



<b>U<sub>a</sub></b>		
Italics	The fox <i>jumped</i> .	See the <i>brown dog</i> .
Bold	John is <b>happy</b> .	He is a <b>very nice cat</b> .
Underline	I like <u>soda</u> for lunch.	I <u>can</u> learn braille.
Red Font	The mouse is <b>quick!</b>	<b>May I</b> have more peas?
Blue Font	I will not go <b>home</b> .	People <b>do not want</b> it.
<b>U<sub>b</sub></b>		
Italics	The fox <i>jumped</i> .	See the <i>brown dog</i> .
Bold	John is <b>happy</b> .	He is a <b>very nice cat</b> .
Underline	I like <u>soda</u> for lunch.	I <u>can</u> learn braille.
Red Font	The mouse is <b>quick!</b>	<b>May I</b> have more peas?
Blue Font	I will not go <b>home</b> .	People <b>do not want</b> it.

In Hannan’s (2008) research thirty participants, proficient braille readers ages 7-9, were asked to scan, locate, identify, and name words with emphasis when presented in one of the three formats: current braille code (CBC), U<sub>a</sub>, and U<sub>b</sub>. Pre/Post intervention interviews with students also were conducted to identify conceptual background knowledge, previous knowledge, and preferences. Students were taught to scan, locate, identify the format indicator and name the

word/s that were written in italics, red, or blue. Measurements of speed and accuracy (typeset identification accuracy, word identification accuracy, and overall accuracy) were taken.

Results showed a statistically significant difference in the speed at which students were able to complete the task. However, no differences occurred in the accuracy at which students were able to identify and name the typeset and/or indicator. Interview results showed that many students had prior exposure to typeset indicators, but were unable to state the composition symbol used for bold, italic, or underline. Students were not able to describe these features in print, and they were unable to explain the purpose of words with emphasis. More than half of the participants preferred one of the two alternate formats. The students who preferred CBC were faster overall at all three tasks, with the fastest score being one of the two alternate formats. Teachers reported that students were not familiar with “scanning” and that they had to explain that scanning and reading text were different tasks. One student dropped out of the study because the task of scanning was too difficult.

Recommendations based on the results of this study were to use Ub as an alternate format for transcribing words with emphasis in early elementary textbooks, and to teach children concepts of print, how to scan for words with emphasis, and purposes of scanning. Teachers may also choose to transcribe materials using Ub. When students use Ub, they can be taught to scan a page using two hands in a vertical top to bottom hand motion. If the student uses two hands, then the extra line break would be spotted immediately, eliminating the need to scan each line of text using a horizontal hand movement pattern. This is especially true if the words with emphasis are located within a passage.

For additional information and a detailed report, please refer to:  
The October issue of the *Journal of Visual Impairment and Blindness*.

Citation:

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