A “Mixed Model” for Assessing Intercultural and Attitudinal Outcomes of International Service-Learning Experiences

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Abstract
The purpose of this paper is to share the results of a combined qualitative and quantitative method of assessing intercultural and attitudinal outcomes of international service-learning experiences. If institutions are going to support international study abroad and extension activities on the basis of professional development and increased intercultural competencies, then methods of assessing these impacts must be found. A USDA-CSREES project, “Strategies to Extend the Integration and Assessment of International Education in Colleges of Agriculture” enabled Purdue University to compare methods of assessment of change in leadership, intercultural skills and attitudes. The Intercultural Development Inventory® was used before the international experience to provide a self-assessment and to determine base-line sensitivity for self-selected participants. The IDI® was used three weeks after the conclusion of the experience to detect quantitative changes. Students were also asked to “preflect” what they thought was going to happen during the service-learning course and then regularly respond to guiding prompts in their assigned journaling. When similar guiding prompts are used sequentially throughout the experience, it is possible to detect very deep and personal reactions, growth or change in individual student responses. Students who self-selected this service-learning course appear to be more ethnorelative in their worldview relative to how they experience cultural difference than other students in the College of Agriculture. We will share examples of individual student responses to sequential reflective journaling prompts that show rich evidence of a student’s growth or change during and immediately after an immersion experience.

Key words: Mixed-model, learning assessment, journaling
Introduction

While the number of students who study abroad and international extension efforts has increased substantially, we must ensure that the programs are building competencies, effectively accomplishing goals, and are culturally informative. Are the participants learning cultural sensitivities as well as how to absorb and incorporate this information within themselves and their daily lives? A challenge faced by all institutions is how to effectively measure the outcomes of study abroad and both long- and short-term extension involvement. As more students are participating in shorter programs/courses it becomes more critical to determine whether or not we are obtaining the desired outcomes. If institutions are going to support international extension activities on the basis of professional development and increased intercultural competencies, then methods of assessing these impacts must be found.

“On many U.S. campuses, international education consists of a series of disconnected activities that are weakly integrated into the core academic mission.” … “the result is a fragmented hodgepodge of programs and activities that are rarely significantly integrated to create maximum institutional impact or to advantage learning.” These are the opening lines in The Internationalized Campus: A Strategic Approach (Green, 2003). This concern about assessing learning outcomes resulting from international experiences has been expressed by the strategies for internationalization highlighted in the American Council on Education project “Spotlighting Excellence in Comprehensive Internationalization” (Green, et al., 2003a) and the “Internationalization Collaborative” (Green, et al., 2003b).

Many institutions encourage Extension staff and students to work in global settings as a method of professional development as well as applying their expertise to assist in that setting. “By adding opportunities for staff to embrace and promote international opportunities and perspectives and then assessing the impact of these experiences, we are deepening the integration to create maximal institutional impact to produce globally competent citizens.” (Green, et al., 2003a) How can we claim this global impact if we do not specifically assess the outcomes? In Developing Intercultural Competence for the Masses, Mark Ashwill, (2004) states “that many education abroad experiences are more akin to an introduction to country X rather than a meaningful opportunity to become interculturally competent”. He highlights growth in awareness of cultural differences, in knowledge of cultures, and in skills that are based on practice interacting across cultures. Demonstrating the success of our internationalization by relying on the numbers … fails to address the learner’s behavior, attitude, and knowledge gained (Deardorff, 2004).

Many assessment approaches exist and one example is a study conducted by Pascarella et. al. (1994) which demonstrated the usefulness of a diversity and challenge scale on measuring the openness of students to diversity and challenge. Since its development, the 8-item instrument has been used successfully by multiple authors to measure changes in openness to diversity (Wortman 2002; Pike, 2002; Cabrera et al., 1998; Pascarella et al., 1996). In the study conducted by Wortman (2002) the diversity scale was used to measure changes in openness to diversity that occurred as a result of semester-long study abroad programs. While this study shows clearly the value of semester-long study abroad programs on increasing students openness to diversity; the effect of short study abroad programs on students’ openness to diversity is yet unknown. Unfortunately, similar studies on the effect of international experiences including: one to three week study abroad programs, summer student study/work programs, semester/year-long student exchanges, extension individual staff development programs, grad student/researcher...
opportunities, and service learning international opportunities, have on students attitudes/behaviors in general have been scarce.

