Travel Education: Demonstrating Effective Learning through the Seven Principles of Good Practice in Undergraduate Education

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Abstract

Two Winona State University professors created an interdisciplinary six-hour curriculum with eleven days of travel as a means of transforming course material into experiential learning. Both courses, Leisure in Different Cultures and Advanced Expository Writing, fulfilled general education requirements. The faculty wished to determine if travel education would expedite and facilitate the Seven Principles of Good Practice in Undergraduate Education, as described by Chickering and Gamson (1987). Travel education fulfilled all seven principles to a degree not seen in the classroom. The seven principles consist of the following: student-faculty interaction, cooperative learning, active learning, prompt feedback, time on task, high expectations, and respect for diverse talents and ways of learning. Information for assessing the seven principles came from the journals all members of the class wrote during the trip. Excerpts taken from students' journals identify how travel education expressed all seven principles.

Keywords: interdisciplinary curriculum, travel education, Seven Principles of Good Practice, field journals, effective learning, integrated learning, learning communities, holistic learning.

Introduction

During the summers of 2001 and 2002, two professors at Winona State University took a group of students (see Table 1) on an eleven-day field trip as part of a five-week curriculum that combined two courses: Advanced Expository Writing, and Leisure in Different Cultures: Lakota and Cheyenne. Along the way, they hiked in the Badlands of South Dakota; rode horses up into the bluffs along the White River in Nebraska; canoed the backwaters of the Mississippi River; studied historical and natural sites; visited with Lakota medicine men and state park historians; observed, participated in, and helped prepare for Lakota ceremonies; and spent most of their nights in tents after sharing readings from their journals around a campfire.

Winona State University is a four-year undergraduate institution located in Winona, along the Mississippi River in southeast Minnesota. One of the authors helped develop a travel education program at Missouri Western State College and sought to establish a similar program at Winona State, which had adopted the Seven Principles for Good

Practice in Undergraduate Education as its central philosophy. The authors used the Seven Principles to show that travel education is, to put it simply, good educational practice. Activities that would not be possible in a traditional classroom, such as participating in a Lakota ceremony or riding horses along the Cheyenne's escape route from Fort Robinson, create a community of students that are intrinsically motivated to perform at their highest level. Traditional classroom activities, such as assigned readings, guided discussion, lectures, and writing assignments, are effective for developing the cognitive domain. By combining these methods with experiential and participatory learning, travel education offers a more holistic learning environment that stimulates the affective and psychomotor domains as well as the cognitive.

TABLE 1

Travel Education Student Demographics, 2001-2002

Gender		Major Field	
		2001	
male	female	Recreation	3
1	5	English	2
		Undecided	1
		2002	
5*	11*	English	4
		Recreation	3
		Education	3
		Paralegal	1
		Geoscience	1
		History	1
		Marketing	1
		Undecided	2

^{*} In 2002 two students, one male and one female, were members of deaf culture

The authors were not surprised, but very pleased, when the students described the course as the most rewarding and effective learning experience they had enjoyed at college. Although everyone who participated, both faculty and students, was convinced of the efficacy of the course, the authors decided to evaluate the effectiveness of this curriculum according to the Seven Principles of Good Practice in Undergraduate Education, as described by Chickering and Gamson (1987). According to these principles, good practice in undergraduate education:

- 1. encourages student-faculty contact,
- 2. encourages cooperation among students,

- 3. encourages active learning,
- 4. gives prompt feedback,
- 5. emphasizes time on task,
- 6. communicates high expectations, and
- 7. respects diverse talents and ways of learning.

For those faculty and administrators planning to develop their own opportunities for travel education, the following descriptions of specific practices and student responses may offer valuable ideas for maximizing student learning in settings outside the traditional classroom.

