Experiencing Sustainability:
Thinking Deeper About Experiential Education in Higher Education

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Abstract: Jack Turner (2005) once wrote "we treat the natural world according to our experience of it." How are our students "experiencing sustainability" in U.S. colleges and universities? With the rise in popularity of education for sustainability initiatives in both K-12 and higher education, experiential education has been championed as a key pedagogical approach moving forward. Experiential curriculum projects come in many different forms. From outdoor education and service learning to so-called "hands-on" applied work on campus projects and field science research, students are increasingly "learning by doing." Yet far from just another methodology to be used in the classroom, the rise of experiential approaches indicates deeper tectonic shifts in higher education. As students and faculty engage in this form of learning, questions are raised as to the historic divide between theory and practice, the separation between so-called "town" and "gown" cultures, the curriculum and the co-curriculum, and what forms of knowledge and skills are of the most worth to a 21st century graduate. This analysis first briefly surveys the theoretical history of experiential education before proceeding to consider two specific curriculum projects at the intersections between sustainability and experiential education—place-based learning and project-based learning. The analysis concludes with a discussion of the possibilities and limitations of current forms of experiential education in higher education and a consideration of future trends and developments.

Keywords: sustainability, education, experiential education, outdoor education, place-based learning, history of education

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Introduction: The Uneven Terrain of Higher Education

For a variety of complex and interdependent reasons, the ground beneath U.S. colleges and universities is shifting dramatically. Distance learning, video conferencing, crowd sourcing, and the extreme individualization and portability of learning have created aftershocks throughout K-12 and higher education; the recent "edX" initiative at MIT and Harvard is just one example of the wide-ranging impacts technology will have in the future of the Academy.[1] The flattening of information and knowledge resulting from our century's "Gutenburg Press Moment" -- the Internet and rise in technological innovation – is well documented in both the popular and academic press (Darling-Hammond, 2010; Friedman, 2005). The economic realities of the recession of 2008 have led to serious and sustained questions regarding the value of traditional, residential 4-year degree programs in general, and the less "applied" fields in the humanities and social sciences in particular. While fears of lack of career readiness are certainly nothing new in the discourse of U.S. educational reform, the combined load of low employment and rising student loan debt has made this historical moment particularly unnerving. Further, recent critiques of higher education question its value and purpose and call for radical reform. In 2011, the Association of American Colleges and Universities (AAC&U) published *A Crucible Moment: College Learning and Democracy's Future* that strongly critiqued U.S. colleges and universities for failing at the fundamental task of fostering a sense of civic engagement and responsibility amongst students, faculty, and staff. Further, as Andrew Delbanco (2012) states in *College: What It Was, and Should Be:* "…the role of faculty is changing everywhere, and no college is impervious to the larger forces that, depending on one's point of view, promise to transform, or threaten to undermine, it. As these forces bear down on us, neither lamentation nor celebration will do. Instead, they seem to me to compel us to confront some basic questions about the purposes and possibilities of college education…" (6).

During this particular historical moment higher education has simultaneously witnessed a dramatic rise in sustainability initiatives on college and university campuses in the United States. Across the country, in community colleges, small liberal arts colleges, and major research universities, we find students, faculty, and staff engaging in various forms of "deep play" in relation to sustainability. Dorm energy competitions, college gardens, faculty-student collaborative sustainability research, community eco-justice related projects, interdisciplinary thematic coursework, and a host of other initiatives have emerged that point to new and innovative forms of teaching and learning. Early sustainability efforts concentrated on college and university physical plants and establishing degree programs. LEED certified buildings, green retrofits of existing facilities, environmental studies majors, and waste minimization schemes became part of a "first wave" of sustainability initiatives in the early 1990's. While this work is on-going, a second wave of attention is emerging that focuses predominantly on the intersections between the curriculum and co-curriculum and extending sustainability beyond the classroom and campus boundaries and into various communities of interest.

All of the activity surrounding sustainability leads to a central question: why is it, during a time of great turmoil and existential questioning of the value and purposes of higher education that we see such growth, energy, and vitality in the area of sustainability? While the post-*Inconvenient Truth* era and the realities of climate change certainly have much to do with it, there is a deeper pedagogical force at play here.

