

Inclusive Tech Tools for SLPs to Support Diverse Learners

10 Tech Tips you Need to Know

8/2/24

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1

Learning Outcomes

After this course, participants will be able to:

- Describe the SETT (Student, Environment, Tasks, & Tools) approach and the concept of Universal Design as they relate to using technology to support clients.
- List at least four tech features or strategies for using technology to improve attention, memory, executive functioning, productivity and other cognitive challenges.
- List at least four tech features or strategies for using technology to improve communication for people with speech and language challenges.



2

Our Role as SLPs

“In addition to our other roles, we should also be aware of the many ways everyday technologies can strategically be used to support success toward goals.”

As a client's needs change, we need to adapt to enhance therapeutic outcomes.



3

New Tech Mindset



“Let's Empower Learners and Communicators with Inclusive Features of Mainstream Devices.”



4

Two Important Frameworks/ Approaches

1. SETT
2. Universal Design



5

SETT Framework- created by Joy Zabala



Focus first on person's **needs** and then **features**. Selecting the device or app comes next, followed by practice and adjustments.



<https://www.joyzabala.com/links-resources>

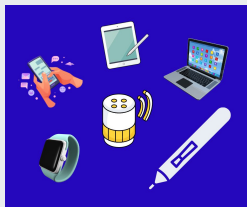
Q1

6

Universal Design

Amazing features are already included in the devices we use all the time to enhance accessibility for everyone.

How can we empower others to use devices to overcome obstacles and reach goals?

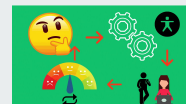


SETT & Universal Design

<https://www.cast.org/>

Help students access the curriculum, show what they know, and be engaged in learning

Help adults overcome barriers to productivity and meaningful interactions- work, home, community, & leisure.



ATWIZARD.ORG



<https://www.atwizard.org/udl-at>

Assistive Technology and Universal Design for Learning Defined and Contrasted

Assistive Technology

Assistive technology has been used since ancient times. Whenever someone picked up a stick to help them walk better, they were using assistive technology. As technology has evolved, many forms of assistive technology have become much more complex. One of the earliest typewriters in recorded history was first introduced by Pellegrino as an assistive device for his friend Countess Carolina Fivizzoni. She was visually impaired and needed a method of writing legibly. Early examples of assistive technology include wheelchairs, walking canes, Braille, eye trumpets, and many more. AT has now evolved to include all of the low-tech devices of the past, as well as, the latest high-tech devices used in the modern world such as iPads, cell phones, software applications, etc.

EBP, Ethics & Scope of Practice



- ASHA Code of Ethics- 2023- Emphasis on SLPs' responsibilities regarding **emerging forms of technology for intervention** in communication and cognitive disorders
- We specialize in helping people with all forms of communication, executive functioning skills, memory, learning and so much more.
- The world is going increasingly digital- it's the future.
- Tech devices provide tools we can use to provide evidenced-based treatments.
- <https://www.asha.org/siteassets/publications/code-of-ethics-2023.pdf>

10 Tech Tips for SLPs - Support Inclusion

<https://bit.ly/080204KEDC>



Scenarios for Tech Tip #1



- Sam is exhausted. He's a high school student who is frequently woken up at night from calls and text message notifications.
- Jordan keeps avoiding work by sneaking onto YouTube.
- Jose, a middle school student gets distracted with calls and texts when trying to do homework.
- Felicia is trying to read an online article but there are so many ads that it gets confusing.

