

Instructional Leadership Workshop

Instructional Practices that Improves Outcomes for Students with Disabilities

Paula Gumpman – Program Specialist, Georgia Department of Education

February 12, 2019

Macon Marriott City Center

Assistive Technology and Its Impact on Students with Disabilities

Paula Gumpman – Program Specialist, Georgia Department of Education
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Alignment with State Priorities



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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



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Definition of Assistive Technology Device



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§ 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



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§ 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



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§ 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



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§ 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))

Consideration of Special Factors



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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.
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.
- 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
If yes, consider the needs of the student and describe below.
- 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!



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GRADUATION

2017 Governor's Office of Student Achievement



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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



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9 - 12 ALL Students 21, 500 (3.8%)

9 - 12 Students w/out a disability 17719 (3.5%)

9 - 12 Students w/a disability 3781 (5.7%)

High Incidence Disabilities and Assistive Technology



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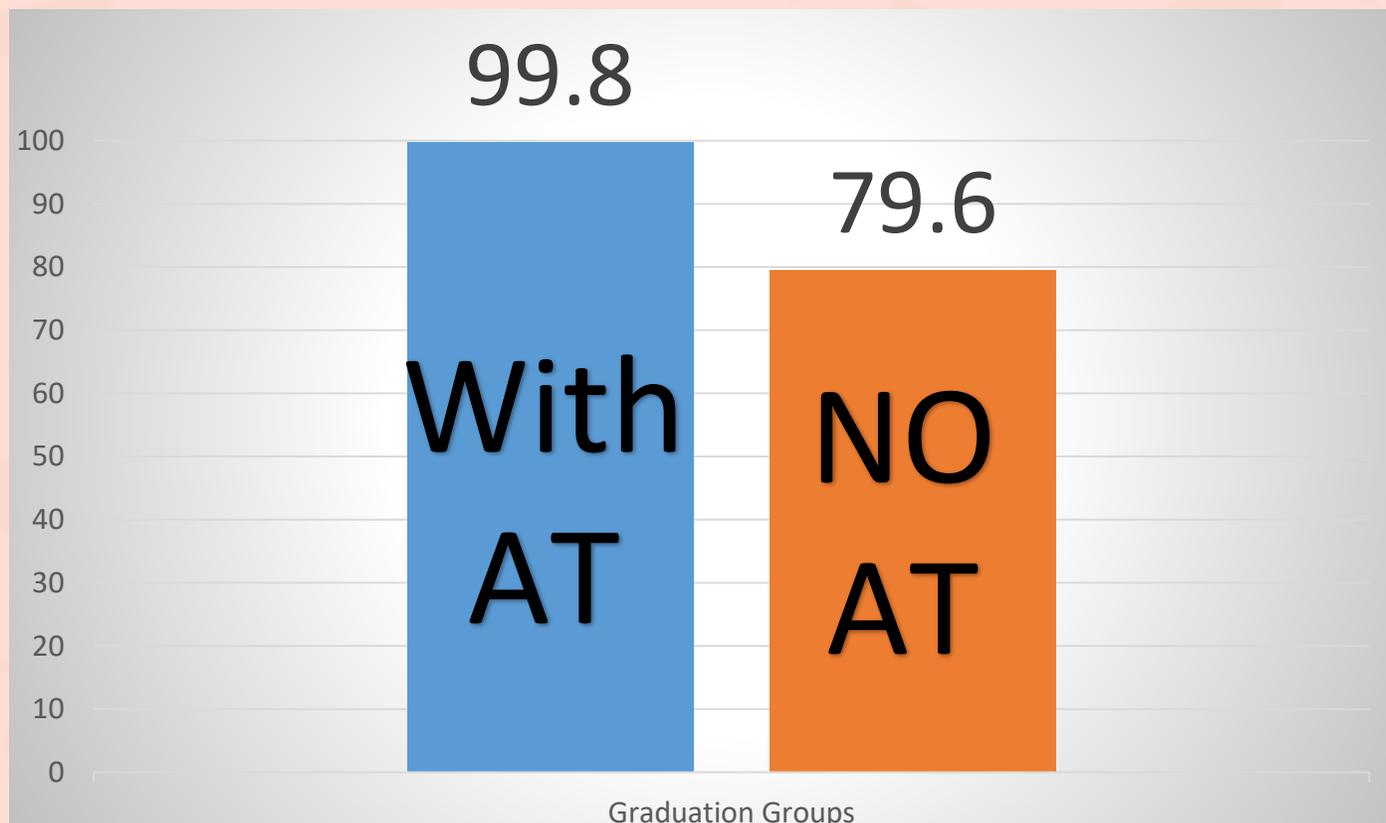
Received Assistive Technology

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

DID NOT Receive Assistive Technology

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

High Incidence Disabilities Graduation Rate



High Incidence Disabilities Attend Post Secondary



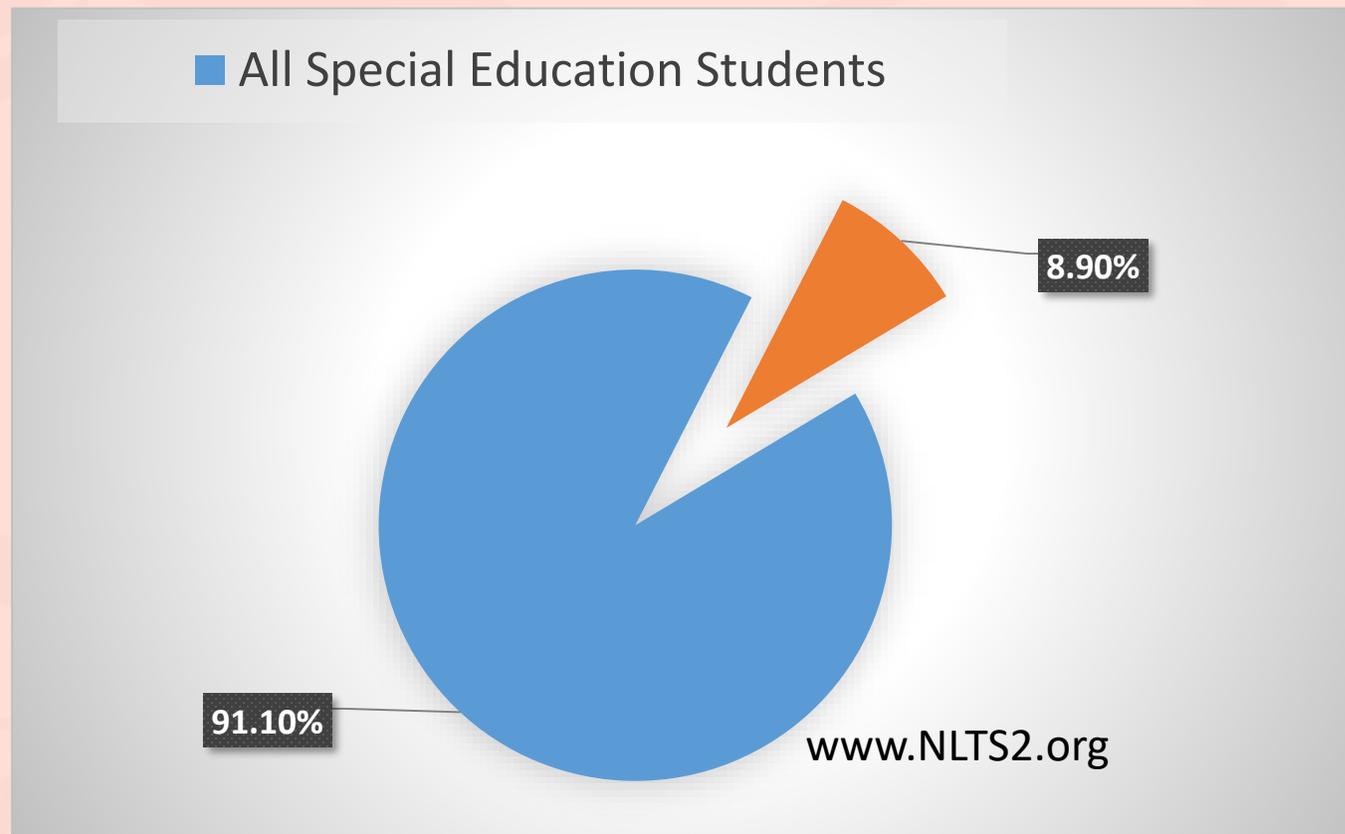
High Incidence Disabilities Paid Job after Graduation