Projects of these sorts have real impact not only on bottom line sustainability measures but on how students, faculty, and staff co-create what John Dewey (1938) termed "educative experience." While some see these initiatives and activities as faddish, their popularity and success point to new forms of teaching and learning—forms that are more active, relevant, problem-based, collaborative, complex, and interdisciplinary.[2]

As students and faculty engage in this form of teaching and learning, questions can be raised as to the future trajectory of what Michael Bonnet (2010) calls the "metaphysical landscape" of education. As Bonnett argues, "[h]ere a voice is given to the 'subject matter' itself—the world—and the need to listen and respond to what it calls for…" (p. 184). The longstanding divides between theory and practice, between so-called "town" and "gown" cultures in American institutions of higher education, between the curriculum and the extracurriculum[3], and "thinking work" and "making work" all draw us toward a reconsideration of perennial questions in the philosophy of education: what knowledge is of the most worth? And, what is education for? At the heart of these reconsiderations, I argue, is a robust and rigorous notion of experiential education. And here again, we must re-inscribe a notion of rigor set apart from traditional forms codified in the Academy where "rigor" is meant to be self-evident and synonymous with difficult intellectual mind work. As Bonnet (2010) (re)defines it: "Rigor is the product of careful attention to a thing as it is in its relations to other things in each, unrepeatable moment" (p. 180). How might our curricular and co-curricular landscape change if colleges and universities were to adopt this definition of rigor and hold our teaching and learning processes accountable to it? Experiential education, with its subsequent stances on giving voice to the subject matter, on integrating learning, and on collapsing the false dichotomies between the "real world" and the "school world" forms an important pedagogical platform not only for sustainability initiatives but for re-imagining new forms of engaged, rigorous, learning in our colleges and universities.

Experiential Education: A Brief History

There appears to be little consensus on what, in fact, experiential education is. It has been alternatively described as "adventure education," "outdoor education," "challenge education," and "environmental education" (Adkins & Simmons 2002; Priest & Miles, 1990). The American Educational Research Association (AERA) includes such Special Interest Groups (SIG's) as "Ecological and Environmental Education," "Outdoor and Adventure Education," and "Service Learning and Experiential Education." Richard Louv, (2008) labels it a "movement" in *Last Child in the Woods*: "[t]he definitions and nomenclature of this movement are tricky. In recent decades, the approach has gone by many names: community-oriented schooling, bioregional education, experiential education, and, most recently, place-based or environment-based education" (p. 204). How could curricular approaches as varied as "adventure education" and "community-oriented schooling" be considered the same thing?

To further muddy up the water, practical applications of experiential education are numerous and varied. Certainly we might consider each of the following as examples of experiential education: taking a field trip, working cooperatively in a group on a project, volunteering in the community, completing a lab experiment, or learning to ride a bike. Each of these learning activities involves some degree of experience as part of the process. But then, doesn't *all* learning involve experience? If so, have we created a sort of

tautology here? That is, can we only define experiential education as "education that involves experience"? If so, we haven't really articulated anything at all. Surely, not *all* education is experiential education. As evidenced by Louv and the examples listed above, people do seem to have a common-sense framework that they draw from in articulating what experiential education is. Experiential education is more of a "something" than an "everything." One aspect to clear up is the distinction between experiential *learning* and experiential *education*. Experiential learning happens constantly. We burn our hand on a hot stove and we learn something from that. We drink too much at a party and we (hopefully) learn from such mistakes. Learning happens in the moment whereas education is more accurately seen as a larger process. Just about any classroom has some form of experiential learning taking place. This is not the same, however, as saying most or many teachers are experiential educators. In order to "do" experiential education, there are a larger set of values, stances, and perspectives of the teaching and learning landscape that one ascribes to. So, importantly, while experiential education might employ "learning by doing" as a technique, the educational philosophy goes far beyond that to a distinct formulation of what Connelly and Clandinin (1988) called the "commonplaces"-- the dynamic roles of the learner, teacher, subject matter, and socio-political milieu.