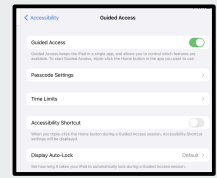
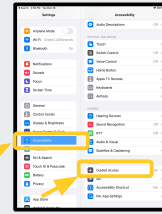
Tech Tip #1- Use settings to manage attention, simplify and limit distractions

- Guided Access- iOS
- "Do not disturb"- Focus
- Customize notifications
- Assistive Access in iOS 17
- Parental Restrictions
- Optimize the view- declutter websites



Guided Access in iOS- Lock in an app

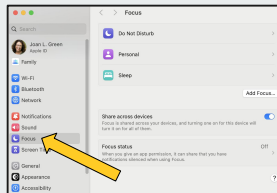
<https://support.apple.com/en-us/HT202612>



Apple - Focus - Customize it

[Set up Focus on an iPhone](#)

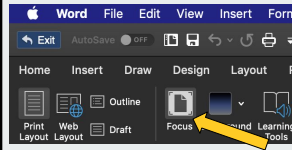
- Reduce distractions
- Set boundaries
- Choose to temporarily or permanently silence notifications- or allow a few through.
- Do not Disturb
- Personal, Sleep or Work Focus



Microsoft - Focus - Customize it

[Learn to use Microsoft Focus](#)

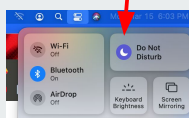
- Windows 11-
- Focus assist stops notifications from popping up on your screen
 - Type "Clock" into taskbar Search icon
 - Set up length of time for focus and breaks
 - Determine which notifications won't be blocked



Do Not Disturb

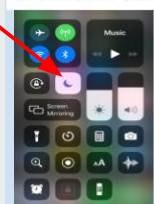
Android, Mac and Apple

Android- pull down the control center from the top of the screen



Mac

iOS Control Panel

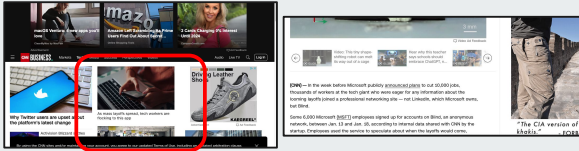


Declutter the screen for better focus

Get rid of ads
Optimize font type and size
Use Reader View



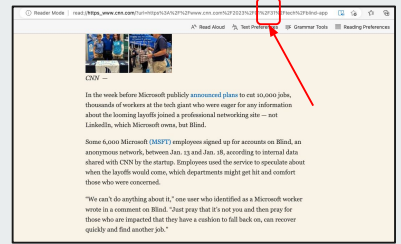
Edge Browser Article on CNN



Clicked on article on left and saw image on the right- then used Immersive Reader on next slide to optimize the view

Immersive Reader in Edge browser

Microsoft Reader Mode



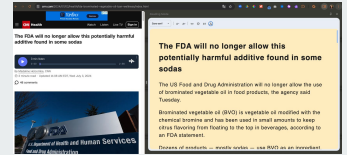
Reader View in Chrome

- Chrome - Postlight Reader Extension (formerly Mercury Reader)
- <https://reader.postlight.com/>



Reader Mode in Chrome- new!

- Online content > Highlight > Click 3 Dots > Reader Mode
- Right panel opens and can be customized
- Enlarge the side panel as needed
- [New Reader Mode](#)



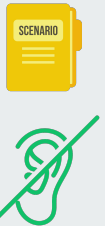
Assistive Access- iPhone with iOS 17

- Simplify the home screen and restricts options
- Settings > Accessibility > (General) - Assistive Access
- Create new password and manage applications
- [Assistive Access User Guide](#)



Scenarios for Tech Tip #2

- Your student is hearing impaired and is frustrated when she can't follow conversations.
- A student with auditory processing challenges has trouble keeping up with what is said in classes.



Tech Tip #2- Use Captions and Automatic Transcription- Support comprehension

All virtual meeting tools can be set up with captioning.

There are wonderful apps that will caption in real time.

(In addition to making using hearing assistive technologies, reducing background noise, offering preferential seating etc)



Presentations, TV, YouTube and Online Video

- Captions are free but the feature may need to be set up in advance.
- Transcription may have errors. The quality is dependent on the speaker and environment.

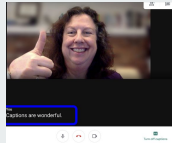


Google Meet and Slides

Google Slides- in presentation mode- Click the three dots and select location and size of captions.

