

THE EFFECT OF NOISE-REDUCING HEADPHONES ON THE RECALL OF WORD LISTS

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Noise, since it affects performance on academic tasks, has been a construct of interest since the early 1900s. Results of such research have consistently indicated that noisy environments negatively affect performance on speech, arithmetic, memory, reading, communication, motor skills, and cognitive tasks. The current investigation combined two experimental designs aimed at examining the effects of wearing noise-canceling headphones on a short-term memory assessment. One hundred and six students participated in the current study, based on a convenience sample of undergraduate students who were randomly assigned to conditions in two classroom situated experiments. The short-term memory task focused on the accurate recall of a list of 12 words. Analyses of data from both the single-phase traditional experimental design and the multi-phase crossover design yielded similar findings. More specifically, results suggested there were no statistically significant differences in word recall as a function of wearing noise-canceling headphones. However, results from the crossover design indicated that students who performed below average, without noise-canceling headphones, benefited from their use in the subsequent recall activity. Implications, limitations, and the need for future research are discussed.