


Chapter 6


Innovating Early Childhood Education Through Virtual Reality: A Case Study of Mursion Simulations in Postgraduate Pre–Service Teacher Education

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ABSTRACT

This chapter explores the impact of Mursion simulations on pre-service teachers (PSTs) in early childhood education (ECE), focusing on improving teaching practices and classroom management skills. The research uses a cultural-historical lens to analyse international PSTs' experiences with Mursion before their placements. The findings show that Mursion effectively simulates Australian early childhood settings, boosting PSTs' confidence and classroom management skills while enhancing their understanding of local dynamics. Immersive technologies help PSTs interact well with children in real situations, creating a safe space for skill development. The study

DOI: 10.4018/979-8-3693-9861-6.ch006

suggests that this Virtual reality (VR) technology provides international PSTs with a realistic view of the Australian education system, supporting the sustainability of ECE. As Australia faces a teacher shortage and increasing diversity, innovative approaches like VR could transform Initial Teacher Education (ITE) and strengthen ECE worldwide.

INTRODUCTION

In an increasingly interconnected and globalised world, internationalisation in education has presented unique challenges and opportunities for Initial Teacher Education (ITE) programs. For international pre-service teachers (PSTs), understanding local educational contexts' cultural and pedagogical nuances is essential for effective practice. This chapter discusses the integration of Mursion, an immersive virtual simulation platform, into a Postgraduate Course in Early Childhood Teaching at an Australian higher education (HE) institution. It explores how Mursion enhances the professional readiness of international pre-service teachers by bridging the gap between theoretical knowledge and practical application.

The Australian Early Childhood Education and Care (ECEC) sector faces significant challenges, including high turnover rates; research shows that one in five individuals plan to leave their ECEC roles within a year (Thorpe et al., 2024). Compounding this issue are increasing diversity in Australian classrooms and a national teacher shortage, creating an urgent need for innovative strategies to prepare PSTs. Virtual reality (VR) has emerged as a transformative tool in ITE, offering immersive experiences that equip PSTs from higher education (HE) with the skills to work effectively with young children (Cutri & Devi, 2024).

During their practical placements, PSTs in ECE may face numerous demanding situations, such as supporting a child exhibiting emotional distress, having difficult conversations with parents, or implementing early intervention strategies for children with learning differences. Theoretical knowledge is important but not enough to prepare future educators to handle real-life situations confidently and compassionately (Latham & Carrino, 2020). Practical experience is key. Platforms like Mursion allow PSTs to practice dealing with these challenges in controlled, realistic environments (Dieker et al., 2014). Research in the U.S. shows that using VR simulations repeatedly helps improve confidence, judgment, and communication skills of PSTs (Howell et al., 2018). Mursion's VR simulations aim to tackle these challenges by providing PSTs a platform for real interactions, replicating authentic early childhood settings.

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