


# Chapter 3


## Integrating Education and Sustainability: A Survey on Knowledge Transfer and Research Practices in Higher Education

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### ABSTRACT

*This study critically explores the interrelations among knowledge transfer mechanisms, faculty engagement in sustainability-oriented research, and the curricular integration of sustainability within higher education institutions. Employing a quantitative survey design with data from 261 academic stakeholders, the research investigates how these institutional vectors coalesce to influence sustainability outcomes. The findings reveal that faculty-driven research serves as the most salient determinant of sustainability performance, while knowledge dissemination mechanisms exert a moderate yet significant impact. Curricular integration, though pedagogically vital, demonstrates a more subdued effect, likely mediated through longitudinal educational processes. The study underscores the imperative for systemic alignment across insti-*

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*tutional domains and advocates for a transdisciplinary, praxis-oriented approach to sustainability in academia. These insights offer strategic pathways for institutional transformation, informing both governance and pedagogical architectures.*

## **1. INTRODUCTION**

In an era increasingly defined by ecological precarity, socio-economic volatility, and the cascading impacts of global climate change, the imperative to embed sustainability within the fabric of societal institutions has never been more urgent (Mokski, E. et al., 2022). Among these institutions, higher education occupies a uniquely pivotal position—not merely as a site for knowledge transmission but as a crucible for innovation, critical inquiry, and normative leadership (Reepu, et al., 2024). As the world grapples with planetary challenges that transcend disciplinary boundaries and geopolitical demarcations, universities are called upon to reimagine their epistemological foundations, pedagogical modalities, and institutional architectures in alignment with the broader ethos of sustainability (Angelaki, M. E., et al., 2023).

Integrating sustainability into higher education is not a straightforward endeavor (Filho, W. L., et al., 2019). It requires the reconfiguration of curricula, the recalibration of research agendas, and the reengineering of institutional practices. This transformation must transcend the performative incorporation of sustainability rhetoric into mission statements or promotional material; it must permeate the core functions of the university, influencing what is taught, how it is taught, what is researched, and how research is applied. In this context, three interrelated domains emerge as critical mechanisms of transformation: knowledge transfer, faculty engagement in sustainability-oriented research, and the integration of sustainability into academic curricula. These elements, while often addressed in isolation, form a synergistic triad capable of catalyzing holistic and enduring institutional change.

In contemporary academia, the dialectic between education and sustainability has evolved into a defining discourse that transcends disciplinary orthodoxy and institutional boundaries. As global societies grapple with the existential crises of ecological collapse, social inequity, and epistemic fragmentation, higher education institutions stand at a pivotal crossroads. They are not merely repositories of accumulated knowledge but dynamic arenas where intellectual inquiry, ethical reflection, and transformative praxis converge. The integration of sustainability within educational ecosystems particularly through knowledge transfer and research practices represents an ontological recalibration of the university's purpose from knowledge dissemination toward societal regeneration. This integrative paradigm posits that sustainable education must operate as both a cognitive and normative enterprise. It

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