ABSTRACT

Research on the effect of action video games on multisensory integration, particularly in the context of sensory conflict, is limited. The classic Stroop test that has been used only involves visual conflict without considering multisensory aspects. This study aims to analyze audiovisual perception in action video game players using a modified Stroop test with audio distraction and the Trail Making Test (TMT) as an objective validation of gaming expertise classification.

The study involved action video game players and non-players who underwent TMT A and B, followed by the classic Stroop test and Stroop test with audio distraction. Visual stimuli in the form of colored words were combined with audio stimuli. Data on reaction time, accuracy, and TMT completion time were analyzed using descriptive statistics and correlation tests.

Based on the results, action video game players have consistently faster reaction times than non-players, both in congruent and incongruent conditions. The reaction time difference ranges from 17 to 172 ms, with lower variability in the player group, indicating better performance stability. Action video game players demonstrate faster audiovisual processing abilities compared to non-players. This suggests that action video game players are more efficient at identifying relevant visual stimuli even in the presence of audio distractions.

Kata Kunci: *Stroop test*, audiovisual perception, video game action, integration multisensory, TMT, audio distraction.