Assistive Technology Field Experience

During early July 2013 I participated in several activities to assess the use of assistive technologies at my school. Our school meets on a year-round calendar, and I was able to spend limited time with one student as well as meet with our new special education teacher.

(Teacher) and I discussed whether assistive technologies would be helpful for our learning disabled (LD) students at my school. Assistive technology has not been used with our LD students per se, although we do have audiobooks and CDs available for them, and have increased our use of eBooks for all students. We quickly realized that I probably know the students better than she does right now, and we brainstormed several ideas that might be useful. Later in the week, (Teacher), (Paraprofessional), our special education paraprofessional, and I met to review a list of students who could immediately benefit from some specific assistive technology products. We can use a number of simple devices in the media center. I was not aware until now that there is a department of our district that can supply materials for these students, including assistive devices.

For this field experience, I decided to focus on use of the iPad as an instructional tool, using text-to-speech software and speech-to-text software. I selected Dragon Dictation as the speech-to-text software, and Naturally Speaking as the text-to-speech. Dragon software has been used for more than twenty years by visually-impaired adults, and is now being advertised as a productivity tool for adults, as well as being marketed to individuals with special needs. Both of these tools are available at no cost for mobile devices including iPads, so I selected those for this trial.

I had the opportunity to work in a one-on-one setting with "KJ,"* a 2nd grade student with ADHD and poor fine motor skills who is unable to write coherently. "KJ" is able to use a computer mouse but struggles with a keyboard, and his handwriting is illegible. He is a great talker. "KJ" had two opportunities to use the mini iPad using *Dragon Dictation* and *Naturally Speaking* software.

In the first opportunity, I sat with "KJ" in a comfortable, quiet location in the media center and asked him about his favorite animal. "KJ" was carrying a stuffed shark and two informational books about sharks, so he was happy to talk about sharks. Discussion came whether he would like to write a story about sharks. When he agreed, I told him about the iPad and that it had special software so he could write a story just by talking. I showed him how to start and stop the recording. He was very excited, and intently began to talk to the iPad. His first attempts were somewhat garbled because he rambled and speaks with a strong Southern accent. After several tries, he was able to create a paragraph about sharks, although as a school assignment it would require editing.

The second time I worked with "KJ" in the same location, I helped him access a website about sharks, still his favorite animal. I showed him how to first open *Naturally Speaking*, then we opened the instructional website using *Naturally Speaking's* built in web browser. He was very excited to "read" about sharks,, and that prompted him to want to compose another short story. Unfortunately I was unable to retain formal performance data to demonstrate improvement because of the limited time allowed to meet with "KJ".

I perceive "KJ"'s engagement with the software the second time, first listening to the passage and then wanting to "write" more, as supporting my hypothesis about the potential of

this technology to improve learning among our school's learning disabled students. More structured testing, data collection and analysis will be required to support a successful proposal to purchase and implement use of these software products.

The free Dragon Dictation app for iPad has some limitations in terms of accuracy. It is important to speak slowly and clearly into the iPad microphone, and neither of these are easy for an excited young child to do. I expect that purchasing the full-price version of both software packages would ameliorate some of those challenges.

This field experience really opened my eyes to the fact that although we provide a great deal of instructional support to our learning disabled students, we are still shortchanging them by not providing assistive technology tools. Our special education teachers have made great efforts in developing IEPs to provide the maximum support. Using additional devices, even just providing highlighters, and read-aloud capability of electronic resources are two strategies that will immediately benefit our students.

It is very challenging for me to explain use of this product to a child, and will require a great deal more practice on to enable our school to effectively use assistive technologies that will provide the greatest benefit to students. However, based upon analysis of learner characteristics, I feel that I am in a better position to facilitate the implementation of technology-enhanced learning experiences in collaboration with (Teacher). I believe that use of dictation software combined with text-to-speech software will allow our learning disabled students to meet their personal learning goals. However, using the software will also require purchase of headsets with microphones, and the full software product will need to be purchased by our school. Even so, I am very hopeful about making this software available on media center computers.

* Pseudonym

References:

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