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Sustainability:
A threshold concept for tourism education

Abstract

Recognizing the importance and complexity of the concept of sustainability for tourism education, the purpose of this paper is to describe and reflect upon the teaching and learning strategies for sustainability employed in an undergraduate tourism module. To aid in this discussion, this study frames the concept of sustainability as a threshold concept for tourism education. The notion of a threshold concept was introduced by Meyer and Land in 2005. They suggest that a threshold concept represent a gateway or portal for learners and teachers, and once the threshold is crossed, learners will have a transformation in understanding, thinking and interpreting that is vital for the wider learning in a topical area. Meyer and Land suggest four main characteristics of a threshold concept, and thus, the discussion in this paper is organized accordingly into four sections: sustainability is transformative, sustainability is irreversible, and sustainability is integrative, and sustainability as troublesome knowledge. Throughout the paper teaching and learning strategies are reflected upon and specific exercises described. Student feedback collected through open ended questionnaire and group discussions among second year undergraduate tourism students provides key learner insights that aid in the reflection of teaching practice. Education for sustainability has been promoted for nearly two decades in tourism curriculum. To make a contribution to this important body of work, this study has focused on teaching and learning practice, with the goal of providing a starting point for educators to reflect upon their own teaching and learning strategies.

Key words: higher education; teaching practice; student learning; education for sustainability; tourism, Dubai; UAE

Introduction

Sustainability has become a core concept in tourism research, policy, planning, development and management. There has been a proliferation of academic articles, journals, conferences, and university programs focused upon sustainable tourism and its development. Additionally, there has been a shift in the tourism industry towards sustainability and, as a result, an increased need for the incorporation of sustainability into university tourism curriculum. Recurrently, there have been numerous studies focused on sustainable tourism in higher education (Bramwell, 1996; Busby, 2003; Flohr, 2001; Teixeira & Baum, 2001; Jurowski, 2001; Gough & Scott, 1999; Tesone, 2004; Presbury & Edwards, 2005; Jurowski & Liburd, 2002; Wilson & von der Heidt, 2013; Boley, 2013; Canziani, Sonmez, Hsieh & Byrd, 2012; Jennings, Cater, Hales, Kensbock & Hornby, 2015). It has been widely agreed that sustainable tourism concepts are crucial components of tourism programmes meant to provide future industry leaders with the knowledge and skills necessary to promote sustainable tourism development.

In 2005 the United Nations launched the Decade of Education for Sustainable Development (UNESCO, 2007). Education for sustainability has been promoted for nearly two decades in tourism curriculum, during which time the complexity of the concept of sustainability has posed several challenges for tourism students and teachers. First, sustainability is often portrayed simply as the intersection of

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three dimensions: environmental, social, and economic. However each of these dimensions and the convergence of them are incredibly complex and abstract. For students to understand sustainability in terms of these three dimensions, they must first develop an understanding of each of the dimensions. The 'idea' of sustainability and sustainable development also presents a major challenge for teachers and students. Tribe (2002) noted that a movement towards sustainable tourism includes a "developing set of defined core values" (p. 310). This shift in worldview is a difficult thing to 'teach' as "teaching about sustainability includes deep debate about normative, ethical, and spiritual convictions" (Wals & Jickling, 2002, p. 227). Wilson and von der Heidt (2013) noted several issues that can pose a challenge for sustainability education within university tourism programs including a lack of prioritization of sustainability within the tourism curriculum, a lack of knowledge and interest of faculty, and/or a lack of a value system that emphasizes sustainability.

