

Forget the Index Cards!

Tips for Using Assistive Technology to Write a Research Report

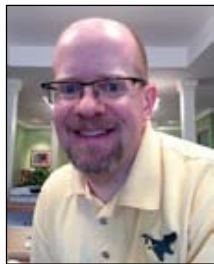
When I was in school, I was assigned my fair share of research reports, and I absolutely dreaded them. Surrounded by stacks of color-coded index cards filled with scribbled notes and quotations, I couldn't wait until I typed the last period on my typewriter so that I could insert the finished reports into plastic covers and submit them to my teachers. And that was just the first drafts. For me, working on a research report was tedious and time-consuming, and I was a student with strong reading and writing skills. Imagine how students with dyslexia and other language-based learning differences feel when they are assigned a writing project that involves searching for appropriate sources, completing large amounts of reading and organizing notes into a thoughtful report that includes citations.

Fortunately, assistive technology (and technology in general) has developed to the point where students, with LD or not, no longer have to shudder at the thought of such a project. Currently, there is an array of desktop-based software and Web-based tools that can help with the entire process, from brainstorming research questions to editing the final draft. This article will present a series of tips and describe how various technologies can be applied to specific tasks. Following these tips will make research and reporting more efficient and lead to better results for all students.

TIP #1 – CREATE A RESEARCH JOURNAL USING AN ELECTRONIC GRAPHIC ORGANIZER.

Forget the index cards. Yes, they are a step up from taking notes on random sheets of loose-leaf paper, but they still require students to rewrite their notes when it is time to outline their reports or compose first drafts. A much better way to collect ideas and quotations is in an electronic research journal using graphic organizing software,

such as Inspiration or Draft:Builder. First, many LD students are visual learners, so collecting and organizing notes in a mind map can be highly beneficial. Once a series of research questions, or subtopics, is created around the main idea, a student can easily and efficiently write notes that can be color-coded, moved around and linked together by familiar drag-and-drop functionality. Second, after the note-taking step is complete, a student can convert the mind map to a formal outline with one click, without having to rewrite his or her notes and ideas. Finally, the outline can be trans-



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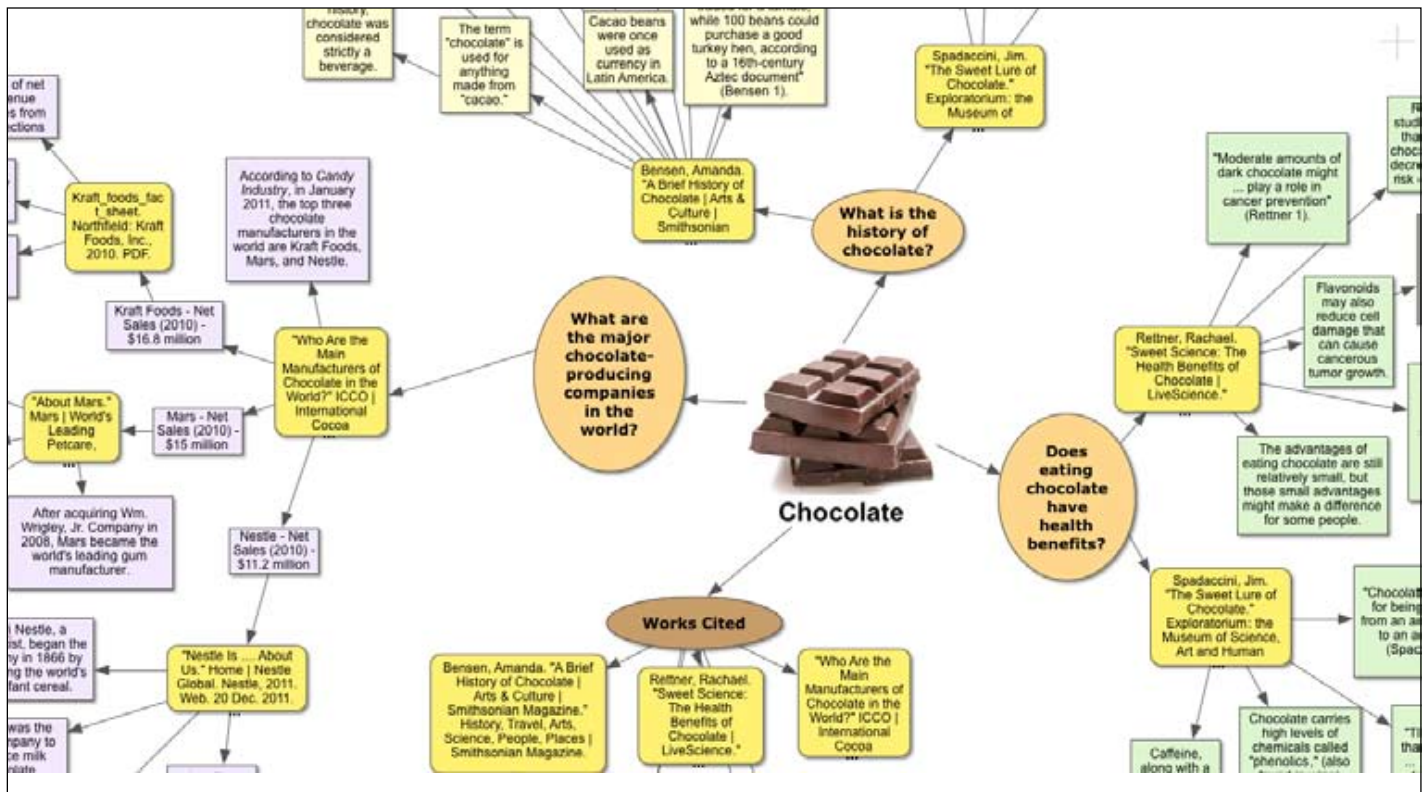


