

Chapter 2

Ethical Considerations in Design–Based Research for Sports Education

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ABSTRACT

This chapter explores the ethical considerations in applying design-based research (DBR) to sports education, addressing the unique challenges posed by dynamic environments. DBR involves iterative cycles of research, design, and refinement, engaging athletes, educators, and coaches as co-researchers. The chapter highlights key ethical issues such as informed consent, participant confidentiality, and the physical and mental well-being of athletes. The flexible nature of DBR requires adaptive ethical frameworks to balance innovation with participant welfare. Special attention is given to power dynamics, equity, and inclusion in research, ensuring diverse groups are adequately represented. Additionally, the chapter advocates for continuous ethical reflection and stakeholder collaboration throughout the research process to develop context-sensitive, sustainable solutions. Future directions emphasize the creation of robust ethical guidelines tailored to the evolving landscape

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of DBR in sports education, aiming for responsible and impactful outcomes.

INTRODUCTION

Design-Based Research (DBR) has become a prominent methodology in sports education, aimed at narrowing the gap between theoretical frameworks and practical applications by addressing real-world challenges through iterative cycles of design, implementation, evaluation, and refinement. In this field, DBR enables researchers to work collaboratively with educators, coaches, and athletes to develop, test, and refine innovative and practical instructional strategies, training programs, and technological solutions (Ansari, 2017). A key feature of DBR is its collaborative approach, which actively involves all stakeholders—researchers, practitioners, and participants—in co-creating knowledge and solutions tailored to the unique demands of sports contexts. Unlike traditional research models that often rely on controlled environments, DBR thrives in the dynamic and unpredictable settings of sports education, where factors such as athlete performance, skill development, and team dynamics are constantly in flux (Sandanyake et al., 2021). By grounding research in the experiences of athletes and educators, DBR ensures that its findings are not only scientifically robust but also practical and sustainable. This iterative process of refinement and adaptation fosters a deeper understanding of how educational interventions can improve both individual and team outcomes in sports. DBR also adopts a holistic perspective on learning in sports, integrating cognitive, physical, and socio-emotional aspects that are essential for athlete development (Puente, 2014). With the growing adoption of digital tools such as wearables and performance analytics in sports education, DBR's adaptability makes it an ideal methodology for examining how these technologies can enhance learning and performance. However, the participatory nature of DBR introduces ethical challenges, including the dual role of athletes as both subjects and co-researchers, balancing innovation with participant welfare, and ensuring informed consent and data privacy in rapidly evolving settings (Minichiello & Caldwell, 2021). By embedding ethical considerations into the research process from the outset, DBR in sports education not only advances theoretical understanding but also contributes to the well-being and development of both athletes and coaches.

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