

An Evaluation of Agricultural Communications Faculty Members' Mentoring Experiences

Introduction

Due to a growing demand for communicators to translate technical information about science and agriculture to consumers, the agricultural communications discipline has continued to grow over the past decade (Miller et al., 2015). In 2014, there were 40 agricultural communications programs in the United States, and expectations were that agricultural communications programs would continue to grow, both in enrollment and in faculty numbers (Miller et al., 2015). Miller et al. (2015) predicted there could be as many as 11 new agricultural programs by the year 2040 and that the discipline would continue to see growth. Additionally, these programs would vary in structure and departmental homes, and would require a wide variety of resources to ensure success (Miller et al., 2015). If these new programs continue to emerge, the newly hired faculty will need effective mentoring for their own success, as well as the success of their programs (Lumpkin, 2011). However, if they are in a new program, or a program that consists predominantly of faculty outside the agricultural communications discipline, the question of who mentors these agricultural communications faculty needs to be asked.

Faculty mentorship has been consistently identified as a key component to job satisfaction, increased productivity, and faculty retention (Desselle et al., 2011). Faculty mentoring has historically focused on junior faculty (Law et al., 2014), where mentors help to guide or coach the junior faculty during their early career stage (Lumpkin, 2011). Some of the benefits associated with successful mentorship include facilitating the advancement of faculty, building relationships and networks for the mentors and mentees, integrating the mentee into the departmental unit, and increasing the productivity and professional growth of the mentor and mentee (Boyle & Boice, 1998; Luna & Cullen, 1995). While mentorship may often focus on helping junior faculty achieve tenure, tenured faculty, lecturers, professors of practice, and research faculty can benefit through mentorship as well (University of Michigan-Dearborn, 2020). Reinvigorated research programs, improved technical skills, and exposure to new teaching ideas and methodologies are additional outcomes of successful mentorship than can benefit the faculty, the department, and the students (University of Michigan-Dearborn, 2020).

While universities have supported the implementation of formal mentor programs, most mentoring relationships form organically and are considered to be *informal* (Mullen, 2008). These informal mentor pairs are typically strong due to the natural fit of the individuals; however, faculty new to the institution may find it difficult to find an informal mentor during their first few months on the job (Mullen, 2008). Formalized faculty mentor programs, where faculty are assigned a mentor by a third party (Cambell & Cambell, 2007), can pair new faculty with experienced faculty from the beginning of their academic career, but these relationships can often feel forced (Law et al., 2014). Bean et al. (2014) proposed that an organizational culture emphasizing the importance of mentorship is necessary for faculty and program success, regardless of if mentorship is formal or informal,

Even though faculty mentorship was not included in Miller et al.'s (2015) research, one of the key recommendations from the authors was to conduct future descriptive studies of agricultural communications programs to understand their current standings. Therefore, the purpose of this research was to evaluate the current state of faculty mentorship in agricultural communications programs across the US in relation to recommended best practices for faculty

mentorship. Effective faculty mentorship can have a ripple effect and positively influence those outside the mentoring relationship and lead to productive programs (Bean et al., 2014; Zachary, 2005). The implications and recommendations from this study can aid administrators and agricultural communications faculty in understanding the current needs for improving faculty mentorship and related programs.

Conceptual Framework

The conceptual framework for this evaluation was guided by principles of best practices for faculty mentorship. Lumpkin (2011) developed a model for mentoring university faculty based on best practices and concluded the key factors for a successful mentoring program included identifying a clear purpose/goal, appropriately pairing mentors and mentees, holding regular meetings, and evaluating the effectiveness of the program. Additionally, having administrative support has been a key factor to successful mentoring program, as well as identifying the needs of the mentees (Lumpkin, 2011). When evaluating the effectiveness of a mentoring program, Lumpkin (2011) recommended asking mentees a) how often they meet with their mentors, b) what topics they discuss, and c) what problems/issues have been experienced.

Other researcher have explored best practices for faculty mentorship as well. Law et al. (2014) conducted an in-depth literature review of faculty mentoring at colleges and universities to develop a set of recommendations. One of the major recommendations was to develop a formalized approach to mentorship, where the mentor is assigned to the mentee and is formally supported/mandated by the department. However, administrators need to make sure they are appropriately matching the pair based on personality as well as interests. Another recommendation Law et al. (2014) made was that junior faculty have *internal mentors*, or mentors within the department, to help them understand the organizational structure or politics of the program. However, mid-career and senior faculty were recommended to have *external mentors* outside the department. These external mentors can provide objective or unbiased feedback and often serve as a safe space for the mentee to discuss concerns related to their institution. Additionally, tenured faculty appeared to have reduced pressure for mentorship, but the authors argue that mentoring should continue, and evolve, over the faculty member's career stages (Law et al., 2014). Finally, the authors recommended conducting periodic evaluations of faculty mentorship programs to make adjustments as needed (Law et al., 2014). Boyle and Boice (1998) also recommended that scheduled weekly or monthly meetings were necessary for mentors and mentees to build rapport. Additionally, some of the barriers or problems associated with effective mentorship include lack of time, unclear expectations, and lack of interest from faculty, to name a few (Fountain & Newcomer, 2016).

