Faculty Perspectives on Strategies to Internationalize the 
Undergraduate Agricultural Curriculum

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Abstract

To adapt to the new global system, internationalization is increasingly being accepted as a necessity in higher education. Although the process involves the research, service, and education components of academic institutions, many authors contend that the internationalization of the curriculum is the most important component of the process and that faculty are its main drivers and actors. While a number of the issues involving internationalization are today very well documented, there is still little published information regarding the perspectives of random samples of faculty (as opposed to the perspectives of faculty directly involved in internationalization) regarding the strategies to internationalize the undergraduate curriculum.

The purpose of this study was to analyze perspectives of faculty in two Land-Grant Colleges of Agriculture regarding academic program and institutional strategies for the internationalization of the undergraduate agricultural curriculum. To gather data, the researcher employed a mixed method research approach, using a questionnaire with both quantitative and open-ended questions that was sent to a census of the teaching faculty of the two colleges, and also conducting eight one-hour interviews.

Faculty ranked mobility and infusion approaches as their preferred academic strategies for internationalization of the curriculum. When asked about incentives to participate in the internationalization process, they mentioned funds, “real” recognition, and release time. Also, faculty expressed a need for increased leadership, vision, and focus for the process. When looking at the academic and institutional strategies together, various patterns of association appeared.
Introduction

To be prepared to live and compete in the dynamic workplace of an increasingly global and interdependent society, university students need to learn about and be exposed to the changing international environment. It is the duty of the higher education community to better address these needs (Association of International Education Administrators [AIEA], 1995; Hawkins, Haro, Kazanjian, Merkx & Wiley, 1998; Mestenhauser & Ellingboe, 1998). In particular, the agricultural, food, and environmental sciences have radically changed in recent decades and have stood out as playing an especially important role worldwide, socially, politically, and economically. Consequently, colleges of agriculture are being asked to respond (Kunkel, Maw & Skaggs, 1996, p. vii) and “aggressively globalize their teaching, research, and outreach programs” (Jischke, Topel & Acker, 1999, p. 7), not only to continue serving their students, and to serve them better, but also for society as a whole (Acker, 1999; Acker & Scanes, 1998; Etling, 2001; Schuh, 1989; Thompson, 1995).

"The internationalization of higher education is still a phenomenon with a lot of question marks regarding... its meaning, concept, and strategic aspects” (de Wit, 2002, p. xv). Many agree that “the curriculum is the most important element of a campus’s internationalization strategy” (American Council on Education [ACE], 2002; see also Fortin, 2001; Mestenhauser & Ellingboe, 1998). Faculty, as “the major agents of change in reforming curricula, renewing themselves, and improving instruction” (Lunde, 1995, p. 2), are often mentioned as the main drivers and actors of efforts to internationalize teaching (Acker, 1989; AIEA, 1995). It is surprising to note, however, that, although most authors have recognized for decades the pivotal role of faculty in internationalization efforts in higher education programs, at the beginning of the 1990s there was still not much written about the perceptions of faculty regarding the process (Carter, 1992). During the past decade, much has been written about internationalization, some research has been conducted, and a number of the issues involving internationalization are today very well documented. There is still little published information regarding the perspectives of random samples of faculty (as opposed to the perspectives of faculty directly involved in internationalization) regarding the strategies to internationalize the undergraduate curriculum. There is, in fact, a need to increase the research-based knowledge of the process and the factors affecting it (de Wit, 2002), as well as to update information on "what works most effectively and what priorities to follow" (AIEA, 1995, p. 6).

