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Adult Learning in Ecotourism: The Current State of Research

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Abstract: This paper reviews research on adult learning in nature, adventure and community-based ecotourism. Aims, learning activities, outcomes and philosophical orientation of each type of ecotourism are analyzed, and areas in need of further research identified.

Introduction

Although there is a rich body of educational practice in environmental education for adults, environmental adult education is largely under-researched and under-theorized. The exception to this rule is the vibrant tradition of “Environmental Adult Education” – concerned with adult learning in the environmental movement, global environmental justice, transformative learning and popular education (Hill and Clover, 2003). However, other traditions of practice in environmental education for adults are largely absent in the wider field of Adult Education. At the same time, since the 1970s, the discipline of Environmental Education has produced a wealth of scholarship on environmental learning and education; however, this is mostly in relation to formal schooling for children and higher education. When adults do appear, their experience is often analyzed in terms of relationships to children; for example, in scholarship on intergenerational learning, or in university-based ecology or environmental education programs.

In Environmental Education, nonformal and informal environmental education for adults and children alike is also under-researched and under-theorized (Dillon, 2003), although “free-choice learning” in informal settings is currently a growing area of research in the field (Zeppel, 2008). As Environmental Education researcher Falk (2005, p. 2) concedes, “worldwide, most learning, and in particular most environmental learning, is acquired outside of school.” Such non-school settings include museums, science centers, botanical gardens, zoos, visitor centers and guided recreational and nature activities. In Adult Education, a limited amount of research has been conducted on nonformal environmental education (Taylor and Caldarelli, 2004; Feinstein, 2004), but none to date on adult learning in ecotourism.

The purpose of this paper is to develop a typology of the varieties of adult learning which occur in different forms of ecotourism and to identify areas of needed research. A comprehensive review of research literature in the fields of Ecotourism, Environmental Education, and Adult Education is used to identify: (a) aims, (b) learning activities and (c) outcomes of adult learning for each of three types of ecotourism. These are nature, adventure and community-based ecotourism, respectively (Honey and Stewart, 2002). The environmental learning which occurs in each type of ecotourism is then characterized according to five philosophical traditions of adult environmental education (Walter, forthcoming), following Elias and Merriam (1995).

The paper contributes to better understanding of the nature and importance of adult learning in ecotourism. Such new knowledge helps to identify areas of future research and may help to change the design of Ecotourism programs to be more cognizant of and focused on adult education. In theoretical terms, the paper extends the reach of Adult Education into two new areas of scholarship; namely, the fields of Ecotourism and Environmental Education; and by the same token, brings aspects of these fields into Adult Education, hopefully enriching all three.

Ecotourism and Visitor Learning

The meaning of ecotourism continues to be debated, but almost all definitions now include some aspect of environmental education as their aim (Weaver and Lawton, 2007; Honey, 2008). In a recent comprehensive review of ecotourism research, Weaver and Lawton (2007) argue that even while diverse definitions of ecotourism abound, they share three core criteria (p. 1170): “(1) attractions should be predominantly nature-based; (2) visitor interactions with those attractions should be focused on learning or education, and (3) experience and product management should follow principles and practices associated with ecological, socio-cultural and economic sustainability.”

In an attempt to define standards of practice in ecotourism certification, Honey and Stewart (2002, pp. 1-2) argue for a similar operational definition of ecotourism, once again with education as a key component:

...ecotourism is a multifaceted concept that involves travel to fragile, pristine, and usually protected areas. It strives to be low impact and (usually) small scale; helps educate the traveler; provides funds for conservation; directly benefits the economic development and political empowerment of local communities; and fosters respect for different cultures and human rights.

Honey and Stewart (2002, p. 1) further distinguish ecotourism from nature tourism (“travel to unspoiled places to experience and enjoy nature”) and adventure tourism (“nature tourism with a kick – with a degree of risk taking and physical endurance”). However, while this is a useful distinction to make in setting standards of what they term “authentic” ecotourism practice (p. 7), most other authors cast a wider net over the field, allowing nature and adventure tourism to fall under the umbrella rubric of “ecotourism” as well. For the purposes of this paper, this more inclusive meaning of ecotourism will be adopted, and the terms “nature” ecotourism and “adventure” ecotourism will be used to distinguish among types of ecotourism rather than to exclude them from the concept. The third type of ecotourism – corresponding to Honey and Stewart’s (2002) definition above – will be called “community-based” ecotourism, following common usage in the field (Weaver and Lawton, 2007, p. 1173-74).

Methodology

The review of literature for the study runs from the late 1980s, when the term “ecotourism” first began to regularly appear in the academic literature, to the present. Journals in the field of (a) Ecotourism were identified in reference to Weaver and Lawton’s (2007) state of the Ecotourism field review; those in (b) Environmental Education by an extensive search of academic databases for “ecotourism and environmental education” and “ecotourism and learning,” and in (c) in Adult Education by a review of leading journals. Ecotourism journals included: *Journal of Ecotourism*; *Tourism in Marine Environments*; *Environment, Development and Sustainability*; *Ocean & Coastal Management*; *Progress in Tourism and Hospitality Research*. Edited collections of research on ecotourism and key sub-topics were also reviewed. Journals in Environmental Education included: *Journal of Environmental Education*, *Environmental Education Research*, *Australian Journal of Environmental Education*, and *Canadian Journal of Environmental Education*. Finally, Adult Education journals included *Adult Education Quarterly*, *International Journal of Lifelong Education*, *Studies in the Education of Adults* and *Convergence*.