So what is experiential *education* then? While we must be cautious about legislating a single, universally accepted definition, there is a common intellectual history from which modern day experiential education emerges. While one could certainly extend such a history back to the Greeks[4], Rousseau, and the Romantic period, experiential education seems to crystallize at least in the context of the United States during the Progressive Era of the early 1900's. Most often, John Dewey is lifted up as one of the founding fathers of the field.[5] While it is beyond the scope of this discussion to go into this history in any detail, it is important to note that progressive education emerged out of the larger philosophical zeitgeist of American Pragmatism. Out of this "pragmatic ethos" (Bernstein 1992) emerged strong stances on the importance of working on problems in context, the fallibility of human knowledge, and on action. As Biesta and Burbules (2003) note, the approach is different in that it deals with "questions of knowledge and the acquisition of knowledge within the framework of a philosophy of *action*, in fact, a philosophy that takes action as its *most basic* category (pg. 9, *emphasis in text*). Action was so central to pragmatist philosophy as it enabled knowledge to be tested out in the world. Pragmatists rejected the old empiricism that aimed to make knowledge claims independent of human experience. They saw a world of infinite interactions and described their new philosophy as a "Copernican turn." To Dewey, for example, "[t]he old center was mind…the new center is infinite interactions" (quoted in Biesta and Burbules, pg. 10).

Dewey, one of the leading pragmatists of his day, took this stance and applied it directly to the problems of education and schooling. Two key concepts emerged from his new philosophy of education: interaction, and continuity.

> Thus we reach a technical definition of education: it is that reconstruction or reorganization of experience which adds to the meaning of experience, and which increases the ability to direct the course of subsequent experience. (1) The increment of meaning corresponds to the increased perceptions of the connections and continuities of the

activities in which we are engaged (Dewey, 1938, pp. 76-77).

To Dewey, for an experience to be educative, one must have both of these elements in play. For example, a student might volunteer in the community one weekend to help build a Habitat for Humanity house. Perhaps she travels there with her sorority sisters and spends a fine day out hammering. But, in this experience, is she interacting with anything *outside* of what she already knows? Does she meet and build relationships with anyone from the community? If not, she has experienced what Dewey might call an isolated experience. Further, has anyone helped her frame this experience in a larger context? During and after the experience, has she been asked to connect her experience to other experiences, learning, and association? If not, Dewey might call this a "primary" as opposed to a secondary experience.

> An experience may be immediately enjoyable yet promote the formation of a slack or careless attitude; this attitude then operates to modify the quality of subsequent experiences so to prevent a person from getting out of them what they have to give…Each experience may be lively, vivid, and "interesting," and yet their disconnectedness may artificially generate dispersive, disintegrated, centrifugal habits. The consequence of formation of such habits is inability to control future experiences (Dewey, 1938, pg. 28).

In this example, we might see how an experience can be more or less "educative" depending on the degree to which it is integrated and made continuous. A "one-off" service learning project in the community, while potentially enjoyable, may promote the formation of a "slack" and "careless" attitude. This does not just affect the initial experience, it has the potential to carry forward on to future experiences by framing the way this student may view service, poverty, or town-gown relationships at her college. To combat this, Dewey advocated for a "continuous reconstruction of experience" (1916, p. 80) where interaction and continuity are paramount.

While some of this ought to come from the student and her peers, much of this burden is placed on the educator. This is how "child-centered" education is really a misnomer when describing Dewey's pragmatic educational philosophy. It is the educator who must take care to frame experiences well, help the student integrate them, and ensure that the experience fits within a larger, continuous process that is coherent and discernible. By no means did Dewey see experiential education as simply allowing the student to follow his or her whim without constraint or direction. Embedded within experiential education is a key paradox between freedom and constraint. Dewey, mindful of false dichotomies, never saw this paradox as an "either:or" proposition. Determining the proper balance always came down to the artful educator and the particular teaching moment.

Beyond Dewey, a number of educators and philosophers have taken up experiential education for a variety of projects. Paulo Freire's (1970) work with Brazilian peasants has long inspired educators who wish to create a more dialogic approach to teaching and learning and dislike the dominant "banking" method which sees students as empty vessels to be filled up (or deposited) with content. bell hooks (1994) and Patricia

Hill Collins (2000) have argued powerfully for the insertion of "lived experience" into the curriculum as a way of troubling white, male dominated constructions of knowledge in the Academy. David Sobel (2005), Richard Louv (2005), and others have argued for a renewed engagement with a "direct experience" with the natural world to bring about a change in environmental ethics and awareness. Each of these variations of experience (Jay 2005) indicate not a clear-cut and standardized approach to experiential education but rather a diverse and complex "field of play" where a multitude of theoretical and philosophical stances are enacted (Roberts 2011).

