Why Spritz Works: It's All About the Alignment of Words

To understand Spritz, you must understand Rapid Serial Visual Presentation (RSVP). RSVP is a common speed-reading technique used today. However, RSVP was originally developed for psychological experiments to measure human reactions to content being read. When RSVP was created, there wasn't much digital content and most people didn't have access to it anyway. The internet didn't even exist yet. With traditional RSVP, words are displayed either left-aligned or centered. Figure 1 shows an example of a center-aligned RSVP, with a dashed line on the center axis

When you read a word, your eyes naturally fixate at one point in that word, which visually triggers the brain to recognize the word and process its meaning. In Figure 1, the preferred fixation point (character) is indicated in red. In this figure, the Optimal Recognition Position (ORP) is different for each word. For example, the ORP is only in the middle of a 3-letter word. As the length of a word increases, the percentage that the ORP shifts to the left of center also increases. The longer the word, the farther to the left of center your eyes must move to locate the ORP.

Figure 1. RSVP alignment of words

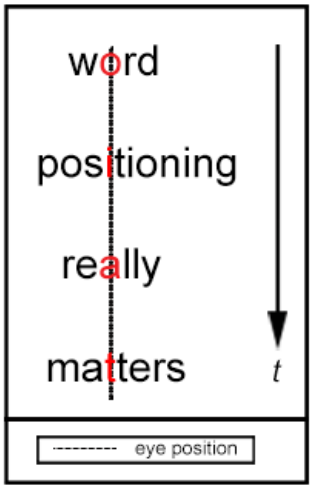

Figure 2. Spritz alignment of words

Therein lies one of the biggest problems with traditional RSVP. Each time you see text that is not centered properly on the ORP position, your eyes naturally will look for the ORP to process the word and understand its meaning. This requisite eye movement creates a "saccade", a physical eye movement caused by your eyes taking a split second to find the proper ORP for a word. Every saccade has a penalty in both time and comprehension, especially when you start to speed up reading. Some saccades are considered by your brain to be "normal" during reading, such as when you move your eye from left to right to go from one ORP position to the next ORP position while reading a book. Other saccades are not normal to your brain during reading, such as when you move your eyes right to left to spot an ORP. This eye movement is akin to trying to read a line of text backwards. In normal reading, your eyes normally won't saccade right-to-left unless you encounter a word that your brain doesn't already know and you go back for another look; those saccades will increase based on the difficulty of the text being read and the percentage of words within it that you already know.

And the math doesn't look good, either. If you determined the length of all the words in a given paragraph, you would see that, depending on the language you're reading, there is a low (less than 15%) probability of two adjacent words being the same length and not requiring a saccade when they are shown to you one at a time. This means you move your eyes on a regular basis with traditional RSVP! In fact, you still move them with almost every word. In general, left-to-right saccades contribute to slower reading due to the increased travel time for the eyeballs, while right-to-left saccades are discombobulating for many people, especially at speed. It's like reading a lot of text that contains words you don't understand only you DO understand the words! The experience is frustrating to say the least.

In addition to saccading, another issue with RSVP is associated with "foveal vision," the area in focus when you look at a sentence. This distance defines the number of letters on which your eyes can sharply focus as you read. Its companion is called "parafoveal vision" and refers to the area outside foveal vision that cannot be seen sharply.

Here is a simplified illustration:

Foveal and Parafoveal Focus

When you read normally, your brain is not only busy processing the words inside of your foveal vision as ORP positions are encountered, but also scans ahead for an indication of what is coming up from your parafoveal vision. During traditional reading, your brain takes cues based on the information it prefetches from your parafoveal vision to determine where to saccade your eyes to next in order to reach the next ORP based on the length of the words coming up. With RSVP methods, Spritz included, your brain cannot depend on parafoveal cues to tell your eyes where to jump to next. When your brain cannot use its parafoveal vision to help your eyes saccade to the next word, it starts over with every new word it encounters. Therefore, proper positioning that does not require eye movement is crucial to 'helping' your brain process words, especially at speed. Since your eyes do not need to move while spritzing, your brain quickly becomes comfortable with not needing the additional information from your parafoveal vision.

What does this all mean to you? For starters, it's really very easy to learn to Spritz. Unlike other reading techniques, you don't need to rewire your brain to work more efficiently. You'll find that you will be able to inhale content when you regain the efficiencies associated with not moving your eyes to read. And you will no longer move your eyes in unnatural ways. If you've tried RSVP in the past and hated it for all the reasons above, we invite you to give Spritz a try. For more information, see The Science above.

spritz®