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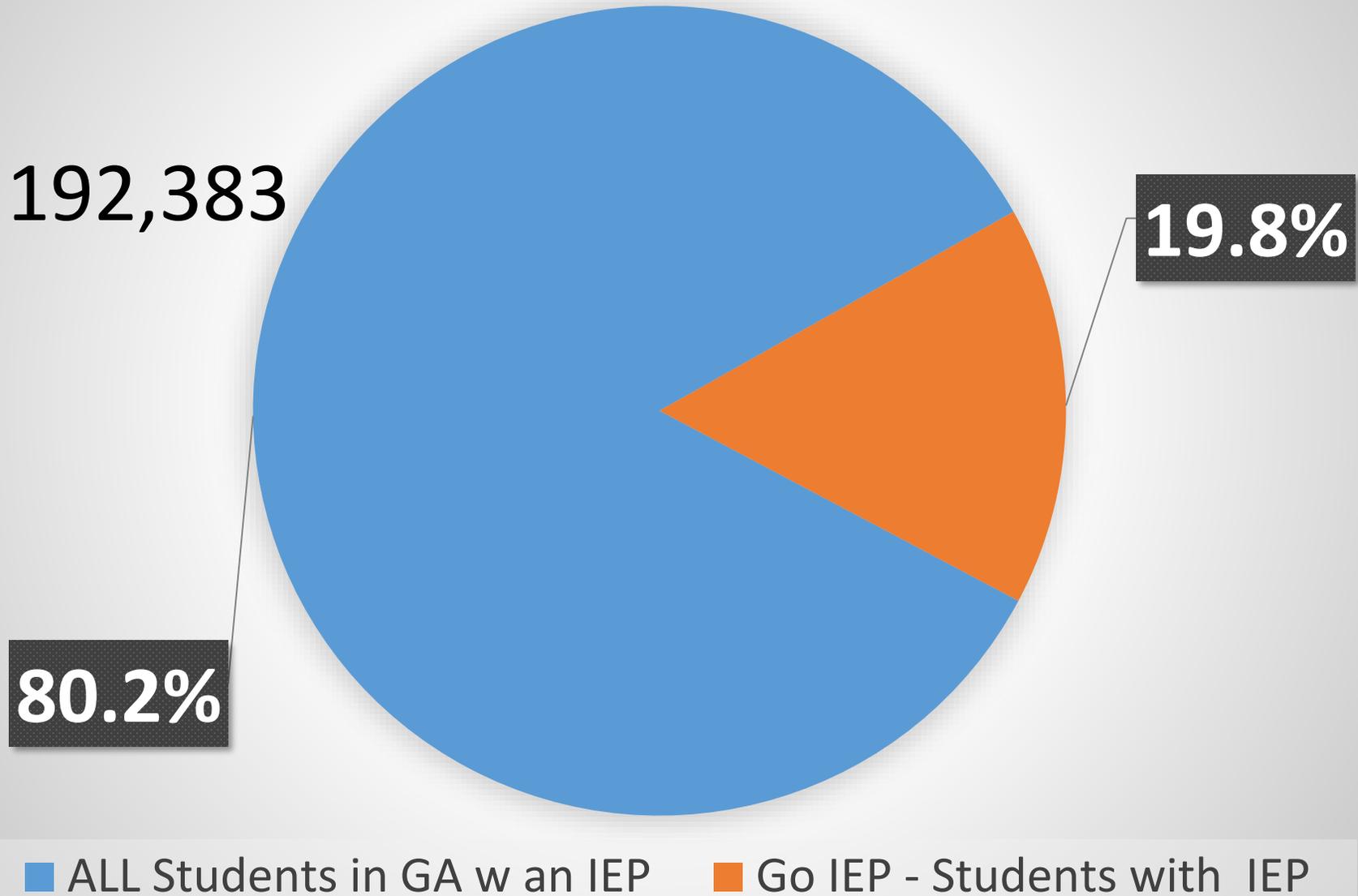
- Assistive Technology use Nationally



