Best practices for creating note-taking independence with audio-visualisation technology

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T4I communication type: Knowledge Transfer

1. Overview
This poster will be used to discuss why note-taking is key to learning and why so many students struggle to do it effectively. It is argued that audio-visualisation technology can help students take better notes, remember more of what they hear and regain control of their learning.

Lucy Toffolo is DSA and Training Manager at Sonocent Ltd, developers of audio-visualisation note-taking software.

2. Background
Attendees will be shown research demonstrating that note-taking is a core study skill that is intrinsic to learning and academic success [1], but one that students with disabilities that affect handwriting, working memory and general literacy struggle to perform effectively with pen and paper or by typing.

The poster will be of interest to disability support professionals looking to create learning independence by enabling students with disabilities to take their own notes using audio-visualisation technology that scaffolds the process and provides an accessible means for working with oral instruction.

The author will refer to examples of disability support offices at two American colleges who trialled replacing human note-takers with the audio-visualisation software Sonocent, and have data suggesting that this had a positive impact on student grades.

3. Methods
Audio-visualisation software provides a user interface which enables students to work effectively with spoken as well as written language, opening up the potential for students who struggle with written language to develop independent study skills, without relying on text.

This session will look at how Sonocent software breaks note-taking down into four manageable stages through a 'CARE process' developed in 2012 with the help of study skills experts and assistive technology practitioners. Over 120,000 students with disabilities have followed this process to take notes independently.

4. Results
Sonocent's CARE process works as follows:

- **Capture**
  Students record lectures, workshops, and seminars with the software. Everything is captured, so they can focus their attention on listening, rather than taking written summaries.
- **Annotate**
  Sonocent visualises audio as chunks, phrase-by-phrase. Students highlight the key moments of the recording as they listen, interacting and engaging with the content as they go.
- **Review**
  After class, students can go straight back to the parts of their recording that they highlighted and create notes at their own pace. Plus they can add slides, images, and text alongside their audio.
- **Engage**
  Students can export their audio, text, and images as a text document, video, or music album, and utilise for revision or as the basis for written assignments and research projects.

5. Discussion
Ebony is a senior at high school who has ADHD and autism. She attends El Camino Community College in the evenings, one of more than 50 Community Colleges in California now using Sonocent to support their students with note taking.

Ebony has difficulty concentrating in class. Taking detailed notes by hand simply would not work for her.

"*With Sonocent I can pick up all the information I need. I can use it on my phone and my laptop. As I'm recording I can take photos and add notes and highlight things; it is very interactive. There's so much going on in class and there's a lot to take in, but with the software I can focus on one thing. It's effortless because everything I need is there in front of me.*"

Ebony makes use of the free Sonocent Recorder app for iOS and Android. It enables her to annotate recordings during class before transferring her projects to Sonocent Audio Notetaker for review.

6. Conclusion

This session will provide disability support professionals with an understanding of the essentials of good note-taking and why they lead to better academic outcomes. Attendees will be introduced to audio-visualisation software which enables students with disabilities that affect their ability to take notes to do so independently with minimal ongoing support.

7. References

Titsworth, B. Scott. "Students' notetaking: The effects of teacher immediacy and clarity." *Communication Education* 53.4 (2004): 305-320.

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