Click the three vertical dots

Google Meet- All participants control their own captioning



Zoom – Automatic Closed Captioning

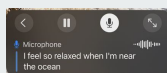
- Live Captioning is available on all accounts.
- Hosts need to set up captioning in advance in the meeting settings.
- For paid accounts, can get transcripts, automated summaries, smart chapters and action items!



Captioning Features in Updated Phones

Android- Settings > Accessibility > Caption Preferences> Show Captions
<https://support.google.com/accessibility/android/answer/9350862?hl=en>

iOS- Settings > Sound> Live Caption- Turn on or off (Need iOS 16 or later)
<https://support.apple.com/guide/iphone/get-live-captions-beta-iph0990f7b/b/ios>



Chrome Browser – Live Caption on Desktop

- Chrome Settings > Advanced Settings > Accessibility > Toggle on Live Caption
- Instantly captions audio and video
- Appears in a small moveable black box



Another Transcription Tool

- [Otter.ai](#) (Free version includes 300 min a month, 30 per conversation, import and transcribe 3 audio or video files per lifetime of user)
- AI meeting assistant records, transcribes captures slides and generates summaries in real time
- Use with Zoom, MS Teams and Google Meet to automatically write and share notes
- Otter AI Chat- Get answers to meeting questions



Scenarios for Tech Tip #3



- You are helping a family to support communication beyond the dedicated AAC device.
- A student with significant intellectual disabilities needs help to become more independent. You were consulted to provide guidance.

Tech Tip #3- Use Visuals to Support Communication and Learning

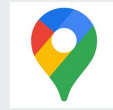
- How can the message be conveyed with visual support?
- Speech is fleeting. Let's capture the essence of the message with visuals!



Maps - How can maps support communication and learning?

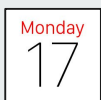


[Apple Maps](#)

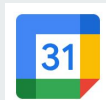


[Google Maps](#)

Calendars - How can calendars support communication and learning?



[Apple Calendar](#)



[Google Calendar](#)

Photos - How can photos support communication and learning?



[Apple Photos](#)



[Google Photos](#)

Contacts - How can contacts support communication and learning?



[Apple Contacts](#)



[Google Contacts](#)

Scenarios for Tech Tip #4



- A high school student is overwhelmed with too many obligations and assignments. He has slow processing. Everything takes longer for him to complete.
- A 4th grader was diagnosed with ADHD. He frequently misses assignments and forget to bring things to school and back home.

Tech Tip #4 - Use Calendars, Tasks, Timers and Reminders

- Support for executive functioning is a hot topic!
- All our devices can be used to help us stay on task and organize and prioritize responsibilities.



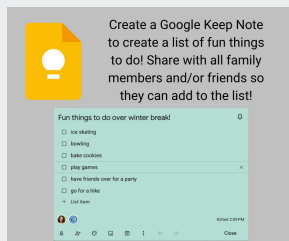
Google Calendar, Keep and Tasks

- Create events
- Set reminders
- Break down big tasks into smaller chunks and share- Google Keep
- Create lists of tasks and enter the date and time to show up in Google Calendar
- Color code and share events in calendar
- (Microsoft also has helpful tools in Outlook)



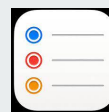
Google Keep

- This is often the single best app I show people!
- Download the app on mobile devices.
- Bookmark the URL on computer.
- Get organized and conquer the overwhelm!



Apple Reminders and iCal

in iOS 18- scheduled for release in Fall 2024, reminders that are given a date and time will show up in iCal.



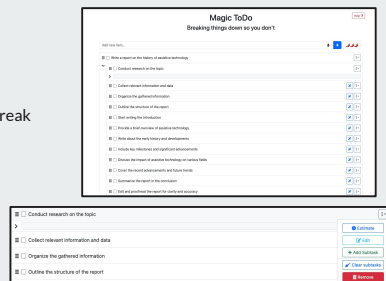
Timers

- Focus for set interval (?30 min) then take short breaks.
- Type "timer" in Google Search bar for timer.
- [Time Timer apps](#)
- Try the [Marinara Pomodoro Google Chrome extension](#) for more guidance.



