

The Educational Innovation Project “Sciences and Arts.” A Transdisciplinary Approach To ESD

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Abstract

The current educational landscape demands a shift away from fragmented, subject-based learning toward integrated models that address the complexity of global challenges. This communication presents the results and methodological framework of the Educational Innovation Project “Sciences and Arts” (Ciencias y Letras) at the University of Valencia (Spain). The project’s core objective is to dismantle the traditional dichotomy between scientific and humanistic disciplines by fostering a transdisciplinary approach within teacher training programs. The methodology is centered on the design of transdisciplinary teaching sequences that prioritize the development of key competences over isolated thematic content. Each academic cycle is organized around a specific transdisciplinary phenomenon related to ESD (such as The Anthropocene, ecological dystopias or ecofeminism) which serves as a catalyst to reorganize heterogeneous curricula into a cohesive learning experience. This structure allows for the implementation of shared didactic activities across diverse subjects, ensuring that sustainability is not treated as an add-on topic but as an integrated lens for inquiry. Results indicate that this model enhances pedagogical consistency and strengthens students' ability to link theoretical knowledge with the Sustainable Development Goals (SDGs), while increasing their environmental attitudes and gender-equality competence. This approach equips future educators with the holistic perspective necessary to foster critical thinking and systemic understanding in their future classrooms via a didactic transposition process.

Keywords: teacher training; key competences; curriculum integration, holistic learning, didactic transposition