

When flipping through playlists, how quickly do you recognize songs? Do you ever miss a line or sing too long? There may be a scientific explanation! This project focused on memory and reaction time of a diverse population, based on age, gender, and familiarity with songs, by having subjects complete lyrics to three musical prompts. Reaction times and durations of responses were measured and compared using WavePad software. Results found that the control group, men, country music fans, and those who identified as slightly musically inclined displayed better response length (duration) and promptness (reaction time). Subjects over 30 years old performed better in duration, while those 30 and under were more prompt.

This project could lead to further advancement in metacognition-understanding our thought process- and memory. Future work could include expanding the sample size, testing different genres and decades, including new identifying criteria, and analyzing the impact of volume.

The identified trends are important because research has found significant improvement in auditory and visual reaction time when background music plays. Additionally, studies concluded that increased volume slows reaction time. This is especially relevant when driving: background music may help reaction, but only at low volumes. Musical exposure also helps maintain slightly quicker reaction times for aging populations thus preserving abilities for longer. In a similar way, memory can be positively impacted by setting information to a song or listening to a certain genre when studying to elicit stronger response during exams if the music is present.