Purpose and Objectives

The purpose of this study was to analyze perspectives of faculty in colleges of agriculture at selected Land Grant institutions, regarding strategies for the internationalization of the undergraduate agricultural curriculum. Two case studies were developed: The College of Agricultural and Environmental Sciences [CAES] of the University of Georgia [UGA], and The College of Agriculture and Life Sciences of Texas A&M University [COALS-TAMU]. Two objectives of the study were to:

1. Analyze how teaching faculty view and prioritize different academic program strategies for the internationalization of the undergraduate agricultural curriculum;
2. Analyze how teaching faculty view and prioritize different institutional strategies to enhance and support their participation in the internationalization process.
The research reported in this article was part of a larger study of the process of internationalization at CAES and COALS that also included analysis of faculty priorities for the curriculum, perceived relevance and status of internationalization, and self-perceived level of knowledge of and participation in international and internationalization activities.

**Methods**

The target populations were CAES (UGA) and COALS (TAMU) faculty with undergraduate teaching responsibilities. The samples consisted of all faculty in the sampling frame (census), which corresponded to 169 CAES faculty members and 270 COALS faculty.

To gather basic data the researcher developed and used a questionnaire, with three parts. Part I was designed to establish personal and professional characteristics of the respondents (demographics). Part II was designed to obtain quantitative data with respect to the objectives of the study, using Likert-type scales from one to five. Part III consisted of open-ended questions designed to provide an opportunity for the respondents to personalize, add to, or clarify answers given in Part II. Content and construct validity were established by two panels of experts at CAES and COALS. Questionnaire reliability was estimated by calculating the Cronbach Alpha. The Cronbach Alpha for the reliability analysis of the different constructs of the study ranged between .6582 and .8833.

The questionnaires were posted on the web and available to be answered on-line. Respondents did not need any password to answer the questionnaire, which added transparency to the process. A disadvantage of this system, however, was that the researcher was not able to track nonrespondents. This detail restricted the researcher from adhering strictly to protocols and procedures proposed by Dillman (2000) to maximize response rate, limiting the number of follow-up letters that could be sent so as not to waste the time of people that had already responded.

The potential respondents were first contacted by the Associate Dean of Academic Affairs of their respective colleges with a note asking them to respond to the questionnaire, and a link to the questionnaire and cover letter. They were contacted by e-mail twice more (six days and one month later) by the researcher, with reminder letters. Two months later, in an effort to increase response rate at CAES, the researcher undertook for five days a systematic approach to visit as many as possible of the faculty in the sampling frame and ask them to answer the questionnaire if they had not yet done so (double-dipping).

The responses received totaled 113 for CAES (67% response rate), and 80 for COALS (30%), for a grand total of 193 responses, and an overall response rate of 44%. Nonresponse error was a threat to external validity and generalizability of this study, and the researcher used several methods and procedures to assess and handle nonresponse error, following suggestions by Lindner, Murphy, and Briers (2001), and Dillman (2000). The quantitative data obtained from the questionnaire were analyzed using the Statistical Package for the Social Sciences (SPSS), version 11.5.1.

To enhance and add richness to the study, the researcher used a mixed method approach, and included qualitative research methods, including four open-ended questions in the questionnaire and conducting a few (8) semi-structured one-hour interviews designed to complement the quantitative data from the questionnaires. For the interviews, the researcher
employed a purposeful sampling strategy. The researcher analyzed the data from the open-ended questions and the interviews following guidelines proposed by Lincoln and Guba (1985) for content analysis of qualitative data, including unitizing, categorizing, filling in patterns, and member checks. To establish trustworthiness for the qualitative part of the study, the researcher engaged in four techniques following suggestions by Lincoln and Guba (1985): 1. Information collection techniques that increase the probability of high credibility: Prolonged engagement, persistent observation, and triangulation; 2. Peer debriefing; 3. Member checks, and 4. Use of a reflexive journal.

**Presentation and analysis of findings**

The demographic characteristics of respondents were as follows: 83% male, 17% female. A total of 22% had been working at their current institution for less than four years, 30% had worked between 4 and 14 years, and 48% had worked for more than 14 years. A total of 8% were in a non-tenure track position, 17% were on a tenure track position but non-tenured, and 75% were tenured. A total of 5% were temporary faculty, 17% were assistant professors, 27% were associate professors, and 51% were full professors. Approximately one fourth spent less than 30% of their time in teaching, one fourth between 30% and 45%, one fourth between 45% and 60%, and the remaining fourth spent more than 60% of their time teaching. A total of 21% had administrative responsibilities and 79% did not. The vast majority (77%) of the faculty were in life sciences departments, with 22% in social sciences departments.