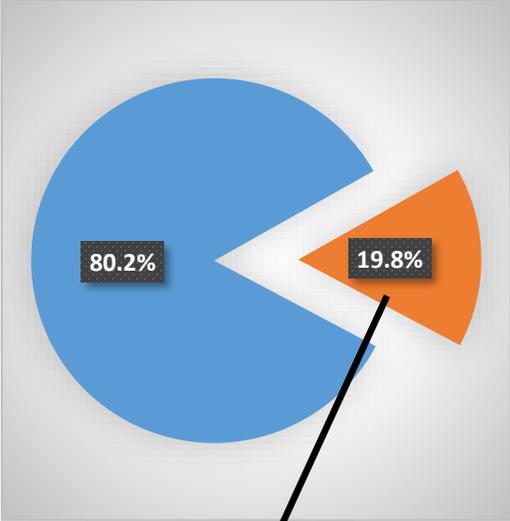
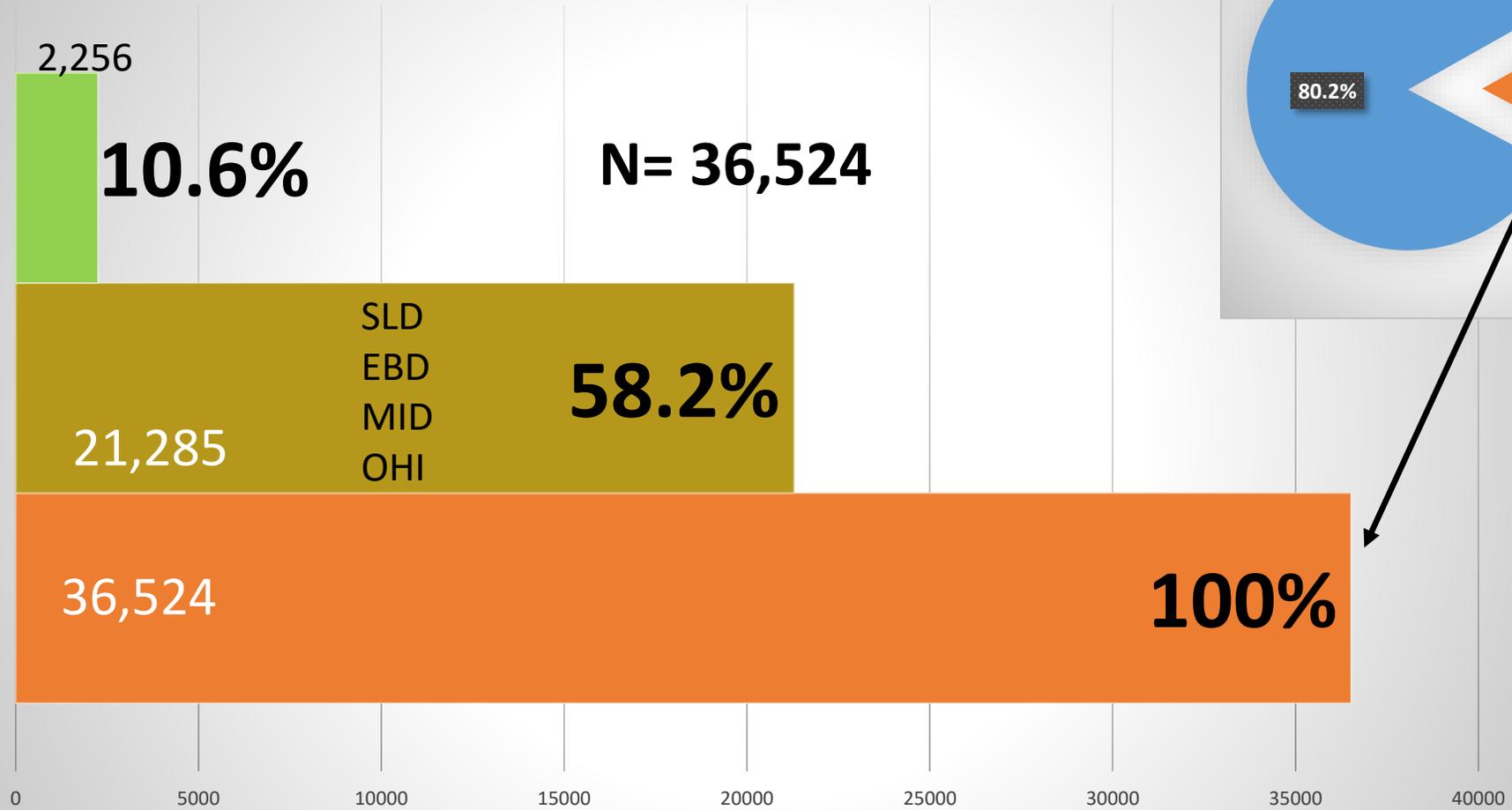
2016 Georgia Students with an IEP



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GO-IEP District Data



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- High Incidence w AT Device
- High Incidence Disabilities

Consideration of Special Factors is an IMPORTANT consideration



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II. CONSIDERATION OF SPECIAL FACTORS

- a) **Does the student have behavior which impedes his/her learning or the learning of others?** Yes No
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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.
- 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
If yes, consider and describe the student's language and communication needs, opportunities for direct communication with peers and professional
- 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.

