

# Chapter 23

## Embedding Sustainability Learning: Robustness in Changing Circumstances – Perspectives From a United Kingdom (UK) Higher Education Institution (HEI)

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### ABSTRACT

*In this chapter the authors argue the benefits of an “embedded strategy” for achieving a robust and sustainable Education for Sustainable Development (ESD) curriculum and outline some of the main approaches used at Kingston University (KU), London. The chapter includes feedback from students, academics, support staff and local employers engaged in these developments and highlights the main successes and the pitfalls encountered. Case studies exemplifying sustainability learning through a diversity of embedded approaches are presented and analysed. The authors’ experience demonstrates that, although there is no “one size fits all” solution to ESD, sharing of experiences between sustainability professionals is vital to this agenda. The examples detailed in this chapter show that with careful design, active and multidisciplinary learning, sustainability understanding can be securely embedded in students’ learning even where it is not the main programme objective.*

### INTRODUCTION

The United Nations (UN) decade of education for sustainable development (DESD), 2005-14, sought to move sustainability education from concept to practical reality for people worldwide. As such it was acknowledged that alongside environmental, social and economic understanding attention to ‘context’

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was needed (UNESCO, 2005). It was suggested that sustainable development (SD) priorities and solutions would vary regionally; that differing political philosophies would engender different opportunities and approaches; and that differing social and cultural settings would similarly lead to a diversity of preferred policies and implementation priorities and practices. There would be no ‘one size fits all’ recipe or solution. It was also acknowledged that a multidisciplinary understanding was needed so that future world leaders, and those guiding regional and local policy, could appreciate the complexities of SD and promote leadership and good governance to meet the urgent challenges ahead *viz.*, avoidance of catastrophic climate change, or appropriate adaptation to changing climatic situations; maintenance of adequate good quality water supplies; sufficient food; energy security; avoidance of waste and pollution; maintenance of biodiversity; and promotion of good health; while at the same time promoting a fair and equal global society.

Since the start of the new millennium grass roots societal engagement with issues such as climate change and waste management has become commonplace in most developed economies and is widely acknowledged by governments worldwide. However, despite numerous global meetings and debates on *inter alia* curtailing carbon emissions, securing clean freshwater supplies for all, and providing adequate nutrition for all, only limited progress has been achieved. UN data show 11% of the global population (783 million people) still have no access to safe drinking water and 2.5 billion live without basic sanitation (UN-water, 2013). Indeed in the case of carbon emissions, overall these have continued to rise in the United Kingdom (UK) and European Union (EU) despite recent tough targets e.g. in the UK at least an 80% reduction in carbon budget compared with a 1990 baseline by 2050 (UKPGA, 2008). Though reductions in home-based emissions have been achieved, embedded emissions in imported goods have risen (Committee on Climate Change, 2013). Industry continues striving to find new fossil fuel sources investing far more in these polluting resources, such as the development of shale fracking, or expansion of nuclear power, than in major decarbonising alternatives. It could be argued that the underpinning reason for this poor achievement and limited vision is a failure of education. The current generation of world leaders has not been exposed to sustainability learning. As a consequence much rhetoric is expounded but the practical detail of the route forward, which requires a sound scientific and environmental base as well as social understanding and applicability, is missing. The level of public debate is also poor: nuclear versus renewables; wind versus solar; rather than a joined up integrated analysis based on sound scientific, social and economic information.

The key challenge is to rectify this; to develop sustainability education accessible to everyone. Yet, for example in the UK, changes mooted to the school curriculum suggest a retrenchment to an even less integrated science and arts curriculum (Wintour, 2013). Science education is less well funded than other core subjects, especially mathematics, and its teachers less rewarded. Disciplines, such as geography, agriculture and nutrition are seen as of secondary importance and the historical understanding of failures to appreciate new science (e.g. Galileo’s problems) or the human search to understand our place in the world through religious traditions are given lesser status. The fundamental and challenging need to understand how all things link is not accorded a high priority; key sustainability skills such as critical thinking and change management likewise assume a lesser role to more traditional subject learning. Yet this is the real world over which our ill-prepared political leaders and financiers must govern. Our futures lie in a changing world environment with complex inter-linkages. In practice the currently proposed UK curriculum changes will make addressing sustainability issues in a pragmatic and practical manner more difficult and apparently of marginal importance, for example addressing climate change as a scientific matter with scant attention to social and economic relevance. This is indeed a concern.

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