Even if one considers that internationalization should be a multifaceted effort, i.e. that there is not a single approach proven to be optimal, and that individual strategies are small parts of a larger, integrated endeavor, eventually the time must come to choose specific strategies (Kezar, 2000; Kwok & Arpan, 1994). Because not all approaches may be adequate in all cases, and resources are invariably finite, it is important to assess each choice according to the individual context, institution, and characteristics of faculty members who are going to be asked to participate in the process (Shetty & Rudell, 2000).

Faculty responding to the survey were asked to indicate which academic program strategies were “the best uses” of the college’s resources (e.g., faculty time, personnel, funds) toward the internationalization of the undergraduate agricultural curriculum. The strategies listed were the following: 1) Infusion: integrating internationalized lessons, examples, activities, and/or perspectives into existing (regular) courses and programs (A1 Infusion), 2) On-campus, international subject matter courses (A2 On-campus), 3) Technology and virtual mobility (A3 Virtual), 4) “International” subject matter certificates, minors, and majors (A4 Concentrations), 5) Short term (2-5 weeks) cohort study abroad courses (A5 Short SA), 6) Cohort semester abroad (A6 Cohort), 7) Individualized semester exchange programs and internships (A7 Exchange), and 8) Internationalize campus environment: increase in number of international students and faculty, campus workshops, etc. (A8 Environment).

Table 1 presents the means, standard errors, confidence intervals, and separation of means of faculty’s ratings of these academic program strategies. The table reveals that respondents demonstrate a clear preference for strategies involving student mobility programs and infusion of international contents across the curriculum. These are also the most popular strategies in the literature. In favor of student mobility, scholars explain that these offer
students the possibility to interact with other cultures and peoples, experience new situations, and acquire knowledge different from that which they would gain at home (Liverpool, 1995). In favor of infusion, scholars argue that it can be accomplished in many different ways and contexts, it is valid at any conceptual level (Backman, 1993), it does not compete with other efforts, and it serves to reach most students (Acker, 1989; Harari, 1992; Kwok & Arpan, 1994; Shetty & Rudell, 2000). Similar explanations were given by the interviewees of the study.

Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SE</th>
<th>Lower</th>
<th>Upper</th>
<th>Bonferroni</th>
<th>Adj</th>
</tr>
</thead>
<tbody>
<tr>
<td>A3 Virtual</td>
<td>3.03</td>
<td>0.07512</td>
<td>2.89</td>
<td>3.18</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>A2 On-campus</td>
<td>3.08</td>
<td>0.06667</td>
<td>2.95</td>
<td>3.21</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>A4 Concentrations</td>
<td>3.11</td>
<td>0.06638</td>
<td>2.98</td>
<td>3.25</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>A8 Environment</td>
<td>3.30</td>
<td>0.07826</td>
<td>3.14</td>
<td>3.45</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>A1 Infusion</td>
<td>3.68</td>
<td>0.06658</td>
<td>3.55</td>
<td>3.81</td>
<td>bc</td>
<td>b</td>
</tr>
<tr>
<td>A6 Cohort</td>
<td>3.69</td>
<td>0.07284</td>
<td>3.55</td>
<td>3.84</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>A5 Short SA</td>
<td>3.81</td>
<td>0.06665</td>
<td>3.68</td>
<td>3.94</td>
<td>bc</td>
<td>b</td>
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<tr>
<td>A7 Exchange</td>
<td>3.93</td>
<td>0.06743</td>
<td>3.79</td>
<td>4.06</td>
<td>c</td>
<td>b</td>
</tr>
</tbody>
</table>

Note. Listwise N=176.

