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TUS

**Technological University of the Shannon:
Midlands Midwest**

Ollscoil Teicneolaíochta na Sionainne:
Lár Tíre Iarthar Láir

POSTGRADUATE RESEARCH OPPORTUNITY

Project Title: Road to the Olympics, investigation of the impact of multiple object tracking on attentional control in Ukrainian high performance athletes.

Project Description:

On 24th February 2022 Russia invaded the Ukraine with devastating effects. On a human level the war has resulted in widespread mortality and injury with over 5 million people seeking refuge in neighbouring countries. Historically, conflict and war impact on high performance athletes in terms of their mental health, wellbeing and overall life satisfaction and they can feel a lack of security and protection while navigating dangerous and uncertain environments. Research has identified the loss of Olympic sports infrastructure to Russian troops as significant. Furthermore, a panel of experienced practitioners, athletes, coaches and sports scientists identified 3 of the top 10 needs of Ukrainian athletes at this time as the need for support to prepare for competition, the need to support their personal motivation and the provision of outside support from international agencies.

Attentional control in high performance sport is identified as one of the key athlete psychological skills necessary to prepare and perform in Olympic competitions. Attentional control (specifically visual attention) has been categorised in sports contexts as the ability to engage in selective (directing attention to one target over other targets based on perceived importance), divided (focusing on two or more targets simultaneously), and sustained attention (maintaining attention on a target for a prolonged period of time). Attentional control can be impacted by numerous factors including (but not limited to) increased stress, anxiety, and intrusive thoughts and emotions which in turn can have negative implications for sports performance. Given the potential for Ukrainian athletes to experience the negative mental health and wellbeing effects of the conflict there may also be a negative knock-on effect on their attentional control crucial for high performance.



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Some evidence supports the efficacy of cognitive training technologies such as multiple object tracking (MOT) to improve overall sports performance (including attentional control). MOT involves an individual maintaining a focus of attention over a number of targets as they move, with greater attentional resources required as the number of targets increases and/or additional environmental challenges are introduced e.g. performing the task while standing. Findings suggest better sports performance as a result of exposure to MOT through improved decision-making in soccer and improved concentration in basketball athletes. However, the use of MOT technology in elite performance sport settings is limited in the extant literature on cognitive training and attention and much of the evidence has been reported as anecdotal and not backed by peer reviewed accessible science.

Given the current gap in the literature, the potentially negative implications of the conflict on Ukrainian elite performance athletes and the current needs of these athletes as identified previously this study aims to investigate the impact of MOT on the attentional control of Ukrainian high performance athletes.

Duration of Project: 48-months

Funding Agency: Erasmus+ and TU Rise

Type of Degree Offered: Fully funded PhD project (Full-time tuition fees for EU students & Stipend €19,000 per annum).

Candidates from outside the EU are eligible to apply but will be required to provide evidence of the ability to make available additional funds to cover excesses associated with Non-EU fees.*

Minimum Qualifications/Experience Necessary/Any Other Requirements: [list relevant undergraduate programmes]

The candidate must have:

- A primary degree with a minimum classification of 2.1 honours or equivalent in Sport and Exercise Sciences or other relevant qualification within the physical or social sciences.
- Previous experience of conducting a research project independently, collecting and analysing quantitative data and conducting statistical analysis using statistical software packages such as SPSS (additional training will be provided).
- The capacity to work as part of a team with good project management and communication skills, an ability to work independently using their own initiative and the capacity to problem solve.



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- IELTS [International English Testing System] Applicants must have a minimum of 6.0 with no component score less than 6.0.

It is desirable that the candidate would have:

- A Masters degree in the sport and exercise sciences or within the physical or social sciences.
- Has some education in the field of applied sport psychology.
- Good academic writing skills
- Some experience of collecting and analysing qualitative data.
- Are proficient in the use of Microsoft OneDrive, Teams, Zoom and SPSS.

Research Supervisors: Dr. Amy McGuire, Dr. Marion Geary

For further information please contact: Marion Geary (marion.geary@tus.ie)

Download Application Form at [Funded Postgraduate Research Opportunities - TUS](#)

Closing date for receipt of completed application forms is 17.00 on Monday 15th April 2024.

Please submit your completed application: pro@tus.ie

Please reference **Project Title in all correspondence.**

*In lieu of fees a non-EU/EEA applicant may be given the opportunity to undertake two hours of academic development per week during the academic year. Activities include teaching and lecturing support, tutorial provision and or/practical demonstration.

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