Community-Based Ecotourism Design Studio in the Yucatan Peninsula – Enhancing Study Abroad through the Inclusion of a Service-Learning component.

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Abstract
The benefits of study abroad programs in higher education are well documented. Lewis and Niesenbaum (2005) concluded that by incorporating a Service-Learning component, a short-term study abroad program can be greatly enhanced.

The purpose of the paper is to document the preliminary results from an on-going research study to determine the benefits of incorporating a Service-Learning component into a study abroad program. A qualitative, rather than quantitative approach was used in the evaluation process. The research involves a course in community-based ecotourism for landscape architecture students from Texas Tech University. It includes three weeks of travel to historic, cultural and environmental venues and a Service-Learning design studio project for rural Mayan villages. Students keep journals as part of the Service-Learning reflection activities that are later analyzed utilizing the qualitative techniques described by Boyd, Dooley and Felton (2006) to determine patterns or themes of students’ interest or concern. The writing was further analyzed within The Taxonomy of the Affective Domain (Krathwohl, 1964) to document the level at which the students were reflecting on their experience.

The results indicate an increased level of affective learning among a majority of the students. Incorporating Service-Learning activities into a study abroad program provides an exciting opportunity for students to go beyond the traditional international educational experience. It enhances learning by providing an opportunity to interact and participate, rather than simply observe. Therefore, many students who are unable to participate in a long-term program can receive similar benefits from a short-term setting.

Keywords: Service-Learning, study abroad, ecotourism, landscape architecture, affective learning
Introduction

The benefits of a study abroad program in the curriculum higher education are well documented. These include experiencing personal growth, developing valuable career skills and “Becoming a ‘Global Citizen’ in Today’s interconnected world” (Northwestern University’s Study Abroad Office). A long term study by Dwyer and Peters (2004) of study abroad participants from the last 50 years provides some very strong indications of extremely positive, personal, educational and career growth among the participants. The study, sponsored by the Institute for the International Education of Students, surveyed participants who study abroad between 1950 and 1999. Programs included full year, fall semester, spring semester and summer programs. Results indicate that 97% of the participants experienced personal growth to the extent that one individual stated she learned more about herself in one semester abroad than she did in over three years of college. Over 90% of the participants reported greater cultural awareness, not only of other cultures, but of their own. The “eye-opening” experience was also reported to be long-term and non-fleeting. Academic and career matters were also influenced by the study abroad experience. Educational decisions were influenced in approximately 70% of the cases, while career choices were influenced in 75% of the participants.

The study also found that longer study abroad experiences generate greater benefits, yet the trend is for shorter programs, as indicated by the fact that in the 1990s only 20 percent participated in a full year abroad as opposed to 70 percent in the 1950s and 1960s. Furthermore, three times as many participants studied for less than ten weeks in the 1990s than in the 1950s and 1960s. Therefore, short-term study abroad programs must make adjustments in order to approach the effectiveness of long-term programs.

The benefits of a study abroad program can be greatly enhanced by including a Service-Learning component. Lewis and Niesenbaum (2005) concluded that by incorporating this pedagogy, a short-term study abroad program can approximate long-term study abroad goals. They also found that short-term programs that included a community service learning aspect were more appealing and more accessible to students who would not otherwise choose, or be able to participate in an international program.

For landscape architecture students, a community Service-Learning program can be especially beneficial in developing important civic and social responsibilities. According to Sharkey (1994) the profession of landscape architecture should commit itself to several societal imperatives, including “improving the condition of the community and society,” as well as “protecting cultural and historic values of a region or a nation.” The American Society of Landscape Architects (ASLA) includes in its definition of the profession a reference to the necessity for landscape architects to apply cultural knowledge as an aspect of the design process (ASLA Constitution, 1975). Additionally, Hamed (1991) notes that foreign countries, many of them third world countries, are seeking assistance from professional design and planning firms for their urban and industrial development projects. He suggests that landscape architecture programs are not preparing students to adapt design decisions to foreign cultures and should take a stronger role in promoting the education of students for international practice.

A study abroad program for landscape architecture students provides the opportunity to emphasize the cultural aspects of design in a setting very different from the traditional classroom or studio setting. Service-learning’s emphasis on civic responsibility provides the additional opportunity to develop students’ knowledge and sense of civic responsibility. Combining Service-Learning with study abroad can greatly enhance the educational value of both forms of learning.
Purpose and Objectives of the Study
The purpose of this study was to determine the benefits of incorporating a Service-Learning component into a study abroad program for landscape architecture students. Additionally, the study investigated the appropriateness of Service-Learning reflection activities in the study abroad setting. A qualitative, rather than quantitative approach, to the evaluation of an on-going program was used to determine the benefits to landscape architecture students. Opportunities for program improvements were investigated and evaluated in light of the information gathered.