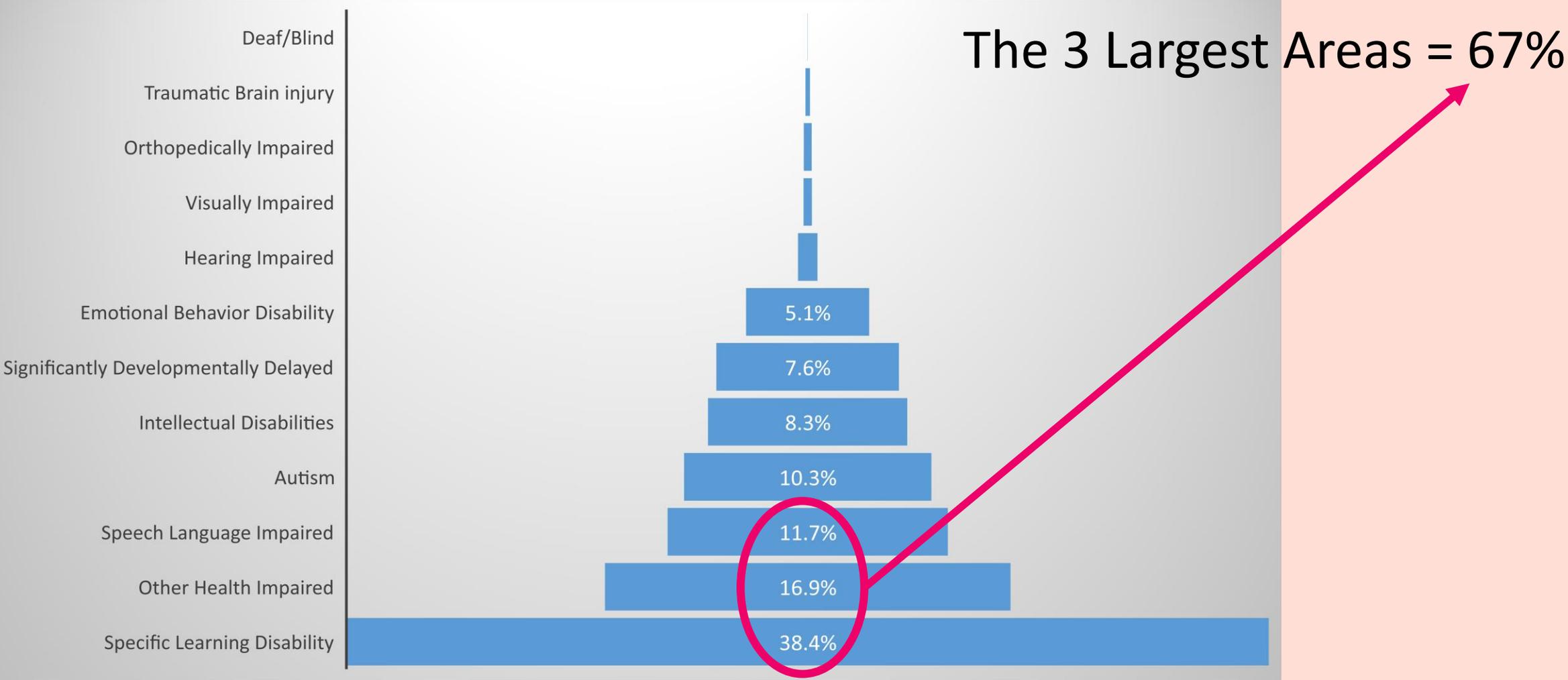
Braille

Large type

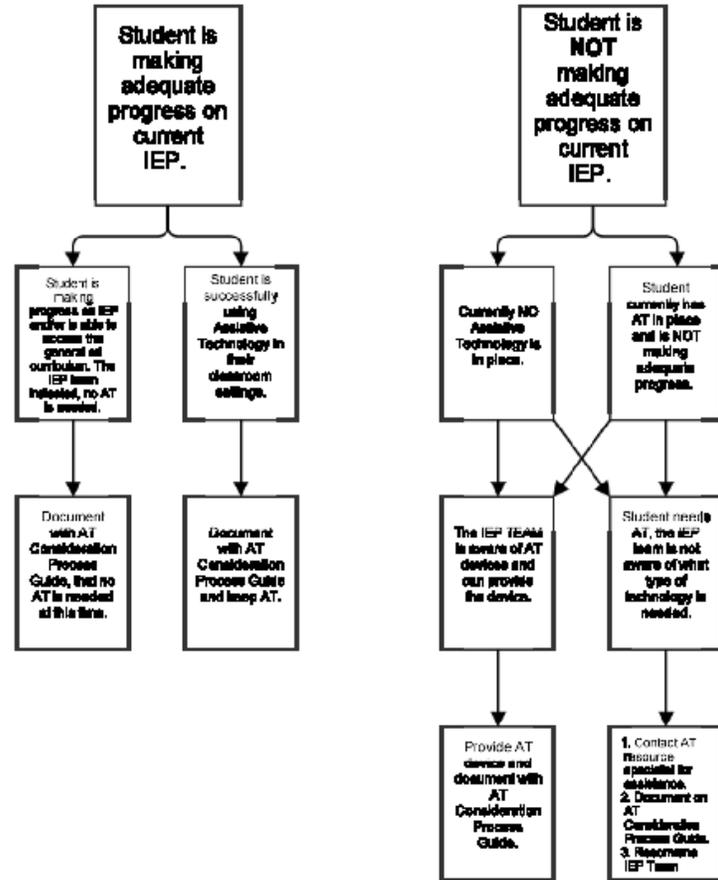
Auditory

Electronic text

2019 Federal Child Count by Disability Area Ages 6 -21



Assistive Technology Consideration



Assistive Technology Consideration Process Guide provides and documents the justification for AT.

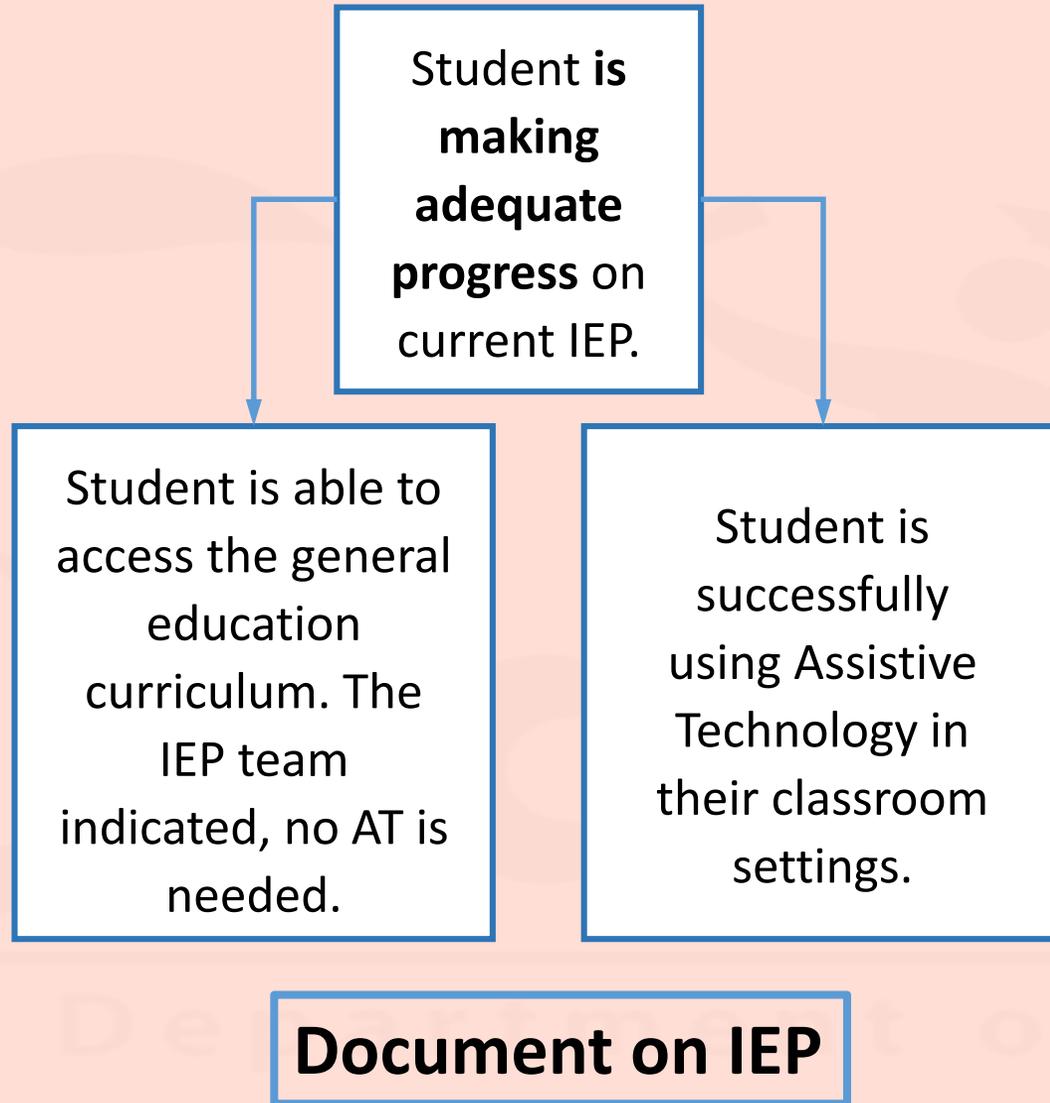


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Assistive Technology Consideration Process