Note. Likert-type scale: 1=least useful, to 5=most useful.

*a Means that do not share the same letter in this column differ significantly at $p < .05$, using Bonferroni’s adjustment for multiple comparisons. *a Separation of means adjusted by the researcher.

When doing Bonferroni’s separation of means, the $M$ of A1, with a lower $M$ than A6, does not appear to be significantly different from larger means of variables A5 and A7, while the $M$ of A6 is significantly lower than the $M$ of A7. Although rare, this occurrence is possible. Bonferroni’s adjustment for multiple comparisons works by establishing the confidence interval for the difference of the pairwise comparisons by using the $SE$ of the difference (not of the variables). In this case, the $SE$ of A1 with A7 (0.090) is much larger than the $SE$ of A6 with A7 (0.064), which means that the confidence interval for the difference between A1 and A7 is much larger (and therefore more likely to include 0). To avoid confusion, the researcher presented another column, with the researcher’s “Bonferroni” adjusted separation of means (see footnote b).

Table 2 presents the correlations between faculty ratings of the academic strategies, which might help to understand whether there are “groupings” among academic program strategies, i.e., whether the preference of a specific faculty member toward a given strategy is predictive of his/her preference for another strategy. This helps us to understand how different faculty might use (or not use) different “aids” for them to internationalize the curriculum.
Table 2

Correlations and Significance Between Faculty Ratings of Eight Academic Program Strategies for the Internationalization of the Curriculum in Two Colleges of Agriculture, 2003

<table>
<thead>
<tr>
<th>Variables</th>
<th>Corr.</th>
<th>A2</th>
<th>A3</th>
<th>A4</th>
<th>A5</th>
<th>A6</th>
<th>A7</th>
<th>A8</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 Infusion</td>
<td>$r$</td>
<td>.311**</td>
<td>.013</td>
<td>.217**</td>
<td>.090</td>
<td>-.003</td>
<td>.107</td>
<td>.111</td>
</tr>
<tr>
<td></td>
<td>sig.</td>
<td>.000</td>
<td>.868</td>
<td>.004</td>
<td>.234</td>
<td>.966</td>
<td>.158</td>
<td>.142</td>
</tr>
<tr>
<td>A2 On-campus</td>
<td>$r$</td>
<td>--</td>
<td>.133</td>
<td>.311**</td>
<td>.092</td>
<td>-.011</td>
<td>.072</td>
<td>.285**</td>
</tr>
<tr>
<td></td>
<td>sig.</td>
<td>.078</td>
<td>.000</td>
<td>.223</td>
<td>.881</td>
<td>.339</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>A3 Virtual</td>
<td>$r$</td>
<td>--</td>
<td>.178*</td>
<td>.098</td>
<td>.047</td>
<td>.067</td>
<td>.283**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>sig.</td>
<td>.018</td>
<td>.195</td>
<td>.540</td>
<td>.377</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A4 Concentrations</td>
<td>$r$</td>
<td>--</td>
<td>.248**</td>
<td>.216**</td>
<td>.250**</td>
<td>.169*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sig.</td>
<td>.001</td>
<td>.004</td>
<td>.001</td>
<td>.025</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A5 Short SA</td>
<td>$r$</td>
<td>--</td>
<td>.648**</td>
<td>.365**</td>
<td>.123</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sig.</td>
<td>.000</td>
<td>.000</td>
<td>.010</td>
<td>.025</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A6 Cohort</td>
<td>$r$</td>
<td>--</td>
<td>.588**</td>
<td>.205**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sig.</td>
<td>.000</td>
<td>.000</td>
<td>.006</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A7 Exchange</td>
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<td>--</td>
<td>.221**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sig.</td>
<td>.000</td>
<td>.003</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A8 Environment</td>
<td>$r$</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sig.</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*Note. Listwise $N=176$.

*Correlation is significant at the .05 level. **Correlation is significant at the .01 level.