Past research has been conducted to evaluate the effectiveness of mentoring programs outside of agricultural communications. Fountain and Newcomer (2016) looked at mentoring in public affairs programs and found that 34% of the programs had a formal mentoring policy. Additionally, they concluded that time was the biggest barrier to effective mentoring programs. Another evaluation by Bean et al. (2014) of a faculty program at a regional university found mentors were most commonly meeting/talking with their mentees on a monthly basis. Similar to Fountain and Newcomer (2016) the researchers also identified time constraints as a major challenge for the program (Bean et al., 2014). Additionally, Bean et al. (2014) recommended formal mentoring support structures be in place to help retain and develop junior faculty.

Faculty mentorship has been researched within the context of colleges of agriculture as well, and DiBenedetto and Whitwell (2019) recommended faculty mentoring be flexible,

accessible, and incentivized to promote excellence in teaching. Additionally, in a study of a formalized leadership professional development program for land-grant faculty, Lamm et al. (2017) concluded mentors found their mentoring relationship to be beneficial to themselves as well as their mentees. However, the authors encouraged formalized programs to also provide mentors with guidelines or best practices to help the mentees get the most out of the relationship (Lamm et al., 2017). Research has also been conducted specifically looking at the faculty mentoring experiences of women within agricultural education and extension (AEE) disciplines (Cline et al., 2019). Most of the participants indicated they engaged in some type of formal mentoring program, but those who did not have a formal mentor often felt isolated (Cline et al., 2019). Cline et al. (2019) determined that participants' feelings of success were linked to the quality of mentorship they had received. While there is a clear wealth of literature related to faculty mentoring experiences and best practices, there unfortunately has not been research on what mentoring has looked like for agricultural communications faculty across the US in recent years.

To guide the evaluation of agricultural communications mentoring programs, a conceptual framework based on best practices for mentoring (Boyle & Boice, 1998; Law et al., 2014; Lumpkin, 2011) was developed. For faculty mentoring relationships to be successful, there will need to be institutional/departmental support for formalized mentor programs (Lumpkin, 2011). Additionally, how mentors are paired with mentees (internal vs external and formal vs informal pairs) will be important in understanding the effectiveness of the relationship (Law et al., 2014; Lumpkin, 2011). How often the pairs meet (Boyle & Boice, 1998) along with what topics are being discussed are also critical to the success of the relationship (Lumpkin, 2011). Finally, barriers to the relationship or challenges that may arise could impede the success of the mentor/mentee pair (Fountain & Newcomer, 2016, Lumpkin, 2011).

Purpose and Objectives

The purpose of this research was to evaluate the current state of mentorship for agricultural communications faculty across the US. The following objectives guided this study:

1. Describe how institutions approach faculty mentorship;
2. Identify the types of existing faculty mentor/mentee relationships;
3. Identify how often faculty mentor pairs meet;
4. Identify topics of discussion during mentoring meetings;
5. Describe perceived topics of importance for mentees; and
6. Identify the perceived barriers to effective mentoring.

Methods

To fulfill the purpose of this study, a quantitative survey instrument was distributed online to the Society of Agricultural Communications Scholars (SACS) listserv in November 2019. The SACS listserv is a continuously updated document of faculty teaching agricultural communications-related courses across the United States. SACS was established in 2018 to address an identified need from the 2017 Agricultural Communications Vision Consortium. The purpose of SACS is to provide ongoing professional development for agricultural communicators in academic settings beyond the research conferences these individuals regularly attend. SACS provides monthly online/webinar professional development opportunities for the academic agricultural communications community. The SACS listserv is comprised of the

original list of agricultural communications programs from the Miller et al. (2015) study, a current list of National Agricultural Communicators of Tomorrow faculty advisers, and self-nominated individuals in agricultural communications academic settings. This list included tenure-track faculty, instructors/lecturers, professors of practice, and emeriti faculty ($N = 99$).

