Title:
Interdisciplinary Learning as a Humanising Pedagogical Strategy

Sub-theme:
Innovative and Technology-Enhanced Learning and Teaching

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Paper Presentation

Abstract:
Universities today face growing pressure to equip students for complex, collaborative, and fast-changing workplaces. In the Architecture, Engineering, and Construction (AEC) sector, this is even more challenging because of strong disciplinary divisions, poor communication, and few chances for real interdisciplinary work. This paper shares an ongoing Teaching Advancement at University (TAU) fellowship project that explores how interdisciplinary learning, supported by Building Information Modelling (BIM), can be used as a humanising teaching strategy.

The project brings together students from Architecture, Construction Management, and Quantity Surveying to work on real community projects in a shared design and problem-solving setting. Rather than seeing technology as the main goal, Building Information Modelling (BIM) is used as a tool to help students communicate, negotiate, reflect, and make decisions together across different fields. The focus is intentionally moved from separate disciplinary results to learning processes that value conversation, student involvement, and building knowledge together.

This study is based on critical pedagogy and humanising education principles. It looks at the first phase, which finished in 2025 with a real community project at Riebeek Girls' High School in Kariega, and a second, updated phase now happening in 2026. Early results show that students appreciated working together in a real setting and became more aware of professional communication, interdisciplinary thinking, and shared responsibility in design. However, the project also highlights challenges like scheduling, heavy curricula, and keeping meaningful collaboration going across different programs.

This paper argues that interdisciplinary, BIM-supported learning environments can be powerful spaces for teaching. They go beyond just building technical skills and help students develop critical thinking, care, adaptability, and the ability to work well with others in higher education.