


Chapter 12

Integrating Climate Resilience Into Educational Curricula: Frameworks, Challenges, and Opportunities

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ABSTRACT

Climate change is one of the most vital challenges of the 21st century which pertains, directly or indirectly, to virtually every sphere of human life and natural systems. As education determines the values, behavior, and responses of society and individuals towards ecological issues, it is important to address the existing gap between the traditional curriculum and incorporation of climate change-focused knowledge in the existing framework. There are several defining reasons for this study in the area of incorporation of climate resilience into the visionary curricula. First, a growing necessity to adopt and implement educational frameworks which could assist in the process of coping with or adapting to climate change effects is driven by a specific social need. The key focus of this research is to generate a framework for the integration of climate resilience into educational curricula at multiple levels. The study follows a mixed-methods pathway in order to create an inclusive structure for climate resilience integration in the curricula of education.

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1. INTRODUCTION

Climate change is one of the key challenges facing humanity in the 21st century and affects almost all aspects, both natural ecosystems as human life (Reis & Ballinger, 2020). Climate change is driving more frequent and intense climate events like hurricanes, droughts floods wildfires and heatwaves leading to stresses for communities globally (Islam, 2020). As these predation challenges increase, societies look more than ever to adapt with greater resiliency. In recent years, climate resilience the capacity of communities, systems and individuals to anticipate prepare for respond to recover from adverse climatic events has dominated discussions in mainstream discourse (Hügel & Davies, 2024).

According to (Leal Filho et al., 2021) education is the centerpiece for influencing values, behavior approaches and responses of individuals and societies to environmental issues. Traditional educational systems have centered on delivering what are considered to be the essential body of knowledge and proficiency in standard academic subjects while neglecting environmental education. Nonetheless, as impacts of climate change become ever clearer, there is a shift towards the recognition that everything from primary education upwards should also include resilience (Seritan et al., 2022). This is where education can be an essential contribution to the creation of a resilient community that strives toward sustainability: By empowering students with the ability to process and respond effectively, even solve climate change difficult challenges.

The inclusion of climate resilience in syllabi has therefore been a giant leap towards training youth to wade through the murky waters presented by climate warming. It aims not only to make sure students know the science of climate change, but also that they understand in which social, economic and environmental ways will be these changes (Lotz-Sisitka et al., 2021). It gives students a role in helping to fix climate change while they prepare for their future as the next generation of world citizens. Environments matter where integration is key especially in the light of achieving The United Nations Sustainable Development Goals (SDGs) and even more so, SDG 4(Quality Education), SDG13(Climate Action) and SGD17(Partnerships for the goals) (Salinas et al., 2022).

While the need to embed climate resilience in educational curricula is apparent, there remains a void between what defines traditional curriculum and inclusion of knowledge on management from a changing climate. Curriculums are crowded, teachers get little training, resources fail and there is great resistance from policy-makers & educational establishments (Rabin et al., 2020). However, the task ahead is in crafting and enacting educational models which are capable of integrating climate resilience without replicating within existing systems.

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