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# Professional Development Needs of Mid-Career Agriculture Teachers

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**Abstract**

*Nationwide, agricultural education faces a shortage of teachers (National Teach Ag Campaign, 2014; Foster, Lawver, & Smith, 2016). To remedy this, both recruitment and retention efforts are necessary. While extensive research in agricultural education has focused on needs of beginning teachers, less research has focused on needs of agriculture teachers at later career stages. As such, the purpose of this phenomenological qualitative study was to explore challenges, activities, and professional development needs of mid-career agriculture teachers, particularly those within the "Experimentation/Activism" and "Reassessment/Self-Doubt" stages identified by Huberman (1989). The study narrowly focused on a census of 35 teachers from across the country who applied for a professional development program designed for mid-career agriculture teachers. Mid-career teachers identified lack of time, course planning, and programmatic expectations as challenges or obstacles. The teachers reported a desire to fulfill professional development needs by networking, reenergizing, and improving stress management. Specifically, teachers reported participating in professional organizations, joining teacher listservs, and networking through the National Association of Agricultural Educators' Communities of Practice for engagement and support. Findings suggest continued professional development offerings and additional research related to mid-career agriculture teacher well-being are warranted.*

**Keywords:** mid-career, agriculture teachers, challenges, professional development, retention

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## Introduction

Across the nation, school administrators, education leaders, and teacher educators have expressed concern regarding the ongoing teacher shortage. Since 2015, reports of teacher shortages have become more prevalent within the media (Daniel, 2015; Milliard, 2015; Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Elaine Wynn, Nevada State Board of Education President described the teacher shortages as "horrific" and warned that without significant improvement "we're going to all sink" (Milliard). Similarly, the former Texas Education Commissioner, Michael Williams, referred to the shortage as the "biggest threat" to education in Texas (Daniel).

National data on teacher supply and demand suggest continued challenges with shortages. Teacher demand remains on the rise; while, the number of new teachers is "atypically low" and

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declining according to a special report addressing teacher supply, demand, and shortages in the United States (Sutcher et al., 2016, p. 3). Additionally, teacher shortages can be further exacerbated by local, state, and national education policies. Shortages are often more profound in certain subject areas and experienced at a higher rate in urban, rural, high-poverty, high-minority, and low-achieving schools (Aragon, 2016). Unless major changes occur, annual teacher shortages could increase from 64,000 in 2016 to as many as 112,000 teachers in 2018 (Sutcher et al.).

Similar trends have been observed across many areas of career and technical education (CTE), as a significant gap exists between teacher supply and demand (Wilkin & Nwoke, 2011). Agricultural education is no different, suffering from a recognized shortage of teachers across the nation (National Teach Ag Campaign, 2014; Foster, Lawver, & Smith, 2016). Programmatic growth within school-based agricultural education contributes to this shortage, in part, with 175 new positions and 145 new programs reported in 2016 (Foster et al.). Additionally, less than 74% of license-eligible program graduates pursued school-based agricultural education teaching positions, while the remaining 26% of graduates pursued other career areas, military, or graduate school. Within agricultural education, several state and national efforts have been established to address this need, including but not limited to student loan forgiveness programs, upperclassmen scholarship programs, and the National Teach Ag Campaign's State Teach Ag Results (STAR) program. Each of these efforts, and many others, are intended to increase the pipeline of prospective school-based agriculture teachers and contribute to greater retention in the profession.

Sutcher et al., (2016) suggest four main factors contribute to the teacher shortage across all fields of education: 1) a decline in teacher preparation enrollments, 2) district efforts to reduce student-teacher ratios, 3) increases in student enrollment, and 4) high teacher attrition. These factors support prior research by Conneely and Uy (2009) related to career and technical education. They suggested that the discontinuation of teacher education programs, an increase in student enrollment, and a large number of CTE teachers nearing retirement contributed to the crisis in CTE. "Student demand requires more teachers, but teachers are leaving the profession and the opportunities to cultivate new educators are limited as teacher programs are eliminated" (Conneely & Uy, p. 1).