Findings

In findings for the study, a spectrum of philosophical orientations to adult education was identified, ranging from Liberal and Behaviorist (nature ecotourism), through Progressive and Humanist (adventure ecotourism) to Radical (community-based ecotourism). Findings are summarized in the chart below and then elaborated for each type of ecotourism in turn.

TYPE OF ECOTOURISM	AIMS	LEARNING ACTIVITIES	OUTCOMES	PHILOSOPHY
nature	-behavioral change: promote nature and wildlife conservation	- guided walks - nature centers - wildlife watching - interpretive programs	- increased knowledge - aesthetic appreciation - environmental awareness - action for conservation	Liberal Behaviorist
adventure	- psychological change: self-confidence self-fulfillment - environmental knowledge - outdoor survival skills	- guided camping, hiking rafting, canoeing, kayaking, mountaineering	- new skills & knowledge - psychological change - environmental action	Progressive Humanist
community-based	- community development - environmental conservation - cultural preservation - increased commitment to and action for social change	- participation in local livelihood and conservation activities - guided tours - indigenous experts - homestays	- economic development - cross-cultural exchange - revival of traditional knowledge - environmental conservation & activism	Humanist Radical

Nature Tourism (“travel to unspoiled places to experience and enjoy nature”)

Nature tourism can be broadly divided into land-based and ocean-based ecotourism. Land-based nature tourism includes activities such as hiking, bird-watching, nature walks, “swamp tromps,” “slough slogs,” canoe trips, visits to nature centers, wildlife viewing, interpretive programs and conservation activities (e.g. culling invasive species, docent volunteering). Land-based nature ecotourism is found in virtually all large National and State/Provincial Parks, as well as in urban nature centers and community centers, and through numerous naturalist organizations. Marine-based nature tourism (or “marine wildlife ecotourism”) includes both commercially-based and non-profit ecotourism ventures. For reasons of space, only research on adult learning in marine-based ecotourism will be summarized here.

Extant research on visitor learning in marine wildlife ecotourism includes whale-watching (Andersen & Miller, 2006; Forestell, 1993), dolphin-watching (Lück, 2003; Orams, 1997), turtle-watching (Tisdell and Wilson, 2005) and scuba diving (Townsend, 2003). This body of research covers but a small sample of marine wildlife ecotourism, which also includes viewing of animals such as porpoises, dugongs, manatees, seals, sea lions, sharks, rays, penguins, albatross, cuttlefish and a vast number of tropical reef fish and plants.

Several educational models of strategies by which affective and behavioral changes can be effected in marine wildlife viewing have been developed by researchers in the field. Early on, Forstell (1993) posited a three-phase model for environmental education in marine eco-tourism based on his long engagement with whale-watching in Hawai'i. During the first Pre-contact Phase (on the boat, before sighting the whales) apprehension and excitement among visitors is high, and this naturally leads to visitors asking questions about how to sight whales, their behavior, biology, habitat; about safety; and about oceanography, natural history, and geography. Guides give out relevant information in "short doses" and speak also about whale conservation and the need for environmentally sensitive visitor behaviors. During the second, dramatic Contact Phase, with breaching whales in front of them, visitor questions focus on what is being seen: whale species, sex, body features, behaviors and safety. Forstell sees this phase as full of "teachable moments" since visitors are experiencing "dynamic (cognitive) disequilibrium" in response to an emotional personal encounter with whales. Visitors are now open to more in-depth learning on the behavioral dynamics of whales, relationships between animals, how environment shapes behavior, etc.. This learning then helps them regain "cognitive balance." Finally, in the Post-Contact Phase, visitors tend both to compare what they have learned on the trip with their previous knowledge of whales, and to incorporate the whale-watching experience into a wider understanding of environmental issues, mainly related to potential harm and threats to whales (e.g. oil spills, hunting, food supply). At this point, interpreters will talk about connections between visitor behaviors and whale and marine life conservation, and introduce a wide range of conservation actions they might take (sign a petition, contribute to an environmental group, lobby government, volunteer for conservation activities, etc.).

Building on Forstell's model, Orams (1997) proposed and tested a five-part model for the development of education programs to "increase visitor enjoyment and understanding and prompt more environmentally responsible behaviour" (p. 296). Orams' model begins with the twin areas of Curiosity ("creating questions in people's minds") and The Affective Domain ("using techniques and stories to involve participants' emotions"), moves into creating Motivation to Act (outlining environmental problems plus solutions), then into giving Opportunities to Act (on the spot petitions, applications to join environmental organizations, purchase of environmentally friendly products), and finally, Evaluation and feedback into program planning (pp. 297-98). In testing his model with experimental (n = 317) and control groups (n = 308) of dolphin-watchers, he found strong indications of desired behavioral change toward environmental responsibility on the part of tourists in the experimental group (i.e. Those following his five-part model), but not in the control group.