Another challenge for sustainable tourism education is the need to bridge the gap between theoretical knowledge and practical implementation of sustainability principles. Tourism education must supply practical examples and experiences (Jennings et al., 2015; Paris, 2011) in tandem with theoretical knowledge so students learn how to implement theoretical principles of sustainability (Jurowski, 2002), and sustainability should be taught throughout the curriculum in order to better prepare students for the hospitality and tourism profession (Boley, 2011). Canziani et al. (2012) advocate for the development of a 'sustainability learning system' as a means of improving sustainability education in tourism. The tourism field incorporates perspectives from multiple disciplines, and the study of sustainability is cross-disciplinary. As such, curriculum in education for sustainability must incorporate a multitude of concepts and theories, policy orientations, and competencies from the social, applied and basic sciences. Thus a major concern for developing an approach to teaching sustainability in a tourism context is the disciplinary breadth. Warburton (2003) states that "these concerns raise questions about the need for innovative educational approaches that facilitate real cross-disciplinary thinking" (p. 44). The purpose of this paper, framing sustainability as a threshold concept in tourism education, is to describe and reflect upon teaching and learning strategies employed in an undergraduate tourism program. The reflection is supported by feedback gathered through open ended questionnaire and group discussions among second year undergraduate tourism students.

Method of collecting student feedback

A reflective questionnaire was developed and administered to a class of thirty-six second year tourism students enrolled in a module concerning tourism impacts and sustainability at an overseas campus of British university in Dubai. This module was selected because sustainability is a main focus of the module and it provides the foundation for the third year modules that examine issues related to sustainability and tourism in much more detail. For example, in one third year module concerning tourism policy and planning, sustainability issues are explored through topics related to climate change, ethical travel, corporate social responsibility, crisis management and post-disaster development, community based tourism development, labor issues in tourism, tourism governance, and pro-poor tourism. Students in the second year module could be considered as being in a 'liminal state' (Meyer & Land, 2005), as many of the students had some understanding of sustainability in a tourism context from their previous introductory modules the year before, but many have yet to pass over the 'threshold' of conceptual understanding.

The student group was comprised of 40% female and 60% male students all between the ages of 19 and 24. The students had a diverse range of nationalities including India, Pakistan, United Arab Emirates, Kenya, Sudan, Iraq, Nigeria, Russia, Turkey, Tanzania, Australia, United Kingdom and Iran.

A reflective open-ended feedback questionnaire was administered in class during week 17 of 24 in the module. The students completed the questionnaire independently and had thirty minutes to complete it. The questionnaire consisted of several prompts designed to elicit student feedback on their understanding of sustainability, sustainable tourism, the importance of understanding the concept, reflection on how their understanding of the concept has changed during the year, the teaching strategies perceived to be most impactful for their learning, recommendations for other strategies not employed by the lecturer, and examples of their experience or observation of 'sustainability in action.' After the questionnaire was completed by all students and collected, the lecturer led a reflective group discussion on each of the prompts, and further insights were documented. The feedback questionnaires and group discussion notes were then examined and organized according to the main 'threshold' dimensions: transformation, irreversibility, integration, and troublesomeness. This feedback was used to provide a student perspective in the discussion of the teaching and learning strategies employed.

Sustainability as a threshold concept in tourism education

The notion of a threshold concept, introduced by Meyer and Land (2003, 2005) represents a conceptual 'gateway' or 'portal' for learners and teachers, and signifies a new or previously inaccessible way of thinking. Crossing the 'threshold' through the comprehension of a threshold concept results in a transformed internal view of a subject or worldview from which a new way of understanding, thinking, and interpreting can emerge. Meyer and Land (2003, 2005) describe threshold concepts as having four main characteristics. First, the concepts are transformative as they shift perception of a subject and/or change the worldview of the students. Secondly, threshold concepts are irreversible in that they cannot be 'unlearned'. Thirdly, the concepts are integrative in nature, thus exposing the complexity and interrelatedness within a subject. Lastly, threshold concepts represent or lead to troublesome knowledge. Perkins (1999) describes troublesome knowledge as being conceptually difficult knowledge that maybe counter-intuitive, thus forcing students to shift from a "common-sense understanding to and understanding which may conflict with perceptions that have previously seemed self-evidently true" (Davies, 2003, p. 5). The following sections are organized around these four characteristics of threshold concepts, and integrate a discussion of sustainability as a threshold concept, description and reflection on teaching strategies, and feedback from students on their learning experiences.

