

## CAT Article Dose – 11

Source:

Flesch Kincaid Grade Level:

Word Length:

Discussions about font choices often revolve around a focus on the two categories of sans serif and serif fonts. Serif fonts have small ornamentations at the stroke endings that sans-serif fonts do not have. The typographic literature proposes several arguments in favour of serifs, among them the belief that serifs emphasize stroke endings because the horizontal shape of serifs emphasizes the reading direction by supporting the movement of the eye from left to right. It is also believed that serifs help the reader distinguish the letters while also linking them together to form words. The case against serifs is that they are simply extra features added to the letter, while sans-serif fonts represent the essential letter form.

In the history of legibility research, serifs are one of the most disputed typographic features. Numerous experiments have compared the performance of multiple fonts, including both serif and sans serif examples; however, when the fonts are bundled into serif versus sans serif categories, the results are generally inconclusive, because fonts within the categories do not show similar reading performance. One exception is an investigation into visual acuity with word stimuli set in 33 different fonts, which found a small but significant effect in favour of lowercase sans-serif fonts in a comparison of the collective performance of sans serif and serif fonts. Others claim to be able to draw conclusions based on comparing reading performance for only two fonts belonging to different font families.

The main limitation of these approaches is that fonts from different font families vary in terms of multiple variables besides serifs, for example, letter proportions, letter skeleton, letter weight and stroke contrast. Thus, in a comparison of two fonts from different families, it is difficult to isolate the effect of serifs from the effects of other font variables.

These flaws in experimental design have also been pointed out by others, who instead conducted experiments that isolated the effect of serifs. Examples include the multiple experiments comparing reading performance of the two fonts Lucida and Lucida Sans, which are designed to only vary with regard to the presence or absence of serifs. One of these experiments measured the effect by using rapid serial visual presentation and found that at small sizes, the sans-serif font (i.e., Lucida Sans) could be read faster than the serif font (i.e., Lucida) although the effect disappeared at large font sizes. However, similar results were not found in a study of single-letter recognition with a different font family, which found no difference between sans serif and serif fonts, but when looking at the subgroup of letters that contained serifs on vertical extremes ('i', 'b', 'h', 'n', 'u'), the study showed a positive effect for serifs.

Sans serif and serif fonts vary not only in terms of the presence or absence of serifs but also in terms of stroke contrast. Compared to sans-serif fonts, serif fonts tend to have a greater difference between the thickest and thinnest parts of a letter's stroke, a feature referred to as stroke contrast. The research literature shows almost no interest in this typographic characteristic. Except for a recent study into stroke contrast in bold serif fonts, which found that hairline strokes lower letter recognition, other studies concerned with the effects of font style have mainly looked into letter complexity and letter boldness.