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## Teaching for Career Success: An Agricultural Industry Perspective of Preparedness Needs for Diverse Workforce Development

Madelaine Giebler  
*University of Arkansas, Fayetteville*

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Teaching for Career Success: An Agricultural Industry Perspective of  
Preparedness Needs for Diverse Workforce Development

A thesis submitted in partial fulfillment  
of the requirements for a degree of  
Master of Agricultural and Extension Education

by

Madelaine Giebler  
University of Arkansas  
Bachelor of Science in Agricultural Education, Communication, and Technology, 2019

May 2022  
University of Arkansas

This thesis is approved for recommendation to the Graduate Council.

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K. Jill Rucker, Ph.D.  
Thesis Director

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Cassandra Cox, M.S.  
Committee Member

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Jefferson D. Miller, Ph.D.  
Committee Member

## **Abstract**

This research examined agricultural graduate preparedness needs through the lens of agricultural industry professionals. In the rapidly changing industry environment, continual review of agricultural curriculum needs provides relevant curriculum recommendations for academic programs. This study came at a time when agricultural curriculum was in need of review. Methodology for this study involved a qualitative mixed methods approach employing survey and interview responses. A total of 121 industry professionals, identified through the University of Arkansas Bumpers College Career Development Center, were contacted with the survey link. A total of eighteen individuals completed the surveys, and of those eighteen survey respondents, eight individuals participated in one-on-one interviews as a follow up to the surveys. Over 50% of the industry professionals were graduates of agricultural programs, and the respondents represented 12 academic disciplines. The Program Systems Model served and the Human Capital Theory created the framework for this research. The agricultural graduates served as the input and output of the program system. The industry professionals provided their perspective, influencing the academic programs as a means of preparing graduates to enter the industry environment, and the educators, as the individuals who can implement curriculum recommendations, served as the target audience for this study. The research objectives for this study included determining changes in the agricultural industry impacting incoming agricultural employees, determining challenges incoming agricultural employees will face, cross comparing APLU employability needs with industry perspectives, and determining agricultural curriculum recommendations in terms of employability needs. Data was coded into themes based on the research objectives, and then emergent coding took place to identify themes within industry professionals' excerpts. Although some variation occurred between survey responses and the

one-on-one interviews, for the most part responses remained consistent across both data instruments, and the interviews further validated the survey responses. In summary, communications and leadership were at the core of curriculum recommendations, and other concern areas such as career perseverance, ambiguity, pace and change, and conflict management can be mitigated through those two-curriculum focuses. Building culture through cross-functional opportunities and building real world applications through industry interactions create ways to successfully teach prepare individuals for diverse workforce development.

## **Acknowledgements**

It seems proper to start with my thesis committee, specifically, my advisor and thesis director, Dr. Rucker. From the first time I sat in your office as an undergrad I felt valued. I remember sharing my life goals and core values. As a fresh, transfer student from Southwest Missouri who just wanted to milk cows, obtaining a masters' degree was not part of that undergraduate discussion, but look at us now. Thank you letting me stay true to my values. Thank you for teaching me my worth is not tied to a piece of paper, yet reminding me this degree is something no one can ever take from me. You amaze me with the way you pour into others. My cup overflows because of you.

Mrs. Cox and Dr. Miller, the way you bring balance to the AECT faculty team is noteworthy at least and magical at best. Thank you for creating time to invest in your students. Dr. Miller, I will always value our time abroad in the UK, and I appreciate your office being a safe place to cry. Thank you for being someone students can be real with. Mrs. Cox, your organizational methods and consistent nature are to be modeled. One of my life goals is to be as calm and as kind as you are.

Dr. Graham, you made a positive impression on me from the first day in ag issues. I was immediately drawn to your loyalty and passion for the university and the people within it. I appreciate your firm hand. Your honest critiques bring accountability and motivation to keep pushing us higher. Thank you for the warm hospitality you bring to us all beyond the classroom.

I would love to acknowledge each student, faculty member, staff member, and industry professional involved in this project, but space prevents me. If you are reading this and you touched my life in some way, please know I appreciate you. I believe in you and your ability to positively impact others- one person at a time. Thank you for what you do.

From there, let's take this back home- back to the kitchen. Those who met with me virtually the last two years may believe my office has pink walls with past awards and a print of Old Main behind me, but this is my real office- where I sit now, at the kitchen counter. Hundreds, if not thousands, of working hours took place here as I designed projects, completed assignments, and typed this thesis into early morning hours.

The kitchen window served as a respite, providing pastoral views of our Jersey cows. The kitchen counter created a platform for baking, giving stress relief and a tangible way to serve others during these years of self-focus. The kitchen table grounded me, bringing my family together and strengthening my faith.

That leaves me with two final acknowledgements. First, my family- your support and encouragement are largely responsible for this thesis (even though Emma will likely never read it). Through our transitions the last two years, I am strengthened by your resilience and continual investment in one another. Mom, I want to be like you when I grow up. Thank you for showing me the greatest joy comes from serving those you love. Dad, thank you for your wisdom and work ethic. You set the standard for good men.

Victoria, you amaze me with your determined purpose and confidence as a wife and mother. Thank you for bringing Taylor and the girls into my life. Eli, you are going to change the world through your drive and dedication to doing what is right. Emma, you are one of my favorite people. Underneath your outward indifference, you care about people deeply, and you show wisdom beyond your years, giving me someone to look up to. Last but not least, I want to acknowledge my Lord and the spiritual family I enjoy through Him. The prayers, encouragement, and understanding during this growth process let me know I am loved and blessed far beyond what I deserve.

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## Chapter 1: Introduction

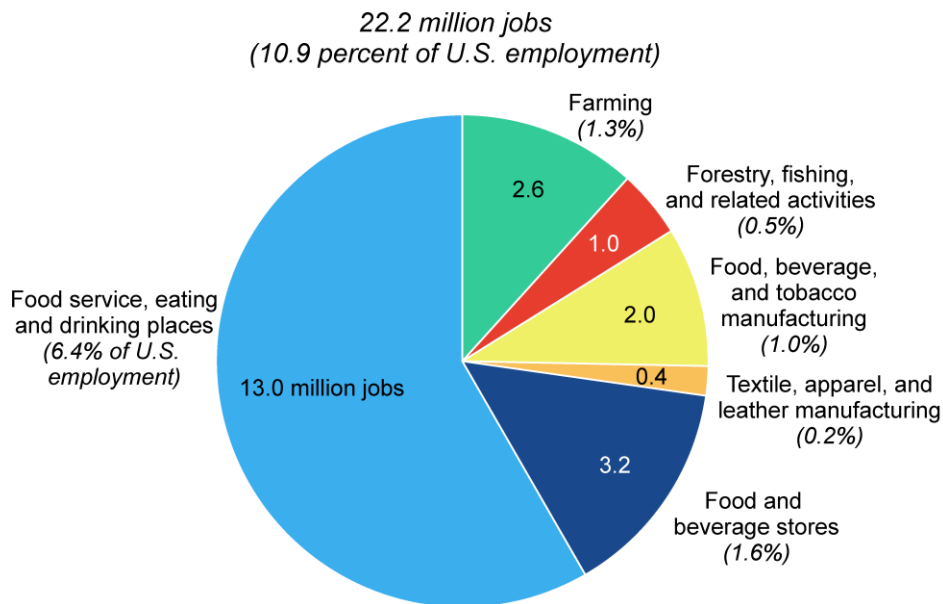
### *Need for the Study*

Agricultural communication competencies change as rapidly as the environment in which those competencies are implemented. Factors such as global growth, a diversifying workforce, and preparedness gaps, all characterize challenges and opportunities of the agricultural industry. These factors impact the future of the industry and influence the expectations of individuals who will work within agriculture. University professors and industry professionals are looking for answers on how the agricultural workforce can best meet the growing demands. The *American Association of Agricultural Education (AAAE) National Research Agenda 2016-2020* set out to address these challenges by offering direction for academic research. This project focuses on addressing AAAE research priority three--Sufficient Scientific and Professional Workforce that Addresses the Challenges of the 21<sup>st</sup> Century (Roberts et al., 2016). Additionally, this study is part of Teaching Agricultural Communications for Career Success, a research project funded by the USDA Higher Education Challenge Grant.

The factors of growth, diversity, and employment preparation needs can all be examined in the context of globalization. With increased technology and growing world economies, globalization continues to expand, making markets more competitive and changing employment opportunities (Baird & Parayitam, 2019; Gerval, 2020). The United States (U.S.) is the 2<sup>nd</sup> leading agricultural exporter in the world (Gerval, 2020), and the country is expected to remain a competitive leader of agricultural exports through 2029; however, with the projected strength of the US dollar remaining consistent, exporting agricultural goods to other countries will require innovative and strategic marketing efforts on the part of the U.S. agricultural business industry (Dohlman et al., 2020).

