenberg
Audiobooks and Digital TTS Books

- Tar Heel Reader
Audiobooks and Digital TTS Books

• Text to Speech on your Mobile Device

Speak Select and Speak Screen for an iDevice

Turn on Speak Screen and swipe down from the top with two fingers, or just tell Siri to Speak Screen and have all the content of the page read back to you. You can adjust the voice’s dialect and speaking rate, and have words highlighted as they’re being read. Within iOS 10, in addition to word by word highlighting, the text to speech options (Speak Selection and Speak Screen) will now provide sentence by sentence highlighting as well. By choosing Highlight Content in the Speech Settings you can configure how the highlighting takes place: you can have only the words highlighted, only the sentences, or both, and you can choose whether the sentence highlight will be an underline or a background color (though you still can’t choose your own color).

Tap Settings> General> Accessibility >Speech>Speak Selection
Optical Character Recognition (OCR)

An great tool for students with dyslexia is a good OCR app. OCR Instantly allows mobile device users to utilize the cameras on their mobile device as portable scanners. The app quickly converts photos of text into text that can be read aloud with text-to-speech technology.

• Google Doc
• Office Lens
• PrizmoGo
• PDF Scanner:Document Scan + OCR
Optical Character Recognition (OCR)

• Google Docs- For those already familiar with Google Documents, you may want to use the OCR built into Google Drive. For the best results the documents font should be set to Arial or Times New Roman. You can further improve result by making sure the image scanned has even lighting and clear contrast between colors. Images can be processed individually (jpg, png, and gif files) or in multi-page PDF documents. It also supports a number of languages ranging from Filipino, Finnish to Yiddish and Zulu. The resolution of your document should also be at least 10 pixels in height to allow Google Docs to have a good chance of recognizing your text.
Optical Character Recognition (OCR)

Aim at text. Shoot. It's yours! Prizmo Go lets you grab printed text easily, so you don’t have to retype it.

Before shooting, Prizmo Go shows lines of text directly in the camera preview to let you know what it sees, in a way similar to augmented reality but for text. After shooting, you get direct access to textual contents. It’s that simple.
Speech to Text

• Writing for students that struggle with the physical aspect of writing, organizing their thoughts and spelling limitations.

Turn on Dictation on a Mac

Turn on Dictation in windows 10; Windows logo key + H
On-Screen Keyboard
With Word Prediction
Speech to Text

How to Use Android Tablet Dictation

1. From a Home screen, navigate: Apps icon > Settings then tap "Language & input" or "Language & keyboard". ...

2. From the Default keyboard, tap Google Keyboard/Gboard. ...

3. Tap Preferences.

4. Tap the Voice input key switch to turn on or off.
Speech to Text

• I Device

iOS Dictation Requirements
• The primary requirement for most iPads is an Internet connection. Like Siri, voice dictation uses Apple’s servers to perform the speech recognition for you. For iPad Pro models, dictation is available when you’re not connected to the Internet. Also on iPhone 6s, iPhone 6s Plus, iPhone 7, iPhone 7 Plus, iPhone 8, iPhone 8 Plus, iPhone X, and iPhone SE, you can use dictation when you’re not connected to the Internet.
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!

http://www.gatfl.gatech.edu/favorite-search.php

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