**Action video gamers task’ switching and processing speed abilities: a mixed method investigation.**

Interview: 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 to 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).

The study includes two parts, the semi-structured interview you participated in and a wider experiment.

The interview aimed to collate in-depth qualitative data from three individuals who self-identified as casual, expert or professional CS:GO gamers. This information is novel to the field of research and this knowledge will add to better the understanding of gaming expertise, improving future study. Specifically, the answers from the interviews will directly inform how we will define, measure and distinguish between casual, expert and professional gamers for the experiment.

The experiment will use a wider sample of approximately 300 casual, expert and professional CS:GO gamers. Participants will complete a survey, guided and informed by the initial interviews, and an online task which measures switching attention between different tasks and processing speed abilities. The aim of this experiment is to improve upon samples of previous research. Often, video game research evaluates gamers with only 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 different cognitive abilities. By investigating expertise running 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!**