Increased globalization leads to increased employment needs. In 2019, 10.9 percent of the U.S.’ employment was within the agriculture industry, accounting for 22.2 million jobs (Kassel & Martin, 2020). Of those 22.2 million jobs, 59,400 agricultural jobs are expected to open annually through 2025, as shown in Figure 1 (Fernandez et al., 2019). Sixty one percent of the graduates expected to fill those positions are graduates of agricultural degree programs. The remaining individuals, 39 percent, are from allied degree fields such as engineering, health sciences, communications, etc. (Fernandez et al., 2019).

**Figure 1**  
**Employment\* in agriculture, food, and related industries, 2019**



\*Full- and part-time jobs. Categories may not sum to total due to rounding.  
 Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of Economic Analysis, data as of September 24, 2020.

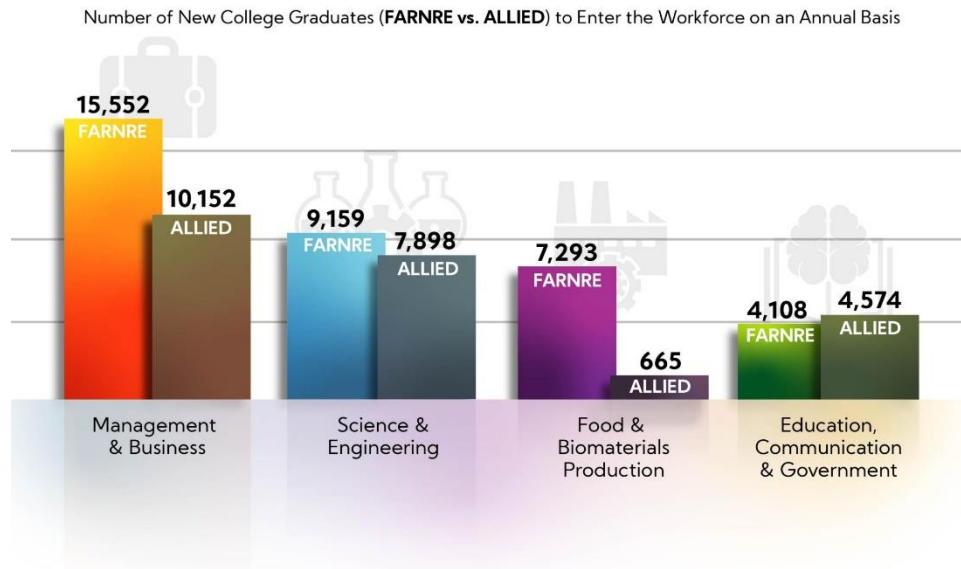
*Employment in Agriculture, Food and Related Industries, 2019*

From “Ag and Food Sectors and the Economy” by United States Department of Agriculture Economic Research Service, 2020, United States Department of Agriculture.

There are more graduates of allied degree fields filling agricultural communications related positions than there are graduates of food, agriculture, renewable natural resources and environment degree fields, specifically within the area of Education, Communication, and Government, as demonstrated in Figure 2 (Fernandez et al., 2019); however, industry

professionals prefer to hire individuals within agricultural, food, and life sciences to fill agricultural positions, highlighting a demand for high-skilled agricultural workers (United States Department of Agriculture National Institute of Food and Agriculture, 2015).

**Figure 2**



*Number of New College Graduates to Enter the Workforce on an Annual Basis*

Notes: FARNRE represents the graduates within Food, Agriculture, Renewable Natural Resources and Environment. ALLIED represents the graduates of related degree fields such as engineering, health sciences, and communications.

From "National Institute of Food and Agriculture, Employment Opportunities for College Graduates in Food, Agriculture, Renewable Natural Resources and the Environment" by J. M. Fernandez, A. D. Goecker, E. Smith, E. R. Moran, C. A. Wilson, 2019, United States Department of Agriculture.

Complicating globalization and employment needs is the changing demographics of the U.S. Industry professionals are looking at the future of their employment and how well those demographics represent the U.S. population as a whole (Tyson Foods, Inc., 2018; Walmart Corporation, 2020). Over the next 35 years, minority populations are projected to displace a large percentage of white populations in the U.S. (Roberts, et al., 2016; Stripling & Ricketts, 2016). Specifically, the Pew Research Center projects the Hispanic population will continue to grow, with Hispanics representing 30 percent of the total population by 2050 (Mora, 2015). This

ethnic growth increases the need for cultural diversity in the agricultural workforce and prioritizes the need for greater accessibility of higher education for underrepresented students (Stripling & Ricketts, 2016).

Literature shows a need exists for curriculum development and delivery, broadening and enhancing the academic offerings to Hispanic students as well as providing critical skill development to assist with career placement (Coulombe & Gill, 2016). While meeting the needs of underrepresented students and workers, competencies across all demographics must be fostered and maintained for the industry to remain globally competitive. As part of a strong curriculum development and academic program, industry relationships and evaluations are believed to be key to obtaining student preparedness (Easterly et al., 2017; Stripling & Ricketts, 2016).

In recent years the Association of Public and Land Grant Universities (APLU) placed a focus on examining preparedness gaps within the agriculture industry. In 2020, APLU released a report with the purpose of identifying preparedness gaps within current curriculum. The APLU study acknowledged, “College faculty and administrators determined gathering perceptions at a national scale across stakeholder groups was critical to unearthing curricular and co-curricular implications that could be accepted by diverse universities” (Crawford & Fink, 2020, p. 2).

Within the APLU report, four employability skills rose to the top as areas of concern for incoming employees. Those skills include:

- Ability to persist in a new job
- Dealing with ambiguity in job tasks and workplace expectations
- Dealing with the pace and content of change in the workplace, and
- How to manage conflict in the workplace (Crawford & Fink, 2020).

Literature recommends curriculum be reevaluated a minimum of every five years to remain relevant with industry needs (Morgan, 2010). Additionally, for the curriculum to meet the preparation needs of the industry a need exists for industry experts to be involved in the curriculum development process (Cannon et al., 2016). Because of needed perspective, this study cross-compared the skills and themes outlined by APLU with a panel of industry experts to identify competency needs for agricultural curriculum recommendations.

As part of a larger curriculum development project, this research was of particular interest to the University of Arkansas because of the university's regional location in Northwest Arkansas, made up of the cities of Fayetteville, Springdale, and Rogers. In this region, the Hispanic population increased over 1000 percent from 1999-2006 (Farmer et al, 2008). In more recent years (2010-2017), the region has seen a 22.4 percent increase in Hispanic Populations (Walkenhorst, 2018). The overall population of the region is 534,904 residents (Rosa, 2020), and the region is the home of three Fortune 500 companies: Walmart, J.B. Hunt Transport Services, and Tyson Foods. These companies have expressed interest in diversifying their workforce to represent the overall population of the region.

Additionally, this research was conducted in conjunction with Texas A & M- Kingsville. Like the Northwest Arkansas region, Kingsville houses several Fortune 500 companies: CenterpointEnergy, Boeing, and Wells Fargo (The City of Kingsville, 2014). Out of a population of 25,782 individuals, 74.5 percent of the population of Kingsville, Texas is Hispanic (Kingsville, TX Census Place, 2018). Within the College of Agricultural and Natural Resources at Texas A & M University- Kingsville the student population is 53 percent Hispanic and 41 percent white with a large percentage of the population being first generation college students (*Factbook*, 2021).

The combination of a diversified population and a strong industrial environment, creates a demand in these regions for a competent and diverse workforce. This presents the challenge of how to best provide the preparation needs of outgoing agricultural graduates while also contributing to a diverse workforce environment (Roberts et al., 2016).

According to the 2016 Society for Human Resource Management report, *The Changing U.S. Workforce: The Growing Hispanic Demographic and the Workplace*, Hispanics are a motivated demographic capable of meeting the changing needs of the industry, and universities and educators are encouraged to find creative ways to bridge the higher education divides between Hispanic populations and career success (Coulombe & Gill, 2016), and asynchronous learning environments provide one creative solution for making educational curriculum more accessible to a wider range of audience because individuals are able to access the material when needed and work through the curriculum at their own pace (Worcester State University [Worcester], 2018). However, Shea and Bidjerano (2019) said minority students are more likely to drop out of asynchronous learning environments than their majority peers.

### ***Problem Statement***

Therefore, with the changing demands and diversification potential of the industry, the problem addressed by this study include how to fill employability skill gaps within the agriculture industry. This study collected information and advice from potential employers (industry professionals) of future agricultural graduates who will fill the employment needs the APLU study has identified. Also, with the goal of increasing diversity in the agriculture work force, diversity will be examined from industry professionals' perspective.



### ***Research Purpose***

The purpose of this research is to strengthen the communication related employability skills of the agricultural industry by examining industry perspectives on the changing needs of the industry, leading to curriculum development recommendations.