Although the students registered for two separate courses, worth three semester credits each, the two curricula were completely integrated, from initial development and implementation to final evaluation of student learning. A common problem in composition courses is selecting materials; students have to write *about* something, but if that material is not intrinsically interesting to the students, they find it hard to get excited about their writing. In the case of this curriculum, the writing course provided students with the opportunity to reflect on and present what they learned about Lakota and Cheyenne history and culture in the physical education and recreation course. One of the key strengths of this program was that students became passionate about the subject, and this motivated them to improve their writing so they could share their passion with others.

Here is how one student, a future English teacher, described the course in his final portfolio, in which students assessed and documented what they had learned during the course:

The class set-up featured an intensive ten-day trip to several American Indian reservations and historic sites. This, along with the traditional in-class procedures, made for the most complete learning experience I've been involved with at WSU. With two professors in the classroom at one time and a highly interactive approach, the structure and instructional strategies could not have been better. In addition, the ten-day trip to South Dakota, Nebraska, and Minnesota allowed students to witness, experience, and participate in the cultural ways of the American Indian.

Each of the following sections describes one of the seven principles, shows how the curriculum implemented this principle, and shares students' reactions to and descriptions of their learning experiences.

Student Faculty Interaction

While it may seem that student-faculty interaction would be a given in any conventional college-level course, this is not always the case. Large lecture sections and

demanding research schedules often limit the interaction between professors and their students to those activities in which as many students as possible can be taught in as little time as possible. In addition to the emotional and psychological distance common to many classroom settings, there are physical hindrances to close interaction between students and professors. According to Sturnick and Connors (1995), a significant "barrier to student-faculty contact may be either intentionally or unintentionally created by the universities. The layout and structure of academic buildings may not facilitate interaction" (p. 11). Stadium-style seating and cramped faculty offices often hinder, rather than promote, meaningful student-faculty interaction.

Travel education effectively collapses these physical, temporal, and emotional barriers to close contact between students and faculty that is truly interactive. In her survey of research into the efficacy of the Seven Principles, Sorcinelli (1991) found that faculty who were nominated by students and colleagues as especially effective reported more interaction with students beyond the classroom. In addition, students who showed gains in intellectual commitment, certainty of career choice, and satisfaction with academic and nonacademic experiences during their college years reported more contact with faculty, particularly outside of class. (p. 15)

The situations that students and faculty encounter when they travel and camp together provide an outstanding opportunity for student-faculty interaction. The travel education component of this curriculum created a learning community that thrived on problem-solving and critical thinking. Students and faculty were in close contact and interacting for very long periods, often twelve to fourteen hours per day.

The time spent on highways was highly productive in terms of student-faculty contact. Time and disciplinary limits virtually disappeared, as questions and answers about composition, American history, and leisure in different American Indian cultures led to four- and five-hour discussions ranging across hard and social sciences and the humanities. For example, a conversation about poverty and alcoholism on reservations led to discussions about how Western-style agriculture and economics, along with the ecology of certain areas and the history of Indian treaties, influenced the locations and boundaries of Indian reservations.

During these interactions, students saw their professors as active learners and critical thinkers engaging in educated, intellectual discussions that illustrated the connections between academic life and contemporary society. At the home of one of the Lakota medicine men that they visited, students helped build sweat lodges for *inipi* ceremonies for a Sun Dance that would be held later in the summer. Students and faculty harvested willows, peeled off their bark, drove them into the ground in a circular pattern, and tied them together to form the arches that would support the outer covering over the hole that held the heated stones. As we assembled the lodge the Lakota elder directing the process discussed the significance of the materials and methods in Lakota culture. One of the students commented in her journal, "The neatest thing was when we were tying the

willows together. Almost all of us were on the same level ... the students and Dr. Rob were learning the same thing at the same time." Clearly, this student felt that her relationship with her instructors was an attractive part of the class, one that emphasized how professors and students could learn together. This relationship was truly interactive, rather than a one-way transfer of knowledge from professor to student.

