Experience, Perceptions, and Likelihood of Participating in International Opportunities among College of Agricultural and Life Science Students

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Abstract
In an attempt to understand how agricultural experience may be related to interest in international learning programs and activities, a study was conducted among undergraduate and graduate students in the College of Agricultural and Life Sciences (CALS) at the University of Florida. The purpose of the study was to develop a better understanding of students’ prior experiences, perceptions and likelihood of participating in international learning opportunities made available to them while in college or university settings. To conduct the study, an online Web-based survey was administered to a random sample of CALS students. Results indicated that, in general, agricultural students have limited international background and experience with respect to international learning opportunities. Nevertheless, the level of interest in participating and willingness to travel to other regions of the world to engage in international activities was fairly high. A key implication of these findings is that low levels of prior experience and awareness may be potential barriers to student participation that might be addressed through intensive educational efforts designed to gradually introduce students to international experiences early on in their academic careers.
Introduction

Globally, food and natural resource issues such as global warming, food and water safety, and biodiversity increasingly connect citizens from different countries and cultures. The awareness and understanding of global issues is especially important in higher education in order for students to be prepared to compete in a global economy (Bikson, Spring 1996). According to Bikson (Spring 1996), hiring decisions in corporate settings value multicultural competencies in applicants. They identify individuals as being competent to position themselves globally and compete in the international marketplace based on the applicant’s openness to other cultures’ values, ability to perform in a variety of contexts, increased knowledge base, and level of foreign language fluency.

Globalizing the undergraduate student learning experience is integral to developing a global workforce (Acker, 1999). One responsibility of higher education is “the education of the global citizen, one who will be comfortable visiting, working and living in diverse countries” (Lundstrum, White, & Schuster, Summer 1996). Prior to developing curriculum and programs to prepare students for the global marketplace, it is important to understand the current experiences and perceptions of our students in the agri-sciences regarding international opportunities, as well as their likelihood to participate in international learning opportunities.

Theoretical Framework and Background

Much research has been conducted among business schools regarding global competencies. Zeliff (1995) states that important competencies for business students includes the areas of economic concepts, global organizations, finance, marketing, social and cultural factors and trade. Gorchels (1999) posits that cultural adaptability and work ethic are traits that could be hired into an international related position, but she goes on to say that adaptability is likely to increase with exposure to different cultures. To help meet this need, people who have had foreign internships, study abroad or some type of international experience become stronger candidates.

In a comparison of US and European business schools it was concluded that European schools: “sought higher levels of internationalization, were more likely to require international business courses, placed more emphasis on international experience, were more likely to offer specialized degrees in international business, had more faculty with greater international expertise and involvement, paid more institutional attention to faculty internationalization, and had greater institutional linkages and involvement” (Fugate & Jefferson, 2001, pp. 3-4). This comparison demonstrates how far US business schools still need to go in this regard.

The average US citizen typically feels that the US is the leader in regards to internationalization of its education. In reality this is typically not the case. In 1996, UNESCO reported that 1.5 million students studied outside of their country of origin. Of these students, the largest share was those coming to the US. In 2000-2001, 547,667 foreign students studied in the US, and this was a 6.4 percent increase over the previous year and a 34 percent increase over the decade. In contrast, only 143,590 American students studied abroad (Gillespie, 2002). This trend is causing the US to continually lag behind other countries in regards to international education.

Other peer countries such as Germany, Australia and France have set goals for numbers of students studying abroad, and this has led to an increase in share of international
education. These countries have established goals for students entering their country and their own students going to other countries. Additionally, these countries are encouraging programs such as dual degrees, dual languages, sharing knowledge across boundaries and increasing funding to support such efforts (Gillespie, 2002). Through endeavors such as this, these countries are better able to internationalize students and constituents.

It is evident that there is a long way to go in regards to internationalizing colleges of agriculture based upon a review of literature regarding internationalization of agricultural education and related disciplines. Moore and Woods (2003) reported the following major findings: a) internationalization of agricultural education programs has positive effects on college students, university personnel and stakeholders; b) the internationalization of programs has been limited in scope; c) the internationalization of programs is a response to and a reflection of globalization; and d) effective teaching and learning in this regard requires a global classroom – where cultural differences can become familiar.

