


Chapter 7


Levelling Up Learning: Gamification and LEGO– Based Strategies for Coaching and Peer Teaching in Higher Education in the Global South

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ABSTRACT

Coaching and peer teaching are essential student skills that foster collaboration, leadership, and interpersonal communication while enhancing the quality and depth of individual learning and group dynamics. Despite their significance, innovative methods for cultivating these competencies remain underexplored in the Global South, particularly in resource-deficient educational contexts. This study examines gamification and concepts like LEGO Serious Play as engaging, flexible, and bespoke learning tools to foster coaching and peer teaching skills, emphasising their transformative impact on academic performance and personal growth. The research employs a secondary desktop study to analyse existing literature and case studies on experiential learning, gamified education, and hands-on approaches, such as LEGO-based learning. Data was collected using the PRISMA method and systematically appraised using the Critical Appraisal Skills Programme (CASP) framework to ensure methodological rigour and comprehensive evaluation. Findings are synthesised to identify effective strategies, enablers, and barriers to skill develop-

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ment. Results show that gamification, achieved through rewards, leaderboards, and interactive challenges, enhances student motivation, engagement, and collaboration. Similarly, Lego provides a tactile and creative medium for simulating real-world problem-solving and teamwork, enabling students to practice coaching and peer teaching dynamically and experientially. Participants engaging in these methods reported increased confidence, critical thinking, and facilitation skills. However, challenges such as unequal access to resources and initial scepticism towards unconventional methods were observed. This study highlights the importance of incorporating gamified learning and LEGO-based activities into higher education curricula. Institutions can nurture a culture of shared learning and mutual growth by preparing students for academic and professional success. The findings contribute to the growing literature on peer learning, offering practical recommendations for scalable and context-sensitive interventions to effectively cultivate coaching and peer teaching skills in diverse educational environments.

INTRODUCTION

Higher education institutions globally are undergoing a paradigmatic shift from traditional, lecture-centric models towards more interactive, student-centred, and skills-based pedagogies. In this evolving educational landscape, coaching and peer teaching have emerged as transformative instructional strategies that not only enhance academic performance but also cultivate essential 21st-century skills such as collaboration, leadership, critical thinking, and emotional intelligence. These pedagogical approaches are particularly valuable in preparing students to navigate increasingly complex, interdependent, and technology-driven academic and professional environments (Aguilar-Ferrándiz et al., 2024).

This chapter examines the role of gamification and LEGO-based learning as innovative, low-cost, and high-impact methods for integrating coaching and peer teaching into higher education curricula, particularly in the Global South. These active learning strategies are grounded in contemporary learning theories, including Transformative Learning, Flow Theory, and Communities of Practice, to highlight their theoretical and empirical foundations. In doing so, the chapter seeks to demonstrate that gamified and tactile learning environments can foster inclusive, engaging, and reflective learning communities even in contexts challenged by infrastructural and pedagogical limitations.

The significance of this study lies in its focus on context-sensitive innovation, where strategies are tailored to local needs and constraints. The chapter offers practical, scalable, and culturally relevant pathways for educational transformation. While gamification and LEGO-based learning have gained momentum in Global North

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