# Chapter 10
# A Fourth Wave of Education for Sustainability (EfS) in Higher Education

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## ABSTRACT

*Education for Sustainability (EfS) in Higher Education (HE) is described as developing through three waves. These are overviewed in this chapter and given due acknowledgement but are shown to fall short of what is needed going forward. Consequently, a fourth wave of EfS in HE is proposed. The fourth wave of EfS in HE needs to be directed at the collaborative project of constructing "sustainable universities" (Sterling, Maxey, & Luna, 2013). The concept of "neo-sustainability" (Farley & Smith, 2014) is adopted as the basis of this next wave, as is the three nested rings model of sustainability. The argument for a strategy to educate the HE educators is outlined. It is suggested that contemporary global and local sustainability issues need to become part of student engagement within all HE courses. Finally, effort needs to be exerted by HE lecturers to develop pedagogical practices that align to the aims and principles of EfS.*

## INTRODUCTION

The premise of this chapter is that in our society many of us are living beyond the carrying capacities of the earth's natural ecological systems. It is essential not only to change existing lifestyles, but to develop new, sustainable lifestyles. It is argued that education is the primary process for supporting the realization of the limits and the necessary changes. This chapter looks at how Education for Sustainability (EfS) is developing across the higher education (HE) sector. Three renditions or different waves of EfS in HE are identified and explained in the literature. An overview of these leads into an argument for the need for a fourth wave, with an explanation of what this next wave might look like. The major strategies for this fourth wave are a reframing and clear articulation of the concept of sustainability. It is argued that this reframing should be based on the concept of "neo–sustainability" (Farley & Smith, 2014) and aimed at building "the sustainable university

" (Sterling, Maxey & Luna, 2013). Next, it is argued that there is also a need to reframe and add to current ideas about EfS in HE, in essence shifting the focus and concentrating on "educating the HE educators ". This educative work needs to concentrate on both (1) relevant curriculum and content, and (2) appropriately aligned pedagogical practices. However the concept of "the sustainable university" and the fourth wave of EfS in HE is very new and very much open to collaborative construction.

## THE ARGUMENT

The gist of the argument is twofold. First there is a need to reframe and clarify the concept of sustainability. Second there is a need to reframe EfS in HE and concentrate on educating the educators.

## The Need to Reframe Sustainability

The rise of concerns and the discourse on sustainability signify a fundamental shift in the understanding of the relationship between humanity and nature. Humanity is realizing that it is part of nature and that it depends on nature for its existence. In turn, the central concern within sustainability is that humans are living beyond the capacities of the earth's ecology systems. The world's population is living and consuming at a higher rate than what the ecological systems can re–generate and support over the long term. Central debates in sustainability focus on the use of resources, population stress, water and food security, energy, climate change, ecological balance and eco–system adaptation (Vogt, Patel–Weynarrd, Shelton, Vogt, Gordon, Mukumoto, Suntana & Roads, 2010). The subsequent conclusion derived from these debates is that current lifestyles and patterns of consumption need to change.

In short, the earth's population has outgrown the growth model. Unbridled growth is argued here to represent a mindset of abundance that favors expansion, development and growth. The mindset includes a belief that more resources exist, they just need to be found and utilized. Hence, there is a need for a counter strategy that is more at-tuned to current understandings. The alternative presented here is a post–abundance framing of the relationship between humanity and nature. This is a relationship based on sustainability. As Farley & Smith (2014) explain, to sustain implies maintenance, support and long–term endurance "of something", but the something which is sustained involves a value position.

Two different positions in the relationship between humanity and nature are being set out. The first concerns where we, as humanity, are at the moment. This is a position built upon the growth model, a position labeled here as reflecting an abundance mindset. The second position being presented concerns where we, as humanity, need to move. This is the preferred or desired position of living within the means and carrying capacities of global eco–systems. This is being labeled here as a post–abundance position. Throughout history, movement from abundance to a post–abundance position has often occurred through social upheaval and revolution, but in this case the movement is to occur peacefully, through education. Yet the image of the revolution helps to convey the importance of what is at stake, and the need for change. It also conveys a sense of the degree of difficulty involved and what is being asked of an educative process.

## Reframing Education for Sustainability (EfS) in Higher Education (HE)

As the United Nations Educational, Scientific and Cultural Organization (UNESCO, 1997) document *Educating for a sustainable future* (para. 38) states:

*It is widely agreed that education is the most effective means that society possesses for confronting the challenges of the future. Indeed, education*

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