

# **The eMapper Paper Prototype Test**

## **Evaluation Report**

**TERC**  
**July 2012**

## **Overview**

Web and iPad-based eMaterials are becoming more ubiquitous in classrooms. This trend is expected to continue. Unfortunately many of the most frequently used enhancements for teaching with print materials cannot be readily integrated into currently available eMaterial formats. For example, teachers are used to being able to highlight terms or replace them with synonyms, incorporate illustrations, and add to or delete information to make textbook and workbook material accessible to their students. The eMapper is a new and unique assistive Web-based tool that addresses this need by making such customization of ePages possible. Integrating the principles of Universal Design for Learning, UDL (Rose & Meyer 2002), it promises to make eMaterials accessible to all learners, including those on the autism spectrum, individuals with sensory, cognitive, or physical

- 2) Collect test data using an online survey designed to provide insight into initial reactions to the eMapper, thoughts about its usability, and ranking of the importance of a starter set of



Participants also listed the items that they were

		<p><i>systematically adapting each part of the page? I would personally rather be able to click on any part of the page (in this way, each picture and word would be a 'region' - the regions would be much smaller). For example, I could just click on the word 'wind' at the top (thereby selecting it), and then choose from the toolbar options. I could then click on the picture, and choose from the toolbar options.</i></p>
<p><i>Step 5. Saving, Continuing, and Starting Over</i></p>	<p>Yes=4</p>	<p><i>- Will this save the page, as adapted to my own computer?</i></p> <p><i>- You may already have this, but I would add a safety function where if the user clicks 'exit' a dialog box asks if they want to save their work before the entire entry is cleared.</i></p>



- *Some education apps do sequential reveals for text. App versions of children's books usually do that. This helps the students keep their place, read at an appropriate pace, and recognize that each word in a sentence is an individual unit.*
- *I think [www.duigo.com](http://www.duigo.com) has similar capabilities (in terms of 'marking up' pages). 'Writing with symbols' software is a similar concept, but does not include the variety of options available with eMapper.*

### **Compatible Curricula and e-Materials**

Participants provided information about science, math, language arts, and social studies materials and curricula that might be used with the eMapper. They also named electronic materials that might work well.

- *Any material could be visually enhanced with this tool, but it would take some work for a teacher to enhance anything that is long or conceptually complex.*
- *Leveled readers from [readinga-z.com](http://readinga-z.com); Equals Math; PCI Reading; Words Their Way; Early Literacy Skills Builder; Accessible Literacy Learning; Reading Mastery*
- *Discovery Education (science); Equals Math (math); Possibly ELSB (literacy); MeVille to WeVille (literacy); Unique Learning Systems (science)*
- *Unique Learning Systems (some of their material includes a great deal of pictures - at points too many pictures - eMapper could help delete those pictures).*
- *The Learning A-Z websites*
- *Possibly News2You and Classroom Suite*

### **Additional Comments**

- *I'm assuming this product is intended to be used to enhance reading fluency and comprehension for younger or developmentally delayed students. There are some great additional tools out there that do a lot of what this does and more (adding in the ability to read aloud, respond to questions as you go along, use an electronic pen to circle and draw arrows, etc.).*
- *This is a wonderful idea.*
- *I really love this concept and think it's incredibly useful for the field of special education. I think my main idea for future directions with eMapper is the inclusion of 'advanced' editing capabilities (like those I mentioned in a previous question), and potentially more 'extension' options - options beyond modifying the page - such as creating follow up comprehension questions, a review page, a 'picture' preview page, etc.*

### **References Cited**



# Appendix

## The eMapper: Paper Prototype Survey

### Part I: Participant Information

### Part II: First Impressions

**Part III: Questions About Step 1 (Creating an eMap Page)**

Use the information below to find out how to create an eMap page. Then answer the questions that follow.

!

**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.

What causes wind? Sunlight warms the surface of Earth unevenly. The heat from warm areas of Earth's surface warms the air above. The warmer air rises and cooler air moves in to take its place. This movement of air is called



!

!

