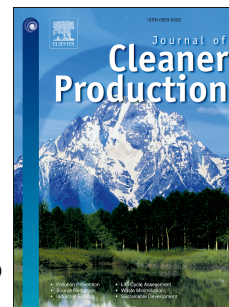


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Evaluating core competencies development in sustainability and environmental master's programs: An empirical analysis

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Abstract

Interest in and understanding of the various competencies that university sustainability and environmental graduate degree programs should aim for has increased in recent years. Yet empirical efforts that assess the effectiveness of programs from a competency building perspective have visibly lacked—particularly from a macro-perspective examining multiple cases. This study fills this gap in the literature by conducting a novel comparative assessment of different types of master's degrees in a sample of 14 programs from top-performing universities in Europe, Asia and North America. Our study uses quantitative and qualitative approaches to assess the effectiveness of differing types of programs at building key sustainability competencies defined in the literature, and to understand the defining characteristics of programs, innovative competency building approaches, challenges encountered, and potential countermeasures. Using a typological methodology, this study classifies programs into three categories: *research-oriented*, *neutrally-oriented* and *practice-oriented* and then examined the competency building effectiveness of each category through questionnaires administered to faculty (n=40) and students (n = 205).

Results revealed low success in all program types at equipping graduates with anticipatory competencies. Statistically significant differences were also observed between research-oriented and practice-oriented programs, with the latter demonstrating higher success in building *interpersonal*, *strategic* and *normative* competencies. Qualitative questionnaire responses revealed a

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