Unfortunately, the answer to this shortage for agricultural education and all of education is not merely recruiting more teachers. Linda Darling-Hammond describes the teaching profession as a "leaky bucket", citing more than 200,000 teachers leave the profession each year (Long, 2016). Ingersoll's (2003) research suggested a majority of turnover occurs during the first five years on the job. Agricultural education research has echoed that sentiment, suggesting that beginning teachers are faced with many challenges and demands that contribute to the decision of leaving the profession (Myers, Dyer, & Washburn, 2005). Often mentoring and induction programs are designed to assist and support new and beginning teachers; however, they are not the only teachers who need assistance and support.

Teachers in all stages of their careers face professional challenges and have unique needs that must be met in order to be retained in the profession. With teacher attrition rates across the United States approaching 10%in the past decade, the Learning Policy Institute suggests that teacher retention, especially in hard-to-staff schools, could be improved through mentoring, induction, enhanced working conditions, and career development efforts (Sutcher et al., 2016).

State and national agricultural education leaders acknowledge the need for targeted professional development efforts, designed for school-based agriculture teachers at various career stages. Specifically, the National Association of Agricultural Educators (NAAE) developed a model, depicting the Ag Teacher's Life Cycle (NAAE, 2015), which identifies key areas for professional development for early-career, mid-career, and late-career teachers. The primary focus

areas include teacher induction, work/life balance, community support, teacher leadership, and maintaining professional engagement and enthusiasm. These focus areas align with Sutcher et al., recommendations (2016) for increasing retention and minimizing teacher turnover.

## Framework

A variety of models explain the career life-cycle of teachers, recognizing characteristics, challenges, and development needs within each stage (Fessler, 1985; Huberman, 1989; Steffy & Wolfe, 2001; NAAE, 2015). Each model suggests that to retain teachers and ensure a positive trajectory through the career life-cycle, opportunities for professional development and support for renewal must be provided. Research cites ways to increase teacher commitment to the school district and profession that includes: earlier and more challenging professional development, opportunities for leadership roles, and deeper dialogue with colleagues.

Huberman's (1989) Teacher Career Cycle Model (see Figure 1) describes the stages as "Survival and Discovery" from 1-3 years, "Stabilization" from 4-6 years, "Experimentation/Activism" and "Reassessment/Self-Doubt" from 7-18 years, "Serenity/Relational Distance" and "Conservatism" from 19-30 years, and "Disengagement: Serene or Bitter" from 31-40 years.