Theoretical Framework
Service learning falls within the continuum of experiential learning. Learning activities that directly connect the learner with the phenomena being studied is considered to be experiential learning. Dewey (1938) made the assertion that one learns well or better when doing. Kolb (1984, p. 41) defined experiential learning as “the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience.” Service learning takes the concept of experiential learning further. Whereas the focus of experiential learning is the learner, the focus of service learning is twofold. According to Kendall (1990, p. 40), “Service learning programs emphasize the accomplishment of tasks which meet human needs, in combination with conscious educational growth.” According to Kendall, an effective service-learning program:

- Engages people in responsible and challenging actions for the common good.
- Provides structured opportunities for people to reflect critically on their service experience.
- Articulates clear service and learning goals for everyone involved.
- Clarifies the responsibilities of each person and organization involved.
- Includes training, supervision, monitoring, support, recognition and evaluation to meet service and learning goals.
- Is committed to program participation by and with diverse populations.

The service learning aspect for this project utilized the community-based ecotourism concept, which is a subset of traditional ecotourism. It emphasizes the development of cultural tourism activities that benefit the local indigenous citizenry to a far greater extent than any other form of tourism. It provides the unique opportunity for landscape architecture students to become involved in both community design and cultural design in a service learning setting.

Methods
In order to better evaluate phenomenon in its natural setting, qualitative and case study research have become common in the field of education. Intentions of case study research are not to explain phenomenon, but to evaluate the situation and generate meaning from its context (Gall, Borg, & Gall, 1996, p. 549).

This study involves the evaluation of an on-going study abroad program conducted by the Department of Landscape Architecture at Texas Tech University. To date, three summer classes have traveled to Mexico’s Yucatan Peninsula where students became immersed in the culture, history and environmental uniqueness of the area. They visited and evaluated a variety of ecotourism venues, including community-based programs in two Mayan villages. They conducted several design studios in those villages and produced schematic design documents that
the citizens have used for a variety of purposes, including grant applications for infrastructure funds.

The programs began prior to departure with meetings and discussions on the logistics of traveling in a foreign country: required documentation, what to pack, what to expect, budget, etc. Additionally, an introductory video and readings provided the initial academic assignment.

The in-country schedule was arranged along the lines of the traditional landscape architectural design process. It started with a contextual analysis and case studies in the form of visits to historical, cultural and environmental venues. This helped the student to more completely understand the uniqueness of the Yucatan Peninsula. Some of the sites visited included ecotourism venues of various descriptions; from large corporate operations, to individual and Non-Government Organization (NGO) facilities and community-based programs. Research was included in the form of the assigned readings which cover ecotourism, community-based ecotourism, sustainability and history. The readings were reinforced through discussions with the professors and special guest lectures. These include prominent conservationists, anthropologists and archeologists. For example, Dr. Alan Myers professor of archeology, Eckerd College, has provided a presentation on the history and findings at Hacienda Tabi that includes a discourse on how the built environment was developed in order to reinforce superiority over the workers in a debt/peonage social structure.

Following several weeks of travel, meetings and discussions, students traveled to indigenous Mayan villages to conduct their design studios. These villages are interested in or have the opportunity to develop community-based ecotourism programs. To date the program has worked with three villages: Yaxunah, Yaxhachen and Xcobenhaltun. All are in the Mexican state of Yucatan.

In all of the design studios, students met with the local citizens, committee members and civic leaders. They interviewed them and worked to understand their needs, aspirations and requirements before proceeding with the design process. This is a particularly important part of the program from the standpoint of civic engagement and communication. It was important for students to understand and participate in the civic design process. In some cases the community design aspects were more prominent than the tourism aspects of the design problem. Additionally, students worked hard to communicate with individuals who speak a foreign language. In Yucatecan villages the first language is Mayan; the second language is Spanish, and if they speak any English, it would include only a few words or phrases. Therefore students must rely on translators, in which case they must use only basic English rather then the jargon of landscape architects often found in traditional studio settings. Additionally, since landscape architecture’s focus is visual, students were encouraged to use graphics to communicate information during the trip to the Yucatan. They all carried sketchbooks that were readily available for drawing a quick idea or potential design solution.