The international experience must be planned and conducted with the same attention to lesson plans and learning outcomes as any other teaching method. An experience can not be expected to generate desired outcomes if they are not defined and then an appropriate pedagogy chosen. Learning outcomes could range from increasing technical or cognitive capacity to increased awareness and integration of a cultural communication method. The real challenge for higher education is defining and measuring such lofty ambitions described in these learning outcomes. As we seek to develop values, behaviors, attitudes, and competencies we are taking on a much larger task than assessing technical knowledge gained and skills. The good news according to Legget and Stampleford (2007) is that “in the 21st century international labour market the development of employability skills and attributes through adopting international perspectives is essential to the enhancement of the employment prospects of the students of any nationality. Employers in many countries world-wide share the same sorts of required graduate employability skills and attributes. Spending a period of time studying or working in another country permits students to develop these skills.” Supportive Purdue University student quotes:

“I learned to focus more on people and events rather than the time”
“I now feel that I can work effectively with anyone and am much more patient with people.”
“I know now that the regulations and procedures of work are different everywhere and you need to take time to understand the setting.”

Most extension specialists, educators, and university agricultural teachers seek quantitative methods of testing or assessing knowledge learned. Many studies have used internally-developed quantitative measures of attitude and behavioral change with pre- and post-experience tests or even post-reflective tests. Results are seldom satisfactory. We chose to not only do this but to also seek established, validated, and reliable instruments which assess those relevant attributes. The focus of this study is apply the use of both quantitative methods and the qualitative heuristic inquiry (Moustakas, 1994) method of phenomenological analysis using guided reflective journaling to elicit the impact of the experiences in the students’ own words.

**Purpose and Objectives**

It is the purpose of this paper to share experiences using a mixed model of assessment in evaluating the results of an international service-learning experience. The goal of the project is to evaluate methods of assessing learning outcomes such as changes in behaviors, attitudes, and competencies resulting from international experiences. We have determined that changes in quantitative assessments by themselves seldom reflect the observed changes. When combined with qualitative methods such as guided reflective journaling the learning outcomes can more thoroughly been evaluated. These methods can be used for any extension, agribusiness, or student international experience which anticipates change in attitudes or intercultural skills.

This project and discussion is important because little assistance is available to help those administering global extension experiences with the task of assessing and demonstrating impacts. These guided reflective journals illustrate the growing intercultural competence of individuals within a group of American students undertaking a service learning experience in Ecuador. An additional finding is that the process of responding to specific guided questions and keeping a journal itself also helped to develop their actual observation, learning, and that which they seek to describe. These methods can be used for any extension, agribusiness, or student international experience which anticipates change in attitudes or intercultural skills.
Methods and Data Sources

A USDA-CSREES funded project, “Strategies to Extend the Integration and Assessment of International Education in Colleges of Agriculture” enabled the comparison of methods of assessment of change in entrepreneur leadership, intercultural skills, and attitudes. To assess these intercultural and attitudinal outcomes of international experiences, we have chosen for this project a model that incorporates both quantitative change in stages of the Intercultural Development InventoryR (IDI) and a qualitative reflective journaling method.

According to the Bennett Developmental Model of Intercultural Sensitivity (M. Bennett, 1986, 1993; J. Bennett & M. Bennett, 2004; Bennett M. et al, 2003), our worldview of cultural differences is largely influenced by the experiences we have. “As people became more interculturally competent there is a major change in the quality of their experience, which is called a move from ethnocentrism to ethnorelativism. The term ethnocentrism refers to the experience of one’s own culture as central to reality. The beliefs and behaviors that people receive in their primary socialization are unquestioned; they are experienced as just the way things are. The term ethnorelativism is the opposite of ethnocentrism - the experience of one’s own beliefs and behaviors are just one organization of reality among many viable possibilities.” (Bennett, M. J. 2004). Bennett & Bennett (2004) define Intercultural Competence as “The capacity to generate increasingly more complex perceptions and adapt behavior appropriately to cultural context.”

The IDI is a 50-item questionnaire that measures five orientations toward cultural differences and meets scientific empirical criteria and is valid and reliable. (Bennett & Bennett, 2003). The results are capable of revealing where the individual wants to be and actually is in regard to ethnocentric stages of Denial, Defense, Minimization or ethnorelative stages of Acceptance, Adaptation, or Integration. The IDI scale ranges from theoretical zero at the bottom of Denial to 145 at the top of full Integration. The instrument was administrated the early in the semester before the international experience by the authors who are IDI certified. This helped the participants know what stage of the IDI reflects their current worldview and what the size of the gap between that is and where they think they are. The quantitative assessment in this project involved re-taking the same IDI assessment 2-3 weeks after the experience and evaluating the size of the change. We used an upper-level Animal Sciences 381, Career Leadership, course as a comparison group of College of Agriculture students who had chosen not to take the international service-learning course. This was not meant to represent the average student in the College but rather a comparison.