Data collection procedures followed Dillman’s tailored design method (Dillman et al., 2009), and each potential respondent received a personalized questionnaire link. The link was active for two weeks, and up to three follow-up emails were sent requesting survey completion. After discarding incomplete questionnaires, there were a total of 42 responses ($n = 42$), for a 42.4% response rate. A full description of respondents has been reported in Table 1.

The majority of respondents were either tenure-track (26.2%, $n = 11$) or already tenured (45.2%, $n = 19$) and in an agricultural leadership, education, and communication (ALEC) department (or some variant; 82.9%, $n = 34$). The remaining respondents were from departmental units focused on strategic communication, general agricultural sciences, communication studies, mass communication, community sciences, and Extension. Respondents were also asked to identify how many agricultural communications faculty were in their department, including themselves. More than 40% of the respondents were in departments with four or more agricultural communications faculty (42.5%, $n = 17$), and 20% ($n = 8$) were the sole agricultural communications faculty member in their department. The majority of the respondents were female (75.6%, $n = 31$).

Table 1
Description of Respondents (Categorical Variables)

	%	<i>n</i>
Title ($n = 42$)		
Assistant Professor	26.2	11
Associate Professor	21.4	9
Professor	23.8	10
Instructor/Lecturer	11.9	5
Senior Instructor/Lecturer	2.4	1
Assistant Professor of Practice	2.4	1
Emeritus Faculty	4.8	2
Other	7.1	3
Gender ($n = 41$)		
Male	24.4	10
Female	75.6	31
Department ($n = 41$)		
ALEC ^a	82.9	34
Strategic Communication	2.4	1
Other	14.6	6
Number of Agricultural Communications Faculty in Department ^b ($n = 40$)		
0-1	20.0	8
2-3	37.5	15
4-5	20.0	8
6 or more	22.5	9

^a or a similar departmental unit

^b Number includes themselves, some faculty do not have title of “agricultural communications”

Respondents reported an average of 17.92 faculty in their departments, but a large standard deviation ($SD = 12.4$) indicated a high degree of variation. Respondents had worked in academia for an average 11.37 years ($SD = 7.66$), but the range was from zero to 28, and the average age was 42.42 years old ($SD = 9.81$). The average appointments for the sample were 59.5% teaching ($SD = 30.7, n = 36$), 24.6% research ($SD = 19.0, n = 32$), 21.2% administrative ($SD = 32.3, n = 24$), and 16.9% Extension/service ($SD = 23.6, n = 27$).

The survey instrument consisted of 49 questions asking respondents about their experiences with faculty mentoring and information about their programs, and seven of the questions were examined for this research. At the beginning of the survey, respondents were given the following definitions for formal and informal mentoring:

- Formal mentor relationships are encouraged/required by your department (e.g. mentor committee).
- Informal mentor relationships are not mandated by your department.

Respondents were asked if they were currently serving as formal or informal mentors and if they currently received formal or informal mentorship. Display logic was used in the survey to show one set of questions to mentors and another set of question to mentees. Respondents who were both mentors and mentees answered both sets of questions. In this sample, 31 respondents identified themselves as mentors and 35 identified themselves as mentees. Questions on the instrument were researcher-developed and based on relevant literature (Fountain & Newcomer, 2016; Law et al., 2014; Mullen, 2008).

All respondents answered a question about how faculty mentorship was approached at their institution, and responses were based on common mentoring structures, such as informal mentoring, formal mentoring, and formal mentoring committees (Mullen, 2008). Additionally, mentees were asked to describe who their mentors were with a check-all-that-apply question. The options represented both internal and external mentors (Law et al., 2014) and were based on the types of mentors most likely to be identified for agricultural communications faculty. Mentees were asked how often they met with their faculty mentor with the options of *as needed*, *once a week or more*, *a few times a month*, *once a month*, *a few times a year*, and *once every few years*.

Respondents were also asked to select from a list of 10 topics to identify what they talked about in a typical meeting with their mentor in a check-all-that-apply format. Topics included reflected faculty concerns identified in the literature, and represented both hard skills (e.g. teaching, research, etc.) and soft skills (e.g. work-life balance, navigating promotion and tenure, etc.; Fountain & Newcomer, 2016). Mentees were also asked to indicate how important discussing each topic with their mentor was for their own success on a 5-point, Likert-type scale. The labels for this scale were 1 = *not at all important*, 2 = *slightly important*, 3 = *moderately important*, 4 = *very important*, and 5 = *extremely important*. There was a “not applicable” option to account for different types of faculty appointments. These answers were excluded from analysis. Finally, there was a check-all-that-apply question that asked respondents about their perceived barriers or challenges associated with faculty mentorship, which included items like *lack of time* or *lack of interest* (Fountain & Newcomer, 2016).