Image 1 – Inspiration Research Journal.

ferred to a word processing program with another click and transformed to paragraph form without having to rewrite the information for a third time. A list of sources can also be collected in the mind map to be used later in the Works Cited page of the report. See image 1 for a sample research journal created with Inspiration for the topic of chocolate.

TIP #2 – USE DICTATION OR WORD PREDICTION SOFTWARE TO TAKE NOTES AND DRAFT THE REPORT.

Although this may sound obvious for students with dyslexia or other learning differences, speech-to-text software, like Dragon NaturallySpeaking, and word prediction software, like Co:Writer, can make the writing process more efficient for any student. In addition to helping with spelling, dictation programs can serve as productivity tools and speed up the writing process, particularly for those with slow typing speeds or those with fine motor difficulties. Word prediction programs can help students spell words correctly early on in the writing process and save time during proofreading and editing.



Image 2 – SweetSearch

TIP #3 – USE SMART METHODS OF SEARCHING THE INTERNET.

Don't just Google the main topic of the research report and be happy with the search results. There will be far too many websites to read, and many of them will not be helpful or appropriate for an academic

report. There are smarter, more refined ways to search the Internet. My go-to search engine is called SweetSearch, and as its tag line states, it is "A Search Engine for Students." Research experts have vetted every Web site that is identified in a search, so students can have confidence in them as trustworthy sources. See Image 2.

Another great way to search the Web, especially for a student with reading difficulties, is to use Google Advanced Search. Among several parameters that can be set in the advanced search is “Reading Level,” in which the student can narrow down results according to “basic,” “intermediate” and “advanced” levels.

TIP #4 – USE ASSISTIVE TECHNOLOGY TO READ AND UNDERSTAND ELECTRONIC SOURCES.

There are several text-to-speech choices that students can use to help them read electronic content. If they are already using robust software like Read&Write Gold or Kurzweil 3000, they can certainly use those to read websites aloud. Nevertheless, there are free text-to-speech options that will also get the job done. All of Apple’s computers and devices now have TTS built into the operating systems, and a great option for Windows computers is the free version of NaturalReader, which is a floating toolbar with a “play” button that will read any selected text aloud. If the vocabulary on a certain website or downloaded article is difficult to understand, I highly recommend a website called Rewordify. See image 3.

On the site, you can either copy and paste text into a conversion box or copy and paste a website’s URL address, and Rewordify will replace higher-level vocabulary with words that are easier to understand. It’s a great piece of technology and can play a significant role in improving a student’s reading comprehension.

TIP #5 – USE ONLINE CITATION CREATORS TO HELP WITH THE WORKS CITED PAGE.