Qualitative Phenomenological Analysis

So, how have we been able to document the individual change and growth that we can definitely observe when we work closely with these students? Anyone who has traveled with or known the students before and witnessed this growth upon return sees the anecdotal change, but how to measure it? To date, the best measures we have found are qualitative and not quantitative. According to Patton (2001) “phenomenological analysis grasps and elucidates the meaning structure and essence of the lived experience of a phenomenon for a person or group of people.” This research examined the changes in students’ skills, attitudes, and behaviors as a result of participating in three-week international experiences. The phenomena under study utilized a qualitative methodology. “Qualitative research is naturalistic inquiry, the use of non-interfering data collection strategies to discover the natural flow of events and processes and how
participants interpret them” (McMillan & Schumacher, 1997). Qualitative research methodology can uncover intricate pieces of evidence that are difficult to obtain using quantitative methods. Denzin and Lincoln (1998) define qualitative research as “multi-method in its focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meaning people bring them”. Phenomenology allows researchers to look through a lens for the purpose of understanding a participant’s lived experience. Heuristic inquiry (Moustakas, 1994) is a highly personal process which allows a researcher to exhibit his or her voice throughout a study and personalize the experience. This is exactly what happens in faculty-led international experiences.

According to Nicodemus (2006), “A method to determine the attitudes of students while participating in an overseas course is through assigning a written journal. One needs to distinguish between the objective and the subjective journal. The objective journal is generally a chronology of events, or data collection. The subjective journal goes beyond what one has observed or experienced or read. The subjective journal will give a better insight into the students’ personal growth, reactions, and thoughts.” We have called this subjective journal a reflective journal and we expect more critical thinking and personal thought than the objective journal referred to here. In this discussion we are always referring to a subjective journal.

The sample class for this project was Youth Development and Agricultural Education (YDAE) 491 – Serving International Communities (n=21) which is a combination of classroom educational experience and an international service learning project in Ecuador. This is a four-week Maymester course that not only challenges students to integrate their accumulated knowledge and technical skills in order to solve real-life problems, but it helps students develop both intercultural and service learning competencies.

All teachers know that the hard part is identifying the specific learning objectives for their course and then being able to assess the student’s learning and growth. The learning objectives for YDAE 491, Serving International Communities were:

- challenge students to integrate their accumulated knowledge and technical skills in order to address real-life issues
- help students develop intercultural skills through working as part of diverse teams in both a domestic and an international setting
- encourage students to develop a servant leader attitude by using service-learning as pedagogy to help communities build on their assets to address critical issues.
- connect students to the ideas and people who can instill habits of thought and practice that embrace larger vistas, worldwide challenges, and opportunities to serve the global community.

Jones (2005) believes that learning or assessment does not have to begin after or during the learning event. You can increase the intentionality of the consciousness and thus intentionally and consciously deepen the experience itself by asking prompting questions before the experience. Instead of solely “reflecting” on an experience, Jones has demonstrated that “preflecting” helps orient the learner’s mind to its object” and make the learner more observant and learning more intentional in its nature. If the researcher has basic guiding questions for the assigned journaling, then it is possible to follow up on those themes throughout the experience. To give the reader assistance in understanding the method, we have included examples from the serving Ecuadorian villages that directly relate to the learning objectives of that course. Here the students lived and worked with indigenous and Afro-Ecuadorian underserved people. In this
case the faculty team brought in an expert from the Purdue Center for Instructional Excellence who actually traveled with the class in 2006 and then drafted prompts (questions) around the stated learning objectives for the course. Here are the actual prompts of questions from the service-learning course:

Preflection Example Questions:
- What do you hope to gain by completing this course?
- What does Service-Learning mean to you?
- What will be the most difficult aspect of working in teams on a community project?
- How do you anticipate that this course will help you be more effective in your career and community objectives upon graduation?