### ***Research Objectives***

The objectives for this research examined the perspectives of industry professionals. The following objectives were identified:

1. Determine changes in the agricultural industry impacting incoming agricultural employees.
2. Determine challenges incoming agricultural employees will face.
3. Compare APLU employability needs with industry perspectives.
4. Determine agricultural curriculum recommendations in terms of employability needs.

### ***Terms***

Agricultural Communications- a profession within the agricultural industry related to advocacy work and public relations between producers and consumers, as well as the dissemination and delivery of science-based information to agricultural producers (Cannon et al., 2016).

Asynchronous Learning Environment- a learning environment in which “instructors prepare course materials for students in advance of students’ access. Students may access the course materials at a time of their choosing and will interact with each other over a longer period of time” (Worcester, 2018).

Baby Boomers- the generation of people born between 1946 and 1964. This was the first generation born after World War II (Kasasa, 2021).

Diversity – “the fact of there being people of many different groups in society, within an organization, etc.” (Cambridge University Press, 2021).

Employability Needs- previously referred to as soft skills, employability skills are the skills needed by graduates to be successful in the workplace (Crawford & Fink, 2020).

Generation X- the generation of people born between 1965 and 1979/80 (Kasasa, 2021).

Generation Y- often referred to as the Millennials, this is the generation born between 1981 and 1994/96 (Kasasa, 2021).

Generation Z- this is the generation born between 1996 and 2012/15. This is the newest generation, and they are currently 6-24 years old (Kasasa, 2021).

Industry Professionals- employees within the agricultural industry who are in a position of hiring other skilled employees (Crawford & Fink, 2020).

Preparedness Gap- previously referred to as competency gaps, preparedness gaps are graduate skill areas identified as needing improvement before graduates enter the industry, in this case- the agricultural industry. These gaps identify areas in which universities can improve their curriculum development and delivery to provide industry prepared graduates (Crawford & Fink, 2020).

Real-World- existing or occurring in reality (Merriam-Webster, n.d.)

### *Assumptions*

1. It was assumed industry professionals answered the survey and interview questions honestly and to the best of their ability.

### *Limitations*

1. The Covid-19 pandemic created limitations for this study due to communication challenges in the introductory part of the research as well as rapid changes in the industry complicating professional's work environment
2. A low-survey response rate was a limitation to this study. Interviews were conducted to validate and expand upon survey responses.

This is a case study and the results cannot be generalized beyond the subjects included in the study. However, readers may find similarities between this case and their own situation. Readers are welcome to apply the findings of this study to their own situations at their discretion

## **Chapter 2: Literature Review**

### ***Providing Context for Agricultural Competencies***

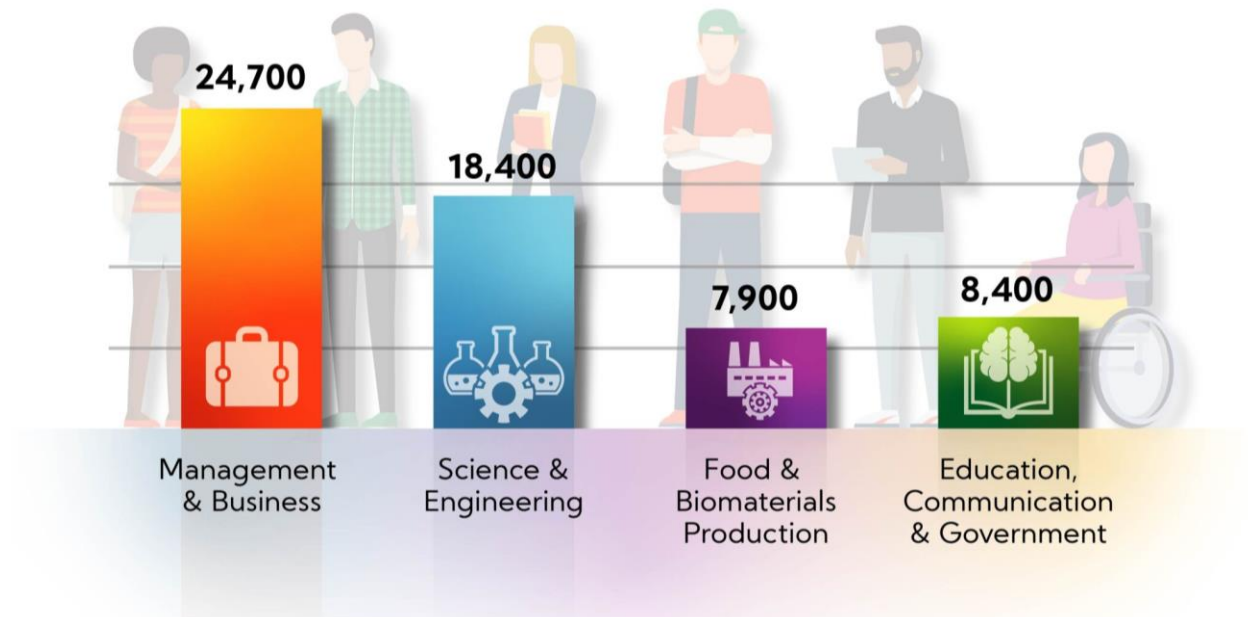
The first portion of this literature review provides context for the competencies needed by agricultural graduates. Looking objectively at the factors influencing the industry will help curriculum developers, educators, and students gain an understanding of what is expected of graduates before entering careers. The following sections examine industry changes and challenges incoming employees will face as well as provide an overview of past agricultural curriculum.

### ***Examining Globalization and Technology***

Agriculture is competitive global industry, and as world markets grow, employment opportunities within the U.S.' agricultural industry change. Twenty-two million jobs represent the number of employment options within the U.S. specifically related to agriculture, making up 10.9% of the nation's employment (Kassel & Martin, 2020). Agricultural employment opportunities continue to become available at a growing annual rate of 59,400 openings (Fernandez et al., 2019).

Job growth continues across all disciplines in agriculture; however, some disciplines are seeing more growth than others. Management and Business as well as Science and Engineering are predicted to experience the greatest demand, with 42% and 31% job openings expected within each category, respectfully (Fernandez et al., 2019). Within agricultural communications (encompassing education, communication, and government services), 14% of agricultural employment demands will come from this category, accounting for 8,400 jobs (see Figure 3) on an annual basis (Fernandez et al., 2019).

**Figure 3**



*On an Annual Basis, Expect 59,400 Job Opportunities for New College Graduates*  
From "National Institute of Food and Agriculture, Employment Opportunities for College Graduates in Food, Agriculture, Renewable Natural Resources and the Environment" by J. M. Fernandez, A. D. Goecker, E. Smith, E. R. Moran, C. A. Wilson, 2019, U.S. Department of Agriculture.

Even though the demands of agricultural related job openings continue to grow in the U.S., the number of agricultural graduates prepared to fill those positions do not match up to the number of openings needing filled. The greatest graduate discrepancy is seen in the Education, Communication, and Government Sector. Of the 8,400 annual job openings in Education, Communication, and Government, less than half (47%) will be filled by agricultural graduates (Fernandez et al., 2019).

These job openings within the U.S. will be impacted by factors both within and outside of the country. Globalization and technology are transforming entire industries, creating increased levels of competition within businesses, and agriculture is not an exception (Fernandez et al., 2019). Technology has advanced agricultural production worldwide, impacting society from both a social and economic perspective (Parke, 2015).

Even with the competitive challenges of globalization, growing technology has made communicating and conducting business on a global scale easier than ever before. Globalization leads to diversity which in the end can result in greater business success. For example, 75% of companies, who make diversity a goal, are expected to exceed their financial targets through 2022, and companies with diverse teams are expected to outperform non-diverse teams by 50% (Sakpal, 2019). Furthermore, 66% of company executives agree their financial performance was driven by business goals aligned with diversity goals (Weber Shandwick, 2019). Additionally, according to the Boston Consulting Group, companies with more diverse leadership teams bring 45% of their revenue in from innovation, compared to 26% of revenue coming from innovation within companies housing less diverse leadership teams (Lorenzo et al., 2021).

Diversity is complex, but also important for business success. Pennsylvania State University suggests that failure to raise cultural awareness and failure to provide cultural education will result in workplace frustration and miscommunication down the road (Gillies, 2017). Forbes Insights outlines the following key findings regarding diversity:

- Diversity is a key driver of innovation and it is a critical component of being successful on a global scale.
- A diverse and inclusive workforce is crucial for companies that want to attract and retain top talent.
- Responsibility for the success of company's diversity/ inclusion efforts lies with senior management.
- Significant progress has been made to build and retain diverse workforces, but there are still some impediments to companies' efforts. (Egan, 2011).

