

# Literature Review

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This literature review explores how noise influence on human concentration based on an article by Fernandes, Vidor, and Oliveira (2019).

The authors reviewed relevant studies and found consistent evidence that noise negatively affects cognitive performance. Exposure to noise impairs attention, working memory, and information processing, leading to reduced performance across various cognitive domains. Specifically, reading and writing tasks were identified as being particularly vulnerable to noise interference.

In addition, the article revealed that noise hampers reading speed, accuracy, and comprehension. Writing tasks were also affected, resulting in decreased fluency and increased errors. The authors suggested that noise disrupts attentional processes involved in language processing, leading to decreased focus and increased cognitive load.

Finally, the authors emphasized the importance of considering individual differences, such as age and cognitive abilities, when examining the impact of noise on task performance. They underscored the need for appropriate acoustic environments to optimize cognitive functioning during language-related activities.

In conclusion, this article provides evidence for the detrimental effects of noise on attention and performance in reading and writing tasks. These findings emphasize the importance of creating suitable noise-free environments to support optimal cognitive performance during language processing. Further

research is needed to explore strategies for mitigating the negative impact of noise and identifying individuals who may be particularly susceptible to noise interference.

### **Correlation to Project:**

This literature review is useful for our project because it proves the correlation between noise and human concentration, which shows the demands of our project (organize free place based on noise levels).

### **References:**

- Fernandes, R. A., Vidor, D. C. G. M., & Oliveira, A. A. D. (2019, September). The effect of noise on attention and performance in reading and writing tasks. In *CoDAS* (Vol. 31). Sociedade Brasileira de Fonoaudiologia.  
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