Cooperation among Students

The use of conference groups has become fairly commonplace in composition classes (Gere, 1987), and this course was no exception. After returning to campus, students completed four formal writing assignments. For each assignment, groups of three to four students exchanged rough drafts with each other. Students would write commentary on their partners' drafts, then receive written commentary from each other and from the instructor in a conference to discuss revisions for the final drafts. Students found the face-to-face interaction with a "live" audience of four to five readers especially helpful for gauging the effectiveness of their writing. This also provided practice in reading critically, allowed students to see how different styles can fulfill similar rhetorical demands, and reinforced the interactions between critical reading, critical thinking, and expository writing. In their face-to-face workshops, students gained a greater awareness of their audiences, a crucial step in writing effectively.

Students and faculty also cooperated informally by sharing their journal entries each night. Students' journals were never graded, and they were free to share as much or as little of their work as they chose. As the trip progressed, the students became more vocal in their support of each other's writing. This non-judgmental feedback encouraged students to write openly and honestly about what they were learning, both intellectually and emotionally, and many passages heard around the campfire appeared in later assignments.

One student from Taiwan, who had been in the United States for less than a year, wrote the following: "I like the time when we share our journals. That makes me have a chance to understand other people's feelings and also that makes me have more ideas to do my next journal in the future, to teach me how to observe every detail in my life." Another typical comment was, "I cannot wait to listen to everyone's journals." The students clearly enjoyed sharing their journals with each other, and eventually formed trusting, yet demanding conference groups that enhanced the quality of their writing and helped them process their learning experiences as a group.

As students continued drafting and revising their formal writing assignments, they depended on each other to provide detailed, constructive feedback on how readers interpreted their writing. Writers frequently realized that what they had written was not what they meant once a reader brought their critical attention to a particular passage. This kind of feedback, which requires an "outside reader," requires students to cooperate as constructive critics of each other's work. The professor of writing often sat back and watched as students provided each other with the same type of commentary that the

professor wanted to discuss. As is often the case with conference groups comprised of student who have shared intense experiences, there were no cases of late, missing, or incomplete drafts. Such completion rates are extremely rare in classroom-only writing courses.

In her research on the efficacy of the Seven Principles, Sorcinelli (1991) explained that "cooperative learning ... is characterized by five elements (positive interdependence, face-to-face interaction, personal responsibility, collaborative skills, and group processing)," and stated that extensive research "supports the utility of cooperative learning groups for increasing productivity, developing committed and positive relationships among members, increasing social support, and enhancing self-esteem" (p. 16). The formal conference groups and informal sharing of journals exhibited all five of the elements listed above, and students' comments, both in their journals and in formal assignments, support the efficacy of collaborative learning in the writing process.

Informal discussions between the students connected the concepts learned in their writing class and study of Lakota culture to their lives outside of the class. Commenting on the group members' interactions, one student wrote in her journal, "As for the group, [they are] completely different people [from] myself. Diverse views and backgrounds. The conversation is much different from what I am used to, AND I LOVE IT! You can learn so much just by talking to people. Way more than reading a textbook." As students heard each other's journal entries and discussed their memories of events, they saw their own experiences reflected through the perspectives of different observers.

Such experiences emphasized the benefits of cooperation among students, and they expressed their sense of solidarity as a team. As one student wrote in her journal, "We are really coming together as a team. Everyone picks on everyone else. All about equal. [Student's name] is talking more and more. Maybe she's scared of making a mistake in English. It doesn't matter to us. All we want is for her to enjoy the trip." Although they knew that they would eventually be graded on their work, students knew that they were not in competition with each other, that all of them could experience success together. Some conference groups announced their goal of having every member earn an A on his or her final draft.

Active Learning

The field trip was the most obvious example of active learning in this curriculum. Students learned by doing, rather than by passively absorbing received knowledge. Nature also played a critical role in active learning because of the unpredictability it added to the experience. Learning how to get along with each other in outdoor settings provided students with a secondary curriculum. In addition to studying expository writing and leisure activities in Lakota culture, students gained valuable experience in camping skills, the logistics of travel, group dynamics, and the value of sensitive and respectful interpersonal skills in close quarters. Because of their immersion in these activities for

long periods of time, students learned by doing, rather than by only reading, thinking, and writing. Their daily activities influenced and found expression in their daily journals and in revised essays.