Experiential Education, Sustainability, and the Academy

While progressive education and Dewey's notion of experiential education is well known in K-12 schooling in the U.S. (though debatable in terms of its implementation), it has taken quite a bit more time for the approach to gain a foothold in higher education. Historically, "experiential education," if understood at all on college and university campuses, was typically relegated to rather narrow formulations around either outdoor education or service learning and internship programs. The last decade, however, has witnessed a rather dramatic rise in experiential initiatives on college and university campuses. The various curricular and co-curricular projects are as varied as they are numerous. Curiously, many of these projects are closely connected to education for sustainability movements on college campuses. Below, I'll briefly discuss two main approaches and detail their connections to sustainability education.

Place-Based Learning

Drawing originally from the work of David Sobel (1995) and the theoretical history of bioregionalism (Synder 1990), place-based learning begins with a simple proposition: what can engagement with our local/regional places teach us? As Gruenwald (2005) notes: "a multidisciplinary analysis of place reveals the many ways that places are profoundly pedagogical. That is, as centers of experience, places *teach* us about how the world works and how our lives fit into the spaces we occupy" (621). In my experience working with faculty, it has always surprised me how little we (I place myself in this critique) engage with the actual places where our colleges and universities reside. The often referred to "town-gown" divide is as much a function of our *curriculum* as it is any essentialized class or identity based divisions. As Eric Zencey (1998) notes in a wonderful essay titled "The Rootless Professors:" "As citizens of the cosmo-polis, the mythical 'world city,' academics are expected to owe no allegiance to geographical territory. They're supposed to belong to the boundless world of books, and ideas and eternal truths, not the infinitely particular world of watersheds, growing seasons, and ecological niches" (61). Thus, it is not so much the University of "Maryland" or "Kansas" as it is the University of "Nowhere."

Correcting this learned ignorance has been the project of place-based initiatives on college and university campuses all over the country. The well documented Ponderosa and Piedmont Projects out of Northern Arizona and Emory University initiated a movement that has gained increasing interest and momentum. From first-year seminars entirely focused on the local or regional area to long-term, multi-year initiatives such as the recently established Oberlin Project in Oberlin, Ohio, colleges and universities are beginning to realize the vast, untapped potential in place-based engagement. The benefits

of such an experiential curriculum are numerous. College campuses become more connected to the community in important ways, students feel a greater sense of "place attachment" which likely aids retention (someone really ought to study this), the curriculum comes "alive" and relevant as students see theory and practice in much closer relationship, and the campus becomes an ally to the community in building strategic partnerships and building capacity and resilience. Sitting at the center of all of this is a vibrant notion of experiential education. Students and faculty become co-inquirers, local residents and practitioners become organic intellectuals, and the curriculum becomes much more integrated, thematic, and emergent. There are, of course, degrees of place-based learning. At one end might be a simple class organized field trip. At the other end may be an entire semester (or immersion year) focused on place. Where an individual faculty member, department, or school fits within this continuum is dependent on many factors not the least of which is a university model structured *against* interdisciplinary, thematic, out-of-class learning. Nonetheless, there are enough successful models in place to show that it can be done given enough determination, flexibility, and creative spirit.

And how does place-based learning connect to sustainability? As Scott Russell Sanders (1993) puts it, "…what I mean is plain and simple: body and land are one flesh. They are made of the same stuff. Their beauty is one beauty, their wounds the same wounds… The health or sickness of one is inseparable from that of the other. There is no division between where we live and what we are" (51). Robert Pyle famously worried that our lack of direct contact with nature will lead to an "extinction of experience." We would, in other words, be unable to find a reason to care about the natural world anymore since we have no lived experience to draw from. Everything becomes an abstraction, a distant object, something to be vaguely "concerned about" but not really motivated to work on. It is what Nel Noddings (2002) referred to as the distinction between caring "about" and caring "for." Without attention to places, we can care "about" issues like poverty, racism, species extinction, and water quality without a more active caring "for" the people, ecological systems, and other species that dwell in specific places. This form of land ethic requires an experiential (and longitudinal) engagement with place far beyond the simple field trip or one-off service learning project. Repairing the severed bonds between the human and the more than human world is the root core of a sustainability ethic. Place-based learning is one approach, of many, that works to stitch back together what has been torn apart.

