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## "COMPARISON OF SPATIAL PERIODICITY OF WORDS IN ENGLISH TEXTBOOKS ACROSS DIFFERENT GRADES"

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## ABSTRACT

**TITLE:** Comparison of Spatial Periodicity of Words in English Textbooks Across Different Grades.

**PURPOSE:** To compare the horizontal spatial periodicity of English words in two different textbooks of same language.

**METHOD:** By random sampling method, 10 pages from each book, 10 lines from each page, and 1 word from each line were selected using random generation in Microsoft Excel. The autocor values of each word obtained from the MATLAB software. The graph for the values for each word were used to get the first and second highest peak of each word.

**RESULTS:** Two-way anova test was performed to understand the interaction of the subject and the grade on their autocorrelation values. For the first highest peak the autocorrelation value between the grades were not significant with value 0.128 but the autocorrelation value between the subject and the component of grade and the subject were significant 0.000 and 0.002 respectively, and the significance of the values were 0.083 for grades, 0.030 for subject and 0.024 between subject and components of grades.

The values of first highest peak and the second highest peak are greater in the English subject than the science subject, which in result shows that the spatial periodicity in English subject is more than the Science subject across grades.

**CONCLUSION:** The spatial periodicity of the words from different textbook of the same language will be different and the spatial periodicity of the words increases from lower class to the higher class, which makes the vision stressful.

