**AVGs task switching and processing speed abilities: a mixed methods investigation.**

Experiment: Debriefing

​Thank you for taking the time to participate in our study.

Executive functions are an umbrella term for cognitive processes which enable people to regulate their thoughts and actions during goal-directed behaviour (Friedman & Miyake, 2012). Evidence from prior studies suggests that players of First-Person Shooter (FPS) games perform better in tasks measuring executive functions, particularly in the ability to switch attentional focus between different tasks (Green, Sugarman, Medford, Klobusicky & Bavelier, 2012). However, it is yet unclear whether different degrees of expertise lead to different levels of executive functions performance, and to what extent these differences are due to better executive processing or are due to faster processing speed abilities (van Ravenzwaaij, Boekel, Forstmann, Ratcliff & Wagenmakers, 2014).

In this experiment, we aim to recruit approximately 300 casual, expert and professional CS:GO players. Participants completed a survey, guided and informed by previously conducted, in-depth interviews with casual, expert and professional players. The online task which you completed measured your ability to quickly switch attention between different tasks, as well as your general speed in processing information. The main aim of this experiment was to improve upon samples of previous research. Often, video game research evaluates gamers with just a minimal amount of video game experience (e.g. 1 hour per day over the past 6 months; Green & Bavelier, 2003). However, differing levels of expertise in gaming may be associated with differing cognitive abilities. By investigating expertise ranging from casual to professional players, this experiment will lead to a deeper understanding of how video gaming expertise is related to task switching and processing speed abilities.

If participating in this study has raised any concerns, please speak to your GP regarding any health concerns this study may have raised for you.

**Contact for further information**

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**Thank you for your participation in this study.**

**Your input is truly valued!**