

## GAMIFICATION IN PHYSICAL EDUCATION AND SPORT. AN EMPIRICAL APPROACH TO THE LATEST RESEARCH

### GAMIFICACIÓN EN EDUCACIÓN FÍSICA Y DEPORTE. UNA APROXIMACIÓN EMPÍRICA A LAS INVESTIGACIONES MÁS ACTUALES

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This special issue is an initiative driven by the research group HUM-1061: Social Inclusion, Physical Education and Sport, and European Research Policies (INEFYD) at the University of Seville. Its members have been designing and implementing various gamification strategies in Physical Education (PE) and in the initial training of future teachers for several years, with the ultimate goal of analysing their effects on participants.

Without doubt, gamification has emerged forcefully as a prominent educational strategy in the current context, especially in the field of PE and sports. Through the use of game elements in non-recreational contexts, it seeks to facilitate more dynamic and motivating learning, as well as to encourage student participation and commitment. However, terminological imprecisions still exist that hinder its understanding and design, in many cases limiting its potential by adopting an overly competitive approach linked solely to external rewards.

Under these premises, the need to reflect critically, both at a theoretical and practical level, on gamification, as well as to continue researching its effects, is undeniable. This monograph not only presents itself as a significant contribution in this field, but also reinforces and enhances the positioning of gamification in the current scientific landscape. As the first monograph published in a high-impact journal that addresses this subject exclusively, the INEFYD group is proud to have encouraged new studies and discussions regarding its implementation and benefits in various educational environments.

The monograph "*Gamification in Physical Education and Sport: An Empirical Approach to the Latest Research*" brings together a collection of contributions that, from different perspectives and educational levels, explore the potential of gamification as a pedagogical strategy. The sequencing of the articles follows a progressive criterion that begins with theoretical foundations and diagnosis of the current situation, continues with applied research in teacher training and in Secondary and Primary Education stages, and concludes with an applied study in the extracurricular sports field (i.e., dance academy).

The issue begins with the article **"Fundamentals for Applying Gamification in Physical Education from a Reflective and Critical Perspective"**, by David Hortigüela-Alcalá, Ángel Pérez-Pueyo and Alejandra Hernando-Garijo, which establishes seven scientific and pedagogical principles to guide the implementation of gamification in Physical Education, emphasising the importance of a critical approach that prioritises meaningful student learning.

This is followed by four contributions linked to teacher training. The first, **"Gamification in Physical Education Teacher Training: An Analysis of the Teaching Guides of the Master's Degree in Teacher Training"**, by Gonzalo Flores-Aguilar, Pilar Gómez-Rey, Antonio Muñoz-Llerena and Daniel Medina-Rebollo, analyses 237 teaching guides from the Master's in Teacher Training from 54 Spanish universities, demonstrating an uneven and limited presence of gamification in initial teacher training.

The second, **"Analysis of the Emotional Impact of Gamification in the Teacher Training Master's Program"**, by Carmen Navarro-Mateos, Isaac José Pérez-López and Enrique Rivera-García, explores the role of emotions in the training of future teachers through a proposal inspired by competitive dynamics, identifying key factors for learning emotional management.

The third work in this section, **"Effects of Gamification and Cooperative Learning in Physical Education Teacher Training"**, by José Enrique Moral-García, Gonzalo Flores-Aguilar, Miguel Ángel Oviedo-Caro, Pablo Saiz-González, and Javier Fernández-Río, presents a quasi-experimental study that demonstrates the benefits of integrating gamification and cooperative learning in the perception of autonomy and in reducing social comparison.

And the fourth, **"Gamification to Enhance University Students' Resilience: Transforming Challenges into Opportunities"**, by Isaac José Pérez-López, Carmen Navarro-Mateos and Marlene Rosa, which shows how gamification can significantly contribute to strengthening resilience in the university environment, favouring the management of adversity, the achievement of objectives and the development of a positive self-concept.

The monograph continues with a set of research studies developed in the field of Secondary Education and Baccalaureate. Firstly, the study **"Can a Gamified Proposal Improve Knowledge and Attitudes to Perform Cardiopulmonary Resuscitation? A Pilot Study with Secondary School Students from Cantabria"**, by Adrián Rodríguez-García, Giovanna Ruiz-García, Marcos Mecías-Calvo and Rubén Navarro-Patón, analyses the teaching of Basic Life Support through a comparative design, showing that gamification favours positive motivation and student self-efficacy.

This is followed by the articles **"Influence of Gamification on the Type of Student Motivation"**, by Francisco José Montiel-Ruiz, and **"Boost Your Success: Exploring the Link Between Gamification and Motivation"**, by Víctor Javier Sotos-Martínez, Alberto Ferriz-Valero, and Juan Alejandro Pino-Vázquez, which address the impact of gamification on different forms of motivation and on the satisfaction of basic psychological needs, highlighting its contribution to autonomy and student engagement.

Subsequently, two works focused on Primary Education are included. The first, **"Impact of Gamified Active Breaks Through Digital Storytelling in Primary Education"**, by Mario Gómez-Martín, Joel Manuel Prieto-Andreu and Leandro Álvarez-Kurogi, demonstrates that active breaks designed with gamified dynamics contribute to intrinsic motivation, flow, academic performance and the experience of positive emotions.

The second, **"Effect of the Gamified Programming Unit 'The Andalus's Adventure' on Primary School Students' Motivation, Intention to Be Physically Active, and Weekly Physical Activity"**, by Juan Antonio Berdonces-Sola, Daniel Mayorga-Vega, Jesús Viciano and Santiago Guijarro-Romero, analyses the impact of an intermittent gamified unit, showing significant increases in autonomous motivation and in the practice of physical activity during break time.

Finally, the issue concludes with the article **"Strange Dancer Things: Application of Gamification in Dance"**, by Mario Atría Jiménez, L. Martín Inglesias, Fernando González Alonso and Rubén Arroyo del Bosque. Following the application of a gamified project in a dance academy, this work demonstrates how this improved the acquisition of knowledge and skills in dance, as well as motivation, teamwork and choreographic retention.

Collectively, the contributions of this monograph allow us to appreciate the diversity of approaches and results that gamification offers in PE, sport and teacher training. They also highlight the need for a well-founded, critical and

contextualised implementation that maximises its educational potential and avoids superficial or merely instrumental approaches.

Finally, we wish you a fruitful and inspiring reading that will allow you, perhaps, to enter the magical world of gamification in education.