Table 2 reveals different patterns of association among groups of academic strategies. For example, A5 Short SA, A6 Cohort, and A7 Exchange are highly correlated. This numerical result was intuitive, for they all belong to the same conceptual group, the “mobility strategies.” A4 Concentrations is correlated with all strategies, which is also intuitive if one explores what is involved in most concentration programs (study abroad and on-campus course requirements, infusion across most courses, international faculty, etc.) Curiously A1 Infusion was not correlated with any of the mobility strategies. This could be an indication, for example, that if a college administration spent all resources in and targeting rewards to faculty that had active mobility programs, faculty favoring infusion strategies would “feel left out” (as was found in some responses to the open-ended questions). Consequently, infusion efforts would not flourish.

Respondents were presented with a number of “institutional” strategies and were asked to rate the importance of these strategies in their efforts to internationalize the courses and programs for which they were responsible. The constructs formed from the list were the following: 1. Intellectual support (internationalization specialist, availability of internationalized instructional materials, seminars and workshops for faculty) (I1 Intellectual), 2. Collaboration with other faculty members (I2 Collaboration), 3. Recognition of internationalization efforts in evaluation processes (salary increases, tenure, and
promotion) (I3 Recognition), 4. Release time (I4 Time), and 5. Funds to pay for sabbaticals, course development, and student participation in mobility programs (I5 Funds). Table 3 presents the means, standard errors, confidence intervals, and separation of means of faculty’s ratings of these institutional strategies.

Table 3

Means, Confidence Intervals, and Separation of Means of Faculty Ratings of Five Institutional Strategies to Support Faculty in their Efforts to Internationalize the Undergraduate Curriculum in two Colleges of Agriculture, 2003

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SE</th>
<th>Lower</th>
<th>Upper</th>
<th>Bonferroni</th>
</tr>
</thead>
<tbody>
<tr>
<td>I4 Intellectual</td>
<td>2.69</td>
<td>0.07328</td>
<td>2.55</td>
<td>2.84</td>
<td>a</td>
</tr>
<tr>
<td>I2 Collaboration</td>
<td>3.43</td>
<td>0.06678</td>
<td>3.29</td>
<td>3.56</td>
<td>b</td>
</tr>
<tr>
<td>I3 Recognition</td>
<td>3.44</td>
<td>0.09178</td>
<td>3.26</td>
<td>3.62</td>
<td>b</td>
</tr>
<tr>
<td>I1 Time</td>
<td>3.45</td>
<td>0.09369</td>
<td>3.27</td>
<td>3.64</td>
<td>b</td>
</tr>
<tr>
<td>I5 Funds</td>
<td>3.84</td>
<td>0.06892</td>
<td>3.71</td>
<td>3.98</td>
<td>c</td>
</tr>
</tbody>
</table>

Note. Listwise N=186.
Note. Likert-type scale: 1=least useful, to 5=most useful.

* Means that do not share same letter in this column differ significantly at \( p < .05 \), using Bonferroni’s adjustment for multiple comparisons.

Table 3 reveals that respondents had a clear preference (statistically significant) for all strategies involving funds. In fact, the four items that constructed I5 Funds (funds for on-campus, and off-campus, course development, for students, and for sabbaticals, with a Cronbach Alpha of .8386) had the four highest rankings in the item analysis. The least appreciated strategies were the ones involving “intellectual support.” Again, the three items that constructed I4 Intellectual (internationalization specialist, workshops and seminars, and ready-to-use internationalized materials, with a Cronbach Alpha of .7708) had the three lowest rankings of the item list.