The Sketchbook provided for another very important function. Students were required to keep a journal as part of the service learning reflection activities. They were told in advance that it was a course requirement and that they would be collected, copied and read for further study and analysis. The students were also encouraged to express their true feelings, not what they think the professor wants to read. Specific instructions were provided for daily reflective writing activities, as well as three additional prompts for a pre-reflection essay, an intermediate essay and a post reflection essay. This writing activity was first used during the 2005 summer program when the Service-Learning coordinator for the Texas Tech University participated in the
program and helped investigate the effectiveness of various forms of reflection activities. The students seemed most receptive to the idea of journaling out of all the activities investigated.

Denzin and Lincoln (1995) explained that in order to be a bricoleur researcher, various methods must be used that develop an intertwined set of methodological practices allowing for a better perception of the subject matter at hand. Due to the need of various methods in interpretive research, triangulation was established in order to analyze the data more effectively. Each student individually wrote in a journal (Denzin & Lincoln, 1995).

Gall, Borg, and Gall (1996) state that archived text, or journals offer accurate perspectives of participants at a specific time, eliminating any change of perspective due to post phenomenon experiences. The journals of the students were accessed and analyzed for themes related to the sought objectives.

In order to understand the nature of this study, several limitations were observed. First, sampling techniques used in qualitative studies do not allow application of findings outside of the participants. Furthermore, it can be argued that some students do not portray true feelings when journaling for a course.

In qualitative studies, data analysis refers to the categorizing and ordering of information in such a way as to make sense and to communicate a true and accurate report of the findings (Brink, 1991).

According to Benner (1985), the coding of data by means of open, axial, and selective coding can be used to conduct thematic analysis. Open coding is the process of breaking down, examining, comparing, conceptualizing, and categorizing data. After open coding, data can be put together by category. This is called axial coding. After the data is axially coded, it can be put into core categories, or selectively coded, to develop themes that relate to the research at hand (Strauss & Corbin, 1990). This study used such coding, resulting in the development of themes. Once the data was openly coded, axially coded, and selectively coded, emergent themes were documented and listed in order of pervasiveness.

Control measures are necessary to assure the truthfulness of the results presented. The usual measures of validity and reliability generally accepted in quantitative research are not appropriate for use in phenomenological studies. Nevertheless, steps to minimize errors of interpretation and to control interpretive bias remain important. Qualitative research methods have controls of reliability and validity built into the study design.

Triangulation was used in the design of this study. Emergent themes from the individual student journals were compared. In addition, each author coded all journals to ensure data accuracy. This eliminated weak themes from being used as emergent themes in the findings.

There were 17 journals evaluated and the authors were kept anonymous, using single letters unrelated to their name to provide an audit trail if needed. For the purposes of the first phase of this research, only pre- and post-reflection essays from the 2005 and 2006 program were coded. The prompts for these essays were identical in both instances and therefore provided more consistent reflection responses. The prompts were as follows:

*Service-learning pre-reflection essay*

Questions:

- What elements make up an effective community-based eco-tourism venue?
- What is the value of collaborating with cultural communities in the design process?
- What is the landscape architect’s role in conservation?
- How does a landscape architect contribute to the world around him or her?
• What am I excited and/or worried about regarding the community projects?
• Overall, what do I hope to gain from this experience?

Service-learning post reflection essay

Questions:
• How did partnering with cultural communities enhance the design process? Use specific examples from your experiences in Yaxunah and Yaxachen as well as any partnership values you felt were particularly important.
• Based on your experiences over the past few weeks, has your opinion of how a landscape architect professionally contributes to the world around him/her changed? Do you consider professional contributions a service? Explain why or why not.
• Refer to your fears and excitements about working with the community you wrote in the pre-reflection essay. How did your community experiences confirm or deny your initial anticipations?
• Overall, what do you feel you have gained from this experience? List three things.

The initial, open coding evaluation was completed independently by three separate professors. After the initial coding, the professors met to determine the dominant themes within the students’ writing. The initial, general coding was distilled into five overall themes. Since the writing was prompted by specific questions, there was a tendency to develop the themes in direct relationship with the prompt. It was determined, however, that the themes should be those that crossed over several prompts or were found throughout the writing regardless the prompt. For example the role of the landscape architectural profession may show up in pre- and post-reflection essays and as a result of several different prompts.

Once the group reached consensus on the themes the journals were reviewed again. The most prevalent themes were then analyzed using the five levels of the affective domain to determine any differences in the students’ level of reflection.

