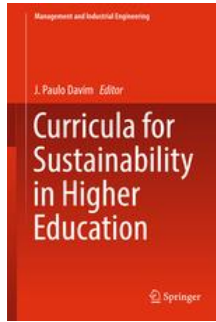


Professional Book Review

Davim, J. P. (Ed) (2017). *Curricula for sustainability in higher education*. Cham, Switzerland: Springer International Publishing. 130 pp., ISBN 978-3-319-56505-7. \$79.20

Review by Jessica Phillips Marcolini, Florida Gulf Coast University, United States.



Sustainability is a complex subject in which there is no universally agreed upon definition of what it means to be sustainable. Many view sustainability from the lens of sustainable development which was coined in the Brundtland Report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987). 2005 to 2014 was established as the United Nations Decade of Education for Sustainable Development with the goal of incorporating sustainable development values, standards, and practices into all facets of education (United Nations Conference on Environment and Development, 1992). As the field of sustainability and sustainability education continues to evolve there is an ongoing need for literature to equip teachers and educators with strategies to implement sustainability curriculum into their courses. The purpose of *Curricula for Sustainability in Higher Education* was to provide administrators, teachers and students an introduction to the diversity and interdisciplinary nature of sustainability education by presenting research and curriculum advances in the field. Sustainability in higher education is a complex and interdisciplinary phenomenon (Viegas et al., 2016). The editor and authors of this book presented a collection of sustainability curricula for higher education as examples of relevant approaches. The effective utilization of multiple authors and perspectives, various research, and different approaches to address the question of how to incorporate sustainability into the curriculum throughout this book helped to validate the idea that curriculum for sustainability in higher education is an interdisciplinary and diverse subject.

With over 30 years of research and teaching experiences in manufacturing, materials and mechanical engineering, management/industrial engineering and higher education for Sustainability/Engineering Education the editor, Davim is a good example of the diversity of knowledge and experience within the field of sustainability. Davim (2017) organized the book thematically, using six themes or parts to explore and highlight the diversity and interdisciplinarity of sustainability in higher education. Each part, or what this review will refer to as chapters, presented diverse examples that illustrated various aspects of curriculum for sustainability in higher education.

Chapter 1, Education for Sustainable Development and Its Role in the Promotion of the Sustainable Development Goals (Garcia, da Silva, Simas Carvalho, & de Andrade Guerra) explored education for sustainable development and how it can contribute in the attainment of the sustainable development goals that were conceived at the Rio +20 Summit (United Nations, 2012). The reviewed literature and discussions utilized throughout this chapter did a good job of demonstrating of how education could be utilized as a tool in the achievement of each of the 17 sustainable development goals. According to de Haan (2006), education and sustainable development are interdependent with one another. The authors of this chapter also argued that educational institutions should be utilized as platforms to explore, debate and assess sustainability challenges that deal with societal, environmental and economic disparities. Umoh (2010) also emphasized the importance of education in the process of balancing these sustainability pillars.

Chapter 2, Explicit Economics: Addressing Conscious Consumption for Sustainability (Venkatesan) illustrated how our current market and economy allows the consumer to disregard the impact their consumptive habits are having on the welfare of others. The author affirmed that this approach “promotes the perception that price alone is indicative of the true cost of a good” (p. 30). Brown (2009) compared this market behavior of providing incomplete information on the actual cost of products to a Ponzi scheme where we are meeting current demands in part by overconsuming the earth’s natural capital and setting ourselves up for an eventual collapse when these assets are depleted. This chapter was concluded with a motivational argument that the best way to achieve economic sustainability is to empower conscious consumption at the individual level through education and the development of sustainable social norms.

Chapter 3, Greening Networks: Mapping Sustainability Beyond Institutional Boundaries (Vellani & Nanjee) effectively highlighted the importance of partnerships and collaboration when attempting to expand sustainability. Three case studies focusing on researchers and non-government organizations, professional associations, and students and staff collaborations were presented within this chapter. The authors of this chapter used these efforts as examples of how silos between disciplines and professions can be seen as barriers to sustainability and should be broken down.

