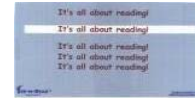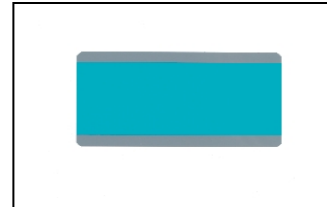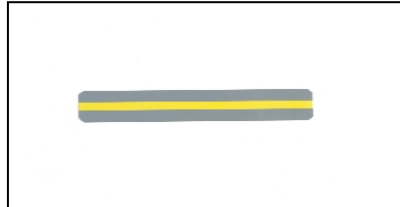# SEE-N-READ® READING TOOLS - Comparison

(U.S. Patent No. 7,954,444**)**

The following is a summary comparison of See-N-Read's features/benefits with other products on the market.

See-N-Read® Reading Tools' design is based on research in the fields of reading, dyslexia, ophthalmology and visual and cognitive processing. It was field-tested for two years in Texas and Illinois schools and continues to be used in clinical and research settings (see professional endorsements at www.see-n-read.com).

SEE-N-READ® Reading Tool   Narrow opaque plastic strip w/ color window   Wide color plastic strip w/ opaque edges

Comparisons of some (not all) of the design features of See-N-Read® (U.S. Patent No. 7,954,444) **vs. other products:**
This unique tool helps readers improve fluency and comprehension and reduces word- and line-skipping and pattern glare (words seem to move on the page). Its basic design goal is to improve readers' control of their fields of vision.

Design Feature	SEE-N-READ® READING TOOLS	Other Products
Construction	Polyester raw material meets CPSIA requirements for minimal lead or phthalate content. Made in USA	? - Various
Text window	The clear text window ("ReadBar™") is surrounded by contrasting shaded areas to help readers focus their eyes on a specific line of text. The ReadBar's height accommodates font sizes from 7 to 22, the most common sizes used by publishers.	1) Transparent colored area bounded by a different color highlights one or more lines of text. 2) If the device is all one color (e.g., yellow or blue) or shows multiple lines of text, focus is less likely.
Area below text window	Most sentences do not end at the end of a line of text. In order for the reader to get the "complete thought" of a sentence or passage of text, there must be smooth, uninterrupted movement of the eyes from one line to the next. See-N-Read's shaded areas are transparent so that they do not obscure the context. Readers can see the next line coming (with their peripheral vision), enabling their eyes to move smoothly from line-to-line to complete the sentence without stopping; i.e., read 'complete thoughts'.	1) A 'reading guide' that is opaque around the text window prevents the reader from using peripheral vision to anticipate the next line of text. At the end of the viewable line, the eyes must stop while the reader moves the device to the next line. The brain must stop at the end of each line and restart on the next line, interrupting the train of thought and thus interfering with fluency and comprehension. 2) If multiple lines of text are visible through the tool, the reader is not focused on the proper line of text.
Area above text window	Above the clear ReadBar™. See-N-Read® is both shaded *and* transparent, blocking upward eye jump while allowing readers to view context as they read ("chunking"). Additionally, struggling readers tend to lose their place when told to "re-read until you understand it". See-N-Read® users can re-read passages without moving the tool off the page and thus still keep their place.	1) Opaque area above the text window prevents upward eye jump but also inhibits reading in context. 2) It also prevents re-reading without moving the tool. When the tool is moved out of the way to re-read a passage, the reader risks losing his/her place. 3) If multiple text lines are visible in the transparent window, the reader's control of field of vision is not enhanced.
Location of text window, size of device	See-N-Read's clear ReadBar™ is located 1/3 of the way from the top of the tool. This allows readers full view of the text and the transparent shaded areas while holding the device with their fingers and makes control easier as it is moved down the page. Available in 2 sizes.	Limited space below the text window may cause the fingers to interfere with the reader's view of the line of text and makes the device more difficult to control (especially for younger readers). The window must be perfectly aligned for the text to be visible.
Color	Based on research in ophthalmology, part of patent	Various colors, design basis not clearly stated
Device color	See-N-Read's unique blue-gray-mauve is the least distracting color for the most number of people according to research in ophthalmology	Area surrounding the text window is opaque and dark. Dark color contrasts with white page, a proven distraction for readers.
'Window' color	The ReadBar™ is colorless to allow users an unobstructed view of text while the surrounding matte-finished shaded areas diminish glare from white pages and overhead lighting, reducing eye strain. Effective for a majority of readers, Gr 1-Adult.	The color in text window strips or colored overlays are helpful for about 6-8% of the struggling reader population (typically dyslectics…only if the proper color is diagnosed correctly for each individual…see Irlen's theory on scotopic sensitivity).

Illustration of the research-based design of See-N-Read® Reading Tools
(color is approximate)

The brain takes in visual stimuli through the visual processing system and simultaneously attempts to organize the incoming information (i.e., pattern recognition). This process requires smooth eye control (control of the field of vision) to produce a flow of visual stimuli (sequential text) to enable the brain to identify visual patterns. If patterns are not formed or are disrupted due to overactive saccades, then the brain has difficulty interpreting and organizing input into usable information and subsequently into learning. Poor fluency, in this case impacted by overactive saccades, typically translates into poor comprehension. When readers are provided with a method to better control their fields of vision, their brains and muscles learn the smoother, more tightly modulated left-to-right, top-to-bottom eye movements that are required for improved fluency and comprehension.

Illustration of 'solid bar' reading strip
(color is approximate)

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There are a number of 'reading strips' or 'highlighters' on the market that make claims about helping readers stay on a line of text by isolating it in some way. While it is true that these products highlight a particular line of text, the ones with solid strips above and below the line of text prohibit the reader from reading 'in context'. Reading research suggests that isolating individual lines of text from surrounding context by blocking lines

with fluency and comprehension. Readers' eyes move very quickly, employing peripheral vision as a locator mechanism to determine where to look next. Readers cannot move a solid color tool quickly enough to the next line of text to avoid interfering with the sweeping motion of the eyes and therefore with fluency. The starting and stopping imposed by this type of tool also interferes with comprehension and may lead to fragmented intake of information.
Another type of reading strip allows readers to see several lines of text at a time. Suffice it to say that this does not address the problem of the reader staying on the 'target' line of text.