Colleges of agriculture are searching for ways to better integrate an international component into the tripartite mission of research, teaching and extension. Acker (1998, 1999 & 2000) has written numerous articles related to this topic and its importance. GASEPA (Globalizing Agricultural Science and Education Programs for America) is a federal initiative led by land-grant universities to promote the global competence of faculty, students and stakeholders in agricultural and related programs across US campuses. The mission states that “an international dimension is incorporated into teaching, research and extension programs so that (1) our graduates understand and appreciate the global environment in which agriculture functions, (2) our research and extension programs have access to the best ideas and technologies regardless of where they are generated or developed, and (3) the above strengthen US international competitiveness within a sustainable global agricultural system” (GASEPA, 2003, pg. 1).

Purpose of the Paper

The purpose of this study is to develop a better understanding of students’ prior experiences, perceptions and likelihood of participating in international learning opportunities made available to them while in college or university settings, with a view toward enhancing understanding as to how agricultural experience may be related to interest in international learning programs and activities. As such, the objectives of the study are to (1) describe student respondents in terms of selected relevant demographics, prior international experience, and level of interest in international activities; and, (2) assess students’ perceptions of, and intent to participate in, international involvement activities while in school.

Methods and Procedures

The target population for this study (N=3,861) was comprised of all undergraduate and graduate students in the College of Agricultural and Life Sciences at the University of Florida. To conduct the study, a random sample (n=800) of students was drawn from the university’s student records database. The study, developed as an online Web form, utilized a 79-item, researcher-developed survey instrument that was descriptive in nature. The instrument included sections designed to measure respondents’ perceptions, beliefs and intentions related to international involvement while a student, as well as related demographic questions.
All items, with the exception of demographics and dichotomous choice questions, utilized five-point Likert-type scales for each response stem. The demographic variables focused on for this study included respondents’ ancestry, primary language spoken and whether or not they had grown up on a working farm. Other variables of interest included respondents’ self-reported experiences with international programs and activities, such as hosting an international visitor or going on an international study tour, as well as their attitudes toward and likelihood of engaging in international involvement programs and activities.

To assure face and content validity, the instrument was reviewed by an expert panel of faculty and graduate students in the college’s Department of Agricultural Education and Communication, and it was subsequently revised to reflect panel members’ suggestions. The resulting instrument was then pilot-tested with a sub-sample (n=84) of students who were not included in the final study. The results of the pilot study were used to further refine the instrument for use in the actual study.

The instrumentation used in the survey included three sections designed to measure prior experience, attitudes and beliefs, and perceptions and likelihood of participating in a range of nine specific student-oriented international activities, including participating in an international study tour, hosting an international visitor, interacting with international exchange students, participating in a summer abroad program, participating in a church mission trip, having an international guest speaker in class, taking a class that focused on international issues, going to an international restaurant and attending an international festival.

The final survey was developed as an online, Web-based survey instrument, using form development and data collection procedures as outlined by Dillman (2000). To initiate the survey, respondents first received an email cover letter informing them about the Web-based survey and providing them with a respondent code to keep track of respondents and non-respondents. After the initial posting of the survey, respondents were given two weeks to return it. A follow-up reminder was then sent to non-respondents. A third and final fourth reminder were then sent at ten day intervals. Students had the option of a paper-based form, but no students chose this option.

Data was directly captured in a database for subsequent statistical analysis via SPSS for basic and inferential statistics. To control for non-response error, date of submittal was tracked in the database to facilitate comparison of early and late respondents on the variables of interest. No differences were observed. The data was reviewed prior to data analysis for completeness and accuracy. In those cases where significant amounts of data were omitted, the entire record was not utilized. After data collection, survey response data was utilized to assess reliability of the instrument, resulting in a Chronbach’s alpha for the overall scale of $\alpha = .87$.