Out of 320 businesses executives surveyed by Forbes, 52% of respondents said they look directly to university and graduate school diversity associations to recruit diverse workforce employees. After recruitment, executives voiced it was the company's responsibility to cultivate diversity and job advancement, but their initial outreach for finding graduates was directed toward student associations (Egan, 2011).

In recent years, businesses are re-visiting diversity and thinking beyond recruitment strategies. Harvard Business Review, in their article, "Getting Serious About Diversity: Enough Already with the Business Case," examined a 1996 paradigm in the context of 21<sup>st</sup> century business models. In this paradigm, focus was not only put on diversity but also on the effectiveness of diversity. With this approach, hiring females was not enough, but rather, looking at what those females brought to the table was the primary focus. This approach is referred to as the learning-and-effectiveness paradigm. Ely and Thomas (2020), explained, business leaders and diversity advocates "misconstrue or ignore what abundant research has now made clear: increasing the numbers of traditionally underrepresented people in your workforce does not automatically produce benefits" (para. 7).

### ***Navigating a New Generation***

The diversity discussion continues with a new generation of students and graduates entering the educational and professional work force. Born in 1996 or later, Generation Z (Gen Zers) is the most culturally diverse generation of the Baby Boomers, Generation X, and Generation Y (Millenials). One in four Gen Zers are Hispanic with only 52% of Gen Zers being non-Hispanic white. By 2060, non-hispanic whites are expected to no longer be in the majority (Parker & Igielnik, 2021).

In addition to navigating cultural change, Gen Zers also bring a new approach to education and employment. Gen Zers are expected to be the most educated generation. Fifty-seven percent of college aged (18-21 years old) Gen Zers are enrolled in a two-year or four-year school. That is a 4% increase from Millennials and a 14% increase from Gen Xers. Additionally, Hispanic Gen Zers are less likely to drop out of high school than previous generations, but as a whole, Gen Zers are also less likely to work during their teen and young adult years than previous generations (Parker & Igielnik, 2021).

Less likely to work, means less likely to have job experience. The Wharton School of the University of Pennsylvania discusses how the challenges of Millennial entitlement developed within Gen Zers as well; however, employer focus is moving away from working through entitlement challenges and spending more time looking at skillsets, specifically employability skills. For example, Gen Zers are very comfortable with technology such as sending an email or a text message, but walking into an office for a face-to-face conversation is reported to be more intimidating for them (University of Pennsylvania [Pennsylvania], 2019).

The skillsets Gen Zers do boast are not credited to their high school or college education. Even though Gen Zers are less likely to work during high school and college than previous generations, Gen Zers who do participate in jobs and internships, believe those experiences prepared them in the following areas (see Figure 4): showing up on time, working on a team, hitting project deadlines, and working with customers (Wilkie, 2019).



**Figure 4**

What does Generation Z feel prepared to do? Confidence in the following work skills stems primarily from general work and internship experiences—more so than from college or high-school experience.



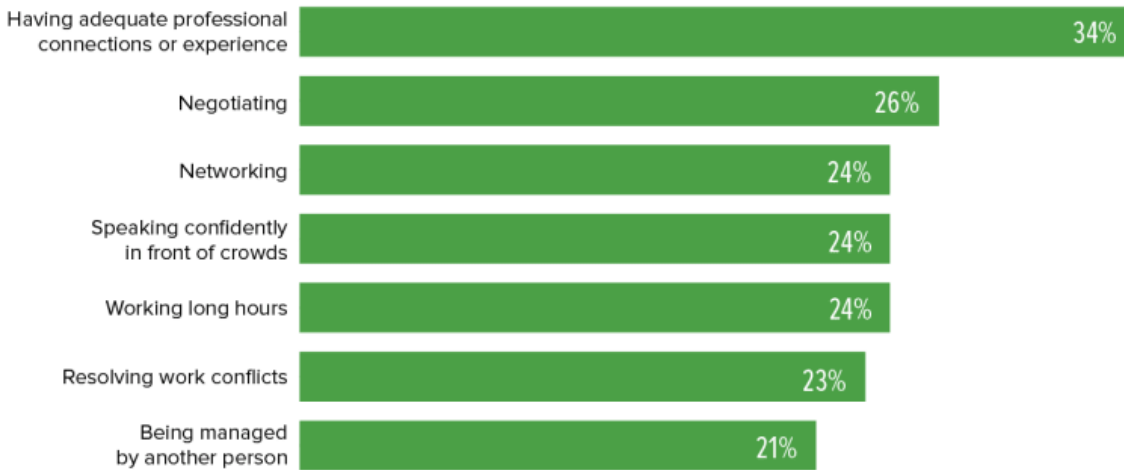
*Generation Z's Personal Preparedness Confidences*

From “Generation Z Says They Work the Hardest, But Only When They Want To” by D. Wilkie, 2019, Society for Human Resource Management. Copyright 2021 by Society for Human Resource Management.

Additionally, Gen Z graduates appear to have less confidence when it comes to entering the workforce than former generations. In fact, 34% of Gen Zers believe their education did not adequately prepare them for the work force. Coupled with this lack of confidence is increased anxiety. In the U.S., 40% of Gen Zers said they believed their anxiety toward work expectations is preventing them from being successful in their careers. Wilkie (2019) said, “When it comes to professional success, the people of Generation Z are most concerned about their education—and what it didn't prepare them for” (para. 12) (see Figure 5).

**Figure 5**

Education is perceived as a barrier to workplace success by 1 in 4 (26%) Generation Z members. Specifically, they feel their education did not prepare them for work or job seeking, and they do not feel confident that they will meet employers' expectations in the following:



*Gen Zers Fear They are Not Ready for Work*

From “Generation Z Says They Work the Hardest, But Only When They Want To” by D. Wilkie, 2019, Society for Human Resource Management. Copyright 2021 by Society for Human Resource Management.

Along with this preparation anxiety, Gen Zers are also looking to former generations and rethinking some of their educational paths. Craig (2019) discusses how the debt load and job placement rate of Millennials in higher education is a deterrent to Gen Zers. One third of Millennials who graduated between 2006 and 2011 have defaulted on their loan payments, with only 57 % of Millennials being current on their loan payments. Because of this, Gen Zers are looking for alternative education options, attributing the financial trials of Millennials to their education and job placement issues (Craig, 2019).

Job placement, or rather, underemployment is a concern to Gen Zers. Nearly 40% of recent graduates are considered underemployed in their first job (working jobs they are overqualified for), and this underemployment trend appears to grow as individuals progress within their careers. While there may be numerous factors affecting these trends, many Gen Zers

are now looking at faster and cheaper alternatives to obtaining an education or learning a trade (Craig, 2019).

Craig (2019) does not advocate getting away from traditional four-year secondary education. Because of the knowledge economy of globalization, higher education continues to play an important role in industry (Craig, 2019). In fact, Kuh (2019) says a reduction of higher education would be detrimental to the U.S.' economy and would devalue intellectual and personal development as well as take away from the benefits of being life-long learners.

### *Considering Asynchronous Learning Environments*

While a traditional 4-year secondary education is still valued, the medium through which students are learning continues to shift. By 2026, the online learning industry is expected to pass \$370 billion, with 4-year institutions offering online degree programs seeing an increase in enrollment. The Covid-19 pandemic dramatically changed the landscape of education, and as a whole, 4-year institutions experienced a 4.5% decline in enrollment from fall of 2020 to spring of 2021; however, in the spring of 2021, 4-year institutions providing online degree programs saw a 6.2% increase over pre-pandemic enrollment levels (Miller, 2021).

While online learning proved to be a necessity during the Covid-19 pandemic, online learning provides educational benefits beyond social distancing. Online learning encourages self-pacing and more schedule flexibility which can lead to better time management and self-motivation (Miller, 2019); however, it is notable that self-motivation was reported as a struggle for 42% of students moving from in-person to online learning during the Covid-19 pandemic. (Miller, 2021). Research has not yet shown if these motivation trends will continue.

On the industry side, moving from in person to remote work during the Covid-19 pandemic also created negative impacts. For example, communication became more channeled

and collaboration was reduced by 25% (University of California- Berkley [Berkley], 2021). Additionally, individuals who worked remote and/ or worked with increased technology reported loss of meaning and loneliness (Gaskell, 2022). On the positive side, working remote was reported to increase communication in individual's inner network (Berkley, 2021)

Back to the education side, online learning improves virtual communication and collaboration by requiring electronic communication with professors and peers. Virtual discussion boards give students the opportunity to voice their ideas and opinions effectively through written text, something that will be required of them in future careers, especially as globalization increases (Miller, 2019). In fact, online learning improves cultural awareness because students are brought together with individuals of different backgrounds, potentially, from anywhere in the world. Benefits of a wider, global audience include recognizing how different cultures use technology and how various cultures approach creativity and problem solving. Along with that- problem solving or rather critical thinking skills and improved technical skills are both competencies online learners develop independently, because they do not have the benefit of working through challenges in the same way they would in an in-person course (Miller, 2019).

