



Break Literacy Barriers with Assistive Technology

By Kathleen Chan, Lead Psychologist

Challenges in reading, spelling, and writing can hinder effective learning, especially for individuals with dyslexia, who often struggle to meet the extensive literacy demands throughout their education. Fortunately, there has been a growing body of literature showing the positive use of assistive technology to address these challenges (Hiscox et al., 2014, Svensson et al., 2019). Before we delve into various types of assistive technology tools, let's first clarify what assistive technology is.

Assistive technology encompasses services and devices designed to assist individuals with diverse needs in performing daily tasks and supporting their communication, education, work, and recreational activities (Dell et al., 2016).

In a nutshell, it aims to enhance independence and improve the overall quality of life for those using such technology.

Over the past decade, there has been a rise in the availability of assistive technology tools, making them more accessible to the wider public. Some tools help address reading challenges by providing alternative ways to access information, such as converting printed text into audio. Others support writing by aiding the expression of thoughts and assisting with spelling.





Here are a few cutting-edge assistive technology tools that could make a difference:

1 ChatGPT

ChatGPT is a free-to-use artificial intelligence system that generates detailed responses to user prompts. As a writing assistant tool, it helps the user to refine grammar and offers ideas for improved written content. Beyond writing assistance, it can also provide concise summarise of lengthy materials.

2 QuillBot

QuillBot is an online writing assistant tool designed to enhance writing quality. It can rephrase sentences, correct grammar, and consider alternative words and structures to improve expression.

3 Spell Check

The spell check functions built into Google or Microsoft Word are excellent tools for users to identify spelling errors. When the spell check function is enabled, misspelt words are automatically detected and underlined in red to draw the user's attention. The suggested correct spelling is then provided, making the proofreading process much more straightforward. This feature is particularly beneficial for users who struggle with spelling difficulties.

4 Otter.ai

Otter.ai is a speech-to-text and note-taking assistant that is particularly helpful for lectures and meetings. By capturing spoken words and converting them into written text, it simplifies the process of note-taking. This makes it easy to take detailed notes without worrying about missing important information during discussions.



5

Text-to-Speech

Text-to-speech is a handy technology that converts written text into spoken words. It aids in enhancing reading accuracy by allowing users to listen to the pronunciation of words while reading the text. Popular text-to-speech tools, like NaturalReader, are compatible with both computer and phone applications. It can also convert various text formats (e.g., PDFs, JPEGs) into spoken words. Another tool to consider is the Voice Dream Reader, which reads text aloud while highlighting words to make following along easier.

It is important to recognise that there are no one-size-fits-all. Users should explore the many available tools to find those that best suit their learning needs, while remaining aware of potential errors and carefully reviewing any suggestions these tools provide. In all, when used judiciously, assistive technologies can help mitigate literacy difficulties and enhance the lives of those with learning needs.

Sign up for an assessment!

For those experiencing persistent literacy difficulties, do not let them go unaddressed!

Click here to sign up for an assessment to help you identify effective, tailored supports to meet your needs.

References

Dell, A. G., Newton, D. A., & Petroff, J. G. (2016). *Assistive technology in the classroom: Enhancing the school experiences of students with disabilities*. New York, NY: Pearson.

Nordström, I.C. T., Lindeblad, E., Gustafson, S., Björn, M., Sand, Almgren/Bäck, G., & Nilsson, S. (2019). Effects of assistive technology for students with reading and writing disabilities. *Disability and Rehabilitation: Assistive Technology*, DOI: 10.1080/17483107.2019.1646821

Hiscox, L., Leonavičiūtė, E., & Humby, T. (2014). The Effects of Automatic Spelling Correction Software on Understanding and Comprehension in Compensated Dyslexia: Improved Recall Following Dictation. *Dyslexia*, 20(3), 208–224. doi:10.1002/dys.1480

Wood, S. G., Moxley, J. H., Tighe, E. L., & Wagner, R. K. (2017). Does Use of Text-to-Speech and Related Read-Aloud Tools Improve Reading Comprehension for Students With Reading Disabilities? A Meta-Analysis. *Journal of Learning Disabilities*, 51(1), 73–84. doi:10.1177/0022219416688170



EMOTION EXPLORERS CAMP
 For Primary 1 to Primary 6 Students
 Conducted by DAS Psychologists

Does your child:

- Have big feelings
- Struggle to express their emotions
- Find it hard to calm down

Join our 3-day camp for students to explore their feelings and learn calming strategies through fun and interactive activities!

Monday, 8 June to Wednesday, 10 June 2026
 9 AM to 12 PM each day
 DAS Bishan Learning Centre, Junction 8 Office Tower, 9 Bishan Place, #06-03, Singapore 579837
 \$ \$600 inclusive of GST (Bursary available to DAS students who qualify)

Scan the QR code below to register

or visit bit.ly/DAS-EEC

@DyslexiaSG www.das.org.sg info@das.org.sg 6444 5700

You can find out more about the psychological services we offer at [DAS SpLD Assessment Services](#)

You may also consider enrolling your child in our **Emotion Explorers Camp!**

This camp is for students to explore their feelings and learn calming strategies through fun and interactive activities!

Our next run begins on 8 June 2026.

To register, scan the QR code or visit bit.ly/DAS-EEC