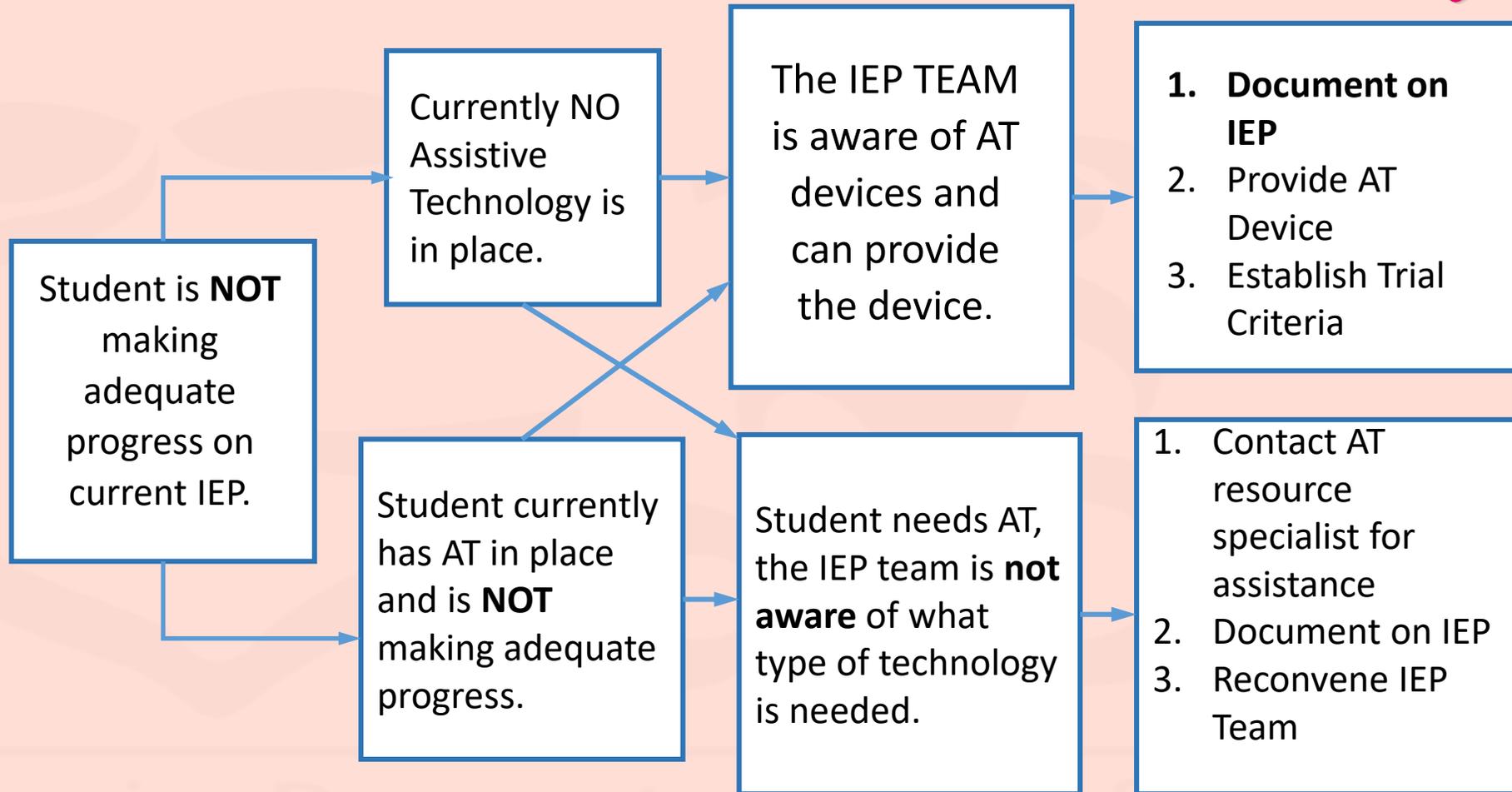
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Assistive Technology Consideration



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Leverage Technology



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for Reading and Language

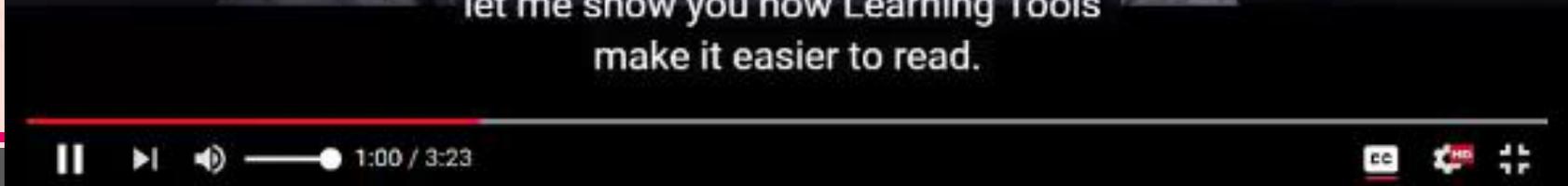
- Text to Speech(TTS)
- Audiobooks and Digital Text to Speech Books
- Optical Character Recognition (OCR)
- TTS, audiobooks and digital TTS books all let students hear text read aloud.



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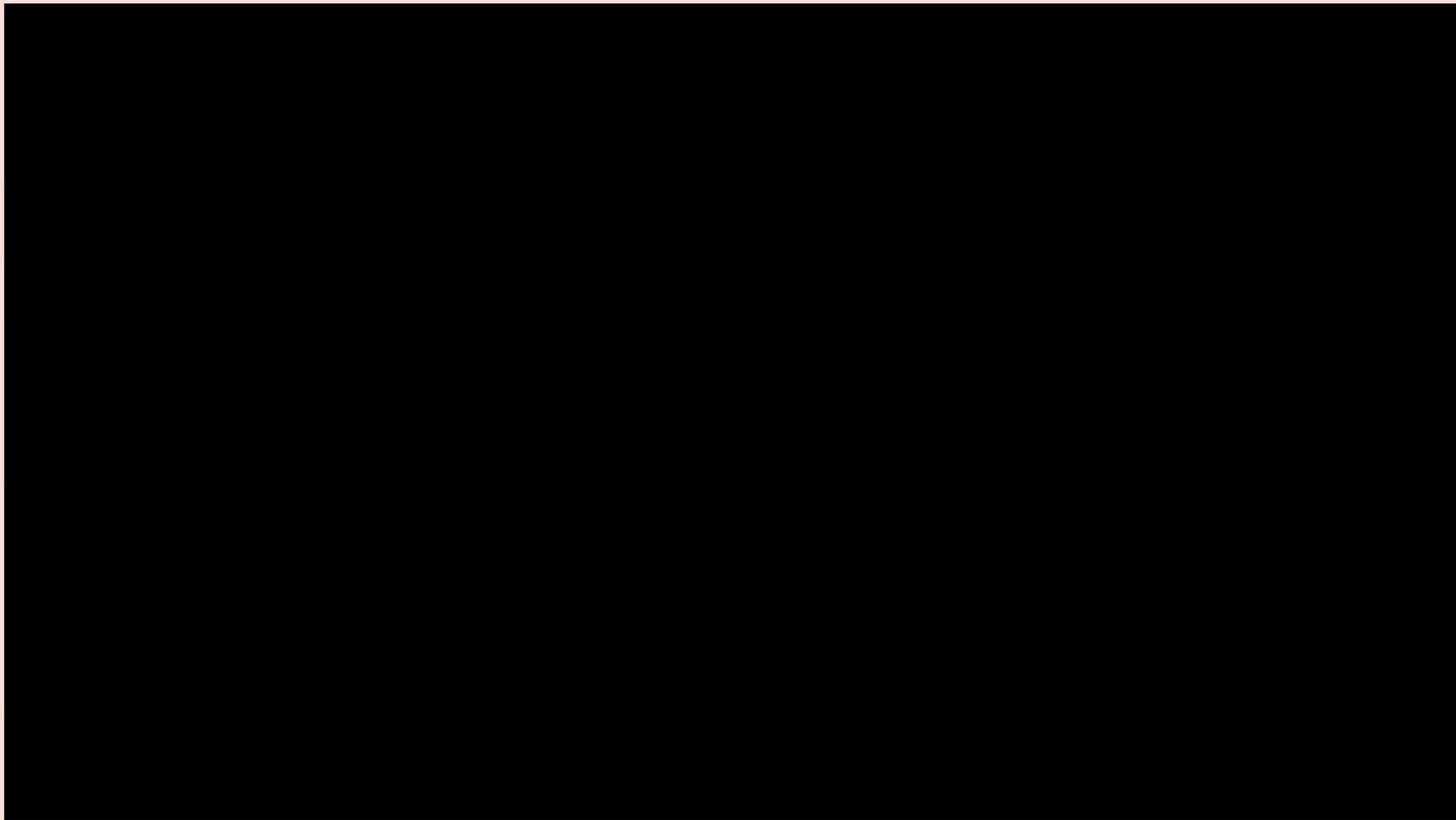