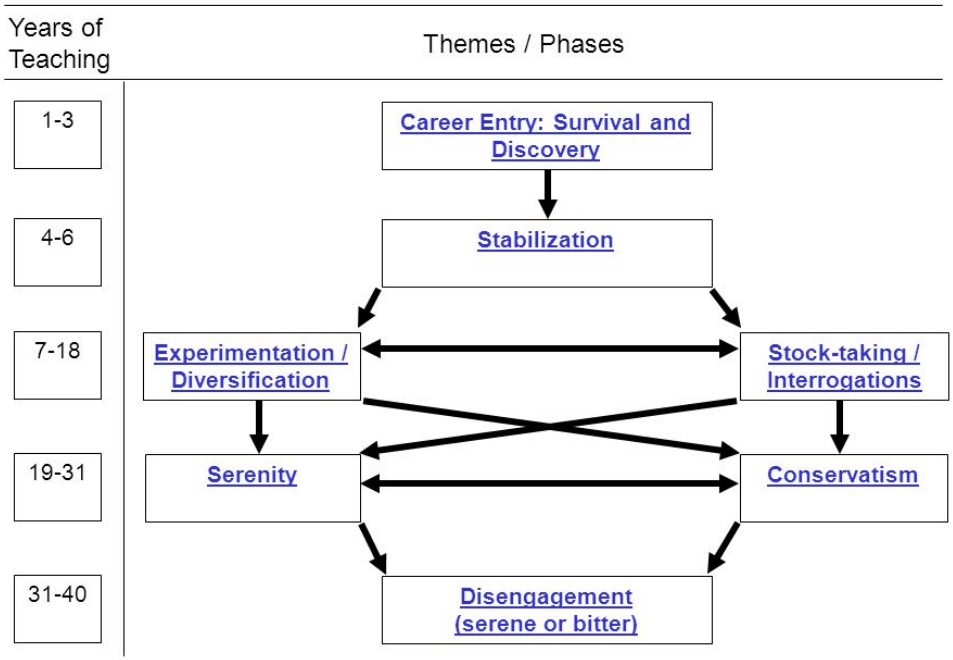


*Figure 1.* Michael Huberman's (1989) Teacher Career Cycle Model

Huberman (1989) asserted the phases at mid-career are the most variable and extensive. In the fourth phase, teachers engage in self-questioning and may consider a career change. Further, Huberman discovered that teachers tend to associate three things with their most satisfying experiences in mid-career: 1) a role shift, 2) strong rapport with special classes or groups of students, or 3) significant results.

Similarly, Steffy and Wolfe's (2001) model is rooted in transformative learning and emphasizes the importance of the reflection-renewal-growth cycle. This model also suggests the value of self-questioning resulting in positive answers. Specifically, they offer the following:

> … The Life Cycle Model is an application on Mezirow's transformation theory. As teachers progress throughout their careers, they can engage in transformational processes including critical reflection on practice, redefinition of assumptions and beliefs, and enhanced self-worth. Or they can disengage from the work environment as a source and stimulation for new learning and begin the gradual decline into professional withdrawal (Steffy & Wolfe, p. 17).

Until recently, many professional development programs in agricultural education focused on early career teachers. State mentoring or induction programs, regional "new teacher" workshops, and the NAAE Teacher Turn the Key program provide excellent resources and support for beginning agriculture teachers. However, there appears to be a lack of professional development designed for mid-career agricultural education teachers. In 2013, NAAE developed the eXcellence in Leadership for Retention (XLR8) program to meet the needs of mid-career teachers, specifically those with 7 to15 years of teaching experience. The program was established to meet the following goals: 1) to develop teacher leaders who will mentor other teachers in the profession, 2) provide mid-career level specific professional development to participants, and 3) increase overall longevity and satisfaction of participants with their chosen career of teaching agriculture. The XLR8 program included participation in an intensive professional development experience (multiple sessions) during the NAAE convention, recurring virtual learning experiences, and online collaboration using the NAAE professional learning community, Communities of Practice, as well as other social media tools (NAAE, n.d.). Research regarding this initiative will better enable state and national leaders to identify and meet professional development needs of agricultural educators in this particular stage of the career cycle model, a priority expressed in the American Association of Agricultural Education (AAAE) National Research Agenda (Roberts, Harder, & Brashears, 2016).

## Purpose/Objectives

The purpose of this phenomenological qualitative study was to explore self-reported challenges, activities, and professional development needs of mid-career agricultural educators, particularly those within the "Experimentation/Activism" and "Reassessment/Self-Doubt" stages identified by Huberman (1989). Specifically, three research questions guided this study:

1. What are the biggest obstacles that prevent mid-career agricultural educators from becoming the teachers they wish to be?
2. How do mid-career agricultural educators stay professionally engaged and up-to-date in teaching techniques and technical content?
3. What goals or objectives do applicants wish to achieve from a targeted mid-career professional development experience?

## Methodology

The population included 35 agricultural educators with 7 to15 years of teaching experience. Each had applied to participate in the 2014 eXcellence in Leadership for Retention professional development program, offered by the National Association of Agricultural Educators (NAAE). NAAE provided the frame for the study, as well as access to the written materials submitted by each applicant. To maintain confidentiality, all personal identifiers were removed.