Results of the Study

Of the 800 students surveyed, 50 instruments were returned due to unusable addresses, which reduced the accessible sample to n=750. Of this number, 147 responded, for a response rate of 20%; however, four of the respondents did not answer any of the questions on the survey, and one was a duplicate. The resulting sample included 40.8% (n=58) male and 57.7% (n=82) female respondents. Two students did not answer this gender question. Of those who did respond, the majority were undergraduates: 27.9 (% were college
seniors (n=39), 15.7% were juniors (n=22), 12.1% were sophomores (n=17) and 9.3% (n=13) were freshmen, while 18.6% of respondents (n=26) were master’s level graduate students and 16.4% (n=23) were Ph.D. students.

To achieve objective one, which was to describe student respondents in terms of selected relevant demographics, prior international experience, and level of interest in international activities, students were asked a series of questions about their ancestry, background, experience and level of interest with respect to a set of international activities typically engaged in by college students. In response to a question asking respondents to describe their family’s ancestry, a majority of students who responded (67.7%) indicated that they were of European/Caucasian ancestry (n=90). The second highest category of response (11.3%), was Mexican/Latin American ancestry (n=15) followed by Asian (9.8%, n=13). Table 1 shows the number and percentage of respondents by ancestry.

<table>
<thead>
<tr>
<th>Family Ancestry</th>
<th>N*</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>European/Caucasian</td>
<td>90</td>
<td>67.7</td>
</tr>
<tr>
<td>Mexican/Latin American</td>
<td>15</td>
<td>11.3</td>
</tr>
<tr>
<td>Asian</td>
<td>13</td>
<td>9.8</td>
</tr>
<tr>
<td>African American</td>
<td>5</td>
<td>3.8</td>
</tr>
<tr>
<td>Puerto Rican</td>
<td>4</td>
<td>3.0</td>
</tr>
<tr>
<td>Arab</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>Native American</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>Other Caribbean</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>133</td>
<td>100</td>
</tr>
</tbody>
</table>

* Nine respondents did not answer this question.

Respondents were asked to describe their primary or first language. Of those who responded, the majority (79%) indicated that English was their primary language (n=109), followed by Spanish (13%, n=18). Almost eight percent (7.9%) of respondents indicated other primary languages, including Chinese (2.2%, n=3) French (0.7%, n=1) and Portuguese (0.7%, n=1). Six respondents indicated “other” languages, which included Tamil, Arabic, Vietnamese and Turkish. Respondents were also asked whether they had grown up on a working farm. Of those who responded, 88.5% (n=123), answered no, while 11.5% (n=16) answered yes.

In order to ascertain prior international experiences, student respondents were asked if they had taken part in a series of nine international activities typically available to college students. Of those who responded, 89.4% (n=127) had eaten at an international restaurant, while 56.3% had interacted with international exchange students, 47.2% had attended an international festival, 49.3% had listened to an international speaker in a class, 33.8% had taken a class focused on international issues, 8.5% had hosted an international visitor, 5.6% had participated in a semester-long study abroad program, 4.9% had participated in an international study tour and 2.8% (n=4) taken part in a church mission trip to another country. Table 2 shows frequency, and percent of yes responses to each prior experience activity.
Students were then asked to describe their level of interest in engaging in each of these same activities while still in school. Responses ranged on a scale of one to five, with (1) not at all interested and (5) extremely interested. Results showed that respondents were most interested in going to an international restaurant (M=3.93, SD=1.09), and least interested in participating in a church mission trip to another country (M=2.22, SD=1.46). Table 3 includes means and standard deviations indicating level of interest in participating in each activity.

Objective two was to assess students’ perceptions of, and intent to participate in international activities while in school. To achieve this objective, students were asked to
respond to a series of Likert–type questions about their perception toward participating in international involvement programs and activities. Responses ranged from (1) strongly disagree to (5) strongly agree. Of the nine questions asked, four of the items focused on personal involvement and intent, including an item asking if respondents’ willingness to travel had been affected by 9/11 and its aftermath, while five of the items focused on respondents’ perceptions of specific news frames, which are ways in which issues and events are positioned by the media through the reporter’s choice of words, phrases and imagery.

