Connections in Chromesthesia: Analyzing Note Vibrations and Colors Perceived from Sound

Blake, Camille (School: West Salem High School)

Synesthesia is a condition in which a stimulation of one sense causes a response in another sense. This study focused on chromesthesia, a form of synesthesia where affected people visualize colors when prompted with a sound. There has been minimal research on the processes behind chromesthesia, leading to limited understanding of the condition. The goal of this research was to find connections that would lead to better understanding of chromesthesia. Part of understanding the condition is understanding why this condition occurs. Although there has been research on the neurology behind synesthesia, no research has explored connections between a physical representation of sound and the corresponding audio. This research aimed to determine if there was a connection between a color perceived from a note vibration pattern and the color perceived from the same pitch. Participants recorded colors seen from certain pitches and colors seen in note patterns. By analyzing and comparing the results, the researcher determined that the data was inconclusive. Although the numbers pointed to certain patterns and connections, the sample size was too small to make any larger conclusions. This study did not adequately answer the research question because of the limitations regarding sample size. Future research should be conducted to improve this study to obtain more accurate results, as well as explore other avenues in explaining processes behind chromesthesia.

Awards Won: