

Systems Thinking in Practice Supporting Competence and Sustainable Development Goal Implementation Capability in Student Teaching

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Abstract : Capacity-building and integration of practical activities is one of the key SDGs of the 2030 Agenda for Sustainable Development. This paper will focus on SDG# 17 - "the means of implementation" - and the role of systems thinking in practice (STiP) in supporting both competence and SDG implementation capability in teacher education curricula at North-West University, South Africa. The "Environmental Management for Sustainability" module (EDTM 312), which is compulsory for all students enrolled in the education program at North-West University, will be used as a case study. There is a need for higher education to implement and practically integrate SDG goals into their curricula, and one way to achieve this is through the development of competencies. Education for Sustainable Development (ESD) has the potential to offer approaches that can be useful in the development of capacity-building activities to foster sustainability. The methodological approach adopted is based on a participatory paradigm followed by two cycles and reflection. This paper focuses on systems thinking in practice demonstrating how students apply and reflect on competencies to situations and how praxis captures the actual experiences. The results of this research indicated how to re-orientate the EDTM 312 curriculum to include an environmental justice focus. This research shares practical knowledge of systems thinking as a sustainability competency.

Keywords : education for sustainable development, environmental justice competencies, sustainable development goals, systems thinking in practice

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