The eMapper
A New Tool for Adapting ePages to Meet the Learning Needs of Students With Autism Spectrum Disorder

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TERC

bridgemultimedia

Project Partners & Web Site

TERC: A research and development organization located in Cambridge, MA

Bridge Multimedia: A New York City-based content services company that supports all facets of universally accessible media

eMapper Web Site:

http://signsci-test.web5test.terc.edu/eMapper/menu7.html

What Is the eMapper?

A quick and easy way to modify and individualize text-based electronic material that incorporates the ability to convert the adapted electronic materials to paper-based handouts and paper-based handouts to individualized electronic materials.

Initial Audience

Learners on the autism spectrum in grades K-8 with cognitive skills ranging from Medium through High (approximately 68% of the population as reported in the SEELS Report, 2008).

Getting Started with the eMapper

The user clicks a link to download the eMapper plug in for use with a computer or to download it as an App for use with an iPad.

Used with a computer, it will appear as an icon on the desktop. Used with an iPad, it will appear as do all of the Apps that are purchased or downloaded.
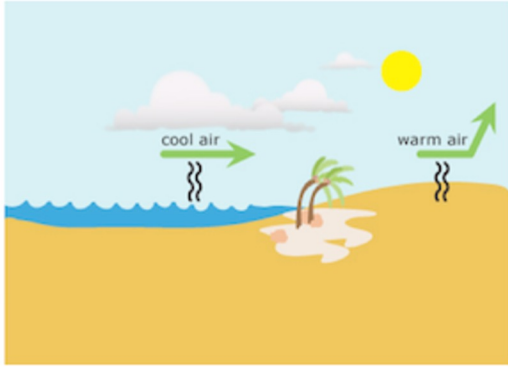
Step 1: Creating an eMap Page

The user first clicks on the **eMapper icon** and then on the pages to be adapted.
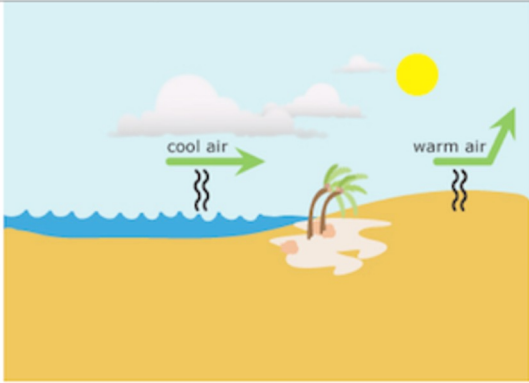
Step 2: Dividing the Page
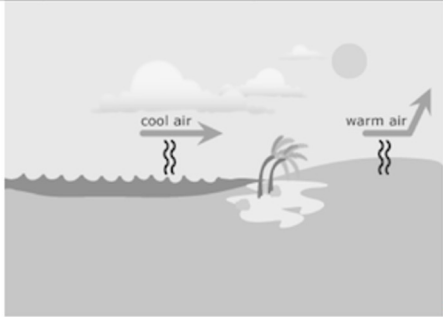
Clicking on **Create eMap** results in the page being divided into sections called *regions.*

Step 3: Selecting a Region to Adapt

Clicking on **Select a Region** and then on the specific region to be adapted results in the page with the region selected.

Step 4: Adapting the Selected Region

Clicking Create eMap returns the user to the eMap and allows a different region to be selected. Clicking on **Adapt a Region** results in a toolbar.

text	illustrations	diagrams	tables	links		sequential reveal
• delete	• delete	• delete	• delete	• delete		• enable
• add	• insert	• insert	• insert	• insert		• disable
• change size						
• change color						
• highlight						

