D-ESL

Adaptation of learning content for students with SLDs

Educational Needs and Adaptations for students with SLDs

Technology for students with SLDs

Introduction

We all use technology, but it can be even more useful for learners with disabilities and **Specific Learning Disorders** (**SLDs**). Such assistive technologies cover all 4 basic skills of language: reading, writing, listening and speaking. Allowing students that need it to use appropriate technology for relevant tasks, at school and at home, may help them achieve language learning success.

The need behind this adaptation

Students with SLDs face challenges all the time when learning, that **prevent them from being able to fully focus** on the learning activity. In addition, as SLDs can co-occur, they can require even more energy from the learner.

- Students with **dyslexia** may have **all their attention busy** with decoding a long text written, even if written in an appropriate font;
- Students with **dysorthographia** may focus **all their attention on spelling** correctly;
- Students with **dysgraphia**, all their **attention on the action of writing**;
- **Dyspraxia**, **dysphasia** and **dyscalculia** of course, **cause similar situations**. Have a look at our practice sheet "Most common characteristics of SLDs" if you want to read more on the subject.

Allowing students to use technology in the classroom and at home can be of great help. That way, they can focus more on the learning content rather than on coping with their difficulties. Nowadays, assistive technology is very developed, quite performant and often relatively inexpensive. Not using it would be missing out on valuable help.

What is this adaptation all about?

Taking notes with a keyboard

Students with **dyspraxia** and **dysgraphia** have a lot **less trouble writing on a keyboard than with a pen**. Allowing them to use a computer in class to type their notes, instead of handwriting, would free them from a huge distraction.

Taking notes on a computer can also allow for things that would not be possible on paper. For instance, note-taking apps such as Evernote, Joplin or Microsoft OneNote come with a variety of tools that may help students organise their work more easily. Evernote, for example, comes with a calendar, a task list, a powerful search bar and it is compatible with almost every device. However, some options are only available with a paid subscription.

Grammar and spell-checker

Allowing your students that need it to use grammar- and spell-checkers, when the activity is not focused specifically on grammar or spelling, will help them focus more easily on the task that is asked of them.

These tools may already be included in their word processor but they may want to try out **more advanced tools**, such as Grammarly or Languagetool. Another advantage of these tools is that they can **indicate better options to phrase things**, without doing all the work for the students, helping them **acquire a better writing style over time**.

Thesauruses and online dictionaries

In addition to using automatic corrective tools, it may be worth **encouraging your students to use online thesaurus and dictionaries**. Words are better memorised when they are connected to other words. Consequently, using these tools may help students make more connections and improve their vocabulary.

Text-to-speech tools and audio books

There is an important notion surrounding literacy when it comes to students with dyslexia, or people with visual impairments in general, which is **that literacy has actually little to do with visual reading**. A distinction is often made between the traditional "**eye-reading**" and "**ear-reading**", the latter simply implying reading through audiobooks or text-to-speech software. With practice, ear-reading at very high speed becomes possible, and skills like document skimming can be achieved.

Eye-reading, however, is no competence to be ignored altogether in your teaching of English. But helping students with dyslexia develop their listening skills further so that they can more easily use these types of tools can make sense. When they achieve good listening skills, allowing them to ear-read texts when the activity is not dedicated to the reading skill may help them.

Additionally, **text-to-speech software** may be used by students with dyslexia to **help them develop their eye-reading skills**. With that type of software, students with reading difficulties can check if they correctly read (and pronounce) a text that seemed difficult to them. They may also eye-read and listen at the same time.

Text-to-speech comes with almost every modern operating system. The option is built-in **Microsoft Word**, for instance, and it comes with **Acrobat Reader** (the most widely used PDF reader) as well and may be built in students' web browser as well (for instance Microsoft Edge).

Speech-to-text tools

As opposed to text-to-speech, speech-to-text is having an oral speech automatically written by software. Speech-to-text has achieved incredible results in the past few years, with very decent accuracy.

For students with **dysgraphia** and **dyspraxia**, speech-to-text may be a must that shouldn't be overlooked in the language teaching context, when these students have developed good speaking skills.

Speech-to-text technology can also help your students develop their speaking skills, as an exercise. This may be very useful for students with dyslexia, for instance, who may struggle to make the connection between written and oral forms of words. Students may train their pronunciation by playing with speech-to-text software: if they pronounce the words right, the automatically generated text is more likely to be correctly written on the screen. Applications such as Flowchase go further, as they are specifically designed to train pronunciation. It may be more adapted for that purpose, but it is not free to use.

PDF readers and adapted coursebooks

Preparing your worksheets in an inclusive way (read our practice sheet "How to structure lessons and learning materials") is a first, very important step to have learning material adapted to students with SLDs. However, technology can be used on the student side to go even further. With a good PDF or eBook reader, students can have access to valuable tools to annotate and adapt the content.

Additionally, some coursebooks may be already adapted to students with SLDs, even though they may be geographically restricted, unfortunately. For instance, in Belgium, APEDA is in charge of "numabib", a virtual library of digital coursebooks on various subjects modified and adapted to learners with SLDs, among which several ESL coursebooks. Publishers may also offer adapted coursebooks locally, such as "Oxford Rooftops" in Spain, for instance.

Gamification at hand

Another advantage of technology today is that access to gamified and engaging applications is easier than ever. Previously useful but somewhat boresome tools are now turned into

attractive game-like apps. You probably already know of successful language apps, used to study vocabulary, that adopt simple game mechanics, such as Duolingo or Memrise. Of course, these sorts of apps alone are not enough to achieve mastery of a foreign language, but they **may boost engagement in learners** and, combined with other means of learning, can help learners reach their learning goals.

Productivity apps also largely endorse gamification aspects. You can read our sheet "Gamified platforms for planification and for language learning" to learn more on the subject.

Do these adaptations exist in video games?

The good news is that assistive technology may be included in games! For instance, text-to-speech and speech-to-text are technologies that can be part of the game experience. In the gaming industry, some games actually include speed-to-text in their accessibility options, such as Apex Legends, No Man's Sky and Halo Infinite. The latest game consoles, such as the PlayStation 5 and Xbox Series X, come with accessibility features, and video game platforms such as Steam, Epic Games or Microsoft's Game Pass allow to browse games according to accessibility features and/or ranking.

Be aware of students with SLDs in precarious situations

Be attentive that not every student can afford every technological help. Even for "free" options, some students may not have the technical equipment to run them, which may be expensive. It's best not to rely exclusively on technology.

Conclusion

Assistive technology has developed at high speed in recent years, and there are now many affordable options available to help students with learning difficulties. Technology can be a powerful ally for students with SLDs, offering help with their writing, reading, listening and speaking skills.

Resources and references

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