Maximizing Student Learning on Short-Term Education Abroad: What works and what doesn’t using backward course design

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Welcome & Overview

- Session Overview
  - Education Abroad: successes and challenges
  - Background on the project
  - Project Timeline, Findings, and Outcomes
  - Overview of Relevant Theory and Resources
  - Group Activities and Discussion

- What brings you to this talk today? What would you like us to emphasize?
  - Research about short-term, faculty led short-term study abroad
  - Sustainability-focused programming
  - Experiential learning and pedagogy
  - Critical thinking learning outcomes assessment
Background Information
“this generation requires a different brand of education that will enable them to attain their personal dreams and to serve the society they must lead. The education we offered to previous generations, whether successful or not, will not work for these students.”
# Our students

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital natives</td>
<td>Pessimistic about future of country</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>Entitled</td>
</tr>
<tr>
<td>Optimism about self</td>
<td>Dependant on adults; sheltered from adversity</td>
</tr>
<tr>
<td>Pragmatic</td>
<td>Era of convenience and instant gratification</td>
</tr>
<tr>
<td>Good with diversity and team work</td>
<td>Don’t cope well with adversity</td>
</tr>
<tr>
<td>Interested in global issues</td>
<td>Struggle with face-to-face interactions</td>
</tr>
<tr>
<td>Driven by earning money and securing future</td>
<td>Less interested in following interests, identifying values, learning people skills</td>
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</tbody>
</table>
Australia Program

- Four-week, summer, field-based, faculty-led study abroad program that has been running for over 15 years; program design includes research and some service projects
- Program includes pre-departure sessions during Spring Semester
- Program travels through out Australia, comparing various built and natural environments around the themes of sustainability and human impacts on the environment
- Program is sponsored across three colleges and offers general education credit; most participants are first-time travelers interested in fulfilling credit, not exploring the subject area
Our Goals for Australia

▪ Over 15 years, constantly changing format, focus, and route
  ▪ Curriculum
  ▪ Economics
  ▪ Student background and interest

▪ Goals for Australia
  ▪ Introduce students to the concept of sustainability and how it connects to their personal and professional future
  ▪ Help students understand the connection between social and scientific aspects of environmental problems
  ▪ Provide students with real-world, experiential activities that reinforce class concepts

▪ Assumed comparative, critical inquiry in the beginning
FISPE Grant

- Competency-based Assessment of Liberal Learning Goals through Institutional Experiential Education for Global Sustainability
  - Looked at learning outcomes, specifically critical thinking, across multiple experiential learning domains over a three year timeline
  - Domains included a campus-based classroom, an experiential certificate program, a domestic field experience, and a short-term study abroad program
  - Sustainability-focus and experiential nature as common bond

- Research question:
  - How do experiential, competency-based approaches to sustainability enable institutions to better educate for complex global problems, engaged learners curiosity and responsibility on behalf of their communities, and prepare an engaged citizenry capable of meaningful participation in sustainability issues?
Research Design

- **Timeline**
  - Year One: Base-line assessment
  - Year Two: Intervention and 2\textsuperscript{nd} assessment
  - Year Three: Evaluation of results and recommendations for future action

- **AAC&U Value Rubric** on critical thinking used for the assessment, as well as other institutional goals and rubrics

- **Kolb’s Theory of Experiential Learning**

- **Action Research**
  - A form of investigation designed for use by teachers to attempt to solve problems and improve professional practices in their own classrooms. It involves systematic observations and data collection which can be then used by the practitioner-researcher in reflection, decision-making and the development of more effective classroom strategies. (Parsons & Brown, 2002)
Research Model

CONTENT
(Sustainability)

OUTCOME
Engaged Citizenry
Research question: How do experiential competency-based approaches to sustainability enable institutions to better educate for complex global problems, engage learners’ curiosity and responsibility on behalf of their communities, and prepare an engaged citizenry capable of meaningful participation in sustainability issues?

INSTRUCTIONAL DESIGN
(Backwards Design)

STRATEGY
(Experiential Learning)

CRITICAL THINKING
(AAC&U Dimensions)

Reflection Time Matters

Ask Good Questions
Discussion Point

Do you use a model of experiential learning? How is it practiced and assessed?
Baseline and Intervention
Year One Assessment (2011)

- Focus of Year 1 was to determine the degree to which the program was achieving the MSU sustainability outcomes (see hand-out), which included critical thinking
- AAC&U Value Rubric was also used (see hand-out)
- No instructional intervention occurred during the first year
- Data points:
  - 4/6 student papers
  - Blog
## 2011 Baseline Results

