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Assessing Rigor in Experiential Education: A Working Model from Partners in the Parks

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Assessment has become a popular buzzword on academic campuses over the last few decades. Most assessment models are designed to evaluate traditional learning structures. If we were to state simply the process of assessment, it might read like this: a) what you want the students to learn; b) how you want to teach the material; c) how you know if the students learned the material. In a traditional pedagogical environment, for example, an instructor might want the students to learn how early geologists deduced the influence of glaciation in the Sierra Mountains from striations on polished granite surfaces. She would design a lecture that presents the information, and then she might create a test or project to find out whether the students retained the material in a useful way. One could argue that current assessment strategies are often designed to validate rather than assess traditional pedagogical practices, leaving little room for the development of teaching and learning practices that might radically deviate from the norm.

Honors programs and honors education, however, have long been defined as educational experiences that push traditional pedagogical boundaries in numerous ways. Just ask any honors director or sample the website of any honors program and you will find evidence in support of such claims. Both the NCHC-affiliated Partners in the Parks program and City as Text™ experiences push the boundaries of traditional learning models even further by incorporating experiential education in their core design. But experiential education practices are logistically difficult to assess using conventional evaluation models given the prevalence of unexpected “teachable moments” and unpredictable learning opportunities. If instructors cannot anticipate what students will experience and learn, then they have less control over outcomes.

In short, designing assessment models without having solid control over the content or the methods of content-delivery is tricky.

We can offer one model of an assessment strategy for experiential education programs based on the 2012 Partners in the Parks adventure in Sequoia National Park, where we qualitatively measured the rigor of this week-long program by requiring participants to propose interdisciplinary honors research projects that combined the students' chosen fields of study with their sometimes unpredictable learning moments and experiences.

RIGOR IN EXPERIENTIAL EDUCATION

In "Differences between Experiential and Classroom Learning," Coleman argued that traditional classrooms use an information-assimilation process in which students receive information through lectures and textbooks, organize the information, draw inferences to apply the information, and act on the inferences. However, because of time constraints and other factors, modern schools rarely reach the action phase, which is probably the most important (Kraft and Sakofs). Experiential education accomplishes the process in reverse order so that action is the first phase, followed by inferences, organization, and understanding. Because the vast majority of our schools maintain the information-assimilation model, students who have not mastered the first phases of the process are doomed to failure when action is required (Coleman). Conversely, experiential education is intrinsically motivational and employs our natural style of learning (Kraft and Sakofs). Unfortunately, experiential education is time-consuming and does not conform to pencil-and-paper forms of assessment, which has slowed its widespread adoption in higher education.

One of our home institutions, Southern Utah University (SUU), recently joined a growing movement in higher education to incorporate experiential education into formal curricula. SUU's Academic Roadmap states that "the general studies component of every undergraduate degree includes an experiential education requirement and capstone project." To fulfill this requirement, students may enroll in experiential programs in their community, overseas, the outdoors, or programs that involve creative and innovative initiatives or leadership. The Academic Roadmap caused shifts in established curricula, leading many academics and administrators to question "the rigor" of experiential education. In addition to critical viewpoints that see experiential education as more fun than academic, many have predicted that the requirement will become a check-the-box process unlikely to add much to students' education. Such concerns arise when any educational philosophy or approach veers from traditional pedagogical traditions, and they need to be quickly and thoroughly addressed.

To assess rigor in experiential education, we must first define each of these terms. Research on experiential education has been ongoing since the mid-1970s, and numerous definitions have been proposed (e.g. Kolb and Kolb; Kraft and Sakofs). The Association for Experiential Education (AEE) offers this definition:

Experiential education is a philosophy that informs many methodologies in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities.

While the AEE's definition outlines a philosophy, it fails to address the means by which to guarantee and assess the academic rigor of the experience.

The definition of rigor in the context of an academic experience is elusive. Educators seem to have developed an evolving definition that includes (1) the practical rigor of holding students accountable to a specific set of standards and/or knowledge and (2) the theoretical rigor of developing critical thinkers (Jacobs and Colvin). An example of practical rigor would require students to learn lists of definitions and concepts that must be repeated on a fill-in-the-blank or multiple-choice test. An example of theoretical rigor would require students to use a set of data or information to make inferences and interpretations regarding a particular topic.