For the personal involvement and intent items, results indicated respondents agreed that participating in international involvement programs and activities was important to them personally (M=3.56, SD=1.07), and they disagreed with the statement that participating in international involvement programs was NOT important to future career success (M=2.27, SD=1.04). Respondents were somewhat neutral when it came to the statement “I intend to engage in an international involvement program or activity while a student” (M=3.24, SD=1.17), and interestingly, they tended to disagree with the statement “my willingness to travel to another country for an international experience/opportunity has been affected by 9/11 and its aftermath” (M=2.33, SD=1.33).

With respect to the news frame items, these items were designed to ask student respondents if they perceived international involvement to be associated with moral norms, self interest, increased competition between U.S. and other countries or mutual benefits to the U.S. and other countries, frames that existing research (Radomski & Larew, 2002) has shown to be prevalent in news media’s coverage of international involvement. Responses indicated that respondents tended to disagree that students participate in international involvement programs because it’s the right thing to do (moral norms frame) (M= 2.78, SD=1.01), while they tended to agree (M=3.96, SD=.82) that students participate because activities provide mutual benefits for students and those they interact with (mutual benefit frame). Respondents also agreed that international involvement creates mutual benefits between the U.S. and the countries involved (M=4.11, SD=.78).

On the other hand, however, respondents also tended to somewhat agree that students participate out of self interest (M=3.72, SD=.98), (self interest frame) and that international involvement creates increased competition between countries (M=3.33, SD=2.06), (competition frame) although these means were not as high. The mean for each response scale item is provided in Table 4.

Finally, respondents were asked what geographic regions/countries they would be willing to travel to for an international experience. Responses ranged on a scale from one to five, with (1) very unwilling and (5) very willing. Results indicated that respondents were most willing to travel to Australia/New Zealand (M=4.47, SD=.79), followed by Western Europe (M=4.29, SD=.94), and the Caribbean/Central America (M=4.19, SD=.94). Respondents were least willing to travel to China/Southeast Asia, (M=3.16, SD=1.31), although this mean was still above the neutral point of the scale. Table 5 shows means and standard deviations for the geography regions/countries respondents were asked to evaluate.
Table 4

**Perceptions of Personal Involvement, Intent and Framing of International Involvement**

<table>
<thead>
<tr>
<th>Response scale item</th>
<th>N</th>
<th>M*</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating in international involvement programs is:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Important to me</td>
<td>140</td>
<td>3.56</td>
<td>1.07</td>
</tr>
<tr>
<td>NOT important to my future career success</td>
<td>140</td>
<td>2.27</td>
<td>1.04</td>
</tr>
<tr>
<td>I intend to engage in international involvement programs or activities while in school</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My willingness to travel to another country for an international experience has been affected by 9/11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students participate in international involvement programs:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Because it’s the right thing to do</td>
<td>137</td>
<td>2.78</td>
<td>1.01</td>
</tr>
<tr>
<td>Because they provide mutual benefits</td>
<td>140</td>
<td>3.96</td>
<td>0.82</td>
</tr>
<tr>
<td>Out of self-interest</td>
<td>140</td>
<td>3.72</td>
<td>0.98</td>
</tr>
<tr>
<td>International involvement creates:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mutual benefits between the US and other countries</td>
<td>140</td>
<td>4.11</td>
<td>0.78</td>
</tr>
<tr>
<td>Increased competition between the US and other countries</td>
<td>140</td>
<td>3.33</td>
<td>1.17</td>
</tr>
</tbody>
</table>

* Mean based on scale of 1=Strong Disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly Agree.