**Instances of MSU Sustainability Competency in Early, Mid and End course assignments.**

<table>
<thead>
<tr>
<th>MSU Competency 19 Learners</th>
<th>Early-paper #2/6</th>
<th>Mid-Blog Post</th>
<th>End-paper #6/6</th>
<th>TOTAL N=56 instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civic Engagement</td>
<td>2</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Systems Thinking</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Social Justice</td>
<td>1</td>
<td>4</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Economic Vitality</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Ecological Integrity</td>
<td>14</td>
<td>10</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>2</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>17</strong></td>
<td><strong>17</strong></td>
<td><strong>22</strong></td>
<td><strong>56</strong></td>
</tr>
</tbody>
</table>
Instances of AACU Critical Thinking Dimensions in Early, Mid and End course assignments.

<table>
<thead>
<tr>
<th>Location</th>
<th>Count of EXP</th>
<th>Count of CX/ASSUM</th>
<th>Count of PO</th>
<th>Count of CONC</th>
<th>Count of EVD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resp. #2</td>
<td>13</td>
<td>11</td>
<td>15</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Mid-Blog Post</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Resp. #6</td>
<td>15</td>
<td>12</td>
<td>14</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>35 (21.3%)</td>
<td>28 (17.1%)</td>
<td>34 (20.7%)</td>
<td>31 (18.9%)</td>
<td>36 (22.0%)</td>
</tr>
</tbody>
</table>

AACU Skill N=164 (19 learners)
Backward Design

- Team used backward design to think more intentionally about the assignment and rubric design
- Thought more critically about the number and types of site visits; tried to focus on fewer themes in more detail (depth vs. breadth)
2012 Interventions

- Adjusted site visits to add repetition and reflect good and poor examples of sustainability
- Readings aligned with course themes; themes made explicit to learners
- Added time and structure to debriefing and promoting reflection on field experiences and activities
- Assignment rubrics realigned to fit with program goals and critical thinking outcomes
- Shift from 6 to 4 papers, with two more scaffolding writing assignments, to focus attention on field visits and connecting the field visits to readings more intentionally
2012 research focus

- Change to a deeper focus on critical thinking outcomes across all research sites
  - Critical thinking includes both a process of learning critical thinking skills AND critical thinking outcomes demonstrated in learner artifacts
  - Less research focus on other aspects of sustainability

- Expanded use of AAC&U critical thinking rubric, more useful for assignment level analysis
  - Five dimensions expanded into six; 50+ codes.
  - Inter-rater reliability agreement range 0.89-0.97 (Fleiss’ Alpha, Krippendorff’s Alpha, Cohen’s Kappa)
2012 research outcomes

Summary Results:

▪ All students cited a person/place from experience in written work.
▪ Some students cited course readings in work, few cited course readings per APA/MLA, most students referenced a person or expert without explanation of why that person was an expert.
▪ Few students questioned sources or assumptions made by sources.
▪ Most students summarized the work of others (experts); few students made their own argument.
▪ Higher use of reflection & evidence in earlier (Essay 1 and Essay 2) than in final essay.
▪ First and last assignments scored higher on Critical Thinking rubric
2012 Research Outcomes cont.

Four Australia Assignment by AACU Criteria

- **Explanation**
- **Evidence**
- **Assumptions**
- **Context**
- **Position**
- **Conclusion**
Transferrable Learning

Discussion & Questions
Instructor & Researcher Perspective

- Experiential Learning- Method or Methodology
- Critical Thinking is a skill set to teach and a desired outcome
- Intentional/Backward Design
  - Field experiences
    - Practice making field observations
    - Students don’t see field visits as “class”
  - Learning experiences
    - Scaffold the material and concepts
  - Meta-learning experiences
    - Scaffold the learning process too
Questions for Practitioners

1. Do we understand students’ motivations for attending and learning on study abroad programs? How can we better understand this perspective? Does motivation relate to the program format, topic, and/or location?

2. How do we support faculty and staff working with students aboard regarding student motivation, interest, etc.?

3. How do we know we are achieving the goals we espouse? How do we work to create a transformative learning experience?
Experiential Learning Theory (Kolb, 1984)

Concrete Experience
(done / having an experience)

Active Experimentation
(planning / trying out what you have learned)

Reflective Observation
(reviewing / reflecting on the experience)

Abstract Conceptualisation
(concluding / learning from the experience)
Thanks for attending

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- Bill Heinrich - heinri19@msu.edu

Australia Program: https://www.msu.edu/course/be/475/australia/index.htm
AAC&U Value Rubric: http://www.aacu.org/value/rubrics/index_p.cfm
MSU Learning Outcomes: https://www.msu.edu/~freshsem/LLG%20%20GC%20combined%20table.pdf