Golden Ratio Typography: A Novel Approach to Improving Reading Comprension in Nystagmus Patients

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The purpose of the current study was to determine whether scaling typography to the Golden Ratio improves cognitive fluency, and therefore reading comprehension abilities, in nystagmus patients. It was hypothesized that 1) subjects without nystagmus would significantly outperform nystagmus patients on reading comprehension tasks and 2) both nystagmus and nonnystagmus patients would score significantly higher on reading comprehension tasks when the passages were presented in the Golden Ratio. 145 subjects (40 nystagmus patients,105 nonnystagmus patients) were presented with two reading passages: one formatted with Golden Ratio typography and the other with traditional typography. Subjects then answered six reading comprehension questions followed by four questions regarding their preferences for the content of the two passages. Independent samples T-tests revealed that non-nystagmus subjects had significantly higher reading comprehension scores than nystagmus subjects on both the reading passages that were scaled to the golden ratio (p=.03) as well as the traditional typography (p=.002). A paired sample T-test also revealed that nystagmus patients displayed significantly higher reading comprehension abilities (p=.044) on passages scaled to Golden Ratio typography as opposed to passages scaled to traditional typography. Chi-square analysis revealed that the proceeding results were not influenced by factors other than typography, such as preference for content. These results strongly suggest that although nystagmus patients are at a disadvantage in reading comprehension compared to individuals without the condition, formatting text using Golden Ratio typography is an effective method for improving reading comprehension abilities in nystagmus patients.

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