Negatives of online learning include internet access and internet costs. Microsoft estimates 162.8 million people in the U.S. do not have access to broadband internet, and internet discrepancies are worse among low income, rural (47% of rural population compared to 74% of urban populations), and underrepresented populations. This discrepancy is assumed to be a result of low-income Americans not being able to afford the costs associated with broadband internet (Dennon, 2020).

Shea and Bidjerano (2019) share minority students are more likely to drop out of online learning environments than their majority peers; however, when accessible, online learning provides educational curriculum to a wide range of audience, some of whom might not have access otherwise (Worcester, 2018). A possible solution to the accessibility issue is asynchronous online curriculum because asynchronous learning does not require a continual internet connection, providing flexibility to those with internet access issues or those who are working around complicated schedules (Miller, 2021).

Post-secondary education is essential to creating a global knowledge economy (Craig, 2019), and asynchronous online learning can contribute to achieving diversity and globalization goals while also contributing to the growing technology changes brought on by globalization (Miller, 2019). Gen Zers are the next generation to take on these changes, and growing up with technology, many of them are in a good position to enter the globalized, technology based, career world; however, post-secondary institutions still have room to examine the preparation needs of graduates in addition to technological preparedness (Wilkie, 2019).

### ***Emerging Impacts***

One factor impacting student preparedness and the environment of industry they will enter includes the Covid-19 pandemic. Covid-19 changed the dynamics of the workplace by moving individuals to remote positions using asynchronous technology (Berkley, 2021). Additionally, Covid-19 pandemic reduced food eaten away from home, shutdown slaughter houses, impacted supply chains, and hurt workforce availability. All of these factors combined to create continued fallout for industry professionals (Vaiknoras et al., 2022), and those implications are now being challenged further by the Russia-Ukraine crisis as wheat and oil seed supply chains are being cut-off (Welsh, 2022).

### ***Agricultural Communications as a Discipline***

The factors of globalization, diversity, and generational changes play into the discussion regarding what steps universities are currently taking to prepare graduates to enter the industry, and provides context for curriculum approaches moving forward. This review specifically examines what agricultural educational programs are currently doing to promote employability skills within agricultural curriculum. This research was part of a larger project building agricultural communication curriculum; however, this study goes beyond agricultural communications and examines competencies needed across all agricultural disciplines.

### ***Examining Agricultural Communications History and Development***

With agricultural communications courses taught for well over 100 years, the discipline continues to evolve rapidly as the purpose and audience of agricultural communications continues to shift. What once was primarily information-based communication with farmers regarding crop management and animal husbandry grew into a demand for instant information relayed between the agricultural industry and the mainstream public (Kurtzo et al., 2016). The agricultural communications discipline now encompasses a wide range of communication related areas including news and broadcasting, public relations, strategic communications, crisis communication, electronic communication, photojournalism, and marketing and branding (Irani & Doerfert, 2013; Tucker et al., 2013).

### ***Examining Threats to Agricultural Communications***

The shift in communication came about as a result of the growing divide between the general public and agricultural producers. Agricultural communicators now deal with an audience, on average, three generations removed from agriculture (American Farm Bureau Federation, 2015). Individuals falling in these generation gaps account for 98% of the U.S.

population, with these individuals possessing no first-hand knowledge of how or where their food is produced (United States Environmental Protection Agency, 2015). Specifically, Gen Zers, born between 1997 and 2015, contribute to the generational divides, and their generation alone makes up 26% of the U.S. population (Bechtel, 2018).

Someone or something must bridge these knowledge divides for industry viability. Agricultural communicators step in to bridge the gap between consumers and producers, making their role essential for the success of the industry (Steede et al., 2016). However, agricultural communicators face many challenges along the way. Kurtzo, Hansen, Rucker, and Edgar (2017) suggest the relationship between agriculture and the public is a work in progress. As public awareness of agriculture decreases, distrust increases. Because of this inverse relationship, industry professionals voiced communicators often react defensively to consumer concerns rather than creating pro-active messages. Along with that, agricultural communicators found consumers putting more credibility in bloggers than in science-based research (Kurtzo et al., 2017). This industry distrust, comes from consumers' desire to trust values over facts (The National Provisioner RSS, 2017)

Industry professionals express concern regarding the disconnect they see between agriculturists and the public. Public misunderstandings coupled with rapid technology changes and audience demands for short pieces of information create an environment where agricultural communicators struggle to succeed (Kurtzo et al., 2017). Agricultural communicators are expected to be specialists in many areas across multiple platforms (Kurtzo et al., 2017). Crawford and Fink (2011) found graduates are prepared in technical skill areas; however, they are often unprepared in soft skill (employability skill) areas. These findings supported Robinson and Garton (2008) who said graduates lack enough confidence in their skillsets to meet employer

needs, resulting in potential dissatisfaction and disappointment on the part of employees and employers down the road (Skinner et al., 2004). Gen Zers voice lack of confidence in skillsets such as negotiating and networking, public speaking, dealing with conflict, being managed by someone else, and working long hours. From this, one can see confidence continuing to be an issue of concern for outgoing graduates (Wilkie, 2019).

### ***Examining Course Evaluations and Industry Perspectives***

Conducting curriculum evaluations and gaining industry perspectives provide opportunity to reduce the divide between learning employability skills and applying them in the real world. In 1989, 71% of agricultural communications graduates said they felt incompetent in their career responsibilities of management, marketing and business (Morgan, 2010). In the early 90s, Terry and colleagues (1994) evaluated national agricultural communications curriculum and recommended future studies focus on providing flexible curriculum individualized to each students' interests, providing internship opportunities for students, and provided a list of needed competencies for employment in the industry.

In the years following those recommendations, research was conducted to identify employability skills desired by agricultural communicators. Cannon, Specht, and Buck (2016) went beyond the industry evaluations and conducted a national review of 172 agricultural communications courses across seventeen universities. Twenty-one categories (Table 1) emerged from course analysis with writing being the most prominent category.



**Table 1***Agricultural Communications Course Categories and Frequencies on a National Level*

<b>Category</b>	<b>n</b>
Writing	24
Introduction	15
Internship	14
Writing for publication (magazine design)	11
Graphic design	10
Professionalism	9
Broadcast	8
Issues	8
Advertising, public relations, IMC	7
Web	7
Capstone	6
Presentations	6
Photography	6
Technology	6
Campaigns	4
Oral and written communications	4
Risk/ crisis communications	4
Field Experience	3
Research	3
Study Abroad	3
International	2
<b>Total courses analyzed</b>	<b>172</b>

From “Agricultural Communications: A National Portrait of Undergraduate Courses” by K. J. Cannon, A. R. Specht, & E. B. Buck (p. 7), 2016, *Journal of Applied Communications*, 100(1).

Following Terry and colleagues (1994) recommendations, fourteen internship programs were identified (Cannon et al., 2016). Despite previous research supporting the importance of capstone courses (courses which serve as a culmination for degree programs) only 6 of the 172 courses were identified as such (Cannon et al., 2016). Recommendations from industry professionals regarding course development included providing students with real world experiences (Easterly et al., 2017). One example includes the capstone magazine course at the U of A providing graduates with skills preparing them to enter society as professionals (Cannon et al., 2016). Based on feedback from industry experts, opportunities for students to learn public speaking and writing skills in an applicable environment with professional feedback from

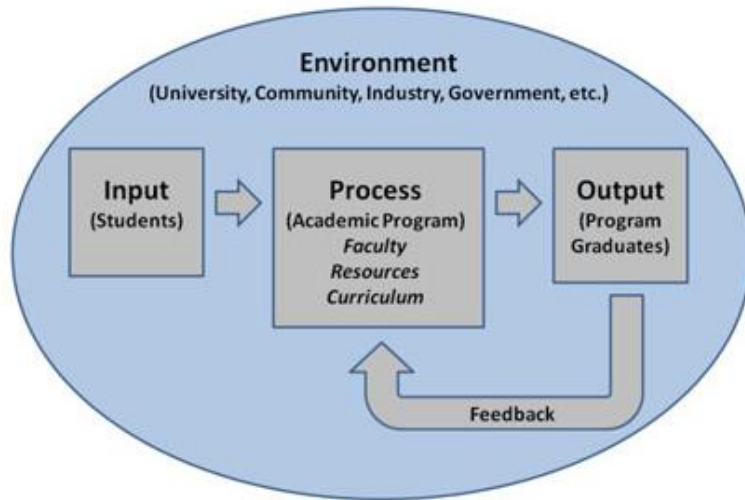
individuals working in the field could help develop industry prepared graduates (Easterly et al., 2017).