let me show you how Learning Tools
make it easier to read.



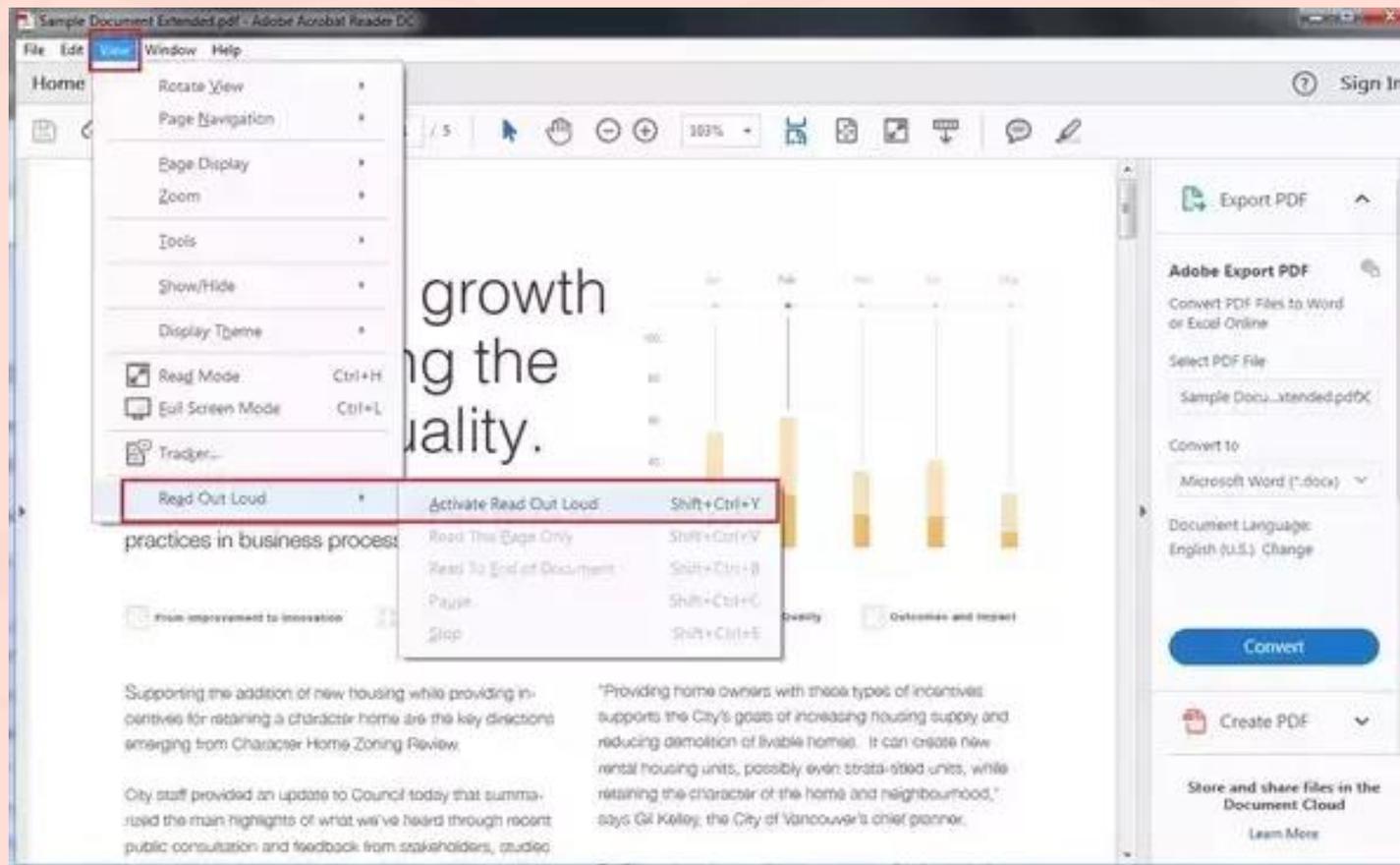


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Text to Speech(TTS)

- Lets look at a PDF document.



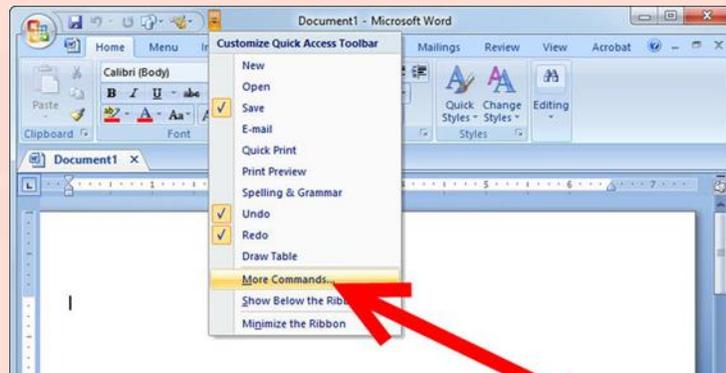
Text to Speech(TTS)

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.