Wind

You can feel wind on your face. You can watch it lift a kite, blow tree branches, and fill the sails on a boat.
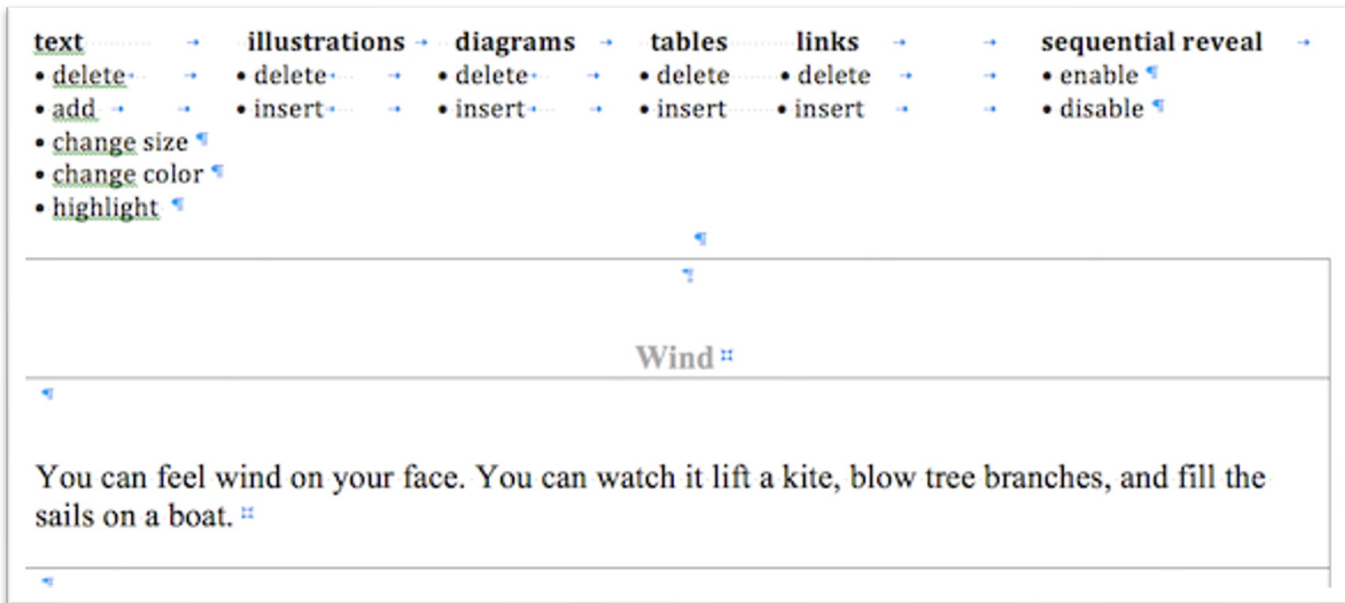
Step 5: Using the Toolbar

Selecting an icon and option adapts the page in that way. The user proceeds using this process until adaptation is complete.

Step 6: Saving an Adapted Region, Continuing, and Starting Over

Clicking on **Save Page** asks the user if the adapted region should be saved. The user is then asked if the page selected should be saved as a PDF. Clicking **Exit** at any time clears the entire entry.

Create eMap   Select a Region   Adapt a Region   Save Page   Exit

Paper Prototype Test: Students Served

Students (age 7-12) with autism who attend a self-contained program in a non-public school	Some students slightly below grade level; some significantly below grade level.
Students (age 6-12) with autism, placed in a non-graded, non-public school with an autism program, receiving 1:1 and very small group instruction.	Below grade level in all subjects and have minimal functional communication
Students (ages 6-22 years) with moderate-severe autism.	Students have moderate to severe deficits in both comprehension and use of language

Findings to Date

Overall participants thought the eMapper has the potential to be a useful and valuable tool. Feedback with regard to ease of use and clarity of instructions were positive.

Respondents had many suggestions for tools to add to make the eMapper useful for the students they teach.

Features to Include

     A tool for selecting the RIGHT adaptation for the student, depending upon how the text is being used—read aloud tools and a library of animations with tools for showing such things as a sequence, direction, back-and-forth communication, change of expression.

     Files for making the pages as multi-sensory as possible— audio files to hear the sound of the wind, video files to see wind blowing dirt.

Features to Include

The ability to add graphics to illustrations—images to represent warm air and cool air using photos and simple animations to show motion and help convey actions.

Text-to-speech functionality— click on text and it is read aloud, access to a talking or picture/video dictionary, click on a word and gain access to a talking or picture dictionary.

Dynamic text—a word or phrase blinks, is lit, or expands to capture/direct reader attention

Features to Include

Options to add preview and summary sections at the top and bottom of a page with main ideas, vocabulary, and story line.

Page persistent write to all pages feature for annotations that automatically appear on all of the selected pages.

Built in timers and reminders.

Next Steps

Complete and test the design of a working prototype that incorporates suggestions from the paper prototype testing and from other potential users.