

Joseph Knapp
Flicker Fusion

The purpose of this investigation was to determine which gender was able to see more frames per second. The number of frames per second that a human is able to see is called flicker fusion threshold. I hypothesized that males would have a higher flicker fusion threshold. This experiment involved creating a spinning wheel out of cardboard that would spin fast enough to create a stroboscope effect. I made a wooden frame to hold a drill steady that was used to spin the wheel. I painted “spokes” on the wheel to allow participants to see the stroboscope effect. A bicycle speedometer attached to the wheel was used to measure the rate at which the wheel was spinning. The participants were asked to report when the spinning wheel appeared to stop spinning, and this rate was recorded. The data collected did not support the hypothesis. After 42 participants, the average male flicker fusion threshold was slightly below females. After removing three outliers (all males), the male flicker fusion rate (8.35) was slightly higher than females (8.13). However, the difference between males and females was insignificant. These findings lead me to believe that there are slight variations in flicker fusion thresholds but more precise measuring equipment must be used and more testing is required make a qualified conclusion.