Prior to distribution, the questionnaire was reviewed by a panel of experts to assess the content validity of the instrument (Ary et al., 2010). This panel included a professor, associate professor, and assistant professor of agricultural communications, all of whom had expertise in survey design. Additionally, an assistant professor of environmental sciences reviewed the survey to provide feedback from an outside perspective. After including some suggested revisions (e.g. including additional topics of discussion or barriers to mentoring), the survey was electronically delivered to the census of SACS members.

Because the response rate was less than 80%, there was a potential threat for non-response error (Lindner et al., 2001). This type of error occurs when the sample does not accurately represent the population and can lead to biased responses. Because the characteristics of the population were not accessible to compare respondents to non-respondents (Koch & Blohm, 2016), early and late respondents were compared for variables of interest (Linder et al., 2001). No differences were identified between the first half and second half of respondents for those variables, so non-response error was assumed to be limited. All data were imported and analyzed in SPSS version 25. Simple descriptive statistics were reported for all objectives.

Results

Approach Faculty Mentorship

Approximately half of the respondents reported their departments encouraged faculty mentoring but did not require it (54.5%, $n = 24$; Table 2). The next most commonly used approach to faculty mentorship was a required mentor committee (13.6%, $n = 6$) or a required mentor (11.9%, $n = 5$).

Table 2
Institutional Approach to Faculty Mentorship (n = 44)

	%	<i>f</i>
Department encourages faculty mentor(s) but it is not required	54.5	24
Department/University/College requires a faculty mentor committee (two or more mentors).	13.6	6
Department/University/College requires a faculty mentor.	11.4	5
Faculty Mentorship has not been discussed in my department.	9.1	4
Other	9.1	4
Not Sure	2.3	1

Faculty Mentor/Mentee Relationships.

Formal and informal mentoring are reported in Table 3 and broken down by career stage. The largest percent of respondents who received formal mentoring were Assistant Professors (54.5%, $n = 6$) and Instructors/Lecturers (40.0%, $n = 2$). Approximately one-third of Associate Professors received formalized mentoring (33.3%, $n = 3$). However, 100% of the Assistant Professors ($n = 11$), Associate Professors ($n = 9$), Instructors/Lecturers ($n = 5$), and Assistant Professors of Practice ($n = 1$) received formal mentoring. Additionally, 60.0% ($n = 6$) of professors reported receiving informal mentoring.

Table 3
Formal and Informal Mentoring by Career Stage (n = 35)

	<u>Receive Formal Mentoring</u>		<u>Receive Informal Mentoring</u>	
	%	<i>f</i>	%	<i>f</i>
Assistant Professor	54.5	6	100.0	11
Associate Professor	33.3	3	100.0	9
Professor	10.0	1	60.0	6
Instructor/Lecturer	40.0	2	100.0	5
Sr. Instructor/Sr. Lecturer	0.0	0	0.0	0
Assistant Professor of Practice	0.0	0	100.0	1
Other	0.0	0	66.7	2
Emeritus Faculty	0.0	0	50.0	1

Mentees were asked to indicate who their mentors were. External and internal mentor relationships have been reported in Table 4. This was a check-all-that-apply question, and respondents most commonly had internal mentors that were non-agricultural communications faculty (57.9%, $n = 22$), closely followed by external mentors who were agricultural communications faculty (50.0%, $n = 19$) and internal mentors who were agricultural communications faculty (47.4%, $n = 18$). Additionally, 28.9% ($n = 11$) reported their doctoral advisor still served as their mentor.

Table 4
Description of Internal and External Mentors (n = 37)

	%	<i>f</i>
Non-Agricultural Communications Faculty in my Home Department	57.9	22
Agricultural Communications Faculty at Another University	50.0	19
Agricultural Communications Faculty in my Home Department	47.4	18
Non-Agricultural Communications Faculty not in my Home Department	34.2	13
Previous Doctoral Advisor	28.9	11
Non-Agricultural Communications Faculty at another university	26.3	10
Communications faculty not in my home department	18.4	7
Other	2.6	1

How Often Faculty Mentor Pairs Meet

How often mentees meet with their mentors is reported in Table 5. Most commonly, mentees were meeting on an “as needed” basis (62.9%, $n = 22$). The second-most frequent meeting schedule was a few times a year (20.0%, $n = 7$).