Also, in both the interviews and the open-ended questions from the questionnaire, respondents indicated that the most attractive incentives for them to participate in the internationalization of the curriculum would be, in order of preference: 1. Funds to cover salary increases, sabbaticals, travel, preparation and participation in study abroad programs; funds to subsidize student participation in mobility programs, and funds to recruit international graduate students, 2. Recognition (in tenure, promotion, and salary increase evaluation processes). A point made by many respondents concerning recognition was that all internationalization efforts should count toward tenure and promotion, not just the mobility programs, 3. Release time from other responsibilities, 4. Increased leadership, vision, and direction for the internationalization process. According to some authors (Harari, 1992; Nelson, 1996), this is, in fact, one of the most important ingredients in the internationalization process, 5. A cultural change showing increased interest, understanding, and enthusiasm for internationalization by administrators, faculty, students, and stakeholders,
6. Collaboration with other faculty members, and 7. Help in translating international knowledge into internationalization of the curriculum. Curiously, the “intellectual strategies” came up as less appreciated in both the quantitative and qualitative studies, while many scholars cite them as some of the most vital elements for successful curriculum revitalization and/or internationalization (Backman, 1993; Ellingboe, 1997; Graham, 1998; Hamrick, 1999; Lunde, 1995; Whalley, 1997).

Just as was the case with academic strategies, it was important to see if there were patterns of association among institutional strategies. In an analysis of the correlations between the institutional strategies (not shown), the researcher found that all the institutional strategies were highly and significantly correlated with each other (min. r=.266, max. r=.605, and all significances .000, N=186), and no specific association groups could be identified.

Table 4

**Correlations Between Faculty Ratings of Academic Program Strategies for the Internationalization of the Curriculum and Institutional Strategies to Support Faculty in their Internationalization Efforts in two Colleges of Agriculture, 2003**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 Infusion</td>
<td>$r$</td>
<td>.036</td>
<td>.167**</td>
<td>.271**</td>
<td>.206**</td>
<td>.131</td>
</tr>
<tr>
<td></td>
<td>$\sigma$</td>
<td>.625</td>
<td>.024</td>
<td>.000</td>
<td>.005</td>
<td>.077</td>
</tr>
<tr>
<td></td>
<td>$N$</td>
<td>184</td>
<td>184</td>
<td>183</td>
<td>184</td>
<td>184</td>
</tr>
<tr>
<td>A2 On-campus</td>
<td>$R$</td>
<td>.067</td>
<td>.105</td>
<td>.264**</td>
<td>.357**</td>
<td>.223**</td>
</tr>
<tr>
<td></td>
<td>$\sigma$</td>
<td>.362</td>
<td>.153</td>
<td>.000</td>
<td>.000</td>
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</tr>
<tr>
<td></td>
<td>$N$</td>
<td>187</td>
<td>187</td>
<td>185</td>
<td>187</td>
<td>187</td>
</tr>
<tr>
<td>A3 Virtual</td>
<td>$r$</td>
<td>.097</td>
<td>.103</td>
<td>.130</td>
<td>.270**</td>
<td>.174*</td>
</tr>
<tr>
<td></td>
<td>$\sigma$</td>
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<td>.081</td>
<td>.000</td>
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<td></td>
<td>$N$</td>
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<td>182</td>
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<td>184</td>
</tr>
<tr>
<td>A4 Concentrations</td>
<td>$r$</td>
<td>.154*</td>
<td>.155*</td>
<td>.176*</td>
<td>.377**</td>
<td>.266**</td>
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<td></td>
<td>$\sigma$</td>
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<td>.035</td>
<td>.017</td>
<td>.000</td>
<td>.000</td>
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<td></td>
<td>$N$</td>
<td>185</td>
<td>185</td>
<td>183</td>
<td>185</td>
<td>185</td>
</tr>
<tr>
<td>A5 Short SA</td>
<td>$R$</td>
<td>.239**</td>
<td>.182*</td>
<td>.162*</td>
<td>.110</td>
<td>.431**</td>
</tr>
<tr>
<td></td>
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<td>.028</td>
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**Correlation is significant at the .01 level. *Correlation is significant at the .05 level.**
From a practical standpoint, it is important to know if faculty preferences for a specific academic program strategy are predictive of their choice of institutional strategy. Similarly, implementation of particular institutional strategies could be predictive of the directions in which academic programs are likely to develop. Table 4 shows the correlations between the eight academic program strategies and the six types of institutional strategies.

