



Interdisciplinary Opportunities and Threats in Sports Science

Keynote Speaker

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Abstract

Introduction: Sports science research is traditionally monodisciplinary despite calls for an interdisciplinary focus. In today's complex world, human beings need comprehensive perspectives to solve the problems ahead. Among these, it is only interdisciplinary studies that cause the environment around individuals, especially the university environment and the studies of specialists to find a special coherence and cause the dynamics of the educational system and, as a result, growth and reform. Besides that, Common science boundaries, content interference, research methods, principles and theories. It has removed the boundaries of science.

Methods: The main conclusions of this work are brought into line with the promotion of interdisciplinary practices given the numerous benefits that these imply. Students have perceived greater motivation, a greater understanding of the contents and more significant connection between the theoretical and the practice.

Results: Eight categories of effective factors that were effective in the development of interdisciplinary sciences: 1. Structural-functional developments in science, 2. Macro paradigm developments, 3. Information technology developments and communication, 4. Developments in external expectations of science, 5. Developments due to demand elasticity, 6. Global factor, 7. Institutional developments, and 8. Technology factor were identified. Capacities and limitations of each disciplinary and interdisciplinary approaches were also measured.

Conclusion: Although the trend of three fields of basic science to being interdisciplinary is increasing, the rate of interdisciplinary and its pattern among fields is different. Despite that, a strong tendency to be interdisciplinary shows the significance of developing interdisciplinary fields in universities, especially in Physical Education and Sport Sciences. Recent reviews of the sports science literature have found that interdisciplinary research continues to be scarce (Buekers et al., 2016; Piggott et al., 2019). There are several possible reasons for why this is the case. First, sports science researchers may not be aware of suitable theoretical frameworks that can underpin interdisciplinary research questions, experimental design, and analyses (Buekers et al., 2016). Second, interdisciplinary research is highly dependent upon the organization of a team of scientists who have less preference upon a monodisciplinary approach to understand sport performance (Buekers et al., 2016). Third, interdisciplinary research can require greater resources and participant time, which may limit sport performance to be investigated from a monodisciplinary perspective (Buekers et al., 2016). Nonetheless, Buekers et al. (2016) and Piggott et al. (2019) have presented solutions to these barriers in the form of theoretical frameworks to guide experiment and test design. These authors also mentioned the incentive for researchers to conduct interdisciplinary research, which is its capacity to provide a comprehensive understanding of athletic performance.

Keywords

Interdisciplinary, Sports sciences, Physical education

Reference:

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