Table 5
Frequency of Mentor/Mentee Meetings (n = 33)

	%	<i>f</i>
As needed	62.9	22
A few times a year	20.0	7
Once a week or more	5.7	2
A few times a month	2.9	1
Once every few years	2.9	1
Once a month	0.0	0

Topics of Discussion During Mentoring Meetings

Table 6 reports what topics mentees discuss in their meetings. The topics most commonly discussed were teaching (68.6%, $n = 24$), research (68.6%, $n = 24$), and administrative/procedural question (65.7%, $n = 23$). Extension (31.4%, $n = 11$), advising (40.0%, $n = 14$), and service (42.9%, $n = 15$) were the least-discussed topics.

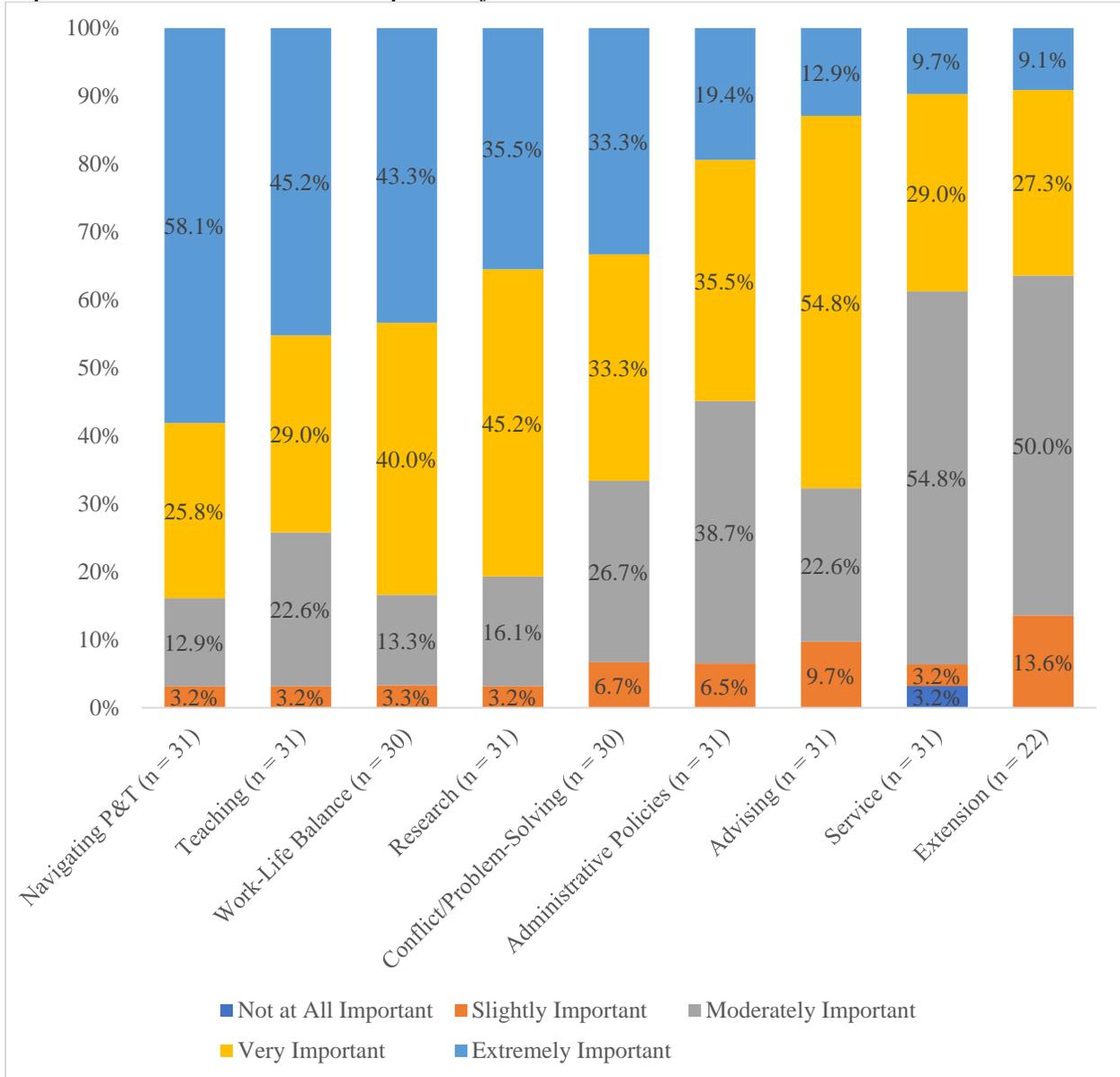
Table 6
Topics Discussed During Mentor/Mentee Meetings (n = 35)

