

Identification of Pedagogical Innovation in Environmental Education in Science Programmes in Morocco

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Abstract

With the aim of characterizing pedagogical practices related to environmental education and climate change in school curricula in Morocco, this article has classified educational activities according to three areas: the Surface Learning Area (SLA), the Deep Learning Area (DLA) of knowledge and the Creative Learning Area (CLA). These areas help to identify the different levels of capacities to be developed: Attitudes, Skills, and Knowledge. The categorization made it possible to highlight the predominance of pedagogical activities centered on superficial and non-permanent knowledge (SLA), limiting learning to the memorization and understanding of basic concepts. In contrast, pedagogical activities that emphasize practical activities engaging students in applied tasks requiring well-mastered and permanent knowledge (DLA), as well as those that focus more on the development of attitudes, favoring interaction, collaboration, and critical thinking (CLA), are in the minority. The results obtained serve as a useful guide for adapting programs to encourage more innovative and balanced teaching practices. This, in turn, helps designers structure teaching approaches that strengthen student engagement and improve the quality of learning in the fields of environment and sustainable development. This approach will make it possible, on the one hand, to fully integrate the three levels of capacities, and on the other, to ensure a greening of Moroccan curricula, aligning them with the principles of 'GREEN education,' which serves as a true lever for achieving sustainable development goals.

Keywords

Environmental Education, Climate Change, Educational Practices, Educational Innovations, Student Engagement, Green Education