

Introduction

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I BELIEVE THAT ONE OF THE MOST fundamental trends occurring in our economies—or, at least, in the world's most developed market economies—is that an ever-increasing part of our wealth is being generated by the so-called knowledge economy as opposed to agrarian, resource-based or industrial production. This shift has been taking place since the start of the industrial revolution; its visible result can be gauged by the ever-increasing growth of our service economy as a percentage of all economic activity. Roughly three-quarters of the wealth generated by most developed market economies is based on services, and that percentage seems to follow only an upward trajectory.

While acknowledging that every generation seems to think that it is living in a special time, I believe that this profound shift is indeed real and has very real implications for how we manage our companies. Knowledge workers cannot be bossed

around like low-value-added workers of the past. When an ever-increasing part of a company's asset base walks out of the door every evening (or, alternatively, stays at home because they don't actually have to be 'at work'), managers have come to realise that old-style, '2 x 4'¹ management techniques (i.e. where workers are metaphorically hit on the head to get them to perform) are obsolete. When workers add value by their brains rather than their brawn they need to be treated much more as equals and partners; the key task of managers now is to create an environment where creativity and ingenuity can flourish rather than enforcing rote adherence to standard operating procedures.

The effects of this shift into a knowledge-based economy are starting to affect all aspects of the corporation and how it is managed, albeit more slowly than perhaps desired. (*The Economist* [2006], in a recent survey titled 'The New Organisation: A

1 A '2 x 4' is a standard size of construction timber in North America (it actually measures 1½ inches by 2½ inches—don't ask!).

Survey of the Company', laments that 'The way people work has changed dramatically, but the way their companies are organised lacks far behind'.) Nevertheless, change companies must, otherwise they risk joining the fate of so many other mighty leviathans that have fallen on their organisational swords.

Likewise, the teaching of business (and, for that matter, the business of teaching) must adapt to the dramatically different learning needs that such a profound shift demands. This change is especially needed when it comes to teaching business sustainability, for if there is one area of business that requires, *ipso facto*, out-of-the-box, creative thinking it is precisely that. Business sustainability, by its relative newness (and hence uncertainty), its dependence on interdisciplinary thinking, its need to work with different stakeholders, its non-traditional operating approaches and so on, demands that we train our managers in wholly new ways. Beating our students with the proverbial 2 x 4 rote subject matter is no way to inculcate the kinds of multi-varied, creative skill and approach that such a subject demands.

This need for new and non-traditional teaching approaches is reflected in this collection of unorthodox teaching pedagogies. The underlying philosophy behind them is that deep learning for sustainability needs ultimately to be experiential: that is, learning while doing rather than a passive absorption of facts and figures. While much of the underlying theory of sustainability may be taught using more traditional lecture and reading approaches, the implementation of true business sustainability requires students to experiment—to win and lose—while grappling with the myriad challenges and frustrations posed by sustainability: the same challenges and frustrations, one might add, that companies bent on implementing sustainability face on a daily basis in the outside world in which they operate.

Experiential learning: why it works

Experiential learning—role-plays, case studies, simulations and so on—is effective for a number of different reasons, most of which revolve around the idea of bringing the so-called 'real world' into the classroom. For example, role-plays and simulations 'model some aspect of reality in a safe and time-compressed setting' (Hequet 1995). A key component of a simulation's effectiveness as a learning tool comes directly from how well it recreates the world it is simulating, while lessening the inherent risks (Maital-Shlomo and Morgan 1988). Likewise Foxon (1990) reports that one of the fundamental principles underlying the use of simulations 'is that a commitment to experiential learning [and] training that simulates the real world is a powerful learning tool'.

Of course, experiential teaching methods cannot totally recreate every single aspect of the real world. However, failure in a real-world career setting often has painful negative personal and organisational consequences. Also, high-risk actions are necessarily tempered because of the real potential for negative outcomes. As may be expected, learning under such circumstances is naturally constrained. However, in a simulated experiential setting the risks of failure are low to non-existent; under such circumstances learning from failure becomes non-threatening and hence inherently more effective.