	%	<i>f</i>
Teaching	68.6	24
Research	68.6	24
Administrative/Procedural Questions	65.7	23
Work-Life Balance	62.9	22
Conflict or Problem-Solving Solutions	62.9	22
Navigating the Promotion and Tenure Process	60.0	21
Service	42.9	15
Advising	40.0	14
Extension	31.4	11
Other	0.0	0

Perceived Topics of Importance for Mentees

Mentees were asked to indicate how important each of the topics reported in Figure 1 were for their own success. Navigating promotion and tenure had the largest group agreeing it was *extremely important* for their success (42.4%), followed by work-life balance (34.3%), research (32.4%), and teaching (32.4%). Nearly half of the respondents indicated conflict/problem solving (47.1%) and administrative/procedural questions (50.0%) were *very important* to their success. Extension, advising, and service were viewed as the least important, with at least 40.6% of the respondents reporting each topic to be only slightly or moderately important for their success.

Figure 1
Topics Mentees Perceive to be Important for Their Own Success



Challenges/Barriers to Effective Mentoring Relationships

The barriers to effective mentoring are reported in Table 7. The overwhelming majority of mentees selected time as a barrier to mentoring (88.6%, $n = 31$). Other notable barriers included feeling forced to engage in relationships (37.1%, $n = 13$), lack of structure (34.3%, $n = 12$), and lack of communication (25.7%, $n = 9$).

Table 7

Barriers to Effective Mentoring Relationships (n =35)

Barrier	%	f
Time	88.6	31
Feeling Forced to Engage in Relationships	37.1	13
Lack of Structure	34.3	12
Lack of Communication	25.7	9
Lack of Trust	17.1	6
Lack of Understanding Agricultural Communications	14.3	5
Too Much Structure	11.4	4
Different Interests	11.4	4
Lack of Openness	11.4	4
Personality Differences	11.4	4
Other	0.0	0

Conclusions & Implications

The purpose of this study was to evaluate the current state of mentoring for agricultural communications faculty. Approximately half of the sample reported their departments/institutions did not formally require mentoring and most of the mentoring that occurred, despite career stage, was informal. Best practices indicate a formalized mentor program is needed for faculty success (Lamm et al., 2017) and relying too heavily on informal mentoring can make it difficult for junior faculty to even identify potential mentors (Bean et al., 2014; Mullen, 2008). Additionally, formal mentorship appeared to decline after promotion even though informal mentoring continues. This may indicate a lack of institutional support for faculty mentoring across all career stages and a focus only on the mentoring of junior faculty (Law et al., 2014).

Individuals both internal and external to the department were identified as mentors, and a little less than half of the respondents reported their mentors were agricultural communications faculty in their department. However, the rest of the sample identified other types of mentors. Most often, the mentors were either non-agricultural communications faculty within the department or agricultural communications faculty at another university. Respondents who were the only agricultural communications faculty in their department or one of two may not have the opportunity to find internal mentors in their discipline. While internal mentors are useful to understanding department/institution cultures and do not necessarily have to come from the same discipline as the mentee (Law et al., 2014), lack of understanding related to agricultural communications could impact the quality of this relationship. Twenty percent of the sample indicated they were the only agricultural communications faculty member in their department, which could indicate a need for discipline specific mentoring for these individuals. Additionally, just because there are one or two additional agricultural communications faculty in the department does not mean their personalities will be a good match for the mentee (Law et al., 2014).

Respondents in the study reported meeting with their mentors on an “as needed” basis. Boyle and Boice (1998) recommended mentors meet with mentees regularly each week or month to help build rapport. If mentees are only meeting with mentors when they feel it is necessary, they may be missing opportunities to strengthen their relationship and consistently receive feedback related to their role and responsibilities.

Topics most frequently discussed by respondents in their meeting with mentors included teaching, research, and administrative/procedural questions. However, the topics respondents believed were most important for their success were navigating promotion and tenure, work-life balance, and research. The topics being discussed in the meetings should reflect the needs of the mentees (Lumpkin, 2011), but that does not appear to be happening. Teaching might be the most frequently discussed topic because that was the largest area of appointment for the sample and would be an easily accessible topic. Navigating promotion and tenure could be abstract for many, which might make it difficult for mentees to discuss despite its perceived importance. Similarly, administrative/procedural questions could easily come up in meetings with mentors, but more personal questions, like work-life balance, may be difficult to discuss if mentors and mentees are not appropriately paired. Another interesting finding was that respondents did not perceive discussing Extension efforts to be all that important for their success. Extension represented the lowest appointment in the sample, which may explain this finding. However, research appointments were not much higher than Extension, and research was discussed just as much as teaching.