Sustainability is transformative

In 1993, the Swansea Declaration pressed universities to contribute to "major attitudinal and policy changes for a sustainable future" (The Swansea Declaration, 1993). Education for sustainability must seek to not only bridge the gap between theory and practice, but also to transform students worldview from an unsustainable one to a sustainable one, which can be the most challenging part of education for sustainability as an individual's worldview is based upon human perception and values (Herremans & Reid, 2002). Educators need to be careful not to approach education for sustainability as an outcome, but should focus on promoting the development of the ability to evaluate, explore, and critique emerging ideas related to sustainability (Wals & Jickling, 2002). The transformative power of the concept of sustainability is that it can represent a stepping stone from which the possibilities of the future can be defined and prescribed by the students themselves (Wals & Jickling, 2002).

An analysis of the student feedback responses suggests varying levels of 'transformation' in the students' perception of sustainability and their 'worldview'. One of the challenges facing this transformation is the commonly held notion that equates sustainability with 'being green'. This notion could be the

result of the historical interdependent development of the concept of sustainability and the 'green movement'. One student's reflection on their understanding of sustainability still reflects this confusion. The student stated that the class has "*helped me to learn about green tourism about which I had a very vague idea earlier.*" While the module did include a class period devoted to the environmental impacts of tourism and eco-tourism, this was but a small part of the overall module content. On the other hand this environment/sustainability association could still suggest a transformation of student understanding has occurred. Another student offered a similar reflection on their learning for sustainability throughout the module by noting that their understanding of sustainability has changed "*quite a bit. I am now more aware of how to be eco-friendly and how when I start working I'll get a job in an eco-friendly hotel.*" This second statement could suggest that the individual's perception of tourism has shifted, and that as a result their personal values for sustainability places an emphasis on the environmental dimension.

Another student reflected, "*I had brief knowledge of what sustainability actually meant. Towards the end of the year I've broadened my knowledge and understand not only what it means, but how to essentially sustain tourism and the different methods that are practiced to do so.*" This student exhibits an interesting notion of sustaining tourism, which is particularly important for understanding the concept of sustainability in a tourism development context. Throughout the class several teaching strategies, including case studies and videos from destinations around the world, were employed to develop each student's ability to think more critically about sustainability in different tourism contexts. For example, during one particular 'historical case study', a role playing exercise was employed. In this case, students took on the roles of different stakeholders on the island of Kauai and were tasked with proposing a sustainable tourism development plan in the aftermath of Hurricane Iniki in 1992, which was extremely devastating to the island's tourism infrastructure and caused $1.8 billion in damages. Each student/stakeholder had to develop the plan based on the chosen stakeholder perspective, and then had to come together in a stakeholder meeting and develop a consensus vision for tourism in the island. The exercise spanned over two class periods, and after the consensus plan was presented by the class a video was shown that illustrates the current development in Kauai and the current conflicts between stakeholders. Next, a discussion was facilitated that asked the students to reflect on what 'went wrong' from the plan they came up with as stakeholders in 1992 and the actual development that has occurred since the hurricane. After this discussion, a seminar was lead in which students had to apply this 'new knowledge and analysis ability' to a current natural disaster. By continually building through problem based exercises and the application of sustainability concepts to real world cases, students understanding of sustainability can transform. Complementing this transformation is the need to ensure the irreversi-bility of the learning for sustainability.

Sustainability is irreversible

Sustainability is most often portrayed as a triad made up of social, economic, and environmental dimensions. Education for sustainability should thus focus first on developing students' comprehension of each of these dimensions, students' ability to conceptualize the links between them, and a working understanding of the analytical tools to empirically address issues related to sustainability. Herremans and Reid (2002) argue that once students have developed the tools and understanding conceptually of the sustainability dimensions, they can apply this knowledge to any situation. In tourism this is important as the concept of sustainability is incorporated into the analysis and understanding in a variety of contexts such as a local hotel, the planning and development of new projects, and government tourism policy. It is also important that sustainability is integrated within the taught curriculum (Boley, 2011).

