

# **Influence of Paragraph-Level Rhythmic Regularity on the Process of Memorization and Comprehension of Expository Texts**

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This project consists in an experimental study employing a between-group design. The independent variable will be the degree of rhythmic regularity at the paragraph level (absent, medium, or high) in three expository texts. The dependent variables will be the scores for reading comprehension and memorization of specific constituents within the texts, determined through an instrument adapted from existing ones. Given that (i) the regularity of rhythmic alternation between strong and weak accents within a text influences the reader's behavior (Baron & Nguyen, 2017; Späth et al., 2016), and (ii) a constant alternation of linguistic stimuli can significantly reduce the time and brain activation required for processing, thereby enhancing memory and learning (Falk et al., 2014), it is anticipated that a higher degree of rhythmic regularity within the texts will result in elevated scores for memorization of certain constituents, such as words and phrases, as well as comprehension of the conveyed ideas. A pilot study with n=130 participants was conducted. An expository text in Spanish (~400 words) was created in two versions: low regularity and high regularity. Regularity was determined based on the standard deviation of the intervals between stressed syllables (SDI). Both text versions originated from the same base, with words subsequently rearranged and swapped to minimize SDI. This process was individually applied to each text fragment separated by periods, colons, semicolons, or parentheses. Lexical frequency of swapped words, along with the level of legibility and overall text structure, remained consistent. A survey comprising twelve questions aimed at assessing surface-level text comprehension was employed (Kintsch, 1996). No significant differences were found between the two text versions.

## References

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