Exploring Graduate Students' Socialization to International Agriculture: A Mixed Methods Needs Assessment

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Abstract

Internationalization of higher education's agricultural disciplines is essential to account for agrifood system trends toward globalization and multiculturalism. Professional and academic associations can play a formative role preparing graduate students for their agricultural careers. Guided by socialization theory, this needs assessment explores graduate students' perceived needs, expectations, and ideas to optimize engagement with associations focused on international agriculture. A convergent mixed methods design integrated and contrasted quantitative and qualitative data from an online survey—filled by 26 student participants—and qualitative data from a virtual fishbone focus group with seven participants. Students' perceptions appear responsive to trends toward globalized food systems and demonstrate their desire for socialization to gain internationally focused capacities and connections to opportunities in a variety of global agricultural areas. Findings indicate associations geared toward internationally oriented scholarship and academics should expand to better encompass international development practice. Doing so would provide greater insight into practitioners' priorities and facilitate alternative career pathways for graduate students interested in practice. Additionally, findings point to needs for student mentoring and communication efforts focused on equitable and inclusive engagement with first generation students and students in developing countries who may be financially inhibited from traveling for in-person socialization activities.

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Introduction and Problem Statement

Graduate education prepares specialized professionals by fostering intellectual growth through applied and enriching experiences. Graduate schools intentionally recruit individuals of different nationalities and non-traditional backgrounds, diversifying student body needs and expectations (Coulter et al., 2004; Holtzman et al., 2021). In the literature, graduate students have been described as educational consumers with specific and evolving academic needs (Coulter et al., 2004; Sullivan & Stevenson, 2009). Correspondingly, in higher education's agricultural disciplines (e.g., crop sciences, communications, development, etc.), internationalization of curricula and capacity development is particularly important to account for agrifood system trends toward globalization and multiculturalism (Johnson et al., 1995; Navarro & Edwards, 2008). Professional and academic associations are formative for graduate students' global career preparation, providing important socialization via member-tailored activities, services, and networking (Akkerman & Torenvlied, 2013; Coulter et al., 2004).

Currently, professional and academic associations struggle to connect with younger professional generations and face various challenges in meeting student members' expectations (Sidecar, 2021). The challenges faced by associations with international foci are uniquely complex, accounting for issues like globalization (Taylor & Yang, 2015), resource availability and distribution (Zhang, 2016), and addressing students' contrasting interests from international graduate and training programs (Bunoti, 2011; Duerrenberger & Warning, 2018). Professional and academic associations play an important yet challenging role in developing graduate students' international agricultural skills, interests, and career paths. Therefore, we identified a research need to explore students' perceived needs, expectations, and ideas to optimize engagement with associations focused on international agriculture.

Theoretical and Conceptual Framework

Socialization—the theoretical lens guiding this study—is the process describing how people engage with a group, organization, or community and the corresponding influences on those people and the collective (Austin & McDaniels, 2006; Corcoran & Clark, 1984; Staton & Darling, 1989). The original theory of socialization has been adapted and investigated in diverse ways including how university students socialize to their campus, how employees socialize to an institutional culture, and how graduate students socialize to their professions (Austin & McDaniels, 2006). Contemporary theorists have countered early notions of socialization as a linear one-way process that implied people are assimilated to an organization. The postmodern perspective, instead, proposes socialization as a cultural, bidirectional process contributing to co-constructed changes in both individuals and collectives (Antony, 2002; Tierney, 1997). Postmodern socialization has also shifted away from advocating for a singular phenomenon applicable to all members of an organization, toward accounting for different members' unique identities and experiences as well as linked exclusion and marginalization dynamics (Austin & McDaniels, 2006; Tierney & Bensimon, 1996).

Due to a lack of closely aligned literature, our focus on graduate students' socialization to international agriculture seems novel but fitting, as four central principles of the theory connect to the key areas of our needs assessment study. First, socialization occurs via formal or informal mechanisms (Van Maanen & Schein, 1979). Related to this study, students in the organization may engage with international topics by informally networking with other members or by formally participating in professional development or scholarship activities.