When I was in high school, one of the most confusing and time-consuming things about writing a research report was trying to correctly format my sources according to the MLA guidelines, and then when I was a freshman in college, the MLA decided to change the rules. Furthermore, now that we have a plethora of electronic sources

from which to gather information, there are even more formatting rules to remember. Thanks to the folks at websites like EasyBib and BibMe, students no longer have to remember all the rules. See image 4.

On both sites, students just have to copy and paste URL addresses into a search box, and the citations are generated automatically. The sites also offer the option to manually input publication information for non-electronic sources, and EasyBib even has an iPhone app that will generate a citation from a photo of a book’s barcode. By using online citation creators, any student today can save

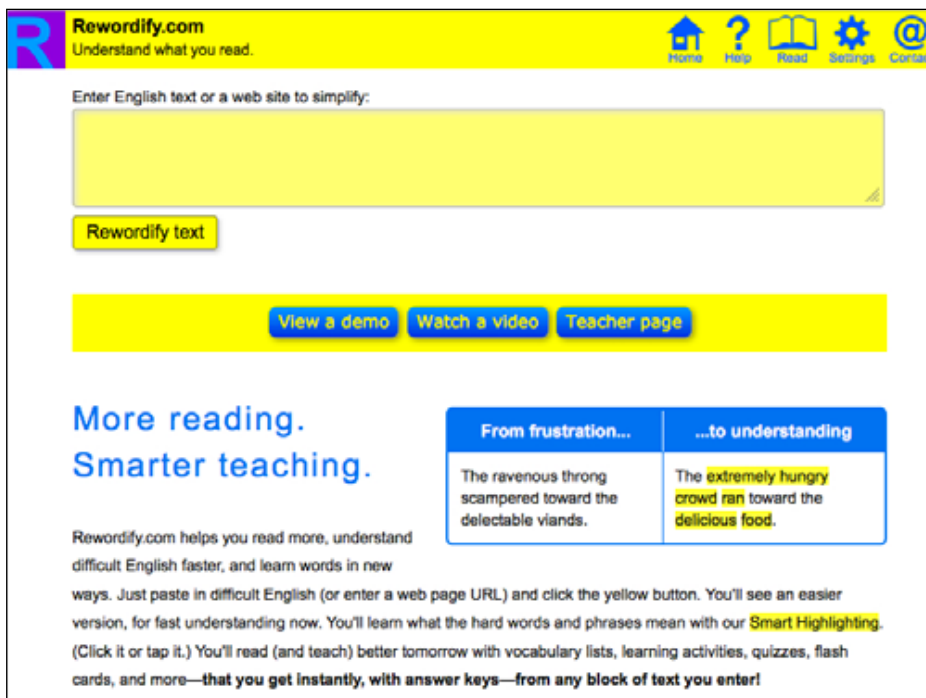


Image 3 – Rewordify website.

