

## Chapter 26

# Before K and Beyond 20: The Sustainable Learning Paradigm

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### ABSTRACT

*The concept of sustainability has reached numerous areas of our culture today. Learning, however, has been described as lifelong or continuous but not sustainable. This chapter investigates the ideas of sustainability and a continuum model of learning that expands both the length and the breadth of the current system. It describes the importance of a learning culture and the influence of technology in implementing this new paradigm. It then suggests that a new paradigm of sustainable learning is a more appropriate description for learning in the twenty-first century.*

### INTRODUCTION

The vocabulary around continuous or lifelong learning is not new. In fact many would argue that the idea and necessity of lifelong learning is an accepted norm. But that idea is punctuated by the reality of events that suggest closure. However, moving to a new school for the next grade level or graduation ceremonies can no longer be viewed as the end or accomplishment of a packet of learning. They are indeed a milestone of accomplishment but only one milestone in a series that will commemorate and comprise learning.

This chapter is driven by two main issues: Learning must be ongoing; but even more so, learning must be sustainable. This idea of sustainable learning might take some investigation. The term sustainable has become part of a catch

phrase when applied to such topics as development, energy and agriculture. So why hasn't it become part of the language of learning? This chapter will investigate this applicability and how and why it should be added to the lexicon of terms like adult learning, transformative learning, etc.

### BACKGROUND/THEORETICAL FRAMEWORK

#### Sustainability as a Framework

The popularity of the term sustainable as it is used today has its roots in several global documents. In 1987, the United Nations released the Brundtland Report, which included what is now one of the most widely recognized definitions:

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“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World, 1987; UN, 2005a). This definition contains two key concepts. First, the importance of meeting present needs. But most critical is the idea of maintaining an eye to the future needs. This implies the “idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs” (US, 2005). Meeting current needs requires identifying those current needs by utilizing critical thinking skills. This requires preparing future generations to identify and meet the needs and facilitating their task by handing off the responsibility and ensuring that resources are available. All of these are hallmarks of sustainability.

The term sustainable gained further clarification and specificity from another United Nations document. This United Nations 2005 World Summit Outcome Document refers to the “interdependent and mutually reinforcing pillars” of sustainable development as economic development, social development, and environmental protection” (US, 2005). “A sustainable agriculture is one that, over the long term, enhances environmental quality and the resource base on which agriculture depends; provides for basic human food and fiber needs; is economically viable; and enhances the quality of life for farmers and society as a whole” (UN, 2005c).

While sustainable has its roots in these concepts of development in economics, agriculture and environmental practices, it has been applied to numerous other fields including innovation. Allen, Gojer, Gavrilova-Aguilar and Philpot (2012) note that sustainable innovation is process-based, not project-based and that it includes providing ways of improving the quality of human life while not exceeding the supporting capacity of existing ecosystems. They add that when sustainable is used in the context of innovation, it refers to the “degree to which a program of change is continued

after the initial resources provided by the change agency are ended” (p. 256). This concept might be most appropriately applied to learning. One would hope that the change in knowledge or skills is continued after the focused educational event and serves as the foundation for further learning.

The concept of sustainability is also consistent and complementary to several ideas that are central to today’s learning theories. Brookfield, Illeris, and Knowles offer just a few examples. Brookfield (1986) defined critical thinking or critical reflection as “reflecting on the assumptions underlying our and others’ ideas and actions, and contemplating alternative ways of thinking and living” (p. x). Brookfield (1987) described nine concepts of the critical thinking process but then synthesizes them into two key activities: “identifying and challenging assumptions: and “exploring and imagining alternatives” (p. 15). Brookfield’s (2005) focus on critical reflection as an essential component of learning suggests the sustainability of that learning.

Illeris (2004) offers a model of an inverted triangle which places two psychological poles, Piaget’s cognition and Freud’s emotion at the top two corners and society at the lower vertex. He stresses that these 3 dimensions of learning, cognitive, emotional and social, “are always integrated parts of the learning process and in practice do not exist as separate functions” (p. 20). This integrated holistic model of learning is consistent with the concept of sustainability.

Malcolm Knowles professed his theory of andragogy for adult learners and established assumptions that suggested a continuum of learning and a hope of sustainability. Knowles, Holton, and Swanson (2005) report that he formulated these assumptions into his six core andragogical principles: “the learner’s need to know, self-directed learning, prior experience of the learner, readiness to learn, orientation to learning and problem solving, and motivation to learn” (p. 183). Of these, two seem especially significant for this chapter; the facts that adults learn best when the learning

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