

Inclusive Technology



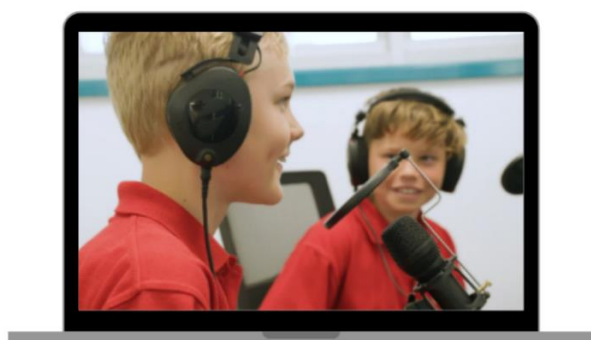
Voice typing options for teaching and learning

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What is voice typing?

For an overview of speech to text, watch [this T4L explanatory video](#).



Voice typing, also known as speech to text or dictation, is the process of speaking words and sentences into a microphone.

Microphones built into most laptops and tablets used at schools, provide no cost options to record digital text using voice. Connecting an external microphone to a device is also an option.

Voice typing could be a great option for many to consider using. It may also be essential for some individuals. For people who are Blind, have low vision, a physical disability, or have dyslexia or dysgraphia, voice typing may be the way to overcome barriers to being able to handwrite or touch type text.

Voice typing as an option for students to demonstrate learning

Students can use voice typing as an option to demonstrate what they have learned. Providing students with this option supports learner agency and self-determination, can improve engagement during classroom writing and assessment tasks, and contribute to increased self-confidence and wellbeing.

Voice typing can help students meet NESAs syllabus outcomes when creating or composing text related to the subject. The [definitions for create, compose and text in the English K-10 glossary](#) clarify that texts are created using a range of modes.

It is important to know, that while voice typing is free and available to students in our schools, it will not always be useful for every student. Just like handwriting or touch typing, voice typing requires a certain skillset.

For voice typing to be successful, the skills of the process need to be taught.

Students may need to be taught and supported to:

- be open and willing to test out and use the technology.
- be able to focus of thoughts and generate ideas.
- hold information in their short-term memory.
- structure oral language.
- produce adequate articulation when speaking that translates accurately to digital text.
- develop fine motor skills or other means of control to operate the device
- decode and read the words they voice type, to review and edit

Other considerations to using voice typing in the classroom environment are:

- Wi-Fi access. Some devices or apps may require connection to the internet for voice typing. Later model iPads with updated iOS do not need internet connection for voice typing.
- Ways to minimise background noise when voice recording (headset, sound box, quiet space)
- The type and quality of microphone or use of external headset with microphone.
- Some students may to use less obvious headsets to reduce stigma, or their own headset

How to enable and use voice typing options on common devices and platforms

Voice typing on an iPad:

- Tap on **Settings > Keyboard > Enable Dictation** and check this is toggled to green / on. Refer to this T4L how to video for [Apple iPad - Dictation \(brightcove.net\)](https://www.brightcove.net)
- Open Notes app or any other app where typing can occur. Tap the microphone next to the keyboard and speak. Also works in Microsoft 365 and Google Workspace iPhone apps
- Learn more by visiting Apple's webpage [Dictating text on iPad – Apple Support \(AU\)](https://support.apple.com/au/HT208042)

Voice typing on a MacBook:

- Click on the Apple icon in the top left of your screen, then select **System Preferences > Sound**. Click on Input and make sure that the correct microphone is selected - make sure that the Input level indicator moves adequately when you speak. Refer to this [T4L how to video for Apple Mac - Dictation \(brightcove.net\)](https://www.brightcove.net)
- Learn more by visiting Apple's webpage on [dictating messages and documents on Mac – Apple Support \(AU\)](https://support.apple.com/au/HT208042)
- [Commands for dictating text on Mac – Apple Support \(AU\)](https://support.apple.com/au/HT208042)

Voice typing on a device with Microsoft Windows:

- Place the cursor in a text field where you wish to type. Press **Windows + H** keyboard shortcut and click microphone icon to start. Refer to this T4L video for [Windows 10 - Voice typing \(brightcove.net\)](#) or this T4L video for [Windows 11 - Voice typing \(brightcove.net\)](#)
- On a touch keyboard/ mobile device, tap the microphone icon
- Learn more by visiting Microsoft's webpage on Windows Dictation, and [Get the Most out of Voice Typing | Windows Learning Center \(microsoft.com\)](#)

