



A CONCEPTUAL FRAMEWORK FOR HIGHER EDUCATION INSTITUTIONS AND THE CIRCULAR ECONOMY

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Abstract

The need to investigate the knowledge and participation of Higher Education Institutions (HEIs) students in sustainability issues is crucial. The working group on Circular Economy and Waste Management from the Portuguese Sustainable Campus Network (RCS) is dedicated to investigating the attitudes and comprehension of HEIs students about the principles and practices of the Circular Economy (CE). This group intends to propose a conceptual framework for collecting data from students at various HEIs to contribute to the understanding of how these institutions adopt and implement CE principles, which significantly influence student perceptions and attitudes.

Conceptual Framework

HEIs shape students' knowledge, attitudes, and professional practices, helping the CE transition (Collazo Expósito & Granados Sánchez, 2020). These HEIs can promote sustainability by integrating CE concepts into curricula, supporting relevant projects, and influencing student behavior. Implementing CE knowledge and attitudes in current HEIs is key (Alves et al., 2023; Mendoza et al., 2019; Rahmatika Dewi et al., 2022), thus emphasizing the need for comprehensive educational approaches. The proposed framework (Figure 1) for this research studies HEIs' impact on CE through CE knowledge and attitudes, skill development and institutional roles, and CE-related professional behaviors.

Circular Economy Knowledge & Attitudes

- Circular Economy Knowledge and Attitudes
- Understanding of Circular Economy Concepts
- Belief in Climate Change Impact
- Importance of Circular Economy Actions
- Participation on Circular Economy Actions
- Behavioral Practices related to Circular Economy

Skill Development & Role of Higher Education Institutions

- Circular Economy in Curriculum
- Integration of CE Projects and Learning Aproaches
- Promotion of Circular Economy Practices
- Assessment of Institutional Practices
- Suggestion for improving CE Content & Practices
- Impact of Curriculum Emphasis on Behavior Change

Professional Behavior related to Circular Economy

- Agreement with Statements in Future Employment
- Impact on Professional Practices

Figure 1 – Conceptual Framework for

Circular Economy Knowledge & Attitudes: This component will assess students' self-reported knowledge, understanding, information sources, and attitudes towards the importance and impact of CE actions. It will examine students' cognitive and emotional responses to the circular economy, identifying knowledge gaps and the strength of their attitudes.

Skill Development and Role of Higher Education Institutions: This component will discuss how HE institutions facilitate the learning of CE skills. That includes incorporating CE concepts into the curriculum, projects, learning methods, and promoting CE activities. It will also evaluate faculty expertise and gather student feedback for content and practice improvements, highlighting the role of education in building practical skills and theoretical understanding essential for professional readiness in CE practices.

Professional Behaviour Related to Circular Economy: This component will investigate how HE-acquired skills translate into professional activities. It will analyse students' agreement with CE activities in future employment scenarios and how their education influences their professional behaviour. The long-term effects of education on professional lives illustrate how HEI can create a generation of professionals equipped and motivated to implement CE principles.

The proposed framework outlines the structure and objectives of the work to be carried out in the scope of this working group aimed at understanding HEI students' attitudes and perspectives related to sustainability and CE. The findings will offer recommendations for effectively integrating CE principles into HEIs, thus promoting and implementing these key issues among students and staff.

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