Second, socialization should not homogenize or assimilate any group members and especially newcomers (Tierney & Rhoads, 1993). Instead, individuals and groups should be supported "...to retain their identities and come together in communities of difference" (Tierney & Bensimon, 1996, p. 19). In an internationally focused organization, students' and other members' diverse perspectives and experiences are key sources of knowledge and insight to benefit all members. Related to this second point, students' socialization needs and barriers may be rooted in marginalization, norms, and power dynamics. Research suggests, for instance, women and people of color more often feel less welcomed and face more barriers in academia (Austin & McDaniels, 2006; Clark & Corcoran, 1986; Tierney & Bensimon, 1996).

Third, according to Staton and Darling (1989), socialization is mediated by communication, including responding to formal and informal messages with the organization as well as learning by observation. In this study, graduate students' perceived communication with and from the organization and interpersonal communication among its members could impact the quality of their socialization.

Fourth and lastly, knowledge acquisition, involvement, and investment were proposed as three core elements underlying the bidirectional process of socialization (Austin & McDaniels, 2006; Weidman et al., 2001). Exploring these elements requires assessing the organization's offerings (e.g., development and learning activities) as well as student members' own time and effort investments toward the organization.

We applied socialization theory within a mixed methods needs assessment—a technique used to assess gaps and needs between people's present engagement with an organization and their desired engagement with the organization (Witkin & Altschuld, 1995). Focusing on graduate students' perceptions, we propose that students' participation in the organization reflects a process of socialization to international agriculture.

Purpose

The purpose of this study was to gather graduate students' perceived needs related to their socialization to international agriculture via involvement in a professional and academic association focused on international agricultural extension and education. The research objectives were to:

1. Describe the participants and their involvement in the internationally focused professional and academic association.
2. Identify priority issue areas where students feel their international engagement and experience could be improved through involvement in the association.
3. Examine the future direction in which students perceive the association should concentrate its student-oriented activities and offerings.

Methods

Our research process was structured by the Witkin and Altschuld (1995) three-phased needs assessment approach, which involves pre-assessment/exploration (phase one), assessment/data collection (phase two), and post-assessment/utilization (phase three). In the pre-assessment, we reviewed background literature and documents and engaged stakeholders. In the assessment phase, we collected and analyzed data. Post-assessment activities involving stakeholders to apply findings were still in progress at the time of writing this article.

Sampling and Data Sources

The target population for this needs assessment was graduate students with active Association for International Agricultural and Extension Education (AIAEE) memberships. We aimed to achieve a representative student member sample using purposive and snowball sampling methods (Plowright, 2011). Several channels were used to recruit including the AIAEE email listserv, social media, the 2022 AIAEE annual conference, and the researchers' connections with eligible students. A census sample was deemed logistically impractical, as participation in the study was fully voluntary. Per the relatively small size of the organization, we aimed to achieve a sample of 25 to 30 survey participants and enough focus group members for data saturation (Ary et al., 2019).

Data Collection and Analysis

A convergent mixed methods design was used to simultaneous collect then integrate and contrast data from an online survey with both closed- and open-ended questions, as well as qualitative data from a focus group (Creswell & Plano Clark, 2018).

The survey instrument design centered on two indices assessing students' satisfaction with their engagement in networking, collaboration, and student diversity, capacity building and learning, funding and value, the annual conference, and scholarship. The five-point Likert satisfaction scale had the following response anchors: Extremely dissatisfied (1), Somewhat dissatisfied (2), Neither satisfied nor dissatisfied (3), Somewhat satisfied (4), and Extremely

satisfied (5) (Witkin & Altschuld, 1995). Closed-ended questions also gauged students' involvement with the association (number of years as member and self-reported rating on a five-point scale from barely involved to extremely involved). Lastly, respondents were asked if they had published in the association's refereed journal or presented a paper/poster at a conference.

Qualitative data were collected via open-ended survey questions designed to gather ideas on the future direction of the association's engagement with and support for students. An additional source of qualitative data was a virtual focus group, using the fishbone causal analysis technique (see Figure 2) (Harder, 2020; Ishikawa, 1983). Using the Zoom annotate function, seven student participants filled the fishbone diagram—structured with the "fish head" being the overall goal to optimize students' engagement in and reward from the organization, and the "fish ribs" being areas or gaps to address to achieve this goal (see Figure 2). The participants were first asked to independently add items within each rib category (or request new rib categories). We then reviewed the group's contributions and positioning of the inputs together with the group to seek clarifications, relocations, and remove duplicates. Then, participants voted for the three items/contributions they felt were most important and should be prioritized by the organization.