Because experiential learning is a two-way street (or, more often, a multi-way avenue) the learning it generates relates directly to the weaknesses of the participants. It thus helps them to better understand and perhaps address any key deficiencies identified. This point is emphasised by Keys: 'simulation games used for [management] training . . . are very flexible learning environments allowing different students to learn different things' (Keys 1986).

There are many other reasons why experiential learning has many devoted followers. Many of these pedagogical merits have been documented elsewhere; however, one that is often overlooked is that teaching and learning in an experiential setting is great fun—for both teachers and students alike. And there's nothing like having fun to really generate one's creative juices and to make real learning stick.

What follows is a sample of some of the experiential teaching approaches outlined in the forthcoming book, *Teaching Business Sustainability: Cases, Simulations and Experiential Approaches* (Greenleaf Publishing, January 2007). This is the companion volume to C. Galea, *Teaching Business Sustainability: Ideas, Theory and Concepts* (Greenleaf Publishing, 2004).

The various teaching approaches fall into four main categories of experiential pedagogy: case studies, hands-on exercises, role-play simulations and active learning teaching exercises. Each is briefly described in more detail below.

Case studies

The first section presents two quite different case studies: 'Easter Island: A Case Study in Non-sustainability' and 'The War of the Woods: A Forestry Giant Seeks Peace'.

The Easter Island case, written by Canada's well-known demographer David Foot, focuses on the recently documented history of Easter Island, that enigmatic rock 3,000 km off the coast of Chile. The case provides students with 'a simple, easy-to-understand historical case study of an isolated society growing and developing but not practising sustainability through ignorance, neglect, self-interest or simply bad luck'. At first the case appears deceptively simple—the study of yet another ancient people falling prey to environmental overreach. And yet, with further in-depth thinking, the power of the case emerges as students absorb the

important lessons of Easter Island for the similarly isolated inhabitants of planet Earth today. By drawing such a clear parallel the case also points to the ominous consequences of not practising sustainable behaviour for both individuals and society. It makes a good start to any course on sustainability.

The second case is an in-depth decision case written by Monika Winn of the University of Victoria and Charlene Zietsma from the University of Western Ontario. It presents the student with the stark choices facing MacMillan Bloedel (MB), then Canada's largest and most visible wood-products company. The student is asked to determine what MB should do in the face of terrible financial pressures and an unprecedented and increasingly successful campaign by environmentalists to encourage customers to boycott MB's products. The case presents a complex decision problem in which decision-makers must take into account the needs of multiple stakeholders with conflicting interests. This presents an excellent opportunity for students to practise role-playing skills ranging from stakeholder management to conflict resolution techniques.

Hands-on exercises

The forthcoming book has three different hands-on exercises, one of which, 'Personalising Sustainability: An Interactive Activity to Reinforce the Presentation of The Natural Step (TNS)' is presented here. This exercise was developed by Joshua Skov of Good Company, Eugene, Oregon, and helps educators to introduce the concepts of sustainability to any audience by addressing both its intellectual *and* emotional challenges. Clearly, for most students of sustainability there are large information gaps to be filled. But information is not enough to make us *feel* a personal link between our behaviour, the health of society and the planet. The challenge in presenting the concept of sus-

tainability lies in the complexity of our interdependence with each other and the planet.

Skov presents an activity for helping an audience to feel the relationship between sustainability issues and individual behaviour. Using a straightforward, single-page handout for each person, the exercise leads a group through the mental process of tying the system conditions of The Natural Step to several commonplace individual behaviours.

The author reports that the activity succeeds for three distinct reasons. First, it gently and effectively removes the attention from the presenter/lecturer and places it on the audience members, individually and collectively. Second, in less than an hour, it provides learning in both individual and group modes. And, third, it requires individuals to internalise the links between TNS system conditions and everyday activity, by presenting 'findings' (i.e. the information from and insights based on their respective handouts) to each other in a non-threatening, small-group setting. This learning-by-teaching leads the participant to internalise that knowledge and take the other participants' individual teachings more seriously.