The main teaching strategy to ensure the irreversibility of what was learned in the module was to gradually build the understanding of the related concepts for each of the sustainability dimension, and then to focus on the integration of these concepts. This strategy focused the deliberate structuring of the topic schedule of the module. During the first half of the module, after an introductory lecture on sustainability, each lecture and seminar was aimed at developing an understanding of the dimensions of sustainability and building off of the content learned previously. These topics included: social impacts of tourism, cultural impacts of tourism, environmental impacts of tourism, economic impacts of tourism, alternative typologies of tourists, impact analysis, and community based tourism. The second part of the module focused on the integration of these concepts with lectures and seminars focused on sustainable development, responsible and ethical tourism, marketing for sustainable tourism, and the future of tourism. The final section of the module then focused on offering alternative definitions of sustainability and sustainable development for tourism, sustainability issues (climate change, poverty alleviation, social justice, and economic development) on varying levels from local to government and across the private, public, and non-profit sectors. The final three class periods involve three hour long debates during which the class is split into three groups (pro, con, and jury). These debates were summative assessments during which the students have to develop well-articulated arguments based upon their knowledge of sustainability and tourism impacts and apply them to real world scenarios. The effectiveness of the deliberate structuring of the topics in the class is supported by the understanding of sustainable tourism offered by one student that suggests a depth of understanding that is unlikely to be reversed. The student offered:

> "The purpose of sustainable tourism is to ensure that development brings a positive experience for the local people, tourism companies, and the tourists themselves. However, sustainable tourism is not the same as eco-tourism. It is an industry committed to making a low impact on the environment and local culture, while helping to generate future employment for local people. It is important to understand sustainable tourism in order to develop community's cultural, economic, social, and environmental capital."

This students understanding of sustainable tourism, also reflects an integrated understanding of sustainability.

Sustainability is integrative

Sustainability is an integrative concept that transcends traditional disciplinary boundaries, often involving complex economic, social, and environmental issues that need to be addressed at multiple levels of analysis ranging from individual businesses to global initiatives. Additionally, the stakeholders involved in sustainability issues often have conflicting vested interests (Collins & Kearins, 2007). The lack of knowledge of sustainability principles has been seen as a barrier to the integration of sustainability principles by decision makers into the development process (Cubukcu & Eksioglu, 2009).

Complementary to an integrative conception of sustainability is the integration of teaching and sustainability. Reid and Petocz (2006) argue that lecturers with the most sophisticated and integrative academic understanding of sustainability are able to envision the implications and integration of key components of the concept as well as to how to make them most accessible to the students. In a tourism context, Jurowski (2002) argues that when sustainability is integrated into the curriculum of individual tourism courses by teaching students how sustainability principles are related to specific concepts or tourism management functions, the students are better equipped to apply them than if sustainability was the focus of a single course offering.

During the module, several strategies were aimed at developing the students understanding of sustainability from multiple disciplinary perspectives. During lectures theory was presented from sociology, environmental science, anthropology, economics, development, geography, and management. To make the theory more accessible to students, videos were used to illustrate the theories in action in 'real life' situations. One student commented that "*the videos we watched have really helped as they give real life glances at sustainability*." Additionally, case studies were used to demonstrate how sustainability principles have been incorporated into management functions. For example, one case study focused on the development of a code for responsible tourism. In another case study, students were presented with the development of an ecotourism resort in the Amazon, and were asked to present a management plan to develop the positive social and economic benefits for the resort beyond the conservation and environmental goals for which it was originally developed for. While students generally commented that the classroom based case studies did allow them to gain a 'wider', 'systematic', and 'integrated' understanding of sustainability within a tourism and hospitality context, many felt that 'real world' case studies, field trips, guest speakers from industry and other more experiential learning activities were even more effective. Throughout their second year, tourism students have had the opportunity go on several short fieldtrips to hotels, visitor attractions, and special events. While these fieldtrips did not necessarily focus upon 'sustainability', it was apparent during fieldtrips later in the term that more students did take the opportunity to ask 'sustainability' related questions, illustrating the students attempts to gain a 'real world' conceptual understanding of sustainability in a tourism and hospitality context.