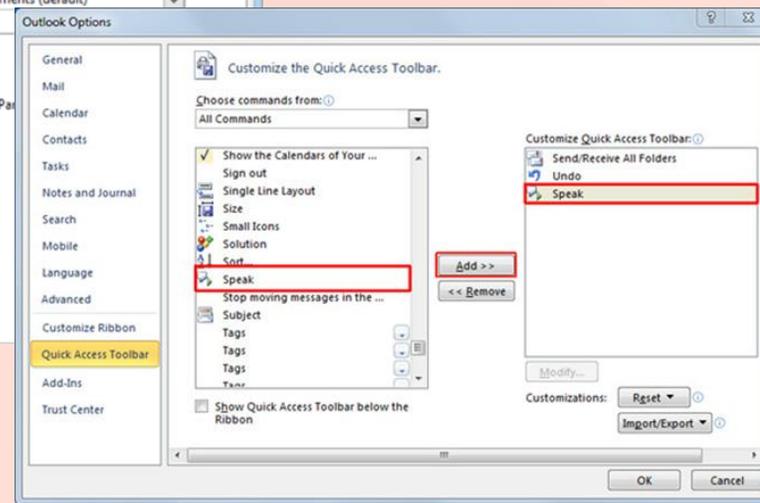
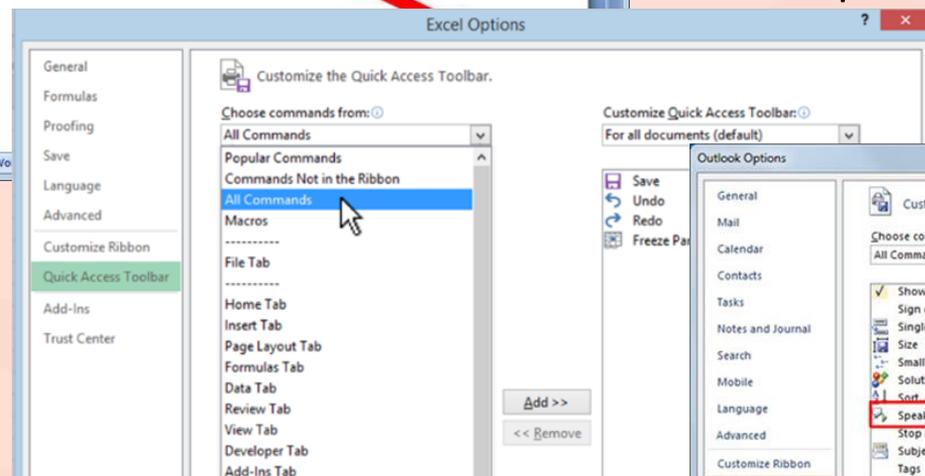


The **Quick Access Toolbar** is a customizable **toolbar** that contains a set of commands that are independent of the tab that is currently displayed.

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

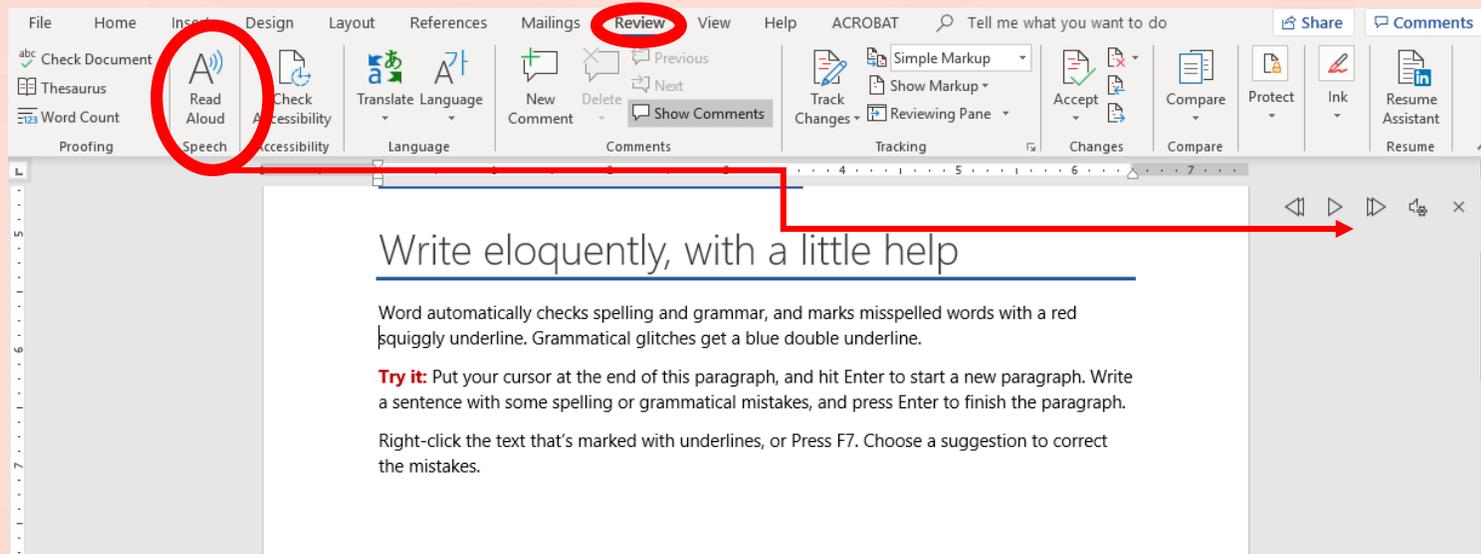


Text to Speech(TTS)

- Office 365



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Rewind
Play or Pause
Fast Forward
Settings

Georgia Department of Education

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Audiobooks and Digital TTS Books



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- [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.

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More tools	More tools	

79 

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- Project Gutenberg

The screenshot shows the Project Gutenberg website interface. On the left is a navigation menu with links: Main Page, Book Search Page, Book Categories, All Categories, Wiki Search Page, News, Contact Info, Donate, Project Gutenberg needs your donation!, a Donate button, a Flattr This! button, More Info, In other languages (Portugués), and a logo for 'hosted by ibiblio'. The main content area is titled 'The Audio Books Project' and includes a search bar at the top right. The text on the page describes the project's goal to provide audio eBooks for literature available in plain text, divided into human-read and computer-generated audio books. It mentions partnerships with AudioBooksForFree.com, LiteralSystems.org, and Librivox. A section titled 'Human-read Audio Books' thanks volunteers and mentions LiteralSystems.org and Librivox. A section titled 'Readings by Computers' explains that computer-generated voices are similar to automated systems used by the blind and that the project has stopped adding computer-generated eBooks in favor of methods to automatically make eBooks on demand. It also notes that many files were broken and lost, and that the project is working to resolve these issues.

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* C/Caution Books from Tarheel Reader

Tar Heel Reader

Enter text to search All Topics Reviewed only

Rated C/Caution English

Wheeling Reed A. Booke ★★★★  37	Homophone Fun Reed A. Booke ★★★★  17	Cotton Candy Limerick Reed A. Booke ★★★★  6	Lady from Spain Limerick Reed A. Booke ★★★★  8
The big pig Jane Farrall ★★★★  10	No Crepe Reed A. Booke ★★★★  13	Duck! Duck! Duck! tooshytosay ★★★★  18	September 11th Ms. Graham ★★★★  12

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- 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)



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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)



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- 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)