Assessing the practical and theoretical dimensions of rigor requires a pre-defined set of educational standards, a method to assess students' understanding, and a method to assess students' ability to apply the concepts to a broader perspective. These prerequisites are challenging in the realm of experiential education because students encounter unpredictable lessons during countless and unconventional "teachable moments." During the Partners in the Parks adventure to the Outer Banks National Park, for instance, the students had the opportunity to observe the rescue of a beached whale, an opportunity that no one hopes for but that cannot be ignored. Lessons learned from such observations can heighten students' ability to apply their experiences and attain broader perspectives than prescribed standards allow, but they cannot be assessed in a standardized test. Our assessment strategy tries to build a model that addresses both the practical and theoretical dimensions of rigor.

PARTNERS IN THE PARKS

As outlined in the 2010 NCHC monograph *Partners in the Parks: Field Guide to an Experiential Program in the National Parks* (Digby), the program immerses a group of approximately six to sixteen honors students in a national park for one week in order to "educate students about the national

parks, to engage them in recreational activities that are the essence of park experiences, and ultimately to urge stewardship of these treasured spaces through a lifetime of involvement” (17). Academic goals include, but are not limited to, the Leave No Trace ethic, camping and teamwork lessons, scientific lessons, reflection skills, and service learning. To help achieve these goals, students are introduced to a wide variety of National Park Service employees, ranging from volunteers and interns to the chief of interpretation and park superintendents. They conduct scientific research, learn about maintenance and management issues, engage in deliberative dialogue on controversial issues, and perform service projects. A common element in each Partners in the Parks program is a nightly group reflection, often called a “circle.” With the project design, the students’ participation, and the circle, the program includes three main components of experiential education: purpose, authenticity, and reflection (Kolb and Fry).

Since its inception in 2006, the Partners in the Parks program has led 355 honors students from 86 universities to 18 national parks across the country. Anecdotal results indicating transformative impacts on students are easy to find. For instance, Jackson L.’s experiences during the Acadia adventure in 2008 caused him to change his lab-based biological focus to a field-based environmental focus. He has since joined the Peace Corps. Similarly, Jayde U. decided to forgo a career in music in favor of a career with the National Park Service, and she recently participated in an internship at the Grand Canyon-Parashant National Monument. Stories like these are testaments to the benefit of the Partners in the Parks program, but they do not afford a viable dataset to assess the program’s success in either the broad philosophy of experiential education or the rigor of its academic standards.

SEQUOIA NATIONAL PARK ADVENTURE

In order to address the data gap and to find the knowledge, skills, and values the students take away from a Partners in the Parks adventure, we designed the 2012 Sequoia National Park adventure to include a unique assignment that was to be presented orally by each participant during the final evening’s circle. Each honors student proposed an interdisciplinary project combining what s/he learned or experienced during the week within the student’s major or area of interest. This strategy required students to illustrate an understanding of the academic nature of the experience by critically applying it to their schools, communities, or other contexts far removed from the actual experience.

Through a strong partnership with the National Park Service, we introduced students to several academic disciplines represented in Sequoia National Park during a two-day tour of the front country. “Front country” is

the name for the area of the park with restroom facilities, visitor centers, and roads. Included in our activities were a tour of Crystal Cave and a three-and-a-half-hour discussion with Bill Tweed, the former Chief of Interpretation at Sequoia National Park. From these two opportunities, students learned about interrelationships between geology, biology, ecology, forestry, ethics, philosophy, climate change, resource management, road maintenance, air quality and pollution, and other content areas. One of the most powerful discussions revolved around the struggle between the mission of the National Park Service to preserve the area's resources for future generations and the perceived role of the National Park Service to provide recreational activities for today's public.

After two days in the front country, we began our four-day wilderness experience, a remote backpacking adventure in the Mineral King portion of Sequoia National Park. During the wilderness experience, students were challenged to apply what they learned in the front country to the wilderness. Alysia Schmidt, a front country ranger, joined us on our entire backpacking trip and provided invaluable expertise in formal lessons and informal discussions throughout the four days. Each evening, students reflected on their experiences of the day, the relationships between various disciplines in the park, and how Sequoia National Park serves as a microcosm for our culture's relationship to the natural world. On the final evening of the trip, we devoted our circle to the students' proposed honors thesis projects.

ASSESSMENT OF STUDENTS' EXPERIENTIAL EDUCATION

Although the Partners in the Parks program has a core curriculum that includes lessons about the interrelationship between scientific disciplines, management issues, recreation, and stewardship, the most profound education some students receive lies beyond these core concepts in the benefits of experiential education, the academic rigor of which is more difficult to assess. One major reason for the difficulty is the inevitability of unexpected and unpredictable learning moments and results. Furthermore, students' prior frames of reference influence their responses to wilderness experiences, making individual educational experiences vary.