According to Sorcinelli (1991), "research indicates that teaching methods that encourage student activity and involvement, especially student-to-student interaction, are likely to be superior to more passive methods when higher-level cognitive or affective learning is the goal" (p. 18). After reading of the Cheyenne escape from Fort Robinson, Nebraska, in Mari Sandoz's Cheyenne Autumn, students visited the site of the barracks in which they were imprisoned and camped along Soldier Creek, which the Chevenne crossed during their flight. The following morning they rode horses across the prairie and up into the bluffs and breaks of the White River. As they rode, they discussed how the Cheyenne would have viewed the rough topography and thick pine forests as shelter. They also considered how the pursuing soldiers would have viewed the same land as threatening, concealing the Cheyenne warriors who might have been viewing the soldiers along a gun barrel at any given moment. Later, the students talked about how their physical experience enhanced and deepened their understanding of the text. As one student put it, "It's one thing to read about an event, but being in the same place and seeing what those people saw really made the story come alive for me." In this case, active learning provided an ideal complement to traditional classroom practice.

Another experience that could not have occurred indoors was the highlight of the trip, a pre-dawn hike to the summit of a butte that is a sacred site for the Cheyenne and Lakota nations. Despite some good-natured grumbling, students rose at 3:00am and were on the trail by 4:00. As they approached the summit, the sun crested the eastern horizon, and everyone watched without making a sound as the glowing red disc climbed into the sky. Atop the butte, students needed no prompting from the faculty, digging their journals out of their packs and writing as rapidly as they could. They were eager to describe the experience, one they knew was unique and special. The following example is from a student's portfolio:

The hues of tiny flowers began to emerge out of the darkness: purple, white, yellow, and pink. I realized these were the sacred colors of the Lakota medicine wheel. Where was black? It wasn't until later that I noticed the blackened flower heads of burned soap weed. I felt I was discovering whispered secrets of [the b]utte. They were subtle and took a delicate eye to see. The stories I read in Cheyenne Autumn and The Sacred Pipe, and those told to us, were becoming a reality instead of words. I felt different, as if my eyes were wide-open, seeing more than just scenery. I came to life as my senses became acutely aware of details that insisted on imprinting themselves into my memory.

It was so quiet. The only sounds were of invisible birds singing morning songs, the wind whistling through the strings of prayer ties, and that sad, old

bull [in the pastures at the base of the butte]. I didn't miss the roar of traffic or the loud thumping of music from jacked up cars. I relish the moment, soaking it up like butter on hot corn bread. Please don't let this end yet....

In this and similar situations, students felt that they had learned much more than they could have through traditional classroom activities:

We were active everyday.... This was extraordinary for me. I was in tune and my brain was pulled into all things that I encountered. Whether it was visiting a national park, talking with a spiritual leader, or even riding in the vans, I was always actively learning.... Learning on a first hand level taught me more than I could have ever learned in a classroom or from a book.

While reading, writing, and thinking exercises were crucial to set the students up for their outdoor activities, they were unanimous in their conviction that the field trip offered the most meaningful, intense, and effective learning environment that they had ever experienced.

Prompt Feedback

It should come as no surprise "that use of prompt feedback in colleges shows a clear and positive relation to student achievement and satisfaction" (Sorcinelli, 1991, p. 18). However, while the concept of feedback ought to be a given in any educational situation, many students describe their uncertainty about what their professors want. In some courses, an objective exam can be scored in minutes using Scantron forms, with students receiving their results in the very next class meeting. In situations involving more subjective and complex assessments, such as essay exams and research or position papers, the temporal gap between performance and feedback can widen, leaving students unsure of how well they are doing.

The curriculum for this program provided for prompt feedback by having students and faculty read from their journals on a daily basis. Many students commented on how rewarding it was to hear the other students react during campfire readings: "I never thought I was a good writer, but last night, everybody loved my description of the pipe ceremony." Students knew immediately which passages evoked a strong response from their audience, and faculty could point out ideas that would be especially useful for later assignments.