Results

The three reviewers determined that the dominant themes found in the students’ writing, in order of most to most dominant, were (1) the interaction between design and people, (2) the role of the landscape architectural profession, (3) interaction between design and culture, (4) personal growth, and (5) communication issues.

Communication (5) included both verbal and non-verbal issues and discussion on overcoming the language barrier. One student wrote, “My fear of the communication gap was evident, but graphics came in handy. So much so I was surprised.” (R) Another noted that the program improved his/her skills when working with a group, and a third, who spoke Spanish, reflected on how translating improved his/her language skills.

Personal growth (4) for many students included writings in both the pre- and post-reflection essays. For example one individual wrote,

“I have been looking forward to this trip because it has given me the chance to get away from the craziness of my family & school; to leave me alone with my thoughts about what I really want out of my life & schooling. As a landscape architect, I hope to learn more, especially from the other students.” (Q)
Personal growth was also a theme in the post-reflection essays as many students noted that the trip had improved their self-confidence, such as the student who wrote “My fear of not knowing what I was doing soon proved unfounded and with a little bit of help, I was able to truly contribute.” (D) Personal growth also involved the numerous statements of gratitude for what they have and often take for granted as Americans.

The interaction between design and culture (3) provided for some very interesting insights, especially when considering that culture can cover social, historical and environmental issues. A typical observation was

“When I first came, I thought these people can barely afford to feed themselves, how can they afford a nicely landscaped house or plaza? By the end, I saw that they cared much more for other things, like the social interaction they got in a plaza, than the plaza itself and that also amazed and inspired me.” (L)

Another cultural observation with regard to design was “Using culture as a main design element would reflect the values of the community and make it theirs.” (N) From an environmental standpoint there was a general consensus that landscape architects should be the leaders in conservation of natural resources and environmentally sensitive areas.

The role of the landscape architectural profession (2) included many statements concerning the changed or confirmed views of the profession in general. Some examples were:

“I feel that landscape architects have a lot more to offer than what I originally thought. The service that we can provide a community or client is endless. I have found new areas of landscape architecture that I might want to pursue.” (K)

“Over the past few weeks I have learned that landscape architects can play a bigger role than I ever imagined. The decisions we make affect everything around us.” (A)

“These past few weeks [have] helped me realize that when I get my diploma I will be contributing to the world in all sorts of different ways.” (H)

(It is interesting to note here that the last quote is from an individual who had been on academic probation the year before attending the program and earned a 3.5 GPA the semester immediately following the trip.)

The interaction between design and people (1) differed from the cultural theme in that it dealt primarily with the impact that landscape architecture can have on individuals and communities. Many students commented on how helpful it was to have a real site with real clients. One commented on how measuring and drawing the base plan helped understand the site better, while another mentioned how helpful it was to meet with the client at the site.

“Meeting with the different committees in Yaxunah really helped us to get a good understanding of how they functioned in their daily lives and what they wanted most to improve their community. Meeting with both the men and women of Yaxhachen really helped us to understand how to design a park that would benefit both. They all had such different opinions for the park; it was so interesting to hear their ideas. If we had not met
with these communities I do not feel that we would have received as much from this experience and our designs would have not been as beneficial to the villages.” (P)

Perhaps the most profound comment came from a non-landscape architecture major who wrote,

“Over the last weeks I have been thoroughly impressed by the landscape architects, the work they do and how they greatly affect the world around them. The tools that this profession possesses must be used to the fullest to insure that the growing population on earth and its urban centers are well planned and arranged to allow for a higher quality life for its citizens.” (J)

The previous themes and supporting statements demonstrate that including a service learning component in the study abroad program greatly enhanced the students learning experience. It helped change and form attitudes toward the profession, the people and cultures it serves and their own individual self-respect.

When evaluating the students journaling activities against the five levels of the taxonomy of the affective domain, even greater levels of learning and benefit were revealed. The five levels, in increasing order are: Receiving, Responding, Valuing, Organizing and, Characterizing.

