**Testing the validity of a 360-degree soccer video simulation for analysing visual exploratory activity in women’s soccer​**

James Feist1, Naomi Datson2, Oliver Runswick3, & Chris Pocock1

*1Institute of Applied Sciences, University of Chichester, U.K.*

*2Department of Sport and Exercise Sciences, Manchester Metropolitan University, U.K.*

*3Department of Psychology, Institute of Psychiatry Psychology & Neuroscience, King’s College London, U.K..*

360-degree videos presented in head-mounted displays (HMD) offer new potential for aiding our understanding of how female soccer players visually explore their environment. Study aims were twofold: (i) To assess the construct and face validity of a 360° video simulation for capturing visual exploratory activity in women’s soccer and (ii) to understand players’ perceptions of acceptability and tolerability of a 360° video simulation in women’s soccer​. Eleven sub-elite female soccer players (M age = 21.7 years, SD = 5.03) and eleven novices (M age = 19.9 years, SD = 2.07) participated in the study. Match footage was recorded using a Go-Pro 360 max camera positioned on top of a stationary tripod at eye height located in six different locations on a soccer pitch. Participants were shown 40 soccer testing videos (twenty 9v9 videos and twenty 7v7 videos) presented in a HMD with the majority of videos terminating with the participant receiving a pass from a teammate. Upon receiving the pass, participants were required to immediately verbalise an action response as to how they would continue play. Participants completed an adapted presence questionnaire and answered open ended questions on their perceptions of the acceptability, physical fidelity and tolerability of the task. No participants reported any feelings of motion sickness from the 360-degree video task and all soccer players reported they would be interested in using the videos for training. Soccer players reported high levels of realism, possibility to examine and self-evaluation of performance. 360-video offers researchers alternative, low cost solutions for visual based soccer tasks.