In addition, students and faculty had numerous opportunities for evaluating their understandings of the coursework during extensive discussions while traveling in the van, during fireside chats, and by critiquing areas and individuals that they visited. They had opportunities to try out their ideas before they submitted their written work.

Outdoor activities offer numerous opportunities for immediate feedback, often from an unforgiving and impartial evaluator: nature. After setting up a tipi, students immediately

were tested by the thunderstorms that hammered the campsite. Every time they cooked a meal or built a campfire, they received immediate feedback from their classmates.

Because of the spontaneous nature of education in natural and public settings, faculty needed to be ready to respond to unplanned learning opportunities. Informal question and answer sessions provided a quick gauge of student comprehension of these events, and faculty could clarify or re-present concepts in subsequent discussions. En route to a specific place or event, faculty described the protocols of behavior so students knew how to behave and what questions they were seeking to answer. Students then received feedback from the places or the people they were visiting which reinforced the concepts the faculty had introduced. After each event, the faculty called the group together to process their physical, emotional, and intellectual responses to the experience. Faculty also commented on student writings during the informal journal-sharing sessions around the evening campfire, and the writing instructor provided detailed written commentary on the students' formal writing assignments.

Time on Task

For the faculty, of course, time on task begins long before the students come into the course. Courses with travel elements obviously require extensive pre-trip planning to maximize student learning while on the road. In addition to setting up an itinerary that keeps travel time between events to a minimum, faculty must spell out the procedures that allow a community of students and professors to stay sufficiently healthy, well fed and well rested to take advantage of their educational experiences. In this course, faculty divided the students into working groups of mixed experience and ability in advance. One of the groups was responsible for all food purchasing, preparation, cooking, serving, and clean up. The second group was responsible for setting up and taking down camp, loading and unloading the vehicles, building and tending any campfire, and servicing the vehicles at gas and rest stops. Each day, the groups switched duties.

For this course, students also began preparing for the course long before the official beginning of the course. Faculty began meeting with the students for one hour per week during the second half of spring semester. When spring semester ended in early May, students went home with two books to read and two papers to write. When summer school officially began in early June, the class met for six hours per day for one week to plan how their travel experiences would fulfill their educational goals for the course. Finally, faculty led the entire class on "dress rehearsal" by camping out overnight at one professor's house to practice the necessary camping and cooking skills. Due to these advanced preparations and to their developing interest in upcoming activities, students were intrinsically motivated to do their best, with a minimum of prompting from the faculty.

Because students and faculty are working together for entire days, and for several days in a row, courses with extended field trips maximize time on task. Outside observers, thinking of their own recreational pursuits, may assume that "recreational" courses require

less academic rigor than traditional classroom-based courses. However, students in this course were actively engaged in the course material even as they rode in the vans. When students and faculty are preparing for the natural and historical sites they are approaching, time spent traveling becomes a valuable resource for learning. One student wrote about the benefit of such preparation: "By the time we got to Pipestone, I really knew how we were supposed to behave when we visited places that were sacred to American Indians." The students' anticipation of these natural and historic sites motivated them to pay attention to discussions; they knew the ideas they were hearing about would be useful in the very near future.

Radios and tape- or CD-players were not allowed; time in the van was time on task. One student described the value of this experience in her journal: "I think of how much I learned in one week of class, and one four-hour van drive. Each day I learn more than I ever thought. And the funny thing is, I actually LIKE it, and I'm excited and eager to learn more." Instead of isolating themselves from each other with individual activities, students participated in group discussions.