Goblin Tools

- <https://goblin.tools/>
- Magic ToDo- Helps break down tasks
- Free
- Web based
- Android & iOS app



Scenarios for Tech Tip #5



- A student is getting further behind academically due to dyslexia.
- A struggling student reads extremely slowly, and has difficulty retaining the information.
- A student has a temporary voice issues and is unable to talk.

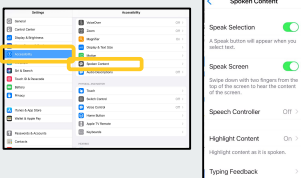
Tech Tip #5 - Use text-to-speech/Read aloud features

- It's a feature on all current computers, phones and tablets for free!
- It's also available for browsers- Edge, Chrome and Safari.
- The process depends on the device, operating systems and format of the material.



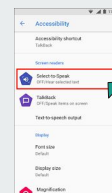
iOS Text-to-Speech

- Settings > Accessibility > Spoken Content
- Once enabled
 - select text with a long press and moving those little blue balls
 - swipe down with two fingers from the top of the screen.
- [How to have text read aloud on iOS](#)



Android Phones - Read aloud

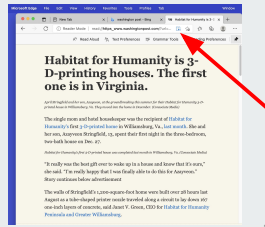
- Android 11 and up
- Settings > accessibility> Select-to-Speak
- If doesn't work- go to Google Play store and download the Android Accessibility Suite
- Turn on **Select-to-Speak** Shortcut (2 finger swipe up) or 3 finger swipe if **TalkBack** is on, or tap the accessibility
- Tap Play
- [Use Select to Speak on Android Phones](#)



Only use TalkBack if students is blind or has low vision

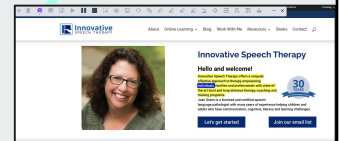
Immersive Reader – Edge - Read aloud

- View menu
- [How to use Immersive Reader](#)
- Great voices!
- Free



Chrome Extensions

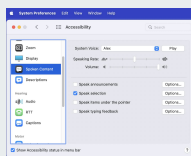
- [Read&Write for Google Chrome](#) by texthelp
 - Great voices and highlighting
 - Read aloud feature is free
- Hover mode



Read aloud on a Mac



- Apple menu > system preferences > Accessibility > Speak selected text when the key is pressed Option + Esc

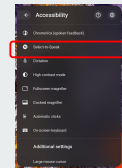


Chromebook – Select-to-Speak



Listen to text read aloud while reading with your eyes

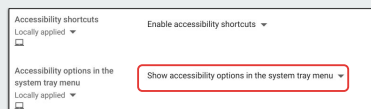
- Need to enable in system settings:
- Click the clock on the bottom right
- Accessibility
- Manage Accessibility features
- Enable Select to speak



[How to hear text read aloud on a Chromebook](#)

Google Admin Console- IT department

Devices > Chrome > Settings > User and Browser Settings: Accessibility
Your IT department has the ability to enable the accessibility menu for all students through the Google Admin Console

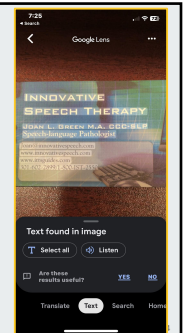


Google Lens



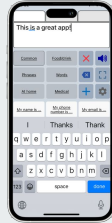
- This app uses the camera on a tablet or smartphone
- On iOS use the Google app and tap on the Lens icon.
- Take a picture of text in environment (a sign, book, handout)
- Tap on the highlighted words and it reads it them out loud immediately!
- It can also translate and copy and paste.
- Free