Prizmo Go
Instant Text Capture

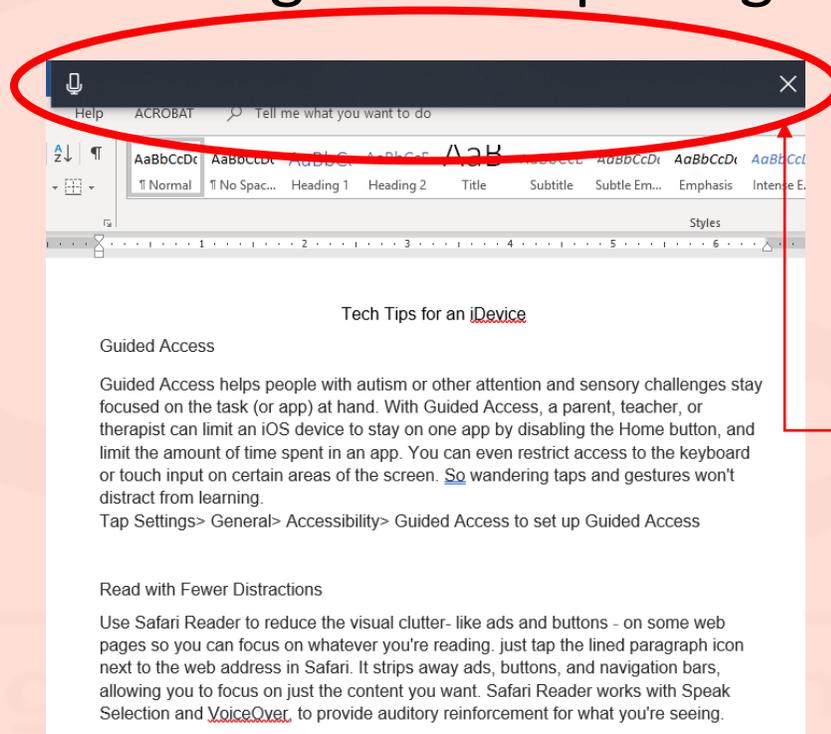


Aim at text. Shoot. It's yours! Prizmo Go lets you grab printed text easily, so you don't have to retype it.

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

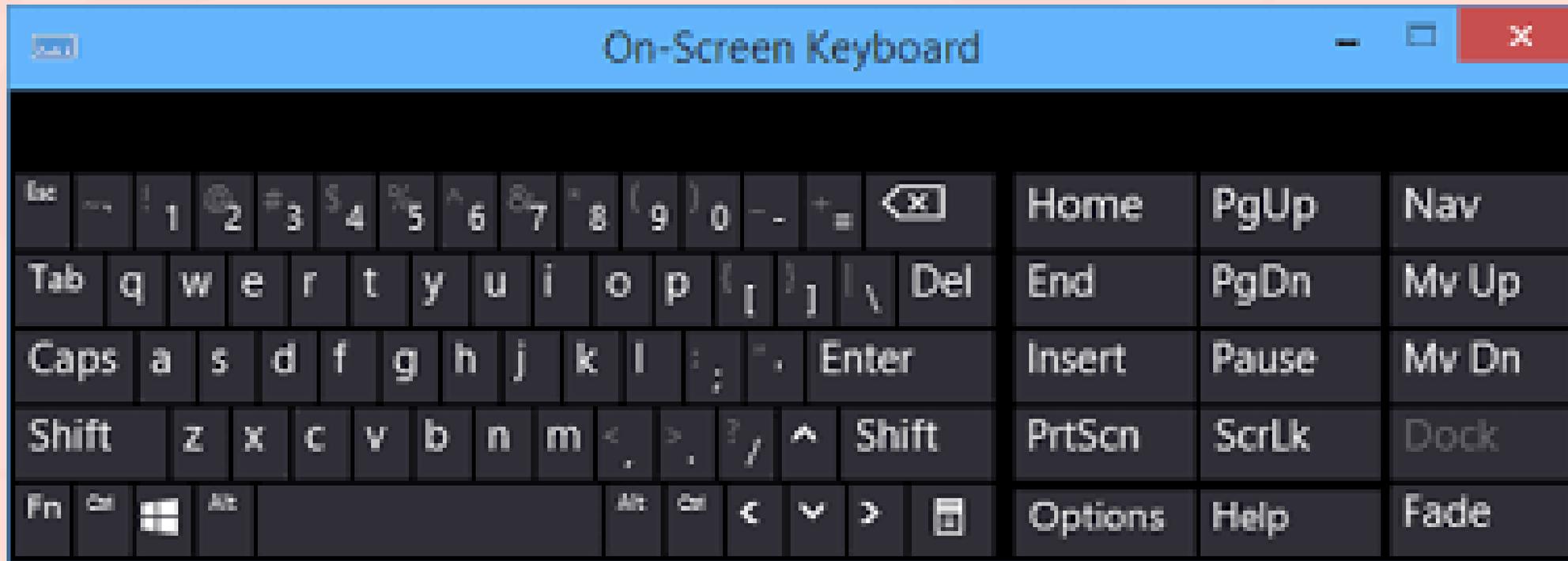
- Writing for students that struggle with the physical aspect of writing, organizing their thoughts and spelling limitations.



Turn on Dictation in windows 10; Windows logo key + H

On-Screen Keyboard

With Word Prediction



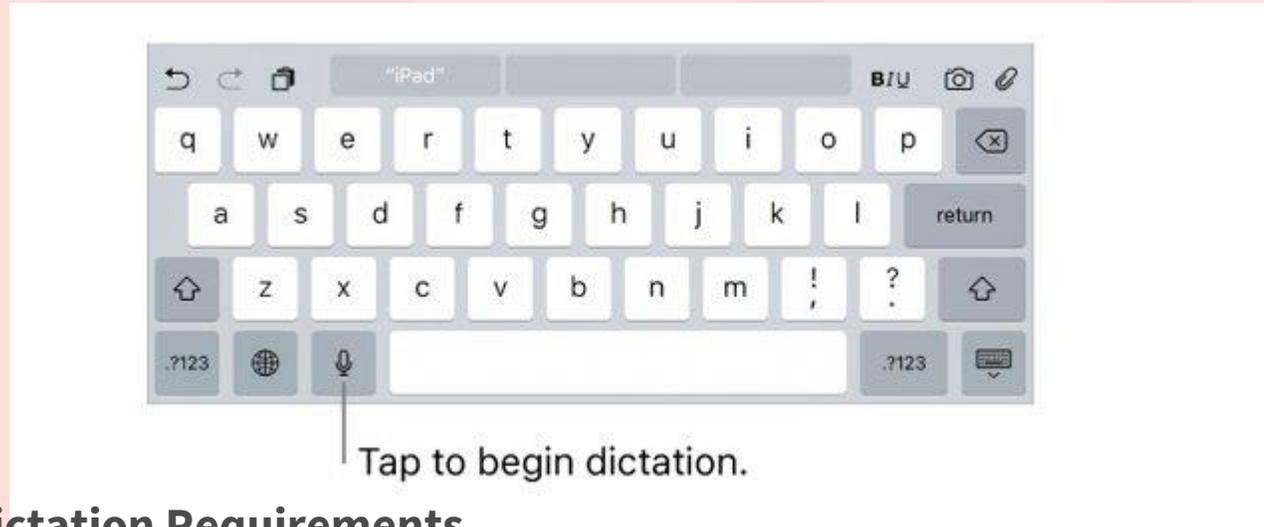
Speech to Text

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!



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Graduation and Post School Outcomes

AT Resources



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[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