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Multimedia Design in Tactical Play Learning and Acquisition for Elite Gaelic Football Practitioners

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Abstract : The use of media (video/animation/graphics) has long been used by athletes, coaches, and sports scientists to analyse and improve performance in technical skills and team tactics. Sports educators are increasingly open to the use of technology to support coach and learner development. However, an overreliance is a concern., This paper is part of a larger Ph.D. study looking into these new challenges for Sports Educators. Most notably, how to exploit the deep-learning potential of Digital Media among expert learners, how to instruct sports educators to create effective media content that fosters deep learning, and finally, how to make the process manageable and cost-effective. Central to the study is Richard Mayers Cognitive Theory of Multimedia Learning. Mayers Multimedia Learning Theory proposes twelve principles that shape the design and organization of multimedia presentations to improve learning and reduce cognitive load. For example, the Prior Knowledge principle suggests and highlights different learning outcomes for Novice and Non-Novice learners, respectively. Little research, however, is available to support this principle in modified domains (e.g., sports tactics and strategy). As a foundation for further research, this paper compares and contrasts a range of contemporary multimedia sports coaching content and assesses how they perform as learning tools for Strategic and Tactical Play Acquisition among elite sports practitioners. The stress tests applied are guided by Mayers's twelve Multimedia Learning Principles. The focus is on the elite athletes and whether current coaching digital media content does foster improved sports learning among this cohort. The sport of Gaelic Football was selected as it has high strategic and tactical play content, a wide range of Practitioner skill levels (Novice to Elite), and also a significant volume of Multimedia Coaching Content available for analysis. It is hoped the resulting data will help identify and inform the future instructional content design and delivery for Sports Practitioners and help promote best design practices optimal for different levels of expertise.

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