We analyzed the quantitative data using central tendency measures, which identified participants' top five expressed needs. Internal consistency/reliability of the indices was calculated and deemed acceptable using Cronbach's alpha coefficient (.79) (Ary et al., 2019). The qualitative data from the survey were analyzed using thematic analysis to inductively organize and code findings based on commonalities and contrasts (Creswell, 2014). We enhanced trustworthiness using member checking and audit trails (Lincoln & Guba, 1985).

Findings

Objective 1: Describe the participants and their involvement in the internationally focused professional and academic association.

The majority of the 26 respondents were from the United States while the sample was representative of six countries total (see Figure 1). Following the United States, more respondents were from Nigeria and Afghanistan as compared to other nationalities.

Figure 1

Respondent Nationalities (n = 26)
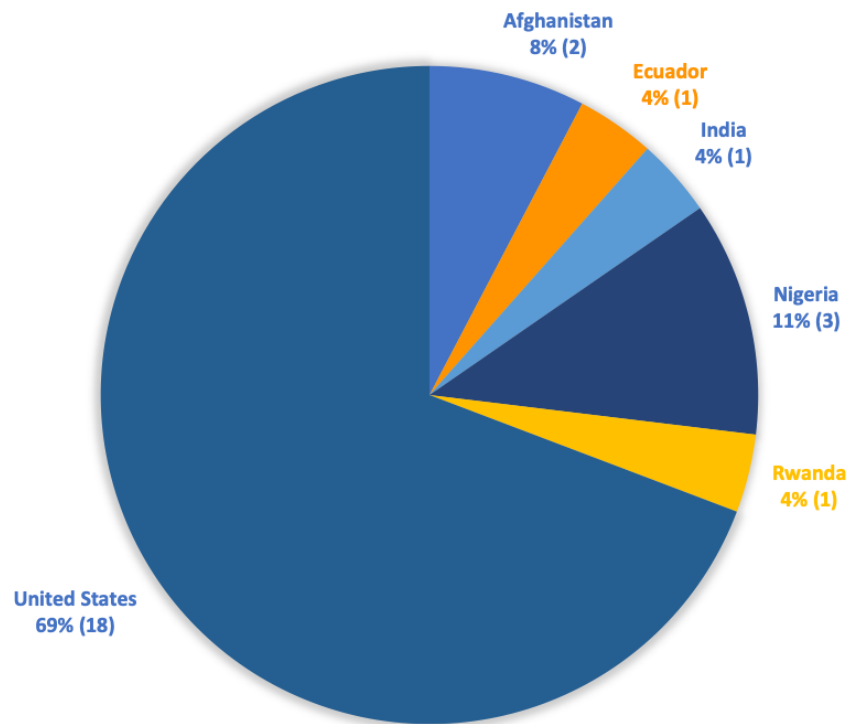
Four more female students participated in the survey than male students (see Table 1). Most respondents were studying at the doctoral level (69.2%) compared to students pursuing a master's degree (30.8%).

Table 1

Respondent Backgrounds and Demographics (n = 26)

Characteristic	ƒ	%
Sex		
Male	11	42.3
Female	15	57.7
Current position		
Master's student	8	30.8
Doctoral student	18	69.2
Member of other professional associations		
Yes	16	61.5
No	10	38.5

The data in Table 2 illustrate that the respondents were relatively new to involvement with the association. However, it is important to recognize that a member's engagement as a graduate student would likely be limited to two years as a master's student and four to six years as a doctoral student. Most students self-rated their level of involvement as somewhat involved with the least number of students indicating they were barely involved. We also examined whether students had produced scholarship successfully via association channels. More respondents had presented a poster, oral presentation, or professional development than had published in the association journal.

Table 2

Involvement and Achievements with Organization (n = 26)

Factor of involvement	f	%
Years involved with organization		
Less than one year	12	46.2
One to 3 years	10	38.5
3+ years	4	15.4
Perceived level of involvement		
I am barely involved	1	3.8
I am not very involved	7	26.9
I am somewhat involved	11	42.3
I am very involved	7	26.9
Led presentation or professional development		
Yes	21	80.8
No	5	19.2
Publication in peer-reviewed journal of organization		
Yes	7	26.9
No	19	73.1

Objective 2: Identify priority issue areas where students feel their international engagement and experience could be improved through involvement in the association.
We determined the top five needs expressed by the student members based on the data in Table 3. Because a lower mean represents a lower level of satisfaction, the following five items from the two tables were deemed, in order, to be the top five needs based on their means: (1) Networking with nonprofit and private sector practitioners and leaders, (2) Communication with students via social media, (3) Funding and scholarships for students to attend the annual conference, (4) Opportunities for students to publish scholarship in the Journal of International Agricultural and Extension Education, and (5) Funding and scholarships for students to attend the annual conference. Students were most satisfied with learning about relevant international research, relevant professional development/skill building, and participation in the annual conference.