Similar to past research (Bean et al., 2014; Fountain & Newcomer, 2016), time was identified as the most common barrier to effective mentoring. Additionally, feeling forced to engage in a relationship was a barrier identified that has been associated with formal mentoring programs (Law et al., 2014). Interestingly, respondents indicated another barrier to successful mentoring was a lack of structure instead. These different perceptions of barriers could be the result of differing personalities or needs depending on career stage.

While these findings align with past mentorship literature, they do unveil important realities for mentoring within the agricultural communications discipline that should be addressed. The lack of institutional support for formalized mentoring for some faculty, limited availability of internal mentors with an agricultural communications focus, unstructured meeting times, divergence in topics being discussed and topics perceived as important, and the ever-present barrier of time, indicate agricultural communications faculty may not be receiving the mentoring needed to be successful in their programs. Considering the majority of the participants in this study were female, and Cline et al. (2019) emphasized the importance of quality mentoring relationships for female faculty to feel successful, there is an apparent need to strengthen the overall quality of mentoring available to agricultural communications faculty.

Recommendations

Based on the conceptual model developed for this study, there are areas of mentoring for agricultural communications faculty that could be strengthened. Having a formalized mentor program for faculty across institutions will be critical for the success of the discipline (Bean et al., 2014; Lamm et al., 2017). Because agricultural communications programs are expected to grow and new programs are anticipated to emerge in the near future (Miller et al., 2015), there is a high chance new agricultural communications faculty will be unable to identify agricultural communications mentors in their home department. There is an apparent need for a type of formalized mentoring on a discipline level through formal organizations if departments are unable to fully support the mentoring needs of agricultural communications faculty.

A discipline-wide mentoring program facilitated through a national organization could connect faculty in emerging agricultural communication programs with senior faculty at other institutions. One-fifth of the sample reported being from single-faculty agricultural communications programs, and this type of external program would be critical for these faculty

to be paired with mentors in their discipline. To address some of the barriers identified with mentoring, mentees and mentors should be invited to engage in the program so they do not feel the relationship is “forced.” However, those who do participate in the program could feel like they have the support needed to build an effective working relationship with their mentor (Lamm et al., 2017). Additionally, mentors and mentees can be paired based on their type of program, research/teaching interests, life stage, and personality to help the pairs have more open discussions about concerns and questions. Mentees should also be encouraged to actively seek out informal mentors even after their formal mentoring relationship has ended. Experienced faculty can continue to benefit from mentorship throughout their career.

Time may be a barrier for effective mentoring, but setting expectations from the beginning of the mentoring relationship could help to address this issue (Lamm et al., 2017; Lumpkin, 2011). Scheduling weekly or monthly meetings may seem to take more time, but the accountability of having meetings scheduled may also reduce stress and help mentees answer questions they have on a more regular basis. Mentors and mentees should also determine what topics are most relevant to the needs of the mentees so discussions can focus on those areas of importance to make the best use of time.

Administrators of academic units with agricultural communications faculty should also consider the findings from this study. Facilitating a more formalized faculty mentoring program could help pair junior faculty with internal mentors early in their career. Regardless of the mentor’s discipline, this internal mentorship could help faculty address their questions related to promotion and tenure or procedural policies that external mentors could not answer. Administrators should have clear expectations for the mentoring program that could include goals and a meeting schedule. Additionally, formal mentoring should not cease after faculty accrue tenure and should continue throughout their career. Similarly, faculty on non-tenure lines can equally benefit from mentoring and should be provided the same resources as pre-tenured faculty. If mentoring for agricultural communications faculty is effective, the discipline will likely experience a ripple effect that improves the quality of programs, scholarship, and graduates as well (Bean et al., 2014; Zachary, 2005).

This research provided a baseline for understanding agricultural communication faculty members’ experiences with mentorship. Exploring the quality of these relationships, characteristics of effective mentors, and specific mentoring needs could provide an additional layer of understanding to this study. In-depth interviews with mentors, mentees, and administrators could also provide deeper meaning to the quantitative findings from this research. Asking mentees why they talk about certain topics with their mentors but perceive other topics to be more important could help guide how future mentor/mentee meetings are structured. Additionally, asking both mentors and mentees how to best support them could provide administrators with clear recommendations for a formalized mentoring program. Future research should also seek to understand the influences on effective mentoring to develop a more comprehensive mentorship model. Identifying the costs of an effective mentoring program (e.g. faculty time, resources, etc.) would also be critical to understanding how to best support these programs. This study should be replicated in the future to ensure the discipline and departmental units are meeting the needs of agricultural communications faculty (Law et al., 2014).

