

Book reviews

Reflective Review of *147 Practical Tips for Teaching Sustainability: Connecting the Environment, the Economy, and Society*.

Timpson, W.M., Dunbar, B., Kimmel, G., Bruyere, B., Newman, P., and Mizia, H. Madison, WI: Atwood Publishing. 2006. ISBN-10: 1891859609, ISBN-13: 978-1891859601, 122 pages.

With forewords by environmentalists David W. Orr (titled 'All hands on deck: Teaching sustainability') and Anthony Cortese ('Higher education and sustainability'), this slim book is packed with information about and passion for educating for a sustainable future. It results from the efforts of a team from Colorado State University, working with a diverse group of faculty, students, and community individuals. This team reached out to partners in other universities, non-profit organizations, the US National Park Service, a public school district, and even a brewing company, to create 17 sections discussing 147 suggestions, each one or two paragraphs in length, of theories, influential works, concepts, and activities to engage learners in sustainability and sustainable development education.

147 Tips aims at supporting sustainability education by 'rethinking some of our most basic assumptions; considering creative solutions; communicating honestly and navigating emotions; [and] balancing challenges with a realistic optimism' (p. xv). Thus, it addresses the need to understand sustainability and sustainable development at both the cognitive (informational) and the affective (emotional) levels. Core concepts that define sustainability in this context involve 'underlying systems thinking; interconnections between the natural world and human societies; ethics, values, and the sacred; learning from nature; best use of technology; role of personal responsibility and empowerment; [and] the collective need for new visions' (p. xvii). Several pedagogical strategies are outlined: cooperative and collaborative learning, emphasizing principles of interconnectedness; discovery learning, to address complex problems; experiential learning in the natural world; and ways to deepen learning by putting lessons into practice (p. xvii).

Published in 2006, at the beginning of the UN Decade of Education for Sustainable Development (2005–2014), this book deserves for two reasons to become more widely known among practitioners and researchers globally. As described above, it codifies a complex field by fashioning a possible curricular structure; it also discusses theoretical and pedagogical topics (as well as rather commonsensical concepts)

to which sustainability educators may refer when planning and implementing educational experiences.

The five tips in Section One, 'Defining Sustainability' (pp. 1–4), suggest that educators present the notion that 'we are Nature' by pointing out the interconnectedness of the systems of which humans are a part. This is shown in the eco-sphere (p. 2), a helpful graphical model by green building specialist Brian Dunbar that helps to visualize the challenges of sustainability. At the centre of the image, three circles represent the dynamics (or 'triple bottom line') of the 'three Es': economy, equity (society), and ecology (environment). This is surrounded by four rings, the first showing in large print five dimensions (nature, health, culture, economics, and energy). The other three rings display concepts illustrating major and minor aspects of each of the five dimensions (non-renewable, land, water, air, environment, wildlife, community, aesthetics, labour, and the like).¹

Timpson *et al.* also urge educators to create a shared language, beginning perhaps with Orr's (1994) ten concepts for understanding sustainability (thermodynamics; ecological principles; carrying capacity; energetics; least cost and end-use analysis; technology limits; appropriate scale; sustainable agriculture and forestry; steady-state economics; and environmental ethics). A final call recommends listening to elders from indigenous cultures who preserve wisdom about the human relationship to nature in timeless traditions concerning sustainability and sustainable development.

Section 12 includes nine tips concerning 'Awareness and Consciousness Expansion.' Here the authors beg educators to 'build on experience,' following a learner-focused pedagogy:

Be alert to the experiences of your audiences. Start personal and up-close. What item does everyone share in common? Cell phone? Car? Credit card? Put that item in the center of a discussion and ask exhaustive questions as to its resource use and waste streams, pricing and access, social assets, and shadow effects. Is it contributing to a healthier world, greater prosperity for all, and stronger community? Could it be better designed or need it be replaced to meet these goals?

(Timpson *et al.*, 2006: 61)

Further practices are suggested that have more recently become common educational experiences, such as taking the ecological footprint quiz,² discussing full-cost accounting, exploring what's in everyday products, identifying services provided by nature, recognizing that size matters (for energy consumption), and looking twice at what's disturbing nowadays by looking at how 'what once was determined to be frightening (fire), threatening (predators), or expendable (buffalo) are now understood to have profoundly positive impacts on biodiversity' (p. 65).

After the tips, under section headings such as 'Systems, Synergy, and Visions,' 'Design, Nature and Buildings,' and 'Ethics, Values and the Sacred,' author Gailmarie Kimmel, a community educator, reflects on the joint endeavours of this extraordinary team of sustainability and sustainable development educators: 'Feeling genuinely interconnected with this vastly elegant mystery called Life – and creatively engaging it despite our overwhelm – are at the core of teaching and learning sustainability, and of an empowered spirituality' (p. 147). A current, engaging language of critique and of hope makes this book an enduring source of inspiration and quick reference for those concerned with education about economic, environmental, and human development guided by sustainability principles.

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Notes

1 The eco-sphere can be viewed online at www.atwoodpublishing.com/pdf/ecosphere.pdf

2 See www.myfootprint.org