Receiving and responding are the two most basic levels of affective learning and are what is expected in a typical classroom setting (Boyd, Dooley and Felton, 2006). At this level, students are expected to have received information and are to some extent willing to participate and/or accept the information or activity. They are the first stage in the “learning by doing process” (Krathwhol, et al, pg. 178). Examples from the students writing included

“I hope to gain a wider knowledge of being able to please others (other cultures) in my design and to learn to take into [account] everything I see in my traveling to better equip myself for adjusting my views quicker and being able to adapt and change faster and more accurately to what is needed from me and not what I think they need.” (S)

This individual essentially recited the essence of the program in general, has expressed a willingness to receive and respond but has not necessarily expressed any value to the activity. Valuing involves an expression of increased worth. At this level, the individual has committed to the concept, internalized it and adopted it as his/her own. Examples include:

“A landscape architect has a responsibility to care for the land….For myself it means the study of incorporating the concept of sustainable development whenever feasible.” (D)

“In my opinion the role of the landscape architect is not only to construct but sustain as well. We should plan to design not only for the present but for the future as well and sometimes we tend to forget that our role as conservationists is very important…..” (E)

Organizing involves “(a) the organization of the value into a system, (b) the determination of the interrelationships among them, and (c) the establishment of the dominant and pervasive ones.” (Krathwhol, et al, pg. 182) In many cases, the students’ writing
demonstrated a transfer or comparison of values to their own or other situations. Examples include

“Working with different cultures in the design process seems as if it would allow one to expand [their] horizons. For example, in the U.S. we live a certain way and [are] raised a certain way; it is all we know. However, there is so much more we do not know and many ways to do things. A culture is a culture but no two are alike. By working with others we not only get new ideas, methods, etc, but are able to see the similarities as well. In a sense it seems as if it is not only expanding oneself but uniting different people as well.” (E)

“So many great things have already come from collaborating with cultural communities, such as medicines, food, history, inventions, etc. So why should we stop there? We should seek other people’s views even though they may not be the same as our own.” (R)

Characterizing is the highest level of affective learning and involves “the integration of those beliefs, ideas and attitudes into a totally philosophy or world view.” (Krathwhol, et al, pg. 184) This level of writing produced some of the most profound statements and demonstrated the writer’s ability to take what is learned or experienced and adapt it to his or her own view of the world. Examples were

“By living in the villages of the Yucatan I gained a new interpretation of the value of time and how it corresponds with life. ‘Hay mas tiempo que vida’ [there is more time than life] is nearly the motto of many of them.” (J)

“‘Poor’ is a rich man’s word, and getting to interact with these communities helped me see that. The places we visited are “rich” in their culture, family values, history, etc. and are far from poor.” (R)

After reviewing and categorizing the student’s journal writings in terms of the affective domain, the apparent levels of writing from the pre-reflection essays were compared with the post-reflection essays. In almost every case, there was a far greater instance of Organizing and Characterizing in the post-reflection activity. It indicates that the students were highly motivated by both the study abroad experience, as well as the service learning experience. Their writing demonstrates a profound sense of civic, social and cultural awareness. Although the students’ daily journaling was not formally analyzed, the general perception from a cursory review is that they confirm the increased level of affective learning.

**Educational Importance, Implications and Application**

Lewis and Niesenbaum (2005), in their research on short-term study abroad programs, do not advocate “touristic” experiences. Ecotourism and community-based ecotourism specifically provides an excellent opportunity for students to visit and study, in a foreign country and avoid the mass tourist destinations that often overwhelm a civilizations culture, history and natural settings. Cancun is an obvious example. Lewis and Niesenbaum (2005) further emphasize the promotion of “integrated experiences, including linking the experience to course work, engaging students in a specific community via community-based research and service learning and
teaching students how to use research skills through interdisciplinary research topics.” (Pg. 257)

Working with local communities offers just such an opportunity to connect with specific communities. It also offers the rare opportunity for landscape architecture students to collaborate with anthropologists who in some cases have been working with the communities for over ten years.

The community-based ecotourism studio project incorporated community design in a cultural and environmental context provided an intensive learning experience for the landscape architecture students. The theme is one that lended itself well to a study abroad experience; much more so than the traditional classroom/studio setting. It offered the opportunity for students to work for a client that was looking to solve social issues rather than just designing another pretty picture. For some students, this may have been the last opportunity for such an experience unless they become active in volunteer activities. It demonstrated to the students the power that the design process has to improve people’s lives, as well as the social and civic condition.

Evaluating the program through the analysis of the students’ journaling activities proved to be very enlightening. It also provided insights for improvements. For example, a minimal level of group discussion would help the students become more aware of what is happening around them. It would help them to focus their writing and help dispel any misconceptions that may arise.

An opportunity for future evaluation of the program exists in the analysis of the students’ daily journaling. Since they are much more extensive, it would take a considerable amount of time and resources. However, a preliminary reading seems to indicate that there is a point at which the writing takes a significant jump in the level of writing. The addition of the daily journaling would also help overcome the small sampling from which the qualitative research is based.

References


