Introduction

Student learning outcomes are typically written and decided upon by faculty in institutions at a high level and do not change rapidly or often. In contrast, the pace of globalization, cultural knowledge, trade agreements, regional political stabilities, technology, and population growth change constantly and sometimes at breathtaking speeds. One could argue that this sampling of topics and currency of their presentation should be included in a university curriculum (American Council on Education, 1937). To meet these emerging learning opportunities and industry needs, many universities encourage some form of study abroad or experiential learning as a viable part of academic curriculum. The key to the value and rigor of these study abroad programs to the student’s academic preparation is the intersection of student learning outcomes with a substantive study abroad experience (Barr & Tagg, 1995).

Not all students or degree programs have the flexibility in their curriculum sequence as well as the financial means to spend an entire semester studying at an international institution. Therefore, the need for a short experiential program that does not necessarily fulfill a credit hour requirement but can be customized to each student’s interest but added to their skill set was desired and attempted (Fried, 2006; Ganty, 1990).

At Embry-Riddle Aeronautical University, an annual, study abroad, non-credit program focused on research was created in 2013. Each year two faculty researchers took students to international countries during their two-week spring break. A unique requirement of the ERAU program, students were required to select a topic to research, complete their literature search and methodology prior to the experience, present at one of three pre-trip meetings, conduct research while traveling, and finally, culminate in presenting a poster or submitting the final research for publication. Further, the challenge of constructing this study abroad experience was to tailor the experiences and deliverables so it aligned with the research student learning outcomes while not targeting or relating to a specific degree program.

What is unique about this study abroad from other study abroad offerings is that any student from any degree program and at any point in their college career are appropriate candidates for this type of research program (Weiner, 2002). Many majors at the University do not have open electives, so a student-driven research abroad program would not have appealed to students in the STEM fields. Additionally, the short-term non-credit nature of the program appealed to National Guard and ROTC students, a large component of the student body, both of which have found it difficult to do a full credit program and be gone from their military obligations during a longer term trip or over multiple trips. At Embry-Riddle Aeronautical University, an annual, study abroad, non-credit program focused on research was created in 2013. Each year two faculty researchers took students to international countries during their two-week spring break. A unique requirement of the ERAU program, students were required to select a topic to research, complete their literature search and methodology prior to the experience, present at one of three pre-trip meetings, conduct research while traveling, and finally, culminate in presenting a poster or submitting the final research for publication. Further, the challenge of constructing this study abroad experience was to tailor the experiences and deliverables so it aligned with the research student learning outcomes while not targeting or relating to a specific degree program.

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Assessment of Final Research Products

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<tr>
<th>Research Abroad Papers</th>
<th>36 articles for publication, 6 posters for external presentation</th>
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<tbody>
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<tr>
<td>Introductory</td>
<td>Practicing</td>
</tr>
<tr>
<td>Overall research</td>
<td>4</td>
</tr>
<tr>
<td>Design course of research</td>
<td>9</td>
</tr>
<tr>
<td>Apply ethical reasoning</td>
<td>18</td>
</tr>
<tr>
<td>Conduct research</td>
<td>4</td>
</tr>
<tr>
<td>Search literature</td>
<td>11</td>
</tr>
<tr>
<td>Communicative results</td>
<td>0</td>
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</tbody>
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Iceland, 2018

Programs provide benefits such as broadening a student’s resume and increasing the student’s marketability in their job search after graduation (Gerbe, 2011).

Studying abroad has evolved to an international educational exchange that combines academic and experiential learning in a foreign setting (Hofer, 2007).

Study abroad is critical to the nation to include global literacy, values sharing, cultural awareness, regional specializations, expanding personal interest, practical training and an understanding of international affairs. Over 800 U.S. executives reported that almost 40% of companies missed international business opportunities because of a lack of internationally competent personnel (Danai et al., 2014).

Literature Search

Experiences for Students (IRES) for U.S. science and engineering students for the year-long experiences. "The best experiences include those that are integrated to the student's curriculum and related to their career goals whose outcomes are easily articulated in resumes and job interviews."

ERAU ignites exposes students to numerous targeted global awareness outcomes and providing hands-on opportunities for students to conduct cultural studies-based research.

Still, elitist criticisms from those that believe that short-term experiences limit the amount of learning and exposure, are too expensive, and are boondoggles.

A number of studies have found that well-planned study abroad programs, no matter the length, have reliably demonstrated a capacity to promote a deep learning environment and that students demonstrate mastery of targeted learning outcomes at a higher rate than they would learn those same outcomes through more traditional instruction. In addition, Perry, Storrar, and Tarrant (2012) found that "when coupled with an adequate pedagogical framework, short-term study abroad could serve as an educative opportunity for fostering transformative learning environments where new experiences and perspective may be developed (p. 682)."

Critical Reflection

"Outside of" one’s subject matter while conducting research. Monitoring and Continuous Improvement – flexibility and authority to adjust activities to respond to events.

Implications and Conclusions

With data and experience, formalizing the program content, support, and expectations can be constructed so that other Faculty can create and lead their own research abroad experience in a specific subject but have a standardized tool to quantify the skills attained of participating students.

Studying confirmed that students successfully attained student learning outcomes in a structured, non-credit, short-term study abroad experience.

Such programs can make a unique contribution to college outcomes despite the non-credit student experience as students can be required to produce a document such as a poster or manuscript that then can be represented on a graduate resume illustrating the unique co-curricular learning experience.

Given financial and curriculum inflexibility of some students, Universities and faculty could achieve attainment of research-based, program agnostic, student learning outcomes by offering short-term study abroad alternatives to the traditional semester or year-long experiences.

National Research Foundation offers funding for international Research Experiences for Students (RES) for U.S. science and engineering students for the purpose of developing a diverse, globally-engaged workforce with world-class skills using a research-based experience.

Programs can be constructed as customized project-based experiences to achieve highly integrated skills across all degree programs.

With graduates entering the market with globalized businesses and executive’s recognition of a need for an international experience, carefully constructed short term study abroad programs are meaningful avenues to build those credentials.

Methodology

An instrumental case study was chosen as a means of allowing the facilitators/authors to communicate how they attempted to assure that the program was educational with a small group of subjects (students) (Yin, 2008; Zainal, 2007).

To determine if the program was in fact educational and meet its goal of being an effective research experience the faculty researchers utilized two additional research methods:
- document analysis using standardized rubric and outside evaluators
- descriptive field notes included relevant activities of the student participants

8 Key Design Components of Study Abroad

1. Reflectivity - awareness of the researcher's contribution to the construction of meanings throughout the research process, and an acknowledgment of the imposibility of remaining 'outside of' one's subject matter while conducting research.
2. Ensuring an Educational Design - use experiential education as the principle to ensure that the program was grounded in an acceptable educational theory (Beard and Wilson, 2006) while ensuring the quality of the learning experience and the work produced, and in supporting the learner to use the principles.
3. Intention - all parties must understand the purposefulness of an activity or the experience is being chosen and what learning outcomes cannot occur. (Conducted during pre-trip)
4. Preparedness and Planning - the researchers, students, and other parties be involved and invested in the planning and preparation of the trip. (Orientation and planning sessions.)
5. Authenticity - doing actual meaningful work of the field of study and immersion into the culture rather than tangential engagement as interested tourist.
6. Critical Reflection - master the experiential learning and embody the lesson for future application by employing the DEAL model (description, examination, assessment, learning).
8. Monitoring and Continuous Improvement – flexibility and authority to adjust activities to respond to events.