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Empowering Tomorrow's Educators: A Transformative Journey through Education for Sustainable Development

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Abstract: In our ongoing effort to address urgent global challenges related to sustainability, higher education institutions play a central role in raising a generation of informed and empowered citizens committed to sustainable development. This paper presents the preliminary results of the so far realized evaluation of a compulsory module on education for sustainable development (ESD) offered to students in the bachelor's program in elementary education at the University College of Teacher Education Tyrol (PH Tirol), Austria. The module includes a lecture on sustainability and education as well as a project-based seminar that aims to foster a deep understanding of ESD and its application in pedagogical practice. The study examines various dimensions related to the module's impact on participating students, focusing on prevalent sustainability concepts, intentions, actions, general and sustainability-related self-efficacy, perceived competence related to ESD, and ESD-related selfefficacy. In addition, the research addresses assessment of the learning process. To obtain a comprehensive overview of the effectiveness of the module, a mixed methods approach was/is used in the evaluation. Quantitative data was/is collected through surveys and self-assessment instruments, while qualitative findings were/will be obtained through focus group interviews and reflective analysis. The PH Tirol is collaborating with another University College of Teacher Education (Styria) and a university of applied sciences in Switzerland (UAS of the Grisons) to broaden the scope of the analysis and allow for comparative findings. Preliminary results indicate that students have a relatively rudimentary understanding of sustainability. The extent to which completion of the module influences understanding of sustainability, awareness, intentions, and actions, as well as self-efficacy, is currently under investigation. The results will be available at the time of the conference and will be presented there. In terms of learning, the project-based seminar, which promotes hands-on engagement with ESD, was evaluated for its effectiveness in fostering key sustainability competencies as well as sustainability-related and ESD-related self-efficacy. The research not only provides insights into the effectiveness of the compulsory module ESD at the PH Tirol but also contributes to the broader discourse on integrating ESD into teacher education.

Keywords: education for sustainable development, teacher education, project-based learning, effectiveness measurements

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