Voice typing on a Chromebook:

- Click on **Settings > Advanced Settings > Privacy > Content Settings** and check that the microphone can be accessed. Refer to [this T4L how to video for Google Chromebook - Dictation \(brightcove.net\)](#)
- For more information and list of voice commands for Chromebook go to [Googles webpage on voice typing](#)

Voice typing in Microsoft Office 365 files:

- Open the Office 365 document (Word, PowerPoint, OneNote and Outlook). Click on **Home > Dictate and voice type**. Refer to [this T4L how to video for Microsoft - Dictation \(brightcove.net\)](#)
- Learn more by visiting [Microsoft's webpage on Dictation](#)

Voice typing in Google Workspace documents:

- Open Google Doc or Slides (notes only), click **Tools > Voice typing OR Ctrl + Shift + S**. Refer to this T4L how to video for [Google - Dictation \(brightcove.net\)](#)
- Learn more by visiting Googles webpage on how to [type & edit with your voice - Google Docs Editors Help](#)
- Works in both Chrome and new Edge browsers

Voice typing by teachers to increase student access to lesson content.

Teachers can consider more accessible content for all students when they use speech to text options when talking. Many students might find it useful to be able to read print on a screen that captures what the teacher says as they speak.

Live captions can be used when delivering lesson content via a slideshow. There are options for voice typing live during [PowerPoint slideshows](#), [Google Slides](#), [Teams video calls](#).

How to teach students to voice type

Skills required for successful voice typing may need to be explicitly taught.

When facilitating students to first try voice typing, have each student choose a preferred topic that they enjoy and find easy to talk about. This will assist in reducing cognitive load and allow the student to focus on using the technology.

If students experience success and become comfortable with using voice typing for familiar topics, then the next step is to use it to record information on less familiar topics.

Teach or prompt the student to:

- **Think** about the topic and ideas of what to write. A graphic organiser or drawing a mind map to capture and organise thoughts may be a useful strategy.
- Structure and **practise** each sentence in their head.
- Say the sentence quietly to themselves
- Determine what type of punctuation might be needed and where (possibly leave this to a later teaching session)
- ‘Hold’ the sentence (or part of it) in memory and ‘get ready to speak’.
- Turn on the microphone themselves when they are ready
- Speak the sentence clearly but naturally (not too slow or too fast). Verbally add the correct punctuation as the sentence is said (as appropriate for the individual student)
- Turn off the microphone.
- Review the text typed for the accuracy of what text was typed by reading back or using a Read Aloud digital tool.

- Make edits of any mistakes using the keyboard or by voice typing
- Repeat the process for each sentence.

Would you like to try voice typing right now?

[Click on this link which will open up a shared Google Doc in your browser.](#) **Be mindful that everyone can see what you type in this document.**

Select **Tools > Voice typing** and type a sentence with your voice.

Further information and research

Conway, J. (2021). [“The Benefits of Speech-to-Text Technology in All Classrooms.](#)

Liu, K. K., Thurlow, M. L., Press, A. M., & Dosedel, M. J. (2019). A review of the literature on computerized speech-to-text accommodations. [A Review of the Literature on Computerized Speech-to-Text Accommodations \(NCEO Report #414\)](#)

Sanda, C., Svensson, I., Nilsson, S., Selenius, H., & Fälth, L. (2024). Speech-to-text intervention to support text production for students with intellectual disabilities. *Disability and Rehabilitation: Assistive Technology* <https://www.tandfonline.com/doi/pdf/10.1080/17483107.2024.2381785>

Accommodations Toolkit | Speech-to-Text: Research: This toolkit from the National Center on Educational Outcomes (NCEO) summarizes research findings on speech-to-text as an accommodation [Accommodations Toolkit | Speech-to-Text: Research | Institute on Community Integration Publications \(umn.edu\)](#)

UPDATED August 2024. This document was collaboratively developed by Inclusive Education, Support and Development and Technology 4 Learning teams. This document can be found in Inclusive Education – disability, statewide staffroom in the Inclusive Technology Channel.

Links to third-party material and websites

Please note that the provided (reading/viewing material/list/links/texts) are a suggestion only and implies no endorsement, by the New South Wales Department of Education, of any author, publisher, or book title. School principals and teachers are best placed to assess the suitability of

resources that would complement the curriculum and reflect the needs and interests of their students.

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