[How to use Google Lens](#)



Speech Assistant AAC app

- Speech Assistant AAC- \$22.99
- iOS and Android
- Fully customizable, very robust
- Supports Apple's personal voice
- Can be used during phone calls
- Can share full screen with message
- Works with Apple Watch and Mac
- Create user profiles- share with AirDrop
- Can add photos next to phrase



Scenarios for Tech Tip #6

- Your student broke his arm and has a difficult time typing on a small device.
- A student with dyslexia has amazing ideas, but can't demonstrate his knowledge and creativity by writing or typing.
- You are trying to help a person monitor the intelligibility of verbal responses and are searching for a way for him to practice new speech skills and get instant feedback between sessions.



Tech Tip #6 - Use speech-to-text/ dictation features and word prediction

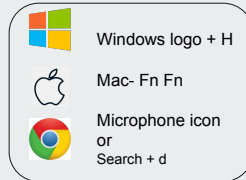
- Consider typing by speaking. Wherever the cursor is blinking, someone can talk to type.
- Get help with writing with word prediction
- The process depends on the device, operating systems and format of the material.



Q3

Device Accessibility

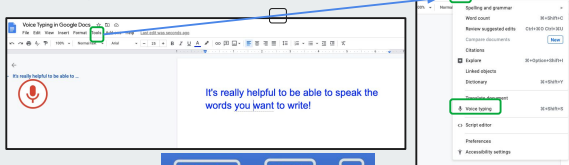
All current computers and mobile devices can turn your speech into text.



Shortcuts for dictation on computers

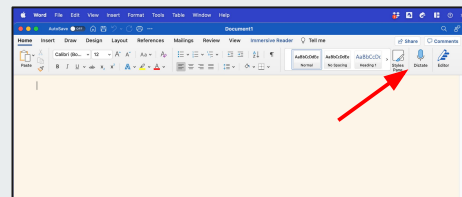
Voice Typing in Google Docs

Docs.Google.Com



Ctrl + Shift + S

Dictation in MS Word 365 and Word for Web



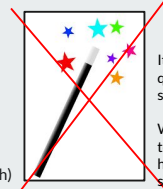
Mobile Phones and Tablets

1. Find the microphone on the keyboard
2. Make sure the cursor is in the right spot
3. Tap on the microphone
4. Speak clearly- use punctuation
5. Tap again to stop dictating
6. Edit as needed



5 Tips for Dictation

- Speak clearly
- Reduce background noise
- Use outlines for longer documents to help with staying organized
- Proofread carefully (use text to speech)
- Edge now has the option to add punctuation!



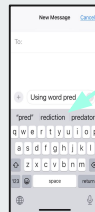
It's not a magic quick fix solution.

We need to teach clients how to dictate successfully.

Many give up too soon.

Word Prediction/Smart Compose

- Have trouble writing or spelling?
- All word processing systems (Google Docs, Microsoft Word) and devices now help with word prediction.
- Configure settings to meet needs of the person to facilitate communication.



Q3

Scenarios for Tech Tip #7

- A student has difficulty typing, but seeing the text during dictation is too distracting.
- A student needs to "demonstrate" knowledge, but he speaks too fast and in a disorganized way without punctuation so the speech to text won't work.



Tech Tip #7 - Use speech-to-audio

Create audio recordings to share information.



Audio Messages and Memos on iPhone and Android Devices

- [How to send and receive audio message on iPhone](#)
- Look for the microphone in the messages app where you type.
- Audio Memo apps on devices



Speech to Audio Extensions/Add-ons

- [Mote](#)
- Use in Docs, Drive, Slides, Sheets, Forms, Classroom and Gmail.
- Embed recordings for instruction or help students show what they know



Scenarios for Tech Tip #8

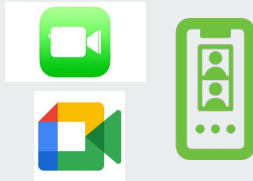


- A high school student with Down Syndrome and a hearing impairment is lonely, she is unable to connect with family and friends over the phone because they have trouble understanding her and she has trouble hearing what they say.
- A middle school student wants to be independent, but his parents often need to provide guidance for independence skills after school.
- An autistic student is preparing to transition out of the school system and enter the workforce but he will need a job coach and assistance with learning new skills.