# \$!%&' ()! (\*! + (, !\$-!). '! (/'!)\$!0'!(1(, )' 12). '!34' &!-5&4)!\$, ' \*4!). '! (/'!\$&!, ('/ 4! \$-!)' 6!)!\$!0'!7\$&8' 1!\$\*!09!%:5%85\*/!\$\*!). '! !:;%() ' 1!\$\*!). '!1' 48)\$, ;#.' '! (/'! \$&!, ('/ 4!(, , ' (&!(4!(0\$<'!(\* 1!). '!)\$\$:!54!(%)5<() ' 1!#;\$!%&' ()!(\*! + (, !\$-!). '! (/' 2). '!34' &\* ' 6)!%:5%84!\$\*! O':\$ 7!). '! (/'!)\$!0'!(1(, )' 1!;-!). '!&'!(&'!>3-)5, ;'!, ('/ 42!(:\$-!). '! (/' 4!)&(<' :!5\*14' ?3' \*%'!75).!). '! (/'!). ()!54!)\$!0'!(1(, )' 1!#.' '! + (,!, ('/ 14' :'%)' 1! (, , ' (&4!(4!4. \$ 7\*!\$\*!). '!!\*' 6)!, ('/ :!!

!

1. Based on the information provided, do you know how to create an eMap page? If not, please explain.

- Yes
- No

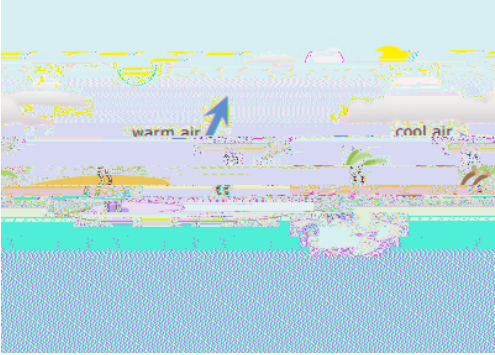
Other comments?

2. What might be added, removed, or changed to help you create an eMap page?

!

"

Use the information below to find out how to select a region to adapt. Then answer the questions that follow.

You can feel wind on your face. You can watch it lift a kite, blow tree branches, and fill the sails on a boat.
What causes wind? Sunlight warms the surface of Earth unevenly. The heat from warm areas of Earth's surface warms the air above. The warmer air rises and cooler air moves in to take its place. This movement of air is called
 The diagram illustrates the process of convection. It shows a cross-section of the Earth's surface and the atmosphere. On the left, the ground is shaded yellow and labeled 'warm air'. A blue arrow points upwards from this area, indicating that the air is rising. On the right, the ground is shaded blue and labeled 'cool air'. A blue arrow points downwards from this area, indicating that the air is sinking. The sinking air then moves back towards the left along the surface, completing the cycle. The sky is depicted with various clouds and a sun in the upper left.
!

#\$!&%"( )%\*!+, -%!.&! / 0 1!\*.2. \*%\*!. / ) 0!&%(). 0 / &! (, "%\*! , &!&\$ 0 1 /!, 302%#45, (\$!  
(06+0/%/!)07!)\$%08.-./, '+, -%!.&! ,!&%, 8, )!8%- .0 /!, / \*!.&!09)'./%\*1./13', (: 4#0!&%"( )!, !  
8%- .0 /!)0! 1 08: !0 /!)\$%!9&%8!('.: &!0 /!  
)0!3%! , \* , +) \*4# \$%!+ , -%!, + +%, 8&!1 .) \$!)\$%18%- .0 /!&%"( )%\*! , &!&\$ 0 1 /!0 /!)\$%!/ %< )!+, -%#!

! " "

□  
□

!

!

,

,

,

,

**Part V: Questions about Steps 3 & 4 (Adapting the Region Selected)**

Use the information below to find out how to adapt the region selected. Then answer the questions that follow.

! "\$%&'()\* +\$", -% . #%

!

"



1. Based on the information provided, do you know how to use the toolbar to adapt the region selected? If not, please explain.

- Yes
- No

Other comments?!

!

2. What might be added, removed, or changed to help you adapt the region selected?

3. Please rank each of the toolbar options according to your perception of its usefulness to you in adapting regions of text.

	Not useful			Very Useful	
	1	2	3	4	5
Adapting TEXT (delete, add, change size, change color, highlight)					
Adapting ILLUSTRATIONS (insert or delete)					
Adapting DIAGRAMS (insert or delete)					
Adapting TABLES (insert or delete)					
Adapting LINKS (insert or delete)					
Sequential Reveal (enable or disable)					

Other comments?

4. Other reviewers have suggested the addition of a timer and a scooper. The timer is used to

**Part VI: Questions about Step 5 (Saving an Adapted Region, Continuing, and Starting**

!

"