The ratings of the mobility strategies were significantly and positively correlated with the institutional strategy that called for funds, that was positively correlated with all other academic program strategies except for infusion. The ratings of the mobility strategies were also correlated with the institutional strategy that called for release time, that was, again, not correlated with infusion. Infusion was correlated with the institutional strategy calling for intellectual support, which was not correlated with two of the mobility strategies. These two very different patterns were an indication of differences in the dynamics for increasing internationalization of the curriculum by taking either of the two academic approaches, and how concentrating on one approach might cause stagnation of the other approach. Both infusion and mobility strategies were positively correlated with the institutional strategy that called for recognition of internationalization efforts in the evaluation processes.

These finding reiterate the case that many internationalization scholars present: that there is not a single best approach to internationalization, but that multiple complementary strategies are needed to make a better whole (Ellingboe, 1997; Kezar, 2000; Kwok & Arpan, 1994; Mestenhauser & Ellingboe, 1998; Shetty & Rudell, 2000).

Finally, to handle nonresponse, the researcher used different procedures cited in the literature as appropriate to assess nonresponse error, including comparison of early vs. late respondents, and comparison of respondents answering to the written requests vs. those who only answered after a personal visit (“double-dipped”) (some authors label this comparison as respondents vs. nonrespondents). For the demographic and scale data used in the study presented in this article, the researcher did not find relevant statistically significant differences in the comparisons made. However, in the larger study, especially with variables dealing with knowledge of and participation in international and internationalization activities, there researcher found significant differences for some of the comparisons.

Conclusions

1. Respondents ranked academic strategies in two priority groups, with mobility strategies and infusion being most useful. The second group included virtual mobility, on-campus courses, concentrations, and internationalizing the campus environment;
2. There were clear patterns of association between groups of strategies;
3. Faculty perceived that rewards, support, and funds were not fairly distributed among faculty participating in the different academic program strategies, with faculty participating in mobility strategies receiving most of the incentives;
4. The institutional strategies to support faculty in their efforts to internationalize the curriculum preferred by faculty involved funds, recognition, and release time. “Funds” included monies for sabbaticals, international opportunities for faculty, course development, infusion efforts, student participation in mobility programs, and recruitment of international students;
Faculty asked for real recognition of internationalization efforts at the university, college, and departmental levels. Also, they indicated that this recognition should cover all types of programs, including mobility programs, infusion efforts, and on-campus courses; Faculty expressed a need for increased leadership and vision to provide direction, organization and focus to the internationalization process; There were association groups between academic program strategies and institutional strategies, this is, that faculty preferences for one or another academic program strategy were translated into preferences for different institutional strategies. For example, faculty favoring mobility strategies preferred funds, time, and recognition. Faculty favoring infusion preferred intellectual support and recognition; Given the low response rate, there were restrictions on generalizability of this study.

Recommenations and Educational Importance

This research contributes to updating and increasing the knowledge base of the process of internationalization of the undergraduate curriculum in colleges of agriculture, and helps us put together more pieces of the internationalization puzzle. In particular, to enhance and increase participation of faculty in the process of internationalization of the undergraduate agricultural curriculum, CAES and COALS administrations should:

1. Provide leadership, focus, coordination, organization, structure, and support to the internationalization process and the people involved in it;
2. Support a quality, multifaceted effort in curricular reform, with a variety of complementary academic program and institutional strategies implemented in a balanced and synergistic manner;
3. Increase, diversify, and balance provision of funds, support, recognition, and release time among faculty participating in different academic program strategies, including emphasis on (but not limiting it to) mobility and infusion efforts; also provide intellectual support to those requesting it;
4. Recognition of internationalization efforts (for salary increases, tenure, and promotion), should be “real” at the university, college, and departmental levels, and it should cover all types of programs.

References


