Using Text to Speech: Supporting Students Struggling with Visual Decoding

October 8, 2019
3:00pm-3:30pm
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 Use Text to Speech (TTS) Technology?

• Provides multisensory reading experience that combines seeing and hearing
• Impacts outcomes for students
• Provide access to the general curriculum
• Supports differentiation
• Provides independence
What is Text To Speech (TTS)?

Text To Speech (TTS) is a type of technology that reads digital text.
How does Text To Speech (TTS) support students?

Text To Speech (TTS) give students the opportunity to hear and see text when reading. TTS allows immersion within the reading experience.
How does Text To Speech (TTS) Support Students?

Supported eText: Effects of Text-to-Speech on Access and Achievement for High School Students with Disabilities

Margo Vreeburg Izzo, Amanda Yurick, Bianca McArrell
Journal of Special Education Technology Volume 24, Number 3, 2009 ISSN 0162-6434

This article examined the effects of a Text To Speech on students who had learning disabilities ranging from traumatic brain injuries, autism, cognitive disabilities, and emotional disabilities. The results showed that the students using the Text To Speech reader had improved their performance in school. The researchers concluded Text To Speech positively affected the student’s learning experience by helping them understand concepts better and keeping them motivated.

ERIC link to document
How does Text To Speech (TTS) Support Students?

Expanding Literacy for Learners with Intellectual Disabilities: The Role of Supported eText

Karen H. Douglas, Kevin M. Ayres, John Langone, Virginia Bell, Cara Meade
Journal of Special Education Technology Volume 24, Number 3, 2009 ISSN 0162-6434

This study involved giving students with moderate learning disabilities using a Microsoft Reader to go through assignments while at home. Students who were provided with Text To Speech tools were better able to independently understand the information. This study showed that Text To Speech can help students with learning disabilities learn and study on their own.
TTS can support students that are struggling.

Accessing technology will remove barriers and impact student engagement.

The voice in TTS is computer-generated and reading speed typically can be sped up or slowed down. Voice features can be different depending on the device being used, but some voices can sound human. There are even computer-generated voices that sound like young children speaking and different ethnicities. Many TTS tools highlight words as they are read aloud. This allows students to see text and hear it at the same time.
POLL

How does Text To Speech (TTS) Support Students?
(What two responses are the most important to you?)
How does Text To Speech (TTS) support students?

• Improves word recognition
• Increases the ability to pay attention
• Helps students to remember information
• Allow students to focus on comprehension instead of sounding out words
• Increase student's attention for completing reading assignments
• Help students recognize and fix errors in their own writing
Types of Text To Speech (TTS)

- Built in Text-to-Speech
- Chrome Tools
- Text-to-Speech apps
- Text-to-Speech software programs
- Web based tools
Built – in: TTS in a Word Document

Open a Word Document
Chrome Tools
TTS in a Google Chrome

Open Google Chrome
Chrome Tools (TTS) | Special Education Services and Supports - Assistive Technology

Read&Write for Google Chrome (pricing)

Read Aloud ($ 0.00)

ATbar ($0.00)

Snap and Read Universal (pricing)

Text To Speech (TTS) give students the opportunity to hear and see text when reading.
Text Reading Software

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

CaptiVoice
Built in Text-to-Speech (TTS)

Built in TTS is available on your desktop, laptop and mobile devices.

For example - Ease of Access on a 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.

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
Built in Text-to-Speech (TTS)

Speak Selection (iPad)
Text To Speech (TTS) apps

"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.
It 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, they need to have access to the content and 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

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Services and Supports

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