Role-play simulations

The first role-play presented here is called 'Sustainable Games People Play: Teaching Sustainability Skills with the Aid of the Role-play 'NordWestPower''. It is co-written by Anke Truscheit and Christoph Otte of the University of Oldenburg, Germany.

NordWestPower is a behaviour-oriented role-play that trains managers to evaluate the social and ecological risks of their field. The authors contend that lectures, seminars and other conventional teaching styles alone are not adequate for teaching these necessary skills—they need to be supplemented with experiential approaches. Using the role-play NordWestPower they deliver an overview of the

ideas and structure behind role-plays and the possibilities they open up for teaching sustainability skills.

As may be expected, the role-play NordWestPower deals with the issues faced by a European energy provider. However, the structure of the role-play is very flexible and is easily adapted to other industries or environments. The authors lay out the various stages of the simulation and give clear guidelines to educators on how to use the role-play in their own classrooms and what the expected learning outcomes should be.

A second simulation exercise, 'Using Experiential Simulation to Teach Sustainability', is written by two management consultants and trainers, Susan Svoboda and John Whalen. Their paper focuses on a simulation they developed called the Transformation exercise. Transformation is a reality-based, team-building simulation that helps participants understand how to translate the concepts of sustainability into tangible action. The authors offer a practical guide for using experiential simulations to teach sustainability in a business context. They draw on their experience in developing and using the exercise with hundreds of groups in business schools, corporations, government organisations and non-profit organisations. They describe the benefits of using simulation in building understanding of sustainability, the structure and process of the simulation, discuss the typical lessons learned, and provide a checklist of the characteristics of an effective sustainability simulation.

Active learning teaching exercises

The first submission in the active learning category is titled, 'Different Planets: Belief, Denial and Courage. The Role of Emotion in Turning Learning into Action'. It is written by Penny Walker, an independent consultant specialising in helping people in business learn about

sustainable development and putting that learning into action.

In her study Walker describes the role of emotional responses to evidence and rational arguments. It is clear that there are people who accept the evidence of our current unsustainability and yet choose not to act on it. She argues that emotional responses affect the extent to which participants engage with, and take action on, sustainability. Her study describes ways to help participants bridge the gap between knowing and doing, acknowledging rather than ignoring how people feel about what they have learned. In trying to understand this, the author has drawn on models of adult learning, group facilitation and responses to terminal illness. In her workshops Walker uses techniques such as incisive questions, facilitated discussion and action planning.

The last teaching exercise is called 'Getting Out There: Incorporating Site Visits and Industry Assessments in Pollution Prevention and Sustainability Education'. The exercise was developed by Kim Fowler of the Pacific Northwest National Laboratory in Richland, Washington, and Jill Engel-Cox of the Battelle Memorial Institute in Arlington, Virginia. In their paper they present an excellent, hands-on exercise that provides students with a clear connection between the theoretical concepts they are learning and their application in the 'real' world. Rather than trying to simulate the challenges, barriers and incentives of conducting an environmental assessment in a classroom setting, the authors show how to incorporate an environmental assessment of an actual industry or small business directly into the students' training. The assessments can range from a simple site visit followed by in-class discussion to multiple site visits with written analytical reports. While acknowledging the inherent uncertainties of this method, the authors contend that the exercise can be challenging for teacher and students alike. They make a strong case for showing the large learning potential that these hands-on exercises can generate.

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I hope that the following sample of exercises taken from the forthcoming book, *Teaching Business Sustainability: Cases, Simulations and Experiential Approaches* (Greenleaf Publishing, January 2007), will whet your teaching appetite for incorporating more experiential pedagogy into your curriculum. Yes, the learning outcomes and teaching approach will not be as predictable and structured as you may be used to. Yes, you will run into novel and perplexing learning situations. Yes, you do have to give up some control over the learning environment. These are all valid fears arising from incorporating experiential learning into the curriculum. However, adopting an experiential approach leads to a much greater probability of creating a learning environment where a whole series of proverbial shoes may drop as the students themselves take control over their own learning. This is the way it should be for, ultimately, true teaching is far less about passing on knowledge and far more about helping students learn for themselves.

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