

The Effect of Vocal vs. Instrumental Background Music on Word Recall

Emma Donnelly

Supervisor: Dr. Linda Ross

People listen to music often while they study and while they work. Participating in two tasks at once may increase the likelihood of a negative impact on cognitive performance. Extensive research has examined the impact of background music on individuals' functioning while they perform cognitive tasks. This research shows that a wide range of factors affect cognitive task performance, including the form of the music (vocal or instrumental), and the difficulty level of the cognitive task. With music commonly present during many instances of cognitive task performance, and recall being a process that is used with most of these tasks, this experiment was conducted to determine whether vocal and instrumental background music affect recall differently. A manipulation check was conducted with 15 participants to determine that the song "You Used to Love Me" by Faith Evans was the most suitable song for the vocal and instrumental music conditions, as well as the spoken lyrics condition in the present study. "You Used to Love Me" was chosen based on the lack of familiarity that the participants had with the song, as well as the amount of arousal and affect that the song induced. Once the song had been chosen, 88 undergraduate students completed both immediate and delayed word recall tests after having been exposed to either vocal music or instrumental music (with no vocals), or under one of two control conditions, spoken lyrics or silence. It was hypothesized that the participants in the instrumental music condition would show better recall than those in all other treatment conditions, due to the increase in arousal and affect in the individual induced by the music. It was also hypothesized that participants in the silence condition would show better recall than those in the vocal music condition, as well as those in the spoken lyrics condition. And lastly, it

was hypothesized that participants in the spoken lyrics condition would show better recall than those in the vocal music condition. The results of each participant's immediate and delayed word recall scores were compared across conditions to determine whether there was a difference in recall effect when subjects are exposed to vocal or to instrumental music. The results of this experiment showed that recall did not significantly differ between the four treatment conditions for either the immediate or the delayed recall test. Possible confounding variables to attempt to account for the insignificant results, as well as suggestions for future research are discussed.