Sorcinelli (1991) found that "college courses requiring more class periods (meeting four times per week rather than once) and longer class periods (periods of fifty-five rather than thirty minutes) proved superior, as measured by student achievement" (p. 20). In this case, students and faculty spent at least ten hours per day discussing course material, writing in journals, visiting museums and other historical sites, and participating in cultural activities. The day of the pre-dawn hike began at 3:00am and continued until 10:00pm, when the group finally went to bed after visiting the Fur Trade Museum in Chadron, Nebraska, studying the historical sites at Fort Robinson, Nebraska, and sharing a Taiwanese student's first experience of seeing the Big Dipper and shooting stars. Faculty never spent less than ten hours per day working with the students. When students visited Lakota medicine men, the group camped on their land, cooked and ate meals with them, and prepared for and participated in traditional *inipi* (sweat lodge) and *chanupa* (sacred pipe) ceremonies. This created an "immersion experience" in another culture, and students often commented on how they hadn't thought they could learn so much in one day.

One of the characteristics of travel education is that there is rarely any "downtime," because the learning activities frequently run from sunrise to well after sunset. At any given moment, the natural world might offer a unique learning situation, and students and faculty had to be ready to seize the opportunity. Events that are not on the schedule frequently arise, so learning experiences frequently push the curriculum beyond expectations. For example, while at the summit of the sunrise hike, the group noticed two golden eagles flying over the northern spur of the butte. It became obvious this was a mated pair when the male began what is called an "undulating flight display," an event rarely seen except by professional wildlife researchers and field personnel. The male repeatedly tucked his wings and dove toward the earth, gathering speed until he spread his wings and pulled out of the dive, soaring almost vertically back up to his original altitude. At the peak of this gliding climb, the eagle stalled, then turned and dove once

again, gathering speed in the dive and then climbing back into the sky, all without flapping his wings even once. Because mating season was already past, this behavior was not a courtship display, but an activity that strengthened the bond between the two eagles. Our discussion of this event added 45 minutes to the six hours we had budgeted for our hike up and back down the butte.

This eagle flight display made its way into every student's journal, complete with an explanation of the biology involved, a discussion of the importance of the golden or spotted eagle (wanbli gleska) in Lakota religion, and an exploration of how the sight affected the author. This was an experience that could never have occurred in the traditional classroom and was totally unplanned, but it served to tie together many aspects of this multi-disciplinary curriculum: natural history, Lakota culture, and expository writing. By taking students out of the classroom, the program was able to expand the educational schedule far beyond the usual limits. While most traditional classroom experiences start to encounter diminishing returns after about an hour, students were actively engaged in the learning process for up to twelve hours in a single day.

High Expectations

Because the course was extremely attractive to students, yet had limited enrollment, faculty were able to set expectations for student performance much higher than would be the case for a conventional course. Students were expected to write one thousand words per day in their journals. Before they got out on the road, students thought this would be difficult. In practice, the only days they didn't exceed the requirements were those when the demands of physical activities gave them no time to write.

Previous experience teaching at the high school and college level had convinced the authors that students would raise or lower their performance to meet expectations, and formal research into the efficacy of the Seven Principles bears this out. According to Sorcinelli (1991), "The literature consistently shows, contrary to faculty belief, that students give higher ratings to difficult courses in which they have to work hard" (p. 21). However, the students must feel that such high expectations are reasonable. Robert Scott and Dorothy Echols Tobe (1995) explain that "the student must feel that teachers or professors expect high performance because they believe the student is capable of it and that they will reward the student for success" (p. 80). In the case of this course, the students' experiences were so rewarding that grades, the most common motivator for student performance, were almost superfluous.

Students who are emotionally invested in their subject material care deeply about expressing themselves clearly, and this motivates them to work diligently when drafting, revising, and editing their own work and the work of their partners. Students often care more about the opinions of their peers than they do about the expectations of their professors. Their desire to impress each other, to provoke an excited response, encourages a focus on excellence, rather than a fixation on the professors' evaluation.

