

Grouping Of Words And Recall In Short-term Memory

Kylie Meyer

Faculty Advisor: Dr. Rick Harnish

ABSTRACT

- The research examines methods of increasing capacity of short-term memory.
- Results did not support my hypothesis that grouping words together will improve recall in short-term memory.
- Results are discussed in terms of their limitations associated with this study.

INTRODUCTION

- Prior researchers have explored a number of variables that affect short-term memory (e.g., Zarantenollo et al., 2019).
- Additionally, researchers have explored that in tasks which involved learning of verbal and non-verbal sequences, groupings are spontaneously produced (Gilbert et al., 2015).
- Thus, I hypothesized that students who had words grouped together would recall more words than students who did not.

METHOD

Participants.

- Thirty (30) Penn State New Kensington undergraduate students participated in my experiment.

Procedure.

- Participants were randomly assigned to the conditions of the experiment – half were given a list of words that were grouped together, while the other half were given a random list of words to memorize.

Stimulus Material

- Each list contained thirty (30) words that were randomly selected using a random word generator (<https://www.randomlists.com>).

Measures

- The number of words from each list that participants were able to memorize and correctly write down served as my dependent measure.

RESULTS

- To test the hypothesis, the total number of words correctly recalled were submitted to an independent samples *t-test*.
- Results revealed no support for my hypothesis.
- Students with list of words grouped together did not recall more words ($M = 15.933$, $SD = 8.207$) compared to those who had a random list of words ($M = 15.067$, $SD = 9.632$), $t(30) = .265$, $p > .05$.

DISCUSSION

- The type of words used in the study may have affected the results and caused there to be no difference between grouped words and random words
- Future research could examine grouping of words and random words based on the amount of syllables the words have because the amount of syllables in the list of words in this study could have caused there to be no difference.

REFERENCES

- Gilbert, A. C., Boucher, V. J., & Jemel, B. (2015). The perceptual chunking of speech: A demonstration using ERPs. *Brain Research*, 1603, 101-113. <http://doi.org/10.1016/j.brainres.2015.01.03>
- Zarantonello, L., Schiff, S., Amodio, P., & Bisiacchi, P. (2020). The effect of age, educational level, gender and cognitive reserve on visuospatial working memory performance across adult life span. *Aging, Neuropsychology, and Cognition*, 27(2), 302-319. <http://doi.org/10.1080/13825585.2019.1608900>