



Abstract

Sustainability Through Sport: A Conceptual Framework for Circular Economy and SDG-Aligned Behavioral Learning in Youth Clubs [†]

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This conceptual paper investigates how federated youth sports clubs in France can operate as informal educational ecosystems to promote sustainability-oriented behaviors and civic responsibility in children aged 7 to 12. Based on socialization theory and informal education principles, the proposed framework positions sports clubs as informal and evolving contexts where children internalize civic and ecological norms through participation in activities, peer interactions, and assigned values from coaches. Sports clubs are typically seen as spaces where positive recreation occurs. Here, we consider youth sports clubs to be effective venues for the promotion of sustainability literacy and intergenerational behavioral change within sociocultural, environmental, and civic contexts. The theoretical framework is strongly aligned with the United Nations 2030 Agenda while also supporting multiple Sustainable Development Goals (SDGs). Regular practices in the clubs, including sharing equipment, reusing uniforms, recycling, and energy-saving practices, are indicative of alignment with SDG 12 (Responsible Consumption and Production), specifically Targets 12.5 and 12.8. These ongoing practices, which are situated in informal learning contexts, provide important, yet often unremarkable, entry points for integrating sustainability values at a child's early life stage. These behaviors illustrate the principles of the circular economy framework that focuses on reducing waste, increasing resource efficiency, and closing material loops. Youth sport clubs serve as microenvironments in which circular activities are encouraged through practices. Consequently, these clubs contribute to behavioral conditioning and advance sustainability transitions that require cultural and lifestyle changes. By nurturing these behaviors in childhood, clubs contribute to shaping future citizens who are ecologically aware and socially responsible. The framework resumes in alignment with the SDG 3 framework with respect to Target 3.4 to illustrate how sports participation can promote physical health, emotional regulation, and social well-being. Following SDG 11 (Sustainable Cities and Communities) and SDG 13 (Climate Action), it outlines community-based interventions to help build resilient citizens from a young age. A conceptual model is designed, explaining how the key mechanisms can lead to responsible behaviors and longer-term outcomes like civic engagement and environmental responsibility. While primarily theoretical, the model was informed by exploratory interviews with youth coaches affiliated with federated clubs across France. This paper will support an empirical study and a paper advocating for the development of psychometric



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instruments to measure children's concepts of sustainability awareness and the role of the coaches to support evidence-based policy and informal learning approaches aligned with the SDGs.

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