A basic qualitative approach was utilized for this study as defined by Merriam (2009). Merriam contended that basic qualitative studies are the "most common form of qualitative research found in education" (p. 23). This study was a phenomenological study of mid-career teachers applying to participate in the XLR8 program. The application, submitted by individuals for consideration, was the source of information for this study. To promote trustworthiness of results, the researchers employed established qualitative research practices. In this study, the researchers used dialogue and written statements to identify and articulate potential biases and assumptions related to the research (Merriam) and determined it was appropriate to move forward with the examination of this particular topic. To acknowledge potential biases, the researchers were previously school-based agriculture teachers who are now employed as agricultural teacher educators. Credibility was enhanced through peer debriefings and independent coder review throughout the study (Guba & Lincoln, 1989). To answer the three guiding research questions, written materials for each of the 35 applicants were analyzed through content analysis techniques to identify themes. Particularly, participants' responses to three open-ended questions on the program application were utilized. The three questions included:

1. What are the biggest obstacles that prevent mid-career agricultural educators from becoming the teachers they wish to be?
2. How do mid-career agricultural educators stay professionally engaged and up-to-date in teaching techniques and technical content?
3. What goals or objectives do applicants wish to achieve from a targeted mid-career professional development experience?

As applications were reviewed and transcribed, responses were open-coded, creating a master list of codes (Merriam, 2009). Codes were then grouped using axial coding and categorized systematically, guided by the study's purpose (Merriam). Application transcriptions were re-read and categories refined, revised, and consolidated as analysis continued. Finally, primary categories or themes were named. The findings were cautiously analyzed and statements were contemplated before being subjected in the final draft. Trustworthiness and reliability of data were established through a research log, peer review of data analysis, and member checks.

Creswell (1998, p. 15) described qualitative research as "an inquiry process of understanding based on distinct methodological traditions of inquiry that explores a social or human problem." This study was analyzed using content analysis to better understand challenges, activities and professional development needs of mid-career agricultural educators.

## Findings

Of the 35 mid-career agriculture teachers who applied to the XLR8 program, the majority of applicants were female ($n$=23). Applicants represented all NAAE regions, with eight applicants from Region I, four from Region II, 10 from Region III, seven from Region IV, two from Region V, and four from Region VI. Twenty of the applicants were from multi-teacher programs, and the remaining 15 were in single-teacher programs. As a result of qualitative analysis, primary themes emerged from responses to each of the questions posed to applicants.

Mid-career agricultural educators in the study identified the biggest obstacle preventing them from becoming the teachers they wish to be was a lack of time or time management challenges. In fact, 19 of 35 applicants indicated time as a concern. Five additional applicants noted work/life balance concerns, which relates to time management and the challenge of balancing personal and professional responsibilities. One teacher described,

> I want to be a great teacher, a great husband, and a great dad. It's extremely hard to be really good at all three of these at once. It always seems that some part is usually neglected in some form at some time. ...there's so much that is asked of teachers today that wasn't required ten years ago.

Another stated, "Online lesson plans, response to intervention, faculty meetings, professional learning communities, and other innovations in education are always demanding more time of teachers." Another explained, "I have found that there is not enough time to refine, design and improve class lessons and learning activities as regularly as I believe they should be." Yet another shared, "Balancing family, FFA, classroom duties, advisor responsibilities, practice- not to mention staff meetings, progress reports, grades, IEP meetings, etc. There's so much more to being a teacher than just teaching."

A secondary theme, specifically noted by eight applicants, related to obstacles for mid-career agriculture teachers included course planning, particularly with regards to content knowledge, locating curriculum and classroom resources, and developing lesson plans. Specifically, three teachers noted a fear of failing students, themselves, or maintaining excellence in their programs.

One question asked mid-career agricultural educators how they remain professionally engaged and up-to-date in teaching techniques and technical content.

Applicants identified many means of "*staying professionally prepared and up-to-date.*" Participation in professional organization activities, participating in teacher listservs, and networking through NAAE Communities of Practice was the most identified theme in this area, which was reported by 29 applicants. One applicant offered, "Conferences have allowed me to meet other educators, learn from their experiences and take that new knowledge back to my own classroom, so my students benefit from them as well." Another shared that "staying involved professionally has helped me become a better teacher."

Numerous applicants noted specific professional development, offered at the school district, state, regional or national level that was particularly beneficial. Several state association conferences, regional NAAE conferences, and NAAE annual conferences were noted, in addition to Curriculum for Agricultural Science Teachers (CASE) institutes. One teacher noted, "I am constantly involved in trainings to fuel improvement in my abilities." Others mentioned business and industry involvement and reading professional magazines as beneficial ways of staying professionally prepared.