Project-Based Learning

Captured under the more general descriptor of "project-based learning" is another set of experiential curriculum projects rapidly emerging on college and university campuses. Variously described as "learning laboratories," "integrated learning," "problem-based learning," and "community-based action research," project-based learning attempts to organize curricular activity around real, authentic problems found either on campus or in the community. In considering the campus as a learning laboratory for example, one needs to look no further than the physical plant itself as a context for meaningful teaching and learning. As David Orr (2002) notes, although there is been little discussion of the educative value of the physical spaces of college campuses, they hold enormous potential: "The design of buildings and landscape is thought to have little to nothing to do with the process of learning or the quality of scholarship that occurs in a

particular place. But, in fact, buildings and landscape reflect a hidden curriculum that powerfully influences the learning process" (128). Like with place-based learning, I am constantly surprised at how little, as faculty, we look around us on the campuses and in the communities where we live and work for potential experiential project learning with students. Yet, once you begin to pay attention, project-based learning possibilities begin to crop up everywhere.

This lack of awareness stems, in part, from the increasingly market-driven, neo-liberal structuring of the Academy. Students are increasingly seen and framed as consumers of an "educational product." Campus activity is meant to ensure that students do not become distracted from a lock-step march from admissions to graduation as "efficiently" as possible while everyone focuses on job prospects the first year out of college as an indicator of "return on investment." This despite copious research demonstrating that most of the careers these college graduates will encounter have not even been invented yet and the fact that one is likely to change careers multiple times throughout life. It is a great irony, then, that while colleges and universities are becoming eclipsed by market logic, students rarely engage in meaningful connections between theory and practice while at school. How many times have we begun a conversation with our students by saying "well, when you get out into the real world…" It is a testament to how isolated our notion of school has become that we frame conversations this way. Some colleges (namely the historic "work" colleges like Berea and Warren Wilson) have bucked this trend and ensure that "intellectual" life and "work" life are not falsely divided. But, by and large, students are not asked to do much in putting their knowledge to work on campuses and in communities short of rather mindless "work-study" arrangements such as answering phones, making photocopies, or re-shelving books. Or, as is the case for far too many students, holding part-time service industry jobs just to manage their school expenses and student loan debt. Yet much, much more can be done to link the "school world" with the "real world" and, in the process, invigorate student (and faculty) engagement.

Educator and founder of Outward Bound Kurt Hahn once famously quipped in his Seven Laws of Salem: "You are all crew; not passengers. Let the responsible boys and girls shoulder burdens big enough, if negligently performed, to wreck the State" (Miner & Boldt 2007, 372). Students learn the responsibility that comes with knowledge by acting out in the democratic field of play—not by spectating from the sidelines. How do we expect students to gain the critical skills of civic engagement, of testing values against material constraints, of collaboration and consultation, if they have no such opportunities during their time at school? Hahn's notion of "crew" argues that students must do real work in order for them to truly understand citizenship in their communities of interest. Perhaps more provocatively, Hahn suggests that their burdens ought to matter—they ought to be big enough to feel a true sense of responsibility. Simulations, minor clerical tasks, or contrived role-playing initiatives simply won't do.

Project-based curriculum projects, like place-based one's, are all around us in higher education if we only take the time to look around. On many campuses, students are collecting the greenhouse gas emissions data for the college-- learning crucial skills for sustainability audits and assessment in the process. Elsewhere, students are building computer models for local government to help create more fuel-efficient routes for waste management trucks. At one college, faculty and students are working as a research team

to devise a regional sustainable food network. Like place-based approaches, project-based learning runs against many of the dominant institutional structures of the Academy. Projects are, by definition, multi-disciplinary and thematic. They require engagement and time that often runs against the three-days-a-week, 55-minute lecture period. Assessment of learning in projects such as these don't lend themselves to bubble sheets and multiple choice examinations. But for the faculty who try them and for the students who experience them, they can often be the highlight of an undergraduate education.