Table 5

**Respondents’ Willingness to Travel to Selected Geographic Regions/Countries**

<table>
<thead>
<tr>
<th>Response scale item</th>
<th>N</th>
<th>M*</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia/New Zealand</td>
<td>139</td>
<td>4.47</td>
<td>0.79</td>
</tr>
<tr>
<td>Western Europe</td>
<td>135</td>
<td>4.39</td>
<td>0.94</td>
</tr>
<tr>
<td>Caribbean/Central America</td>
<td>140</td>
<td>4.19</td>
<td>0.94</td>
</tr>
<tr>
<td>South America</td>
<td>140</td>
<td>3.94</td>
<td>1.11</td>
</tr>
<tr>
<td>Eastern Europe/Russia</td>
<td>140</td>
<td>3.63</td>
<td>1.13</td>
</tr>
<tr>
<td>Africa</td>
<td>140</td>
<td>3.34</td>
<td>1.35</td>
</tr>
<tr>
<td>China/Southeast Asia</td>
<td>140</td>
<td>3.16</td>
<td>1.31</td>
</tr>
</tbody>
</table>

* Mean based on scale of 1=Very Unwilling, 2= Unwilling, 3=Neutral, 4=Willing, and 5=Very Willing.

**Discussion and Conclusions**

This study has revealed numerous findings that reflect the perceptions, attitudes and beliefs of international involvement among students within the College of Agricultural and Life Sciences at the University of Florida. The respondents of the study were representative of the student body in the college. Most students in the college are Caucasian, English speaking and are in preprofessional tracts – such as pre-vet, pre-med or pre-dental. Additionally, most have not grown up on farms.
Upon examining students’ actual international experiences, it is clear that for most students this has been very limited. Many of them (89%) had experienced an international restaurant, but just over half (56%) had interacted with international students. Likewise, fewer students have taken advantage of current opportunities to do things such as attending an international festival, listening to international guest speakers in class, or taking a class focused on international issues. It is very apparent that more needs to be done to help encourage students to take advantage of these informal types of international opportunities that would help lead to global understanding.

Actual international involvement was found to be even lower among the students. Less than 10 percent of the students had hosted an international visitor here in the US, and even fewer students had participated in a semester study abroad, an international study tour or church sponsored international mission trip (5.6, 4.9 and 2.8 %, respectively). To truly globally prepare students, efforts need to be taken to help students take advantage of the opportunities to visit other countries and cultures. It is through actual involvement that major differences can be achieved with respect to global attitudes and aspirations.

It was encouraging to note that most students are interested in taking advantage of many of these opportunities – particularly those that can be done here in the US. Overall, students are slightly interested in stepping out for actual international experiences. Colleges should consider this as they attempt to internationalize. To help students through this process, steps could include getting students actively involved in participating in local opportunities and then helping them to ramp-up to actual involvement. In most cases, this step-wise approach would help ease students into learning about other countries and cultures through interest and curiosity that would develop.

Students exhibited very good perceptions toward international involvement. They could definitely see that there are mutual benefits between the US and other countries through such activities. They also were somewhat positive that such involvement was important to them, and they tended to disagree with the statement that it was not important to their future career. This reveals that they understand how important this is, and that they are interested. Students may need some help in making this happen by exposing them to opportunities and encouraging them to take proactive steps to get involved.

For the most part, students were willing to travel to most regions of the world. The regions that most students were open to included: Australia/New Zealand, Western Europe, Caribbean/Central America, South America and Eastern Europe/Russia. Emphasis should be placed upon these geographic areas to capitalize upon where students’ interest lie.

Implications and Educational Importance

These findings suggest that, in general, agricultural students have limited international background and experience with respect to international learning opportunities. Nevertheless, in this study, the level of interest in participating and willingness to travel to other regions of the world to engage in international activities was fairly high. Implications of these findings indicate that low levels of prior experience and awareness may be potential barriers to student participation that might be addressed through intensive educational efforts designed to gradually introduce students to international experiences early on in their academic careers. When presented with specific opportunities, students in this study were interested, and they did perceive value in terms of mutual benefits to be gained by themselves and those with whom they might potentially interact.
These findings are important, in that they suggest the need for continued educational efforts by agricultural institutions to prepare our students to be “globally-ready” graduates. Most importantly, steps need to be taken in such a way as to ramp-up student involvement. This can be accomplished through proactive plans that expose students to ongoing opportunities that exist and building upon these in such a way that students will become comfortable with people from other countries on a professional as well as personal level over the course of their degree programs.

References