Additionally, regular in-depth curriculum review (every 2-5 years) is proven essential for maintaining relevance within the industry (Morgan, 2010), and creating a national review of discipline coursework could provide a solid foundation for curriculum to model in the future (Cannon et al., 2016). Morgan (2010) used a program system curriculum model (see Figure 6) created by Finch and Crunkilton (1999) to incorporate feedback from graduates and industry.

### ***Theoretical Concepts***

This model for evaluating curriculum effectiveness involves input of students; a process of education including faculty, resources, and curriculum; and the output of graduates all within a specific environment. The environment for this model is made up of but not limited to the curriculums' related university, community, industry, and government. By involving the four key players of students, academic program, program graduates, and career environments a holistic approach to curriculum development can take place in which all stakeholders provide valuable, beneficial feedback (Finch & Crunkilton, 1999).

**Figure 6**



*Program Systems Model*

From *Curriculum development in vocational education and technical education: Planning, content, and implementation* (5<sup>th</sup> ed., p. 27) by C. R. Finch and J. R. Crunkilton, 1999, Pearson. Copyright 1999 by Curtis R. Finch and John R. Crunkilton.

Because of the impact of post-secondary four-year education on the global knowledge economy (Craig, 2019; Kuh, 2019), the argument can be made that relevant curriculum development contributes to overall human capital because of the role curriculum plays in the output of graduates into the industry environment (Finch & Crunkilton, 1999). The Human Capital Theory exists to examine factors which contribute to a stronger world-wide economy, but beyond economics, the theory also exists to look at how various investments attribute to greater human prosperity- a prosperity which may have nothing to do with economics (Tan, 2014).

Education serves as a human capital investment. When individuals consider investing in education, they often stop to consider the return on investment, gauging whether or not pursuing education is worth the effort and commitment. The younger individuals are when they invest, the more return on investment they receive, and as individuals grow older and skills increase, their return on investment increases as well. Because of this, skills such as employability skills are

seen as factors positively increasing human prosperity (United States Department of Health and Human Services [DHHS], 2016).

Interestingly, Gen Zers are reported to be proactive in starting savings accounts and making investments- a result of seeing former generations struggle with student loan debt and mortgages (Kasasa, 2021). With this in mind, one can examine curriculum development with the understanding that investing in students in their collegiate years (18-21 years old) will lead to greater prosperity for society in the future, and students may be more open to higher education if they view the decision as an investment (DHHS, 2016; Kasasa, 2021).

### ***Examining Needed Employability Skills***

A common approach for curriculum evaluation research is to look at industry perspectives. This approach is appropriate because it keeps evaluation in the context of the industry environment students will be entering (Finch & Crunkilton, 1999). Todd (2009) indicated industry experts believed curricula was not providing students with the skills valued by professionals which included hands on, practical skills. Doerfert and Miller (2006) went on to assess employability skills needed by graduates, and they identified four general themes impacting employability skills (see Table 2).

**Table 2**

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<b>Themes</b>
<ul style="list-style-type: none"><li>• Rapidly changing needs, wants, and expectation of the agricultural communications industry</li><li>• New agricultural stakeholder groups and an increasing diverse set of related needs, wants, and preferences</li><li>• A shortened, response time for communication related activities</li><li>• An increasing importance of the agricultural industry's image in relation to the agricultural communications profession</li></ul>

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*Employer Needs as Identified by Doerfert and Miller (2006)*

From *What Are Agriculture Industry Professionals Trying to Tell Us? Implications for University-Level Agricultural Communications Curricula* by D. L. Doerfert and P.R. Miller, 2006, *Journal of Applied Communications*, 90(3).

Strong industry relationships are regarded as essential by researchers for preparing graduates for employment. Easterly, Warner, Myers, Lamm, and Teg (2017), noted, “Those involved in programmatic decisions for agricultural education programs should remain engaged in a deliberate conversation with industry representatives about what competencies should be taught in their programs and how they should best be delivered” (p. 237). Through these productive discussions, skills that can be difficult to teach in the classroom can have teaching methods recommended by individuals who are aware of their practical application within graduate careers (Easterly et al., 2017).

Industry perspectives illustrate a wide range of skills being needed by agricultural communications graduates. Technical skills including writing, editing, public relations, advertising, and photography are considered highly important competencies, with writing rising to the top within most evaluations (Crawford et al., 2011; Easterly et al., 2017; Morgan, 2010). Specific focus was given to writing skills applicable in the real world in which agricultural communicators fully understood their target audience and were able to navigate multiple media platforms to communicate their message effectively even within a crisis (Kurtzo et al., 2017; Steede et al., 2016; Easterly et al., 2017).

Interestingly, crisis communication receives very little curriculum focus nationally, with some courses having crisis communication incorporated into the material, but few courses being dedicated to crisis communication entirely- Cannon and colleagues (2016) noted this gap could reflect low faculty capacity and low student interest, creating a discrepancy between needs and offerings.

Curriculum gaps are not limited to agricultural communications and agricultural education. The University of Missouri took a broad approach by examining the transferable skills

agricultural food and natural resource graduates need before entering the industry. Curriculum recommendations from the study prioritized solving problems, managing time efficiently, communicating ideas verbally to groups, and accepting constructive criticism (Robinson & Garton, 2008).

Discrepancies in curriculum seem to occur when faculty are not fully aware of industry needs. In more recent years, agricultural program focus has been given to soft skill development based on recommendation from industry experts. Behind all of the university level research projects is a more in-depth national analysis conducted by the Association of Public and Land Grant Universities (APLU) entitled *From Academia to the Workforce: Navigating Persistence, Ambiguity, Change and Conflict in the Workplace* (Crawford & Fink, 2020b).

The APLU report surveys four key players in preparing agricultural students for the workplace: employers, alumni, faculty, and students. This key player approach supports Finch and Crunkilton's curriculum development model (Morgan, 2020), and with expert opinions and reflections from all sides of the mission to grow industry ready students, the APLU report is designed to be an insightful resource for universities to take into consideration when evaluating and developing new programs (Crawford & Fink, 2020b).

Initially, APLU released their first series on Employability Skills in Agriculture and Natural Resources in 2011 entitled *Comparative Analysis of Soft Skills: What is important for New Graduates?* (Crawford et al.). This first report was conducted in conjunction with Michigan State University and focused on employability skills desired by employers for success in the agricultural industry. The agricultural public relations discipline (agricultural communication, extension, and education) was represented within the study, making up 9.1% of bachelor student areas, 3.2% of student minor areas, 7.6% of faculty areas, and 8.8% of alumni bachelor areas.

Employability skills were divided into the seven clusters and were ranked by key stakeholders in order of importance (see Table 3).

**Table 3**

*2011 Employability Skills in Agriculture and Natural Resources Seven Skill Clusters*

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<b>1). Communication Skills</b>	<b>2). Decision Making/ Problem Solving Skills</b>	<b>3). Self-Management Skills</b>
<ul style="list-style-type: none"> <li>• Listen effectively</li> <li>• Communicate accurately and concisely</li> <li>• Effective oral communications</li> <li>• Communicate pleasantly and professionally</li> <li>• Effective written communications</li> <li>• Ask good questions</li> <li>• Communicate appropriately and professionally using social media</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and analyze problems</li> <li>• Take effective and appropriate action</li> <li>• Realize the effect of decisions</li> <li>• Creative and have innovative solutions</li> <li>• Transfer knowledge across situations</li> <li>• Engage in life-long learning</li> <li>• Think abstractly about problems</li> </ul>	<ul style="list-style-type: none"> <li>• Efficient and effective work habits</li> <li>• Self-starting</li> <li>• Well-developed ethic, integrity and loyalty</li> <li>• Sense of urgency to complete tasks</li> <li>• Work well under pressure</li> <li>• Adapt and apply appropriate technology</li> <li>• Dedication to continued professional development</li> </ul>

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**Table 3 (Cont.)**

<b>4). Teamwork Skills</b>	<b>5). Professionalism Skills</b>	<b>6). Experiences</b>	<b>7). Leadership Skills</b>
<ul style="list-style-type: none"> <li>• Productive as a team member</li> <li>• Positive and encouraging attitude</li> <li>• Punctual and meets deadlines</li> <li>• Maintains accountability to the team</li> <li>• Work with multiple approaches</li> <li>• Aware and sensitive to diversity</li> <li>• Share ideas to multiple audiences</li> </ul>	<ul style="list-style-type: none"> <li>• Effective relationships with customers, businesses and the public</li> <li>• Accept critique and direction in the workplace</li> <li>• Trustworthy with sensitive information</li> <li>• Understand role, realistic career expectations</li> <li>• Deal effectively with ambiguity</li> <li>• Maintain appropriate decorum and demeanor</li> <li>• Select mentor and acceptance of advice</li> </ul>	<ul style="list-style-type: none"> <li>• Related work or internship experiences</li> <li>• Teamwork experiences</li> <li>• Leadership experiences</li> <li>• Project management experiences</li> <li>• Cross disciplinary experiences</li> <li>• Community engagement experiences</li> <li>• International experiences</li> </ul>	<ul style="list-style-type: none"> <li>• Related work or internship experiences</li> <li>• Teamwork experiences</li> <li>• Leadership experiences</li> <li>• Project management experiences</li> <li>• Cross disciplinary experiences</li> <li>• Community engagement experiences</li> <li>• International experiences</li> </ul>

From *Comparative Analysis of Soft Skills: What is important for New Graduates?* by P. Crawford, S. Lang, W. Fink, R. Dalton, and L. Fielitz, 2011, Association of Public and Land-grant Universities.