Students knew their hike up the butte at dawn and their participation in Lakota ceremonies were unique experiences, so their purpose, their desire to explain what they had undergone, was very strong. This desire to communicate with friends and family gave them a clear sense of an audience who had not shared that experience. Their enjoyment of the trip and sense of accomplishment in meeting challenging situations motivated them to write as clearly as they could. The following excerpt from a student's journal was fairly typical:

If only I were a better writer and I could think of a better way to describe this picture besides "great" for the fourth time. Hopefully, by the end of this trip I will improve on my writing. It's amazing the feelings nature can give you. And the wholeness it can erupt within your soul. We'll see if good ol' mother nature can help me out with my writing as well.

While the language may be unpolished -students' journals were for pre-writing and personal use, not for evaluation- the student's desire to communicate more effectively is unmistakable.

Some students commented on how their experiences raised their expectations for what they would learn during the course. They wanted to learn more for the sake of the knowledge itself: "The badlands are so incredible. Each rock has its own specialties. Some of them look like a castle. I hope there will be someone who knows the geology and can tell me why they're so amazing."

Others saw connections between this course and others they were or would be taking. As one student explained in his portfolio,

I was most fascinated by the bison. I was so inspired by this massive creature and its historical influence on the American Indian that I decided to do an informative speech on the species for another course. We had an opportunity to see several of these animals close up, even driving alongside a galloping bull at one point.

Once again, the student's motivation to share what he had learned with others drove him to work even harder.

At the end of the course, students were unanimous in their assessment that the course was more challenging, and more rewarding, than any other course they had taken. One student wrote, "Reasons for taking such a class are not rooted in the usual academic standards of individual gain. We bore the hardships of this trip with the sole purpose of bettering ourselves as caring people who want to make a change in this world." Because of their travel experiences, students were eager to meet the faculty's high expectations and raised their own expectations for their performance in the classroom and beyond. In the post-trip debriefing, students described how many books they had checked out from the library (22 in 12 hours) and how they were modifying their behavior to show more respect for the natural world.

Respect for Diverse Talents and Ways of Learning

Because nature is unpredictable, working with groups of students in natural settings requires flexible thinking, improvisation, and multidisciplinary approaches to problem solving. Therefore, travel education fosters respect for diverse talents and ways of thinking. Unfortunately, according to Lidmann, Smith, and Purce (1995), "It is increasingly clear that people learn in many different ways and [that] current instructional modes teach to a narrow range of learning styles" (p. 97). Although "conventional lecture classes" are extremely efficient at delivering content, "workshops, seminars, field experience, and/or independent study, among other modes, contribute to the learning process" (p. 98). This course combined three weeks of conventional classroom work with ten days of fieldwork and experiential learning. In addition to reading, discussing, and writing about the natural and cultural history of the American West, students interviewed Lakota medicine men, listened and responded to professional speakers at state and national parks, and practiced critical thinking as they worked to synthesize disparate and sometimes contradictory versions of historical and natural "fact."

Recognizing and capitalizing on unique teachable moments requires professors to respond to changing conditions and to employ any special knowledge students may possess. Sorcinelli (1991) says that "faculty who show regard for their students' unique interests and talents are likely to facilitate student growth and development in every sphere—academic, social, personal, and vocational"(p. 21). Because the faculty spent so much time with the students, they got to know the students' backgrounds and interests more thoroughly than they would have in a conventional classroom.

An example of this kind of interaction occurred as the class drove over a bridge in the South Dakota Badlands. The faculty spotted cliff swallows swooping and diving around the bridge, so the vans pulled over and everyone piled out. When hiking down to a spot under the bridge, students found hundreds of swallows' nests cemented onto the bridge's underside. One faculty member's knowledge of the birds' nesting habitats allowed him to set up a teaching situation where one of the students, a woman from Taiwan, could share her knowledge of how her society utilized such nests in birds' nest soup, an expensive delicacy in her homeland. The group learned from the professors, from the swallows they observed, and from one of their peers, demonstrating how knowledge arises in communities, rather than being passed down from authority.

Faculty encouraged students to include as many different kinds of material as they desired in their final portfolios, to show what they knew in whatever manner worked best for them. One student built a scale model of a sweat lodge, complete with labels and written descriptions of how the materials and construction of the lodge revealed a Lakota view of humanity's relationship with non-human nature. His work was thoughtful, detailed, and impressive, while being totally unlike anything he had turned in for any other college course.