Table 3

Satisfaction with Activity Areas – Lowest to Highest (n = 26)

Activity area	M	SD
Networking with nonprofit and private sector practitioners and leaders	2.65	1.06
Communication with students via social media	2.92	0.85
Networking that leads to professional opportunities (e.g., job interviews)	3.27	1.12
Opportunities for students to publish scholarship in the association journal	3.31	1.09
Funding and scholarships for students to attend the annual conference	3.38	1.36
Communication with students via email	3.46	1.17
Collaboration on research or extension projects	3.50	0.95
Value for the costs of student membership	3.54	1.42
Value for the costs of the annual conference	3.62	1.30
Diversity of student membership (i.e., students from different countries and backgrounds)	3.81	1.13
Networking with other university students and faculty	4.00	1.13
Participation in the annual conference	4.04	1.08
Relevant professional development/ skill building	4.12	0.71
Learning about relevant international research	4.31	0.79

Note. Cronbach's alpha measure of reliability for the 14-item index = .79. Satisfaction was measured using the five-point Likert-type scale containing the following response anchors: *Extremely dissatisfied* (1), *Somewhat dissatisfied* (2), *Neither satisfied nor dissatisfied* (3), *Somewhat satisfied* (4), and *Extremely satisfied* (5). Thus, a lower mean indicates less satisfaction.

Objective 3: Examine the future direction in which students perceive the association should concentrate its student-oriented activities and offerings.
Our thematic analysis of students' perceptions of future activities and offerings by the professional and academic association resulted in four major themes: (1) Mentoring and professional development; (2) Information and communication; (3) Participation and cost; and (4) Diversifying the organization.

Mentoring and Professional Development
Several students mentioned how the organization should more intentionally facilitate mentoring opportunities, especially those focused on scientific research and publication. Participants perceived that students need more support in this area and would benefit from interacting with faculty members outside of their home institution. Participant C commented "I would like to see almost a cultural exchange where students can pair up with faculty from other institutions and get one-on-one time talking to them." Along with formal mentorship, participants perceived a need to expand the topics and frequency of professional development activities. Internationalized career paths and job search/application frequently emerged as professional development topics where the organization should improve its offerings.

Participant G mentioned "I am desperately looking for employment. So, it would have been nice to have a list of soon-to-be graduates and their interests available to professionals."

Information and Communication
Students pointed to deficiencies in the organization's communication channels and efforts to communicate consistent, reliable information to all members. For example, Participant D questioned the quality of the organization's website, not only in informing current members but, more importantly, in attracting future ones. Participant C shared "I am a new student member, I did not get any email with regards joining the AIAEE and it was assumed I would go through the website or just be curious enough. I believe a welcome email and resources should be initiated for new members." In addition, Participant G mentioned using social networks to encourage scientific community members to actively engage in educational and relevant conversations.

Participation and Cost
Participants D and F encouraged the organization to allow graduate students to become members of each of the organization's committees, which are currently only accessible to faculty and professional members, aside from the graduate student board representative. Participant M echoed this sentiment: "We are encouraged to attend committee meetings, but when we go there I don't feel like our voices are being heard. The professors all know each other and talk about things that we have no knowledge of, so it is hard to break in and add input to the meetings."

Participants seemed to urge the organization leaders to promote student engagement and leadership by opening spaces where students can contribute to the organization's advancement. Participant A said, "The classification 'student' seems to come with a reduced representation and voice in the organization. To limit these non-traditional students from serving as committee chairs or pursuing other leadership roles is discouraging and limits individual contributions to the organization." Regarding engagement in current activities, participants mentioned one of the main reasons for low student participation—especially among non-U.S. students—is the costs associated with membership and engagement. Participant E mentioned that the cost for membership and conference fees in other organizations are considerably cheaper.