Over 8,000 individuals from over 31 universities and from all 50 states, the District of Columbia, Guam, and Porto Rico participated in the 2011 survey. Key takeaways from the report included employers and alum valuing soft skills (employability skills) above discipline knowledge, while most faculty and students reported the opposite perspective with discipline knowledge valued over employability skills. All four key players\_ employers, alumni, faculty, and students\_ agreed the most important employability needs included communications skills and decision making/ problem solving skills. When looking at communication skills, employers valued listening skills above all other communication skills; however, effective oral communication was also important. Faculty ranked written communication higher than the other three stakeholders (Crawford et al., 2011).



In the second highest ranking cluster, decision making and problem-solving skills, survey results showed employers and students both recognizing the importance of understanding consequences. Interestingly, being a life-long learner and having the ability to think abstractly were rated low on importance, at least toward the beginning of an individual's career (Crawford et al., 2011).

The remaining five clusters were ranked from highest to lowest priority as follows:

- Self-management skills
- Teamwork skills
- Professionalism skills
- Experiences
- Leadership skills (Crawford et al., 2011).

Efficiency and self-starting rose to the top in self-management skills, with employers and alumni ranking self-starting higher than faculty and students. Students underestimated the value of self-starting when compared to the other three respondent groups (Crawford et al., 2011). The top three categories under the teamwork cluster included being productive as a team member, showing a positive and encouraging attitude, and being punctual toward meeting deadlines. Employers ranked possessing a positive and encouraging attitude higher than the other three respondent groups (Crawford et al., 2011).

Relationships, those with the public, the business, and customers, were ranked top priority by all respondents under professionalism skills (Crawford et al., 2011). Dealing with ambiguity was ranked extremely low by all respondents except for employers (Crawford et al., 2011). This is notable because of the high ranking of the ambiguity category in the APLU 2020 findings (explained in more detail later in the review) (Crawford & Fink, 2020b).

Sixth and seventh on the priority list were experiences and leadership, respectfully. Employers said experiences related to student's careers such as internships and or teamwork opportunities were valuable; however, in most cases international experiences did not help them perform better in their careers (Crawford et al., 2011).

Looking at the seventh and final soft skill cluster, leadership was ranked higher by students (5<sup>th</sup>) than by the other respondent groups. All respondents agreed that being able to see the big picture and recognize the appropriate times to lead and follow were the most valuable leadership skills to possess, while being a leader of change as a new employee was not a prioritized skill (Crawford et al., 2011). Additionally, other studies found that employers desire leadership skills such as being active listeners, being able to engage in genuine conversation, being able to work effectively on a team, and being able to engage in critical thinking and strategic planning (Easterly et al., 2017; Steed et al., 2016).

Some discrepancies did exist among literature. Least valuable skills, indicated by one set of industry experts, included positivity, organization, and flexibility when compared to the technical skills (Easterly et al., 2017). However, Kurtzo, Hansen, Rucker, and Edgar (2017) found that industry experts indicated flexibility and adaption were non-negotiable skills to meet the changing demands of the industry.

Communicating effectively with the public continues to grow as a curriculum focus as the industry continues to evolve, and industry experts share several recommendations for improving public relations. For example, industry experts stressed the importance of graduates learning two-way communications skills in which the speaker is willing to adjust their views and behaviors based on the receiver's feedback (Steede et al., 2016). Additionally, possessing the skill to say "I don't know" and having a network of industry professionals to call upon when

communicators do have to admit they do not have knowledge on a certain topic were considered essential by agricultural communications experts (Steede et al., 2016).

According to the APLU study released in 2020 *From Academia to the Workforce: Navigating Persistence, Ambiguity, Change and Conflict in the Workplace*, many of the competencies outlined above are still relevant to incoming employees; however, the 2020 APLU report reexamined competency priorities, looking at how the four respondent groups\_ employees, alumni, faculty, and students\_ would suggest incorporating needed competencies into curriculum (Crawford & Fink, 2020b).

The 2020 APLU report, with research beginning in 2017, was designed as a follow up to the 2011 report, and the purpose was to identify gaps between the skills desired and the way by which those skills were being taught (Crawford & Fink, 2020b). In many ways, the research compliments the Program Systems Model by looking at the key players in program development (Finch and Crunkilton, 1999). This idea is supported by the statement, “college faculty and administrators determined that gathering perceptions at a national scale across stakeholder groups was critical to unearthing curricular and co-curricular implications that could be accepted by diverse universities” (Crawford & Fink, 2020b, p. 2).

Four employability skills rose to the top as areas of concern for incoming employees.

Those skills include:

- Ability to persist in a new job
- Dealing with ambiguity in job tasks and workplace expectations
- Dealing with the pace and content of change in the workplace, and
- How to manage conflict in the workplace (Crawford & Fink, 2020b).

Questions surrounding these areas were formatted as, “How can skills to build (insert area) be honed in formal and informal settings before beginning a professional career?”

Responses to these questions brought up eleven themes: life transitions, orientation to the workplace, coping skills, individual character qualities, relationships, clarifying information, decision making skills, conflict, knowledge evolution, independent thinking processes, and experiences (Crawford & Fink, 2020b, see Figure 7).

**Figure 7**

Themes from Codebook	#	Persistence	Ambiguity	Change	Conflict
Orientation to the Workplace	3	Expectations & Attitudes		Change IS the Norm	Sometimes one's Job is to do one's Job
Experiences	3	Work: Start Early & Repeat Often		Venture out of the Comfort Zone	Extra-Curricular Groups/Teams are Essential
Life Transitions	2	Proving Grounds & Growing UP	Stay Calm. Carry on.		
Coping Mechanisms	2	Facing Failure & Self Managing		Self-Awareness	
Relationships and Mentoring	2	Getting a Mentor			Building Diverse Relationships
Knowledge Evolution	2		1+1 (Does not Always) = 2	Strength in Foundational Knowledge	
Independent Thinking Processes	2		Opportunity Beyond the Box	Cultivate Curiosity	
Seeking Clarifying Information	1		Do Something, Then Ask		
Development of Decision-making Skills	1		Accept, Frame, Decide, Explain		
Individual Character Qualities	1				Growth through the Opportunity to Practice
Conflict	1				Understand the Situation, Know Oneself

*Theme Occurrence across Persistence, Ambiguity, Change and Conflict*  
 From *From Academia to the Workforce: Navigating Persistence, Ambiguity, Change and Conflict in the Workplace* by P. Crawford and W. Fink (p. 42), 2020, Association of Public and Land-grant Institutes.

The eleven identified themes were intertwined throughout the four areas of concern. Starting with perseverance, survey responses showed students felt they were misled by universities in regard to salary expectations and how well those salaries would or would not meet their financial needs. Poor attitudes, being told “no”, and wanting to work their dream job right after graduation also proved to be challenging for new employees (Crawford & Fink, 2020b). These findings are consistent with the career expectations of Gen Zers who voice they are underemployed and who wish to set the demands of their job expectations (Wilkie, 2019).

Industry professionals provided suggestions for improving these incoming expectations of graduates. Suggestions included offering assignments where students conducted their own research on job opportunities and salaries, providing opportunities for conversations to be cultivated with students about decision making and information sharing in the business world (some information new employees may not be privy to), encouraging students to recognize their own shortcomings, and fostering conversations with professionals about how those individuals overcame obstacles in their careers (Crawford & Fink, 2020b).

The next theme with persistence included life transitions. The research noted students primarily work on independent goals while in college; whereas, when they transition into the workplace, goals become more collective and individual performance does not necessarily guarantee success of the organization. Additionally, personal challenges come along with the transition from college to careers with new employees lacking many traditional life skills such as financial management and responsibilities around the home. The gap in these life skill competencies complicate new employee’s focus at work, and when syllabi and rubrics disappear, tangible rewards may somewhat disappear or be hard to recognize, leading to a need for perseverance (Crawford & Fink, 2020b).

Relationships and mentoring were the next theme of perseverance because of a mentor's ability to encourage students or new employees to keep going when challenges arise. One alumnus suggested allowing the mentee to struggle to some extent and then provide constructive criticism. Crawford and Fink went on to say mentees should look at mentorships as a privilege, and respect should be given toward the individual and toward the criticism (2020).