This idea was reinforced by Camarinha-Matos, Afsarmanesh and Boucher (2010) who maintained that collaborations are needed if sustainability challenges facing our society are to be overcome. This chapter and the case studies within can be utilized as important examples for organization and institutions who are trying to build cross discipline collaborations.

Chapter 4, *Preschools Teachers' Sustainable Competencies Within New Kosovo Curriculum Framework* (Beka) focused on the critical links between teacher education and sustainability in higher education through the development of Kosovo's 2011 New Curriculum Framework. Kosovo's framework was seen as a major step forward in orienting the country's education system toward competency based learning outcomes (Beka, 2015). This chapter has done a good job of highlighting the hard work required for improving the quality of education, reforming the whole education system and improving institutional legislation in accordance with European Union guidelines and regulations.

Chapter 5, *Building Energy, Environment and Sustainability Linkages in Management Education in India—An Innovative Curriculum Based Approach* (Rao, Patil, Bhat & Ketkar) discussed the design and implementation of an industry focused curriculum that embeds sustainability education with international business. Sustainability within international business may have challenges as approaches to sustainability are situational and can vary between countries and cultures (Matten & Moon, 2004). Utilizing a case study of Symbiosis International University, the authors of this chapter explored the linkages between various issues and suggested an integrated curriculum that focused on the following key areas: power; corporate social responsibility; water-energy nexus; climate change and energy development; public private partnerships; industrial ecology; environmental, health and safety; and sectoral studies. Sustainability as the stimulus for corporate action is becoming ever more important as society confronts challenges like climate change (Pachauri & Resigner, 2007). The authors of this chapter concluded that building a sustainable economy will require cooperation and meaningful partnerships forged between governments, businesses and industries, academic institutions and civil society.

Chapter 6, *Thinking About Sustainability: Issues and Themes for College Students* (Bothun) is a collection of themes based on real-world information and research. Incorporating current research into curriculum is a never-ending process as the field of sustainability and sustainability education is ever evolving. Unfortunately, there have been cases as Dominelli (1997) stated where “the teacher today is teaching what has been learned at least two generations ago from textbooks that were written several decades before” (p. viii). Fortunately, for the readers of this chapter, the author provided quite a satisfactory amount of up-to-date research to support the themes within this chapter and did caution of the importance of keeping information relevant. The chapter was divided into six themes that are intended to illustrate to the reader the “big picture of sustainability” (p. 77). The chapter themes included: introduction and overview of sustainability, sustainability as a system, a framework for non-sustainable behavior of humans, a historical consideration, achieving a just sustainability, and climate change: the system responses to unsustainable consumption. In concluding remarks for the themes covered in this chapter, the author outlined practices or beliefs that need to be acquired or re-acquired for humanity to become sustainable. The chapter is then finalized with an informative case study about the Zero Waste Project at the University of Oregon and useful student exercises that can be incorporated into or modified for various classrooms.

With the breadth of content covered in each chapter, this book can be utilized as a practical reference for educators, academics, researchers, administrators, and other professionals in sustainability related fields. The combination of 6 chapters with authors from various fields helped to illustrate the integrated nature of sustainability in higher education by covering topics that include sustainable development, economics, green networks, teacher training, energy, and business. While a brief introduction to the Editor was given, short bios on the authors would further aid readers in comprehending the true diversity of backgrounds that sustainability professionals hail from. The choice to include case studies from various fields and countries provided diversity of perspectives on sustainability curricula in higher education. The content covered in each chapter was beneficial in facilitating the illustration of how the learning process has continued to transform as society moves away from siloed subjects to the three interconnected pillars of sustainability: environment, economic and social.

For readers unfamiliar with sustainability concepts and higher education curriculum, this book has done a good job of introducing these concepts and expounding upon current research in each specific area so as to make it more comprehensible. As the attention to sustainability in higher education continues to grow, as it has during the past few years, the introduction of these important concepts will be essential (Dyer & Dyer, 2017). Therefore, it is likely that the content covered throughout this book could be utilized as a tool in the motivation of professionals and novices alike to incorporate sustainability into their higher education curriculum.

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