NELSON MANDELA UNIVERSITY

LEARNING AND TEACHING WEEK 2026

4 – 6 August 2026 | Innovation With Impact

ABSTRACT SUBMISSION FORM

Submission Deadline: 8 June 2026 | **Submit to:** LTWeek@mandela.ac.za

1. AUTHOR / PRESENTER DETAILS

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2. SUBMISSION DETAILS

Title of Work / Presentation

The Von Neumann - inspired scaling system shaping a mentoring model at Nelson Mandela University

Sub-Theme

☐ C — Student Engagement, Agency & Success

Presentation Format

☐ Paper Presentation

3. ABSTRACT

Word count: 200 – 250 words.

A humanising pedagogy fosters pedagogical agency that not only enables learning but also empowers students and nurtures communities. It embodies the African philosophy that "it takes a village to raise a child," serving as both an instrument of becoming and a communal contribution to a culture of care.

A Von Neumann architecture revolutionized computing by creating a structured interplay between processing and memory units, demonstrating how complex information systems scale efficiently through

interconnectedness. When applied metaphorically to higher education this network architectural logic offers a blueprint for scaling relational ecosystems without diminishing their deeply human essence.

Within this framework, mentoring becomes central to cultivating a community of care. It places the student at the heart of the process, fostering belonging and deep sensemaking. Through mentoring, communities can collectively pursue meaningful exploration and build a culture of care that supports equitable, socially participatory learning experiences within the university environment.

Students from Quintile 1–3 schools have consistently been shown, through both research and practice, to face systemic barriers that hinder their ability to reach their full potential.

This paper focuses on how the principles of the Von Neumann model can be decoupled from purely computational environments and reimagined as a conceptual framework for scaling systems of human belonging. Ultimately, this approach reframes how structural design shapes belonging, directly influencing the university's strategy for supporting Quintile 1–3 students.

227 Words