These mid-career teachers were applying to participate in the inaugural XLR8 program, and each specified personalized goals for the outcome of the program. When asked what they "*wanted to take away from the professional development experience*" networking, becoming reenergized, and better handling stress emerged as primary themes. One teacher described a need for "exposure to effective, proven methods of helping a professional deal with stress, increased workloads, and balancing." Another openly shared, "I would like to reenergize myself and rediscover the reason I became a teacher. I want the excitement I had when I was first starting out."

Additional themes specifically noted by three applicants included being motivated to overcome obstacles and being able to handle stress. Additionally, applicants stated they wanted to come away from the training with ways to better develop their personal and professional life balance.

## Conclusions/Recommendations

This study was a census of 35 mid-career agriculture teachers, designed to explore self-reported challenges, activities and professional development needs. The intent was not to generalize the results to all mid-career agriculture teachers, but rather to describe the population of mid-career teachers who self-selected to apply for targeted professional development through the XLR8 program. Caution should be taken to not generalize the results to broader populations.

Based upon the themes identified through examination of data provided on applications completed by the mid-career teachers, the following conclusions are offered. Overall, this group of mid-career agriculture teachers was interested in personal and professional development opportunities offered, which may differ from teachers at other career stages. Specifically, mid-career challenges with time management, work/life balance, and course/lesson preparation were frequently mentioned. Teachers in this group expressed a desire for connections, collaboration, and support. NAAE's Ag Teacher's Life Cycle model (NAAE, 2015) acknowledges this as a professional development need for teachers in this career stage. Additionally, these findings are consistent with recent research, by Sorensen and McKim (2014), that suggested that mid-career agriculture teachers (6 to 19 years of teaching experience) in Oregon were identified as having the lowest work/life balance and lowest professional commitment.

Despite having survived the initial years in the profession, perhaps these mid-career teachers experience unique pressures as a result of their role in leading established programs that require a significant amount of time and energy. Many applicants noted the importance of professional development to career success and expressed a desire for help balancing work and family lives. As one applicant offered, "I want to be a great teacher, a great husband, and a great dad." This desire to succeed in all aspects of life, professionally and personally, may require additional support in order to retain agriculture teachers into the later stages of the career life-cycle. This aligns with recommendations from Huberman's (1989) research that mid-career teachers' most satisfying experiences often relate to role shifts, strong rapport with classes and students, significant successes, or results. How might intentional professional development for mid-career agriculture teachers account for this?

In summary, a lack of time, course planning, and programmatic expectations were identified as challenges or obstacles for mid-career agriculture teachers in this study. Teachers indicated they participated in professional organizations, joined teacher listservs, and networked through NAAE Communities of Practice for engagement and support. Further, they reported a desire to fulfill professional development needs by networking, reenergizing, and improving stress management. While these findings are insightful, perhaps solidifying current beliefs held by agriculture teachers, additional research is necessary. Agricultural education leaders should conduct research on mid-career agriculture teachers, much like the extensive research on pre-service and early-career teachers. Further research initiatives should be developed to determine if similar themes emerge with larger, more diverse, groups of mid-career agriculture teachers. Longitudinal data should be collected from professional development program participants, such as those completing XLR8, so that evaluative studies can determine if participants' needs were met, and assess the overall impact of the programming.

Despite the need for additional research in this area, recommendations for practice can be made. Building upon the model of mentoring and induction often utilized for beginning teachers, enhanced mentoring would be beneficial for mid-career agriculture teachers. Relevant and timely professional development offered by state and national agricultural education organizations, could help minimize challenges and obstacles faced by mid-career agriculture teachers and result in a

more positive outlook or perspective regarding working conditions and expectations of profession. Additionally, targeted professional development for teachers at other career stages should be developed as well.