Diversifying the Organization
Although the organization has an international scope, the participants perceive greater participation of U.S. students and professionals than individuals from other countries. Participant H mentioned "As an international organization, it is disappointing to see mostly American members or students from American universities." Participants indicated cost and lack of international stakeholders' engagement limit the inclusion of geographically diverse audiences. Some suggestions that emerged were to implement a differentiated cost system (i.e., membership and conference fees) based on needs and support from the student scholarship program. Participant F commented, "The costs of the annual conference are a

major barrier to participation, a barrier that can hinder first generation students, students from lower income families, and students from developing country institutions the most."

An additional important issue was participants' perception of low engagement from members working in international sectors other than academia (e.g., nonprofit development). Participant E stated that they had few interactions with people who were not graduate students or faculty members. Participant H supported this idea by saying "a greater mix of academic membership with NGO, civil society, and private sector membership would offer a better-rounded lens into the broad world of international agriculture and extension education."

Participatory Fishbone Focus Group Findings

In addition to the themes that emerged from open-ended survey questions, the seven participants in the mixed methods fishbone diagram activity proposed key areas where they felt student engagement could be optimized. The following "contributors" (in descending order of votes) emerged as the seven most important for the association to address to optimize engagement with student members (see Figure 2):

1. Networking around interest topics for research collaboration
2. Reaching out to more international universities
3. Invitations to join groups (grant writing, research collab)
4. Multiple levels for scholarships
5. Connection/networking with faculty/future employers
6. Conference scholarships
7. Mentoring on reviewing journal articles

Figure 2

Fishbone Diagram with the Top Seven Areas to Optimize Association Engagement with Students
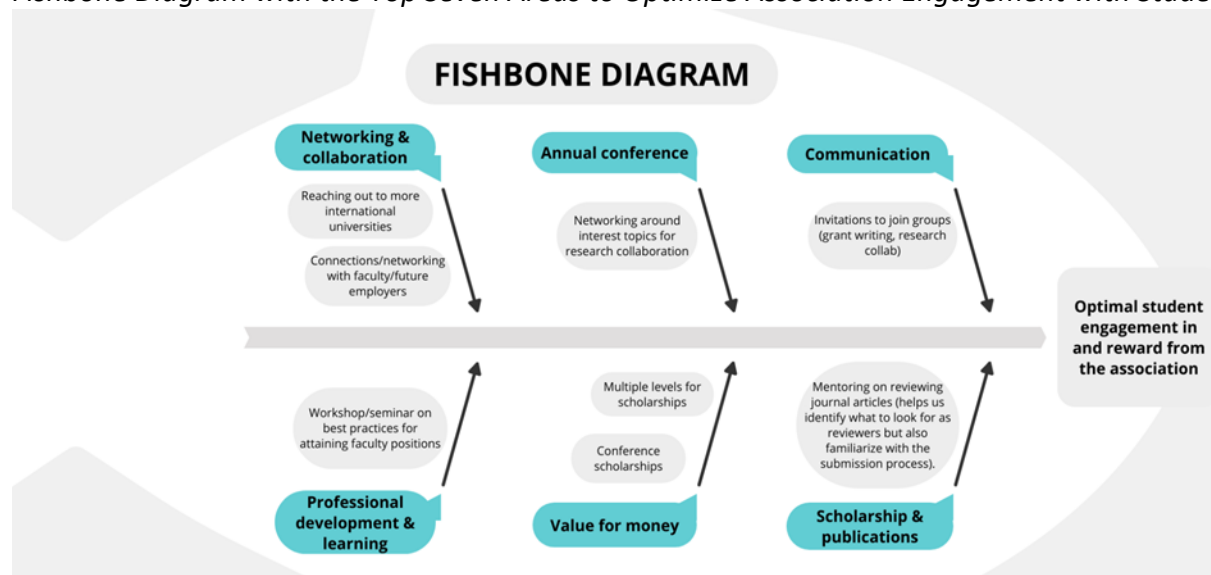
Conclusions, Discussion, and Recommendations

Professionals at the forefront of agriculture must increasingly address issues interconnected with global food systems. Correspondingly, an uptick has occurred in academic and career preparation focused on international development and agriculture (Bedenlier et al., 2018; Winfrey, 2017). This study's mixed methods findings demonstrate ways graduate students' socialization can be optimized to build their international capacities and connect them to opportunities and networks in a variety of global agricultural areas.