References

- Ary, D., Jacobs, L. C., & Sorensen, C. (2010). *Introduction to research in education* (8th ed). Wadsworth Cengage Learning.
- Bean, N. M., Lucas, L., & Hyers, L. L. (2014). Mentoring in higher education should be the norm to assure success: Lessons learned from the faculty mentoring program, West Chester University, 2008–2011. *Mentoring & Tutoring: Partnership in Learning*, 22(1), 56-73. <https://doi.org/10.1080/13611267.2014.882606>
- Boyle, P., & Boice, B. (1998). Systematic mentoring for new faculty teachers and graduate teaching assistants. *Innovative Higher Education*, 22(3), 157–179. <https://doi.org/10.1023/A:1025183225886>
- Campbell, T. A., & Campbell, D. E. (2007). Outcomes of mentoring at-risk college students: gender and ethnic matching effects. *Mentoring & Tutoring: Partnership in Learning*, 15(2), 135-148. <https://doi.org/10.1080/13611260601086287>
- Cline, L., Rosson, H., & Weeks, P. (2019). Women faculty in postsecondary agricultural and extension education: A fifteen year update. *Journal of Agricultural Education*, 60(2). <https://doi.org/10.5032/jae.2019.02001>
- Desselle, S. P., Peirce, G. L., Crabtree, B. L., Acosta, D., Early, J. L., Kishi, D. T., ... Webster, A. A. (2011). Pharmacy faculty workplace issues: Findings from the 2009-2010 COD-COF joint task force on faculty workforce. *American Journal of Pharmaceutical Education*, 75(4), 63. <https://doi.org/10.5688/ajpe75463>
- DiBenedetto, C. A., & Whitwell, T. (2019). Associate deans and academic leaders' perceptions for promoting teaching excellence in United States colleges of agriculture. *North American Colleges and Teachers of Agriculture*, 63(1), 13-19. <https://www.nactateachers.org/index.php/vol-63-1-mar-2019/2824-associate-deans-and-academic-leaders>
- Dillman, D., Smyth, J., & Christian, L. (2014). *Turbulent times for survey methodology*. (4th ed.). John Wiley & Sons, Inc.
- Fountain, J., & Newcomer, K. E. (2016). Developing and sustaining effective faculty mentoring programs. *Journal of Public Affairs Education*, 22(4), 483-506. <https://doi.org/10.1080/15236803.2016.12002262>
- Koch, A., & Blohm, M. (2016). Nonresponse bias. *GESIS Survey Guidelines*. Mannheim, Germany: GESIS – Leibniz Institute for the Social Sciences. doi: 10.15465/gesis-sg_en_004
- Lamm, K., Sapp, R., & Lamm, A. (2017). The mentoring experience: Leadership development program perspectives. *Journal of Agricultural Education*, 58(2), 20-34. <https://doi.org/10.5032/jae.2017.02020>
- Law, A. V., Bottenberg, M. M., Brozick, A. H., Currie, J. D., DiVall, M. V., Haines, S. T., ... Yablonski, E. (2014). A checklist for the development of faculty mentorship programs. *American Journal of Pharmaceutical Education*, 78(5), 98. <https://doi.org/10.5688/ajpe78598>
- Lindner, J. R., Murphy, T. H., & Briers, G. E. (2001). Handling nonresponse in social science research. *Journal of Agricultural Education*, 42(4), 43-53. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.507.7093&rep=rep1&type=pdf>
- Lumpkin, A. (2011). A model for mentoring university faculty. *The Educational Forum*, 75(4), 357-368. <https://doi.org/10.1080/00131725.2011.602466>

- Luna, G., & Cullen, D. L. (1995). *Empowering the faculty: mentoring redirected and renewed* (3). Retrieved from ASHE-ERIC Higher Education Report website: <https://eric.ed.gov/?id=ED399888>
- Miller, J. D., Large, M. M., Rucker, K. J., Shoulders, K., & Buck, E. B. (2015). Characteristics of U.S. agricultural communications undergraduate programs. *Journal of Applied Communications*, 99(4), 1-15. <https://doi.org/10.4148/1051-0834.1063>
- Mullen, C. A. (2008). *The handbook of formal mentoring in higher education: A case study approach*. Christopher-Gordon Pub.
- University of Michigan-Dearborn. (n.d.). Faculty Mentoring. <https://umdearborn.edu/faculty-staff/faculty-senate/faculty-mentoring-0>
- Zachary, L. J. (2005). *Creating a mentoring culture: The organization's guide*. Jossey-Bass.