Examples of guided reflection questions or prompts include:
- How do you view the gender roles in Ecuador?
- How receptive do you feel the people here are to our efforts?
- How do you view the effectiveness of our group now?
- Give three examples of uncertainty and how you are coping.
- Describe a time when you and/or your team weren’t sure what you were going to do or how you were going to handle a situation: what did you learn about yourself and how you deal with uncertain situations?
- How are you communicating with our hosts?
- Describe how you felt that we were welcomed by our partners in Quito?
- How did you react to the way the community partners live?
- How work in the community is organized: discuss how your impressions of the culture and customs are similar to and different from your expectations prior to coming to Ecuador.
- Do you think it is important be able to accept the community as it is, even when aspects of its culture and customs may challenge your own world view or values? Why/why not?
- Think back across your time in Ecuador to date. Describe your two most rewarding or meaningful experiences? Discuss what made those experiences rewarding or meaningful for you.
- How has your experience in Ecuador increased your understanding of your own discipline: Describe specifically what you have learned about your own discipline/profession based on your interaction with your team and community partners in Ecuador?
- Identify and describe the approach you or others took or, looking back on it, could have taken, toward meeting the objectives you and your community partner jointly decided on. What alternative approaches could have been taken to meet these objectives (e.g., directing action toward an individual rather than a group, toward a short-term rather than long-term solution)?

When similar guiding prompts are used sequentially throughout the experience, it is possible to detect very deep and personal reactions, growth or change in individual student responses. We will share a service-learning example, but the methods have been used in other experiences.
Results

Students who self-select this YDAE 491 Serving International Communities in Ecuador service-learning course appear to be more ethnorelative in their worldview relative to how they experience cultural difference than one sample resident course (ANSC 381 Career Leadership) of College of Agriculture students. IDI average for YDAE 491 students (n=21) was 93.64/145 for Your Overall Developmental Intercultural Sensitivity and 120.94/145 for Your Overall Perceived Intercultural Sensitivity when taken at the beginning of the semester before the international experience. Scores for Animal Sciences 381, Career Leadership students in the same spring 2007 semester were 79.88/145 for Your Overall Developmental Intercultural Sensitivity and 115.21 for Your Overall Perceived Intercultural Sensitivity when administered the same week of the semester. See Table 1.

Table 1

IDI Results of Sample Students

<table>
<thead>
<tr>
<th>Student Group</th>
<th>Baseline Intercultural Sensitivity</th>
<th>Baseline Perceived Sensitivity</th>
<th>After Experience Intercultural Sensitivity</th>
<th>After Experience Perceived Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC 381, n=26</td>
<td>79.88</td>
<td>115.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YDAE 491E, n=21</td>
<td>93.41</td>
<td>120.94</td>
<td>103.11</td>
<td>126.12</td>
</tr>
<tr>
<td>Example student #1</td>
<td>86.74</td>
<td>112.87</td>
<td>84.83</td>
<td>123.65</td>
</tr>
<tr>
<td>Example student #2</td>
<td>99.94</td>
<td>127.55</td>
<td>124.01</td>
<td>132.17</td>
</tr>
</tbody>
</table>

The IDI average for YDAE 491 Serving International Communities in Ecuador service-learning course (n=18) was 103.11/145 for Your Overall Developmental Intercultural Sensitivity and 126.12/145 for Your Overall Perceived Intercultural Sensitivity when taken 2-3 weeks after the international experience. It is difficult to determine whether this average is a significant change or if individual variation is greater than the group variation. Two examples of the individual variation are shown in Table 1. The Your Overall Developmental Intercultural Sensitivity score of student #1 actually decreased while student #2 was already at a higher sensitivity stage and increased. The importance of these quantitative changes will be discussed in the Importance and Implications section.

Qualitative Phenomenological Analysis

The narrative journaling approach generates great volumes of individual student responses to sequential reflective journaling prompts that show rich evidence of a student’s growth or change during and immediately after an immersion experience. It is not as “clean and easy to summarize” but provides great thought-stimulating results. This sequence is provided as an example of the responses all by the same individual student.

Preflection – four months before trip.

What will be the most difficult aspect of working in teams on a community project?

“I expect the culture of the people with whom we are working to cause communication challenges and they will not understand what we are trying to accomplish.”

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Journal 1 – when leaving Esmeraldes
What have you found to be the most difficult aspect of working in teams with students in Esmeraldes?
“I have been hearing faculty say “It isn’t right or wrong, just different” for a long time, however it never really sinks in until you get to experience that culture, talk to the people, and try to practice these beliefs. I’m seeing now that people here do indeed live differently than me and that is ok. I think it is difficult to understand what they are trying to show us and to do the tasks as easily as they make it look. I think I will be more open-minded and interested in different people now.”

Journal 2 - about when leaving San Miguel
How did you find our effectiveness working on teams with the villagers of San Miguel?
“These people are not really all that different that we are. I think we are learning to listen better and appreciate their ways and knowledge much more. I now have a greater appreciation for the practices studied and realize that Americans aren’t the only ones with an amazing story to tell.”