## References

Aragon, S. (2016). *Teacher shortages: What we know.* Education Commission of the States. Retrieved from http://www.ecs.org/ec-content/uploads/Teacher-Shortages-What-We-Know.pdf

Conneely, N. & Uy, E. (2009). Teacher shortage undermines CTE. National Association of State Directors of Career Technical Education Consortium. Retrieved from https://careertech.org/sites/default/files/TeacherShortageUnderminesCTE-August2009.pdf

Creswell, J. W. (1998). Research design: Qualitative, quantitative, and mixed methods approaches. Sage Publications, Incorporated.

Daniel, A. (2015). Williams: Texas must expand teacher pool. *The Texas Tribune.* Retreived from: http://www.texastribune.org/2015/10/17/michael-williams-reflects-his-timetexas-education/

Fessler, R. (1985) A model for teacher professional growth and development. In Burke, P. & Heideman, R. (Eds.), *Career-Long Teacher Education.* Springfield, IL: Charles C Thomas.

Foster, D., Lawver, R., & Smith, A. (2016). *National agricultural education supply and demand study, 2016 executive summary.* Retrieved from: http://aaaeonline.org/resources/Documents/NSD%20Summary_2015.pdf

Guba, E., & Lincoln, Y. (1989). *Fourth generation evaluation.* Newbury Park, CA: Sage.

Huberman, M. (1989). The professional life cycle of teachers. *Teachers College Record,* 91, 31-57.

Ingersoll, R. (2003). *Is there really a teaching shortage?* Center for the Study of Teaching policy and the Consortium of Policy Research in Education. University of Washington. Retrieved from http://depts.washington.edu/ctpmail/PDFs/Shortage-RI-09-2003.pdf

Long, C. (2016). Report: Teacher shortage crisis can be averted by keeping educators in the profession. *NEA Today.* Retrieved from: http://neatoday.org/2016/09/19/teacher-shortage-crisis/

Merriam, S. B. (2009). *Qualitative Research: A guide to design and implementation*. California: Jossey-Bass, Inc.

Milliard, T. (2015). Schools in 'crisis': Nevada short nearly 1,000 teachers. *Reno Gazette-Journal.* Retrieved from: http://www.rgj.com/story/news/education/2015/10/08/ schools-crisis-nevada-short-nearly-1000-teachers/73618992/

Myers, B.E., Dyer, J.E., & Washburn, S.G. (2005). Problems facing beginning agriculture teachers. *Journal of Agricultural Education, 46*(3), 47-55. doi: 10.5032/jae/2005.03047

National Association of Agricultural Educators (n.d.). *XLR8: eXcellence in leadership for retention*. Retrieved from http://www.naae.org/profdevelopment/Xlr8.cfm

National Association of Agricultural Educators (2015). *Ag teacher's life cycle*. Retrieved from http://www.naae.org/lifecycle/index.cfm

National Center for Educational Statistics (2001). *Attrition of new teachers among recent college graduates.* Report No. NCES 2001-189. Washington, DC: US Department of Education. Retrieved from at http://www.nces.ed.gov/ccd/

National Teach Ag Campaign (2014). *What is the national teach ag campaign?* Retrieved from http://www.naae.org/teachag/index.cfm

Roberts, T. G., Harder, A., & Brashears, M. T. (Eds.). (2016). *American Association for Agricultural Education national research agenda: 2016-2020*. Gainesville, FL: Department of Agricultural Education and Communication.

Sorensen, T. J., & McKim, A. J., (2014). An examination of professional commitment, job satisfaction, and perceived ability to achieve work-life balance among Oregon agriculture teachers. *Proceedings of the American Association of Agricultural Educators Conference*, 544-561.

Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). *A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S.* Palo Alto, CA: Learning Policy Institute.

Steffy, B. E. & Wolfe, M. P. (2001). A life-cycle model for career teachers. *Kappa Delta Pi Record*, *38*(1), 16-19.

Wilkin, T., and Nwoke, G. I. (2011). Career and technical education teacher shortage: A successful model for recruitment and retention. *Journal of STEM Teacher Education*, 48(1), 22-35. Retrieved from http://scholar.lib.vt.edu/ejournals/JSTE/v48n1/pdf/wilkin.pdf