We assessed educational rigor during the 2012 Sequoia National Park adventure by challenging our participants to apply what they learned and experienced during the trip to their chosen interests or fields of study. Our hope was that this final academic project would require students to bring together and demonstrate both the theoretical and practical rigor inherent—but not yet articulated and made assessable—in the *Partners* experience.

ASSESSING RIGOR IN EXPERIENTIAL EDUCATION

Specifically, this project required them to grasp the basic concepts inherent in every Partners in the Parks adventure before critically thinking about how these concepts relate to and affect their individual lives. Four proposed honors projects illustrate how our participants were able to exemplify both the practical and the theoretical definitions of academic rigor.

1. Kara D., an honors student in the Appalachian Mountain region, has been interested in the environmental impact of mountaintop removal and strip mining. After learning how the National Park Service interacts with and educates the public about environmental and management issues, she developed the idea of initiating an educational backpacking program to raise awareness of the water quality and hydrology ramifications of mountain top removal. Her audience will begin with her honors community and expand to the general public.
2. Emily B. is an honors English major in Virginia focusing on creative writing and poetry. Her childhood did not include much traveling, but she is now starting to see different parts of the world, including Sequoia National Park. She was struck by the majesty and solitude of the mountains, so she designed a plan to record her thoughts and feelings in a journal and to include a poem with each journal entry. The project will serve as a creative memoir of her experiences in natural places, with the goal of creating new ways to inspire readers to appreciate conservation and preservation.
3. Tim H., an honors student from New York majoring in earth science education, observed the benefit of seeing examples of our planet's processes first-hand in the wilderness. Considering his desired career as a middle or high school teacher, Tim proposed a project to modify the Partners in the Parks educational strategy for his future students. His plan is to bring students into wilderness settings in New York during the summer before their earth science class to introduce them to the core curriculum in an experiential education setting. He will then track the students in a longitudinal study to measure the benefit of his program.
4. Aimee D. participates on the track and field team and in the honors program at a mid-size university in rural Texas. She began to evaluate the difference in motivation between exercising in a gym and exercising in an outdoor, natural environment on the trip. She plans a collaborative project between her honors program and the track and field team that will build support for a trail system around the campus to provide a natural setting in which students can exercise. Additionally, she envisions the trail system being used for K–12 botanical and ecological education.

These examples demonstrate how project participants applied what they learned in Sequoia National Park to their own lives and communities. The proposed honors projects not only required the students to understand the general curriculum but also allowed them to develop unpredictable outcomes. Some of these proposed projects are currently being implemented, and we hope to use their successes as examples in future Partners in the Parks adventures.

CONCLUSIONS

Simply allowing students to participate in an experience does not prove they received an experiential education. The Association for Experiential Education lists several principles of experiential education practice (AEE), including the following five:

- Experiential learning occurs when carefully chosen experiences are supported by reflection, critical analysis and synthesis.
- Experiences are structured to require the learner to take initiative, make decisions and be accountable for results.
- Throughout the experiential learning process, the learner is actively engaged in posing questions, investigating, experimenting, being curious, solving problems, assuming responsibility, being creative, and constructing meaning.
- Learners are engaged intellectually, emotionally, socially, soulfully and/or physically. This involvement produces a perception that the learning task is authentic.
- The results of the learning are personal and form the basis for future experience and learning.

The Partners in the Parks—*Sequoia* experience provided a rough model to assess the rigor of experiential education by requiring the students to show that each of the principles listed above was met. For example, the first criterion above was met each evening when students reflected during the circle discussions. The second criterion was met as certain students elected to pursue their proposed projects, thereby taking initiative and working toward finished products. The third and fourth criteria were met throughout the adventure in the immersive quality of the experience. The fifth criterion was met explicitly through the design of the final project. Additionally, the experience met both the practical and the theoretical definition of academic rigor by forcing students to think critically about how the content related to their lives and communities.

The benefits and results of experiential education can be unpredictable, but experiential education practitioners can prepare for unexpected results by designing assessments that allow students to show what they learned rather than by prescribing a limiting curriculum. In this age of increasing focus on assessment, we need to validate experiential education opportunities and demonstrate both practical and theoretical rigor. The variable and unpredictable nature of experiential education calls for non-standardized methods of assessment. We recommend using the methods we describe above as a model to construct other creative ways to measure academic rigor in experiential education.

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