Video Voice Calls

[Facetime Call](#)
[Google Meet Call](#)

- Video supports communication and learning
- Distance coaching
- People with hearing aids can set it up so audio goes straight to hearing aids



Simpler options - all have companion apps



[Grandpad](#)

Alexa app



[Amazon's Echo Show-Drop in feature](#)



[Onscreen-Video calls on TV](#)

Scenarios for Tech Tip #9

- Sam frequently loses his phone. His parents are just about to give up on his ability to keep track of it.
- Peter frequently wanders off and his parents are concerned he may get lost.
- A family invested in an expensive device for their son, and want to be able to know it's location at all times. Otherwise, they are reluctant to have him use it in different locations.



Tech Tip #9 - Tracking Solutions

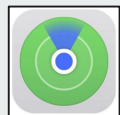
Apple's - Find my App- share location

[How to find lost Apple device or AirTag](#)

Google's Find MyDevice

[Find, lock or erase your lost Android Device](#)

Works with phones, tablets, watches & headphones



Find Smartphone from Smartwatch

- Both Apple and Google watches can "ping" compatible smartphones.



[How to find your iPhone from Apple Watch](#)

[How to find your Android phone from Google Watch](#)

Scenarios for Tech Tip #10



- Sally has trouble brainstorming ideas for an essay
- Jordan needs help reducing anxiety before an important test
- Simone could needs help remembering how to do a new task
- Adina, the SLP, needs help quickly creating materials for a session
- George can't recall the definition of an unfamiliar word
- Aaron needs help spelling a word

Tech Tip #10- Smart Assistants and Generative AI

Alexa, Siri, Google Assistant and Generative AI such as Chat GPT can be used to support communication, cognition and learning for many of our clients.

Generative AI can help SLPs quickly create customized materials.

Could your student benefit from an assistant?



Smart Assistants can help with life!

Get help with

- spelling
- vocabulary
- answering questions
- summarizing information
- brainstorming ideas
- exploring self-help strategies
- writing documents



[How to use Alexa Echo Dot](#)



[How to use Google Assistant](#)

[How to use Siri](#)

SLPs can quickly create customized materials

This could be the entire presentation!!

Try these prompts:

- "Create a list of words and sentences with the 's' sound in the final position for a middle school student who loves animals."
- "Create a social story for a student who struggles with transitions between activities at school, focusing on using calming strategies."
- "Design a set of exercises to enhance vocabulary related to weather, suitable for a third-grade student with language delays."



[ChatGPT](#)

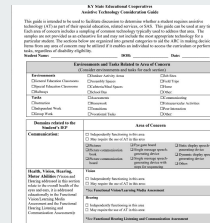
AT Consideration Guide

<https://www.atwizard.org/under-construction>



KY AT Consideration Document

<https://bit.ly/080204KEDC>



Take Home Message

“We need to use our clinical judgement, SLP skills and expertise to customize and adapt readily available mainstream technology to:

- speed up progress toward goals,
- help our clients know what’s possible so they can advocate for their needs, and
- empower those we serve to leverage tech’s benefits for the best outcomes possible.”

Slides from Joan

<https://bit.ly/080204KEDC>



Let's stay in touch!

Joan Lipman Green
www.innovativespeech.com
Joan@innovativespeech.com
Facebook-
Innovative.Speech.Therapy
FB Group- [IST Tech Savvy Solutions](#)
LinkedIn- Joan Lipman Green
Instagram- joanlipmangreen
[Free 15 min phone consultations](#)



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