Journal 3 – when leaving El Juncal
What was the most difficult aspect of working in teams on a community project in El Juncal?
“Us – we have become the most difficult challenge of working with the people in El Juncal. Our meeting was a good beginning but just like at home, it was difficult to hear everyone’s voices when some were not allowed to speak. Getting to know the culture and history of places we go truly make me appreciate their culture more and in some ways my own. To understand this culture you really have to better evaluate and understand yourself.”

Journal 4 - end of trip when leaving Quito
How have the experiences of this course caused you to view other people, cultures, practices, and beliefs differently?
“I didn’t think that they were as advanced as we are but especially after Quito it is obvious that is many ways they are. I really see life in general in a new way after this trip. There is usually not one right way to do anything. I think that my view of people has definitely changed. I especially think my view of people changed a lot because of the interactions with the women and leaders of the communities. I was very impressed by how welcoming and genuine all of our hosts are, and I will always remember their hospitality.”

Other example actual responses from students:
• “I’ve become more aware of myself and know what I can do and what I can’t. However, I also learned that the things that I thought I couldn’t so I actually can.”
• “I learned to accept help from others as not a statement that I am incompetent but an expression of sincere desire to assist and I have gotten better at realizing this.”
• “I really learned a lot about using my communication skills to interact with and develop relationships with (Ecuadorian) people. When you come to work beside others, you can find a way to communicate.”
• “I am a lot more adventurous than I thought I was. I had never used a machete, never harvested pineapple and cocoa, or ridden a horse down a mountainside but if I let myself try, I now know that I can do more than I thought possible.”
• “When you are put in a totally foreign place (with no electricity, roads, or running water) to live with people you don’t know anything about you have to be willing to communicate and find out what their needs are and how you musty live. I don’t think I could ever grow so much sensitivity in a place where I am already comfortable.”
• “I now realize how fortunate I am to have the opportunities I have and getting a Frisbee out to play with the village kids and realizing they had never seen one was a reality check for me. I learned most about my self on this trip.”
• “I have learned that even though people see me as a quiet girl, I see when it is needed to step up and lead a work team. I learned that I am a leader.”
• “I am a lot more independent now”
• “I am more flexible now and more willing to take a job in a foreign country because of this trip”
• “People are similar around the worlds but we just do things differently”
• “I was able to better understand how people from the US are perceived around the world”
• “I am much more open-minded now and intend to seek out opportunities to talk and learn about exchange students and faculty”
• “I am more flexible with people and have learned that plans change and there are times that going with the flow not only makes life easier but is more effective.”
• “I have learned the value of listening to others’ thoughts more carefully will help me serve others”
• “I learned a lot about working with others and how we can learn something for everyone”
• “I most benefited by working on my people and small group skills and how to work with a diversity of people. It made me take a step back and work on my open-mindedness and acceptance of others.”

While we continue to seek other valid and reliable methods based on scientific theory to assess learning outcomes, we are finding great richness and revealing information from this additional qualitative approach.

Educational Importance and Implications

If institutions are going to support international extension activities on the basis of professional development and increased intercultural competencies, then methods of assessing these impacts must be found. These methods are not the only ones, and may not be the best, but some combination of quantitative and qualitative assessments must be used to assess specific learning outcomes gained from international immersion experiences.

Further study with more students and other quantitative instruments is needed. Many instruments exist and should be considered however most are designed for self-assessment, awareness elevation, baselines for training and coaching, and preparation for international business assignments. It is uncertain to the authors whether some of these can be used to actually measure change.

The other consideration is how much of the change to attribute to the intended intervention. If there is significant change, can we really propose that the international experience was the sole cause? How do we ever account quantitatively for the huge variation of student worldviews and openmindedness when assessing the learning outcome of these experiences? Maybe the student quote “I don’t think I could ever grow so much sensitivity in a place where I am already comfortable” says that it is the degree to which we can safely make
our students and staff uncomfortable without intimidating them is the key to change in attitude, behavior and intercultural skills.

When similar guiding prompts are used sequentially throughout the course, it is possible to measure growth or change in individual student responses. The more intriguing result is that more change appears to occur in students when the guided reflections are consistently part of the learning experience rather than only used at the beginning and at the end. Learning from experiences is enhanced when the learner is forced to reflect on the experiences while simultaneously engaged in the experience itself. Instead of using the journaling or the reflection as an assessment tool, it appears that this is actually a learning method. The heuristic researcher realizes that these responses correlate very highly to the anecdotal changes observed during and after the international experience.

References


