

Chapter 10

Inclusive, Sustainable Motor Play for People With Intellectual Disabilities: A Service Learning–Based University Teaching Innovation Project

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ABSTRACT

The document describes a university project focused on inclusive and sustainable physical education (PE) for individuals with intellectual disabilities (ID). Through a service-learning (SL) approach, students designed motor games using recycled materials, promoting physical activity, inclusion, and sustainability. The project combined theoretical learning with practical experiences, involving direct interaction with athletes with ID. It emphasized the importance of sustainable, inclusive PE in teacher training and highlighted the need for future educators to develop skills in diversity and adaptive PE.

INTRODUCTION

The significant decrease in gross motor play, especially outdoor play, in recent decades has been accompanied by a rise in child and adolescent psychopathy and sedentary leisure screen time (Gray, 2011). This has led to an increase in child and youth obesity and a fall in physical activity and motor play with peers. Play is also increasingly restricted to highly domestic contexts, such as home, school and recreational facilities, leading to lower levels of mobility and the reduction of personal social relationships and physical human networks (Shaw et al., 2015). These trends have become even more acute since the COVID-19 pandemic (Neto, 2022). Restricted access to play and active recreational leisure activities

DOI: 10.4018/979-8-3693-6084-2.ch010

also affects people with intellectual disability (ID), resulting in lower levels of physical activity, limited engagement in sport, play and active leisure, higher incidence of sedentarism, etc. and, consequently, lower life expectancy and worse health (Hansen et al., 2023; Robertson et al, 2000; Temple, et al., 2006). In their survey of physical activity among adults with ID, Dairo et al. (2016) found that only 9% met the minimum physical activity guidelines, compared to an average of 72% among the general population, while Robertson et al. (2000) warn that people with ID exhibit similar levels of physical activity to people in the 75 years and over age group. When it comes to sports, the participation of people with ID tapers to just 3% compared to 46% among people without disability (Pérez-Tejero & Ocete-Calvo, 2019). Lack of physical activity is thus one of the biggest obstacles to physical, cognitive and social well-being for people with disability (Robertson et al., 2000).

Inclusive physical education (PE) and sustainable motor play have a key role to play in helping to improve the physical, cognitive and social well-being of people with ID by increasing opportunities for them to participate in the community, make friends and feel joy (Barthel & Kyttä, 2022). Research consistently highlights the physical, intellectual, and psychosocial benefits of adapted physical activity (APA) for people with ID (Bondar et al., 2020; Jacob et al., 2023; Pérez-Tejero & Ocete, 2016; Van Lindert et al., 2023). Numerous studies link wellbeing and APA to improvements in the lives of people with ID. For instance, Crespo-Eguilaz et al. (2024), Arellano et al. (2024), Varela et al., (2025; 2023) highlight psychological wellbeing, inclusion, autonomy, motivation, and physical benefits of APA. Also Maenhout and Melville (2024) associate physical activity with social connection and personal growth. While Mckinnon et al. (2022) note that APA foster physical health, body image, friendships, autonomy, and transferable life skills, Tomé et al. (2024) linked physical activity to greater autonomy and daily living skills, and Shapiro and Martin (2014) observed that motor competence enhances self-esteem and reduces loneliness. In this regard, it bears remembering that children's right to play, recreation and healthy leisure is recognized under Article 31 of the UN Convention on the Rights of the Child, and that child health and quality, inclusive education are included in the UN's Agenda 2030 Sustainable Development Goals: 3. Health and well-being; 4. Quality education; 5. Gender equality, and 10. Reduced inequality (UN, 2023).

One essential part of achieving these sustainability targets is teacher training in relation to inclusive play, PE, special education needs (SEN) and diversity, including teaching innovation and participatory methodologies. This chapter reports on an interdisciplinary, service-learning (SL) university teaching innovation experience, conducted as part of the wider research project, *El deporte como herramienta de bienestar e inclusión en deportistas con discapacidad intelectual. Un estudio sobre el proyecto Más Que Tennis* ("Sport as a tool for the well-being and inclusion of athletes with intellectual disability: The *Más Que Tennis* project"). The project was carried out with students and teaching staff from the following subjects from the Bachelor's degree in Primary Education and Pedagogy at the University of Navarra: Physical Education with Alternative Materials (2 and 4 year); Educational Play and Sport; Adapted, Inclusive Physical Activity; Learning Difficulties; and Curriculum Adaptation Strategies. Additional collaborators included Isterria special education school, the ASPACE federation of associations for people with cerebral palsy, and 40 athletes with ID. The two main aims of the project were: a) to raise awareness of people with ID among students specializing in PE and diversity-aware teaching through inclusive, sustainable play and PE; and b) improve the professional skills of future teachers in relation to ID and PE for people with ID.

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