The final perseverance theme included experiences. Employers suggested individuals start working as young as possible and take hold of as many work opportunities as possible, particularly low wage work experiences and internships (Crawford & Fink, 2020b). This suggestion contradicts the current trend of Gen Zers to put off employment until after high school years (Parker & Igielnik, 2021).

As mentioned previously, the lack of structure when it comes to assignments being outlined in detail can be lacking in the real-world work environment, leading to ambiguity in the work place. According to Crawford and Fink research, an employee's attitude toward ambiguity can make or break success within their career (2020). Several suggestions were given for helping new employees navigate ambiguity including developing strong listening skills and learning how to ask good, research-based questions as this leads to discovering clarity on their own (Crawford & Fink, 2020b).

Additionally, employers said "people need to understand that change is nothing personal" (Crawford and Fink, 2020b, p. 19), and as part of the listening and asking questions process, new employees need to familiarize themselves with the organization and identify how the organization has been structured in the past. Alumni suggested students be given an iterative process to work through outside of normal text book learning as part of developing critical thinking skills. Opportunities for students to think independently and freely can lead to creative,

fresh perspectives, a skill which will translate over into the workplace (Crawford & Fink, 2020b).

Crawford and Fink also discussed survey responses when looking at ambiguity in the decision-making process. As mentioned in the perseverance area, employees may not be given all of the information before a decision has to be made, but respondents shared this decision-making process can be less intimidating if new employees can break down the task into manageable chunks of accepting, framing, deciding, and explaining the decision (Crawford & Fink, 2020b). This process along with confidence when it comes to decision making is suggested as ways of moving past hurdles (Crawford & Fink, 2020b). These processing strategies are significant because of workplace anxiety reported by Gen Zers (Wilkie, 2019).

Navigating change was the third area of focus for the APLU report. Respondents said students and employees need to recognize change is inevitable, but being aware of how people-themselves and others- react to change, as well as possessing a strong growth mindset, can make the adaption to change easier. Additionally, relying on cross-disciplinary knowledge from areas outside of agriculture can help provide a more open-minded view to foreseeable change (Crawford & Fink, 2020b).

In general, stepping outside of individual's comfort zones creates valuable stretch experiences that can make change easier down the road (Crawford & Fink, 2020b). In contrast to the 2011 APLU Report (Crawford et al., 2011), traveling abroad was recommended by employers in the 2020 report (Crawford & Fink, 2020b). "Even a major change in processes at work can seem less daunting after having successfully navigated a poorly marked hiking trail or the Paris underground transit system" (Crawford & Fink, 2020b, p. 29).

The final theme of the 2020 APLU report dealt with conflict in the workplace. Interestingly, conflict was a skill area Gen Zers did not believe they were well prepared for (Wilkie, 2019). Key takeaways from APLU survey respondents included the idea of engaging conflict through constructive conversations, recognizing there is a good side and a bad side to conflict, and understanding how to recognize and navigate different types of conflict (Crawford & Fink, 2020b). Students and employees were encouraged to participate in teams where conflict could arise as a way of putting their conflict management skills into practice. Finally, students and employees were told they should grow their emotional intelligence which includes understanding and respecting roles in the workplace, separating personal feelings from conflict responses, and proactively recognizing potential difficulties in people or situations (Crawford & Fink, 2020b). Conflict resolution was summarized by an alumnus as, “Attack problems, not people.” (Crawford & Fink, 2020b, p. 33).

Emotional Intelligence involves the ability to separate emotions and feelings, explaining why emotional intelligence plays a key role in conflict management. Emotional intelligence can be divided into four categories. These are self-awareness, self-management, social awareness, and relationship management. Emotional Intelligence assessments are available to help individuals increase their emotional intelligence scores, demonstrating emotional intelligence can be learned (Bradberry & Greaves, 2009).

The extensive data collected from the 2020 APLU report has only been touched on in this literature review; however, the content provides a valuable foundation for moving forward with further research. The takeaways from the APLU report were intended to spur conversations about how universities and employers can assist young people as they develop the skills needed



to succeed in the workplace. Final summaries from students provided candid feedback for educational systems:

I believe that often our education system coddles students and opts to not prioritize the importance of learning and failures in favor of jumping through hoops and passing classes, which I find sad. Grade inflation is also a sad thing to me in school, and I think further dampens the development of these skills. Mass education is not a guarantee of an educated and critically thinking population. It is up to the individual to attain true education of the mind, and the honing of the skills listed (Crawford & Fink, 2020b, p. 40).

### ***Exploring Opportunities for the Industry***

As industry evolves, opportunities to better serve students continue to emerge. In order for agricultural graduates to remain relevant to industry needs, agricultural curriculum must remain relevant to industry needs. With relevant curriculum, the human capital of agricultural population can be enhanced through higher education, leading to increased productivity and economic success within the industry, factors which contribute to greater globalization (Easterly et al., 2017; Roberts, 2016).

Based on Finch and Crunkilton's Program Systems Model (1999), industry stakeholders play a role in relevant curriculum development. This review served to examine the employability needs of agricultural program graduates, as voiced by industry experts. Table 4 provides a summary of themes outline by industry perspectives within this review. Some discrepancies can be seen within the themes. For example, international experiences were not considered high priority in 2011, but by 2020, international experiences were viewed as valuable way for students to gain confidence (Crawford et al., 2011; Crawford and Fink, 2020b).

**Table 4***A Theme Summary of Industry Perspective's Regarding Student Preparedness*

Theme	Researcher(s)	Year
Graduates lack confidence toward skillsets.	Robinson & Garton	2008
Curriculum is not preparing students with desired skillsets.	Todd	2009
Some technical skills are desired, including writing, editing, public relations, advertising, and photography.	Morgan	2010
	Crawford et al.	2011
	Easterly et al.	2017
Agricultural communication graduates are needed who fully understand the target audience, are able to navigate multiple media channels, and can communicate effectively in a crisis.	Kurtzo et al.	2016
	Steede et al.	2016
	Esterly et al.	2017
Students need real world experiences provided to them.	Easterly et al.	2017
Strong industry relationships are regarded as essential for preparing graduates for employment.	Easterly et al.	2017
The most important employability needs include communications skills and decision making/ problem solving skills.	Crawford et al.	2011
Industry experts value listening skills above all other communication skills.	Crawford et al.	2011
Industry experts consider possessing a positive and encouraging attitude top priority.	Crawford et al.	2011
Relationships, those with the public, the business, and customers, are top priority.	Crawford et al.	2011
Dealing with ambiguity is considered highly important by employers.	Crawford et al.	2011
In most cases, international experiences do not help graduates perform better in their careers.	Crawford et al.	2011
Being able to see the big picture and recognize the appropriate times to lead and follow are the most valuable leadership skills to possess.	Crawford et al.	2011
Being a leader of change as a new employee is not a prioritized skill.	Crawford et al.	2011
Students felt they were misled by universities in regard to salary expectations and how well those salaries would or would not meet their financial needs.	Crawford & Fink	2020b

**Table 4 (Cont.)**

Theme	Researcher	Year
Poor attitudes, being told “no”, and wanting to work their dream job right after graduation also proved to be challenging for new employees.	Crawford & Fink	2020b
Students need to be encouraged to recognize their own shortcomings, and foster conversations with professionals about how those individuals overcame obstacles in their careers.	Crawford & Fink	2020b
When syllabi and rubrics disappear, tangible rewards may somewhat disappear or be hard to recognize, leading to a need for perseverance.	Crawford & Fink	2020b
Employers suggested individuals start working as young as possible and take hold of as many work opportunities as possible, particularly low wage work experiences and internships.	Crawford & Fink	2020b
An employee’s attitude toward ambiguity can make or break success within their career.	Crawford & Fink	2020b
Opportunities for students to think independently and freely can lead to creative, fresh perspectives.	Crawford & Fink	2020b
Change is inevitable, but being aware of how people- themselves and others- react to change, as well as possessing a strong growth mindset, can make the adaption to change easier.	Crawford & Fink	2020b
Stepping outside of individual’s comfort zones creates valuable stretch experiences that can make change easier down the road.	Crawford & Fink	2020b
Students and employees were told they should grow their emotional intelligence by understanding and respecting roles in the workplace, separating personal feelings from conflict responses, and proactively recognizing potential difficulties in people or situations.	Crawford & Fink	2020b

According to Crawford and Fink (2020b), “much remains to be examined, particularly with respect to how to incorporate these results into formal and informal teaching settings” (p.

2). Literature indicates many employability skills are already incorporated into agricultural communications coursework; however, opportunities for those skillsets to be gained should continue based on researcher recommendations from industry perspectives (Easterly et al., 2017