Because the course took students out of their familiar surroundings, they gained powerful insights into different cultures and realized that others' worldviews were not better or worse than their own, just different. One student wrote in her journal that "As much as from the professors, and medicine men, and from the books, I've learned just as much from the other students in the class. The Asian girls have taught me so much about their culture." While it might appear at first glance that outdoor education would be focused to a greater degree on non-human nature than on human nature, anyone's worldview is deeply influenced by his or her culture, and studying how different people interact with nature is an effective way to gain insight into different cultures, further fostering respect for diverse cultures as well for diverse talents and ways of learning.

Conclusion

As final examples of the effectiveness of outdoor education, two events in particular emphasized the students' ability to engage in critical thinking about what they were learning. Ft. Robinson, Nebraska, was the site of two disasters in the history of the Lakota and the Cheyenne: the death of Crazy Horse and the capture, escape, and massacre of Dull Knife's band of the Northern Cheyenne.

As students read the historical markers in what is now a Nebraska State Park, they actively critiqued the markers' accounts of events they had read about in class texts and discussed with historians they had visited. One student pointed out how the historical marker referred to the death of Crazy Horse using a vague, passive voice construction: Crazy Horse was "mortally wounded," rather than "stabbed in the back." As he explained in his portfolio, "For all an ignorant tourist would know, he was mortally wounded by the horn of an angry bison." Others bristled at the descriptions of the Cheyenne as "hostile savages," and argued that "brave refugees" or even "freedom-fighters" would have been more accurate, as the Northern Cheyenne were only seeking what they had been promised by treaty.

Along the road to Wounded Knee, site of either an infamous massacre or the last victory in the Indian Wars, depending on the viewpoint of the historian, the group stopped to examine more historical markers put up by members of the Lakota Nation. Some of these had been defaced with deep knife-cuts and holes from rifle bullets and shotgun pellets. With only a little prompting, students began debating the meaning of this attempted act of communication. Who was the "speaker"? What was his or her purpose, besides showing violent disagreement? Who would be the "speaker's" intended audience: the Lakota who had erected the signs, or the tourists who would be reading them? Was this the act of an "outsider," or of a Lakota who disagreed with the signs' version of the events at Wounded Knee in 1890 and 1973? As the vans drove away, students discussed how history could never be boiled down to objective fact, because the interests and desires of the historians would determine which facts were recorded and described. The faculty were thrilled with the students' attention to language's power both to shape and to limit their understandings of the world around them.

In his description of a trip with his students up Mount Katahdin in Maine, as part of a course on Henry David Thoreau, Tallmadge (1997) said that "the mountain's gift is not some slate of divine commands by which we could all live perfectly, but the power to tell our stories and so, speaking and listening to one another, enter into community"(p. 73). As our group headed back toward campus, it was obvious that these students were ready and eager to actively engage in their communities' search for understandings of human nature and the nature of the world that surrounds and permeates us.

In summary, the findings and conclusions drawn from this travel education program support Chickering and Gamson's (1987) argument that the Seven Principles of Good Practice in Undergraduate Education provide a useful framework for measuring the effectiveness of particular educational programs. According to these principles, travel education helps students develop greater sensitivity toward other cultures and the environment. The Seven Principles clearly indicate that travel education is an effective educational experience that maximizes holistic learning.

One limitation of this approach is that not all schools recognize the Seven Principles or accept them as guiding principles. Therefore, faculty at other institutions must make sure their curriculum proposals specifically address institutional culture, values, and mission so as to give administrators what they need to see. Future studies in this area might focus on quantitative analysis of student evaluations, as well as quantitative analysis of students' attributional complexities before and after participation in the program. In light of current interest in interdisciplinary offerings, thematic writing courses, and writing across the curriculum initiatives, further examination of the efficacy of experiential learning activities in writing courses would be especially helpful for composition instructors and programs.

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