Slice and See: Can a VR Slicing Game Sharpen Peripheral Vision?

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Individuals with conditions like "lazy eye," amblyopia, and strabismus have been experiencing issues with peripheral vision. This study aims to test if VR use in gaming can improve peripheral vision over a certain interval of time. It is hypothesized that playing Beat Saber in virtual reality for 10 minutes will improve peripheral vision the most compared to time intervals of 5 and 15 minutes in high school students aged 15-18 with 20/20 vision. To test improvements in peripheral vision in 27 participants, a digital angle ruler is used for measurement before and after each trial. The participants will play Beat Saber on the Meta Quest 2 for their designated interval of time based on their assigned treatment group. Improvements in peripheral vision will be recorded over the course of 9-10 weeks. This research aims to determine if the use of VR, a more accessible technological development, can result in improved peripheral vision of individuals over a short period of time. In the future, this method can be used to improve peripheral vision in participants with peripheral vision impairments as well as further research in the medical field regarding technological use in vision improvement.

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