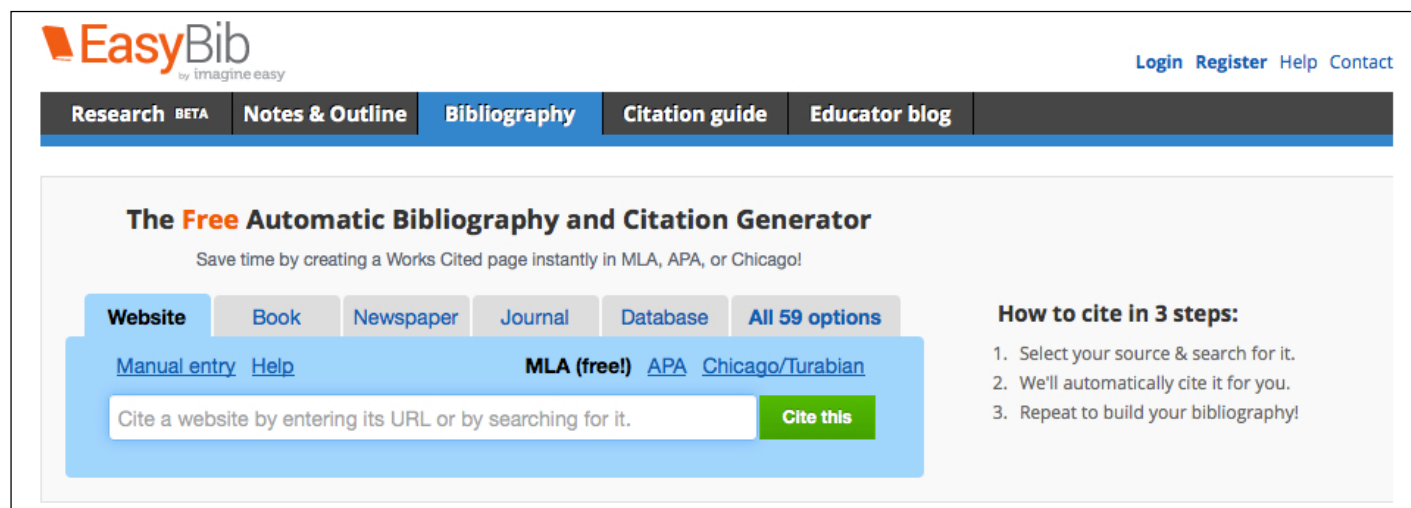


Image 4 – Use EasyBib to generate bibliogrpahy and citations for research papers.

a great deal of time and avoid frustration while working on the Works Cited page of a research report.

TIP #6 – USE CONTEXTUAL SPELL AND GRAMMAR CHECKERS DURING PROOFREADING AND EDITING.

The last step before submitting a research report to a teacher is proofreading and editing. Many students try to skip this step – I know I often did when I was in school. Students with LD may perceive proofreading and editing as too difficult; after all, it takes a lot of their resources just to complete a first draft. Nevertheless, assistive technology can make the editing process manageable. A good first step is to use text-to-speech to listen for errors that can be easily identified. Once that has been done, students should use a contextual spell and grammar checker for a closer reading of their reports. Two excellent pieces of software are Ginger and Ghotit. The advantage that these programs have over the basic spell checking function of word processors is that they check entire sentences at a time, which gives them the context to correct such errors as homonyms (e.g., to, two, too). They also do a much better job identifying and correcting phonetic misspellings.

When a student without learning differences works on a research report for school, he or she has to draw on several different reading and writing skills that were previously learned. The same holds true for students with LD who are accustomed to using assistive technology. They need to combine several technology tools in order to get through the process. While I have not provided a complete list of available AT in this article, the tips I have outlined will certainly help students reach the goal of a research project, which is to learn something new, independently. ■

PRODUCT AND WEBSITE INFORMATION

Inspiration Software, Inc.

Inspiration - \$39.95
6443 SW Beaverton-Hillsdale Hwy
Suite 370
Portland, OR 97221
Phone: 800-877-4292
Fax: 503-297-4676
<http://www.inspiration.com/>

Don Johnston, Inc.

Draft:Builder – \$125.00
Co:Writer – \$290.00
26799 West Commerce Drive
Volo, IL 60073
Phone: 800-999-4660
Fax: 847-740-7326
<http://donjohnston.com/draftbuilder/#.Uwzo6V71-r6>

Dragon NaturallySpeaking

\$99.99 - \$199.99
Nuance Communications, Inc.
1 Wayside Road
Burlington, MA 01803
Phone: 781-565-5000
Fax: 781-565-5001
<http://www.nuance.com/dragon/index.htm>

Texthelp, Inc.

Read&Write Gold – \$645.00
600 Unicorn Park Drive
Woburn, MA 01801
Phone: 888-248-0652
Fax: 866-248-0652
<http://www.texthelp.com/North-America/readwrite-family>

Kurzweil Educational Systems

Kurzweil 3000 – \$1,395.00
24 Prime Parkway
Natick, MA 01760
Phone: 800-894-5374
<https://www.kurzweilededu.com/products/kurzweil-3000-firefly-overview.html>

NaturalSoft Ltd.

NaturalReader – Free - \$69.50
6091 Forsyth Crescent, Richmond,
BC,
V7C 2C4, Canada
Fax: 604-608-9708
<http://www.naturalreaders.com/index.php>

Ginger Software

Ginger Software – Free - \$14.90
annual subscription
<http://www.gingersoftware.com/>

Ghotit, Ltd.

Ghotit – \$199.00
<http://www.ghotit.com/>

SweetSearch

<http://www.sweetsearch.com/>

Google Advanced Search

http://www.google.com/advanced_search

Rewordify

<http://rewordify.com/>