Findings suggest graduate students perceived a significant gap in networking with practitioners from the private and nonprofit sectors. While associations may emphasize international focused scholarship and academics, leaders should consider expanding to better encompass international development practice and attract these stakeholders. This integration aligns with major networks and engagements at the nexus of international agricultural research and development practice, including the CGIAR consortium, funded with over 900 million U.S. dollars and employing more than 9,000 staff globally in research and development (CGIAR, n.d.). Development and extension practitioners as association members could provide greater insight into their issues and priorities, as well as facilitate alternative career pathways for graduate students interested in practice.

Participants expressed needs for socialization via improved mentoring and networking, especially focused on linking to career opportunities, which could occur through different activities, both formally and informally (Van Maanen & Schein, 1979). Moreover, good mentoring may extend beyond a purely professional capacity, and 70% of hires are made based on previous personal or professional connections (Center for Career Development, 2020). Establishing mentoring systems to match students with senior mentors—such as academics or experts in nonprofit or development practice—based on corresponding interests and identified gaps may address this expressed need. Promoting potential reciprocal benefits of participating in the mentoring (e.g., development organizations connecting with upcoming professionals to hire) is recommended for a functioning system. For more inclusive and equitable international mentoring, remote and/or hybrid techniques—in addition to in-person—should be considered for sensitivity to students' constraints preventing their in-person engagement in activities. Our data, corroborating past research, show first generation students, students from lower income families, and students from institutions in developing countries are most financially inhibited from in-person socialization at international events like conferences via the current offerings.

Diversity of membership and inclusivity did not emerge as top priorities based on quantitative analysis but did emerge from qualitative analysis. Paying attention to these qualitative findings is important as the survey sample was skewed toward U.S. students and therefore may not be a clear representation of the perceived diversity and inclusivity of the organization. Meaningful online communications could help promote inclusive socialization, especially with new members who may feel isolated, or be in locations disengaged without resources to attend a conference. Sending tailored welcome messages and social media community-building to

recognize new members' unique contributions and needs could reduce issues of disenfranchisement or homogenization of newcomers (Tierney & Rhoads, 1993). Perceived marginalization was also linked to participants' identity as "students," limiting their association roles (e.g., not being allowed on committees). A starting point to address this need could be discussing policies geared toward treating graduate students as valued members bringing important experiences to associations.

This study provides foundational exploration into graduate students' needs and priorities to optimize their socialization to areas in international agriculture. The critical next step, following this type of needs assessment, is to facilitate engagement between the key stakeholders (the students) and leaders of the target organization to set priorities based on the findings and available resources (Witkin & Altschuld, 1995).

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References

Akkerman, A., & Torenvlied, R. (2013). Public management and network specificity: Effects of colleges' ties with professional organizations on graduates' labour market success and satisfaction. *Public Management Review, 15*(4), 522–540. https://doi.org/10.1080/14719037.2012.677213

Antony, J. S. (2002). Reexamining doctoral student socialization and professional development: Moving beyond the congruence and assimilation orientation. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research* (pp. 349–380). Springer.

Ary, D., Jacobs, L. C., Irvine, C. K. S., & Walker, D. (2019). *Introduction to research in education* (10th ed.). Cengage Learning.

Austin, A. E., & McDaniels, M. (2006). Preparing the professoriate of the future: Graduate student socialization for faculty roles. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research* (pp. 397–456). Springer.

Bedenlier, S., Kondakci, Y., & Zawacki-Richter, O. (2017). Two decades of research into the internationalization of higher education: Major themes in the *Journal of Studies in Internationalization* (1997-2016). *Journal of Studies in International Education, 22*(2), 108–135. https://doi.org/10.1177/1028315317710093

Bunoti, S. (2011). *The quality of higher education in developing countries needs professional support* [Conference paper]. 22nd International Conference on Higher Education. Kampala, Uganda. http://www.intconfhighered.org/FINAL%20Sarah%20Bunoti.pdf

Center for Career Development. (2020). *Guide to effective & authentic networking.* Princeton University. https://careerdevelopment.princeton.edu/sites/g/files/toruqf1041/files/media/networking_guide-oct._2020.pdf

CGIAR. (n.d.). *Funders*. https://www.cgiar.org/funders/

Clark, S. M., & Corcoran, M. (1986). Perspectives on the professional socialization of women faculty: A case of accumulative disadvantage? *The Journal of Higher Education, 57*(1), 20–43. https://doi.org/10.1080/00221546.1986.11778747

Corcoran, M., & Clark, S. M. (1984). Professional socialization and contemporary career attitudes of three faculty generations. *Research in Higher Education, 20*, 131–153. https://doi.org/10.1007/BF00991464

Coulter, F. W., Goin, R. P., & Gerard, J. M. (2004). Assessing graduate students' needs: The role of graduate student organizations. *Educational Research Quarterly, 28*(1), 15–26. https://www.proquest.com/docview/216182731/fulltextPDF/DD9245F534064325PQ/1?accountid=10920

Creswell J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE.

