

Towards More Coherent Facilitation of Education for Sustainable Development Competencies In Inquiry-Based Learning: An Action Research Study

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Abstract

Education for Sustainable Development (ESD) is widely recognised as a transformative tool for addressing global sustainability challenges. However, the operationalisation of ESD competencies into sustainability inquiry remains understudied. This research examines how ESD competencies manifest within problem-solving activities in an extracurricular English-language programme at a secondary school in Japan. Using an action research approach, discussion prompts and student-generated solutions were analysed in relation to the SuperVision 4.0 competency framework (Galkute et al., 2023). Findings suggest that while the framework clearly articulates key competencies, their procedural integration during collaborative inquiry often remains implicit, leading to inconsistent activation. Drawing on these insights, the study develops an adapted operational framework that organises ESD competencies into an operational problem-solving sequence. By bridging conceptual frameworks and classroom practice, the study offers a practitioner-oriented approach for facilitating more coherent sustainability inquiry.

Keywords: Action Research; Inquiry-Based Learning; Problem-Solving; Secondary Education; Sustainability Education