

Theme: Humanising and Human-Centred Education

Sub Theme: Innovative and Technology-Enhanced Learning and Teaching

Paper presentation

Title: Cultivating Synergy in Higher Education Pedagogy: Eco-Pedagogy, Indigenous Knowledge Systems, and Garden-Based Teacher Education

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Abstract

Amid escalating ecological crises, food insecurity and persistent educational inequality, higher education institutions are increasingly called upon to develop socially responsive and ecologically grounded pedagogies. Yet teacher education often remains disconnected from the material, cultural and socio-ecological realities of schools, particularly in Global South contexts.

This article presents a conceptual and practice-based case for integrating garden-based learning into teacher education. Drawing on the Nelson Mandela University Faculty of Education garden as a “living laboratory”, the article explores how institutional space can be transformed into a site for pedagogical innovation, ecological learning and community engagement.

The initiative is framed by the intersection of eco-pedagogy, Indigenous Knowledge Systems, critical relational pedagogies and Ubuntu. Eco-pedagogy foregrounds ecological consciousness and ethical responsibility; Indigenous Knowledge Systems offer situated understandings of land, food and sustainability; and relational pedagogies emphasise dialogue, participation and co-creation. Ubuntu serves as the overarching philosophical lens, foregrounding interconnectedness, collective responsibility and care across human and more-than-human communities.

Adopting a design-based orientation, the article outlines a phased model for establishing and embedding the garden within BEd modules. This includes land preparation, sustainability practices such as rainwater harvesting and composting, and the integration of garden-based sessions into teacher education curricula. The approach enables experiential learning through cultivation, ecological stewardship, ethnobotanical knowledge, and culturally responsive practice.

The article argues that garden-based pedagogy can reshape the relationship between theory and practice by positioning learning as embodied, relational and community-oriented. It offers a replicable model for transformative teacher education that reconnects learning with land, sustainability, social justice and collective wellbeing.

Keywords: eco-pedagogy, Indigenous Knowledge Systems, Ubuntu, garden-based learning, teacher education, food security