Sustainability as troublesome knowledge

The concept of sustainability is troublesome in nature because the term itself is abstract (Herremans & Reid, 2002) and can be defined in different ways depending on the context. Wals and Jickling (2002) argued that the idea of sustainability is conceptually flawed, as its literal meaning is to keep going continuously. Wals and Jickling continue by acknowledging that some of the troublesome characteristics of the concept of sustainability can "render the concept useless or reduce it to a rhetorical instrument" (p. 222). On the other hand, the concept can provide a common 'language' for different groups in society to come together to discuss complex issues. The use of the concept of sustainability by different groups provides for an opportunity open dialogue and to 'learn on the edge', which "provides an excellent opportunity to learn about highly relevant, controversial, emotionally charged and debatable topic at the crossroads of science, technology, and society" (Wals & Jickling, 2002, p. 223).

Another troublesome characteristic of the concept of sustainability is that it has been used in tourism to compare often inconsistent and incompatible values, such as promoting economic development and community quality of life (Tyrrell, Paris & Casson, 2010). Wals and Jickling (2002) use Orwell's (1989) satirical notion of 'doublethink' in a discussion on how individuals hold contradictory meanings for sustainability and accept them both, which has led to the conditioning that sustainability is inherently good. This notion was evident in some of the students' definitions of sustainability. One student defined it as "*being able to use continually without destroying*." Another offered that it is "*defined through the actions of human nature and how it impacts the surrounding environment. It is not only an idea, but a tool to reduce or limit the impacts of humans to protect nature and conserve our ability to live on the earth*." A similar level of 'doublethink' is apparent in one student's definition of sustainable tourism as "*the use of a particular area for tourism purpose in a responsible manner. Preserving the area's original state. Sustainable tourism is measured by different impact assessment tools to measure the amount of damage caused and how to limit that damage*." Several strategies were employed to combat and simultaneously nurture the troublesomeness of the concept of sustainability.

During one class period towards the end of the second term, several alternative definitions of sustainable tourism were presented to the students. Three definitions were provided: one from a purely economic point of view, one based on community values, and one proposed by the UN World Tourism Organization. After presenting each definition, students were asked to critically discuss and evaluate each of the definitions based upon their understanding of sustainability up to that point. In this discussion it was clear that most students tended to lean towards the more 'traditional' definitions, in this case the one proposed by the UN World Tourism Organization. They also saw merit in the 'idea' of a community driven definition, but most found a purely 'economic' driven definition of sustainability to be problematic. During this discussion, a Socratic method of questioning was used in order to guide the students into a deeper discussion. After this discussion, two research projects were presented (Tyrrell, Paris & Biaett, 2013; Tyrrell et al., 2010) which measured sustainability based upon community values. The troublesome nature of sustainability is very apparent in these studies. For example, finding in one study (Tyrrell et al., 2010) suggest that sustainable tourism for community residents in the short run was based upon the economic benefits, but in the long run sustainability was based upon the social benefits of tourism.

Conclusion

This paper has focused on discussing and reflecting upon teaching strategies employed in an undergraduate tourism module in facilitating student learning of the concept of sustainability. To organize this discussion, sustainability was framed as a threshold concept in tourism education. Based on the reflection of students, the reflection of teaching and learning strategies, and the literature on education for sustainability in tourism and in other academic areas several conclusions can be made. First, students have all developed some understanding of sustainability, which will be built upon during their modules in their third year. The level of understanding, however, varied in level of complexity. The understanding of threshold concepts is very personal and dependent on each students learning and the ability of the teacher to guide the student through the understanding threshold. In the future several additional strategies could be effective in facilitating a more mature understanding of sustainability by tourism students. One student noted that a 'real-life hands-on experience' would have been very helpful to them.

While many case studies and videos were used throughout the class, an actual-hands on project could be useful. In particular, experiential learning can facilitate a deeper understanding of sustainability. A variety of experiential learning opportunities can be employed to support this learning. This particular group of students had the opportunity to complete a work placement during their third year of study, during which many secure positions within hotels, visitor attractions, and special events companies. Work-placements and internships provide an opportunity for students to transform conceptual understanding into practical skills and knowledge. Additionally, international research based field work, study abroad, and service learning (Hartman, Paris & Blanche-Cohen, 2014) provide opportunities for students to gain experience and further their conceptual understanding of sustainability. The goals of this paper are to share the practical experiences in educating for sustainability, with the hopes that they can be used as a starting point for other teachers to reflect upon their own teaching and learning strategies.

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