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.)*. SAGE.

Duerrenberger, N., & Warning, S. (2018). Corruption and education in developing countries: The role of public vs. private funding of higher education. *International Journal of Educational Development*, *62*, 217–225. https://doi.org/10.1016/j.ijedudev.2018.05.002

Harder, A. (2020). Conducting the needs assessment #11: Causal analysis techniques. *University of Florida Cooperative Extension Electronic Data Information Source.* https://edis.ifas.ufl.edu/publication/WC352

Holtzman, S., Minott, T., Devasia, N., Kirova, D., & Klieger, D. (2021). Exploring diversity in graduate and professional school applications. *ETS Research Report Series*, 2021(1), 1–19. https://doi.org/10.1002/ets2.12330

Ishikawa, K. (1983). *Guide to quality control*. Asian Productivity Organization.

Johnson, B., von Bargen, K., & Schinstock, J. (1995). Shifting the curriculum paradigm in a land grant college. In J. P. Lunde, M. Baker, F. H. Buelow, & L. S. Hayes (Eds.), *Reshaping curricula: Revitalization programs at three land grant universities* (pp. 54-62). Anker.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE.

Navarro, M., & Edwards, M. C. (2008). Priorities for undergraduate education and the inclusion of internationalized curriculum in colleges of agriculture: Interpreting the" comparison dilemma". *Journal of Agricultural Education*, *49*(4), 72–82. http://dx.doi.org/10.5032/jae.2008.04072

Plowright, D. (2011). Using mixed methods: Frameworks for an integrated methodology. SAGE. https://doi.org/10.4135/9781526485090

Sidecar. (2021, April 26). Declining membership in professional organizations and what you can do about it. *Sidecar.* https://sidecarglobal.com/member-engagement/declining-membership-in-professional-organizations-and-what-you-can-do-about-it/

Sullivan, D., & Stevenson, D. (2009). Promoting professional organization involvement. *AORN Journal*, 90, 575–57. https://doi.org/10.1016/j.aorn.2009.09.007

Staton, A. Q., & Darling, A. L. (1989). Socialization of teaching assistants. *New Directions for Teaching and Learning*, (39), 15-22.

Taylor, M., & Yang, A. (2015). Have global ethical values emerged in the public relations industry? Evidence from national and international professional public relations associations. *Journal of Business Ethics, 130*, 543–555. https://doi.org/10.1007/s10551-014-2226-4

Tierney, W. G. (1997). Organizational socialization in higher education. *The Journal of Higher Education, 68*(1), 1–16. https://doi.org/10.1080/00221546.1997.11778975

Tierney, W. G., & Bensimon, E. M. (1996). *Promotion and tenure: Community and socialization in academe*. Suny Press.

Tierney, W. G., & Rhoads, R. A. (1993). *Enhancing promotion, tenure and beyond: Faculty socialization as a cultural process.* The George Washington University. https://files.eric.ed.gov/fulltext/ED368322.pdf

Van Maanen, J., & Schein, E. H. (1979). Towards a theory of organizational socialization. In B. Staw (Ed.), *Research in organizational behaviour* (Vol. 1, pp. 209–264). JAI Press.

Weidman, J. C., Twale, D. J., & Stein, E. L. (2001). Socialization of graduate and professional students in higher education: A perilous passage? *ASHE-ERIC Higher Education Report, 28*(3). https://files.eric.ed.gov/fulltext/ED457710.pdf

Winfrey, M. (2017, May 12). *Preparing for the future of agriculture through career exploration*. AgriLINKS. https://agrilinks.org/content/preparing-future-agriculture-through-career-exploration

Witkin, B. R., & Altschuld, J. W. (1995). *Planning and conducting needs assessments: A practical guide*. SAGE

Zhang, Y. (2016). An overlooked population in community college: International students'(in) validation experiences with academic advising. *Community College Review*, *44*(2), 153–170. https://doi.org/10.1177/0091552116633293