The project-based approach to sustainability education yields a number of provocative questions for faculty, students, and university administrators moving forward. For administrators, how do our institutions of higher learning move beyond slick marketing campaigns and "greenwashing" to substantive educational responses in relation to sustainability? For faculty, what are the pedagogical implications of extending the classroom beyond the traditional four walls and out into multiple (and public) places and spaces? For students, what might the differences be between learning "about" sustainability and learning "through" it? Questions such as these return us to a fundamental query: what is college for? Project-based learning opens up space to consider new possibilities in answering this question-- possibilities at the intersecting spaces between problems and places, colleges and communities, co-learners and collaborators, and knowledge and responsibility.

Conclusion: Possibilities and Limitations

As the pressure increases on colleges and universities to demonstrate strong and effective learning outcomes for students, higher education is struggling to prove the value of the specific educational experience and preparation they offer. Students (and their parents) are looking for a curriculum that is more relevant, outcome-oriented, and practical. Yet this is not simply a market driven value. These attributes are also strongly supported by the new science of learning. Learning environments that are active, complex, multi-sensory, reflective, and community-oriented support deeper and more long-term understanding and retention of information (Bransford 2000). The increase in the use of place-based and project-based learning, along with other forms of experiential education, points to new pedagogical possibilities in higher education. At a time when the fixed-seat large lecture hall serves as the very symbol of outmoded "instructional delivery", experiential education represents a distinctive philosophical approach to the role of the learner, teacher, subject matter, and socio-political milieu that cannot be outsourced to the Internet. Place-based and project-based learning, in particular, present exciting synergies between experiential education and education for sustainability with their active, collaborative, and practical orientation.

Yet this only remains a possibility. The limitations of the current institutional structures of the Academy, with the isolated disciplinary "silos," the mechanistic and industrial organization of the daily-weekly schedule, the "ivory-tower" orientation that falsely divides theory from practice, and the "death-by-Powerpoint" pedagogy that views the teacher primarily as a content delivery device, makes a full flourishing of experiential education on college and university campuses unlikely anytime soon. But we ignore the coming tsunami of blended learning, "MOOC's," and digital age at our peril. If all we have to offer is "information," there are far more effective means for students of the 21st century to find it. For a world awash in environmental crises, more "information" is not

what we need. What higher education can offer, at its fullest and most transformative level, is not information but knowledge and, yes, even wisdom. If colleges and universities are truly going to take a leadership role in educating for sustainability, it will require not just education but, to paraphrase David Orr, education of a *certain kind*. I am convinced that a vital aspect of this education of a "certain kind" is experiential education.

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[1] As a further testament to this new era, Stanford's Sebastian Thrun made headlines in the fall of 2011 when his on-line Artificial Intelligence course enrolled over 160,000 students. According to the *New York Times* ("Harvard and MIT Team Up To Offer On-Line Classes," May 2, 2012), Thrun's new venture, Udacity, has enrolled 200,000 students into six courses thus far.

[2] It is certainly the case that many of these approaches are not necessarily new—any student of early 20th century progressive education will recognize elements of the experiential pedagogy. Many K-12 schools such as Expeditionary Learning and Place-Based Learning schools are incorporating these pedagogical principles. Yet I would

contend that these sorts of progressive educational approaches have been slower to gain a foothold in higher education.

[3] The word commonly used here-- "extracurriculum" or "extracurricular"-- is instructive. At my institution, we have aimed to collapse this divide by re-naming these elements of the learning environment "co-curricular." This move, while helpful, does not appear to have changed the underlying structures that distance the potential transactional relationships between these two domains.

[4] It is important to note that beyond Aristotle and the Greeks is a non-western notion of experiential education derived from the writing and oral histories of first peoples (see LaDuke 1999, and Lee 1986).

[5] The scope of this paper is too brief to trouble this history but I would point out to the interested reader that there are a number of works that attempt to go beyond this simplistic (and narrow) folk-history of the field (see Fenwick 2001, and Seaman 2008).