For the most part, other research on marine-based ecotourism has likewise found desired education and conservation outcomes. Zeppel (2008, p. 13), in a meta-analysis of research on interpretive programs in 18 marine wildlife tours, summarizes their educational effects: "Providing wildlife experiences that elicit from visitors a combination of affective and cognitive responses to marine wildlife increases environmental awareness, modifies intentions to act pro-environmentally, and fosters conservation appreciation and actions by visitors."

Adventure Tourism ("nature tourism with a kick")

Adventure tourism is a form of ecotourism encompassing numerous experiential education and outdoor education programs. These programs of backpacking, skiing, ice climbing, rafting, horse-back riding, white water kayaking and rock climbing usually take place in wilderness settings and have "an element of adventure or challenge used as a method to educate through direct experience" (Warren, 2005, p. 89). Outdoor adventure programs include

therapeutic, leadership development and environmental studies organized by schools and universities as well as commercial ecotourism and non-profit adventure tourism programs for adults. Educational aims include personal growth, the learning of technical survival skills (travel and camping) and environmental, geographical and historical knowledge (Potter and Henderson, 2004). Outward Bound Wilderness is perhaps the most famous of these initiatives, but community and commercial programs, including those sponsored by indigenous peoples, wilderness adventure groups, adventure travel agencies and local ecotourism operators are increasingly common.

The Outward Bound program has been the subject of voluminous educational research, but less research has been conducted on adult learning in other forms of adventure tourism; in particular, on local and commercial adventure ecotourism ventures. In Adult Education, one relatively well-documented outdoor experiential learning program is the Audubon Expedition Institute (AEI), which has strong parallels to adventure ecotourism. The program is “based on the assumption that the best way to truly learn about the environment is to experience it directly,” with its goal “to create experiential learning communities that inspire informed and compassionate ecological leadership” (AEI 2009). Like social justice streams of Outward Bound (Warren 2005), AEI not only encompasses time “spent in the backcountry,” but also firsthand experience of environmental impacts on these areas (AEI 2009). In this model of experiential education, students move through a modified version of David Kolb’s four experiential learning stages (Wittmer and Johnson, 2000). These include: Preparation (observation and reflection), Experience (concrete experience), Personal and Collective Reflections and Transformation (abstraction) and Application (experimentation). Much like visitors in Forestell’s (1993) Post-Contact Phase of nature ecotourism, in AEI’s final Application stage, students might write advocacy letters to a local newspaper, volunteer with service and environmental agencies, or pursue careers as environmental advocates (Wittmer and Johnson, 2000).

Community-based Ecotourism (community development and environmental conservation)

Adult learning in community-based ecotourism (CBE) is probably the least researched among the three forms of ecotourism, although CBE is also one of the richest sites of learning. The summary presented here will be necessarily brief, and draws mainly on the author’s recent study of adult learning in a community-based ecotourism project in southern Thailand (Walter, in press). CBE is widely associated with sustainable development, and takes form in community ecotourism development projects in the global South as well as indigenous communities in the North. As noted in the quote in the second section of this paper, CBE, like nature and adventure tourism, aims not only to educate the traveler and support environmental conservation, but also to bring direct economic, social, political and cultural benefits to local communities. CBE initiatives are as varied as the communities and natural environments in which they are found, ranging from the Galapagos Islands, to Costa Rican rainforests, and the wildlife of Southern Africa to the lands and waters of the indigenous communities of Canada, the U.S. and Hawai’i (Honey, 2008; Nepal, 2004).

Environmental learning and education in CBE takes place in the intense, and relatively prolonged personal encounter between visitors and local people who are at once hosts, indigenous environmental and cultural experts, organizers of tourism activities, and guides to experiencing and understanding the natural environment and livelihood activities (Walter, in press). Visitors may learn not only of indigenous species of fish, birds, animals, trees, plants and other life, but also of the cultural understandings and livelihood activities of the sea, forest and land. They may learn, for example, to appreciate the beauty and biodiversity of tropical rainforests and reefs, and

to catch fish, navigate local waters, build traps, dig for shellfish, cook local food, tap rubber, plant rice seedlings, speak the local language, and learn about culturally appropriate behavior, local belief systems, politics and problems. They may also participate in local environmental conservation or community development efforts and, like whale-watchers and adventure ecotourists, engage in wider environmental activism as a result of this learning.

Conclusion

Of the three types of ecotourism, research on adult learning and environmental education in nature tourism appears to be the most extensive, mostly in the behaviorist tradition. Research on adventure tourism as a commercial venture outside of educational institutions is scarce, although experiential education models provide a promising point of departure for studying less structured forms of ecotourism learning. Finally, research on adult learning in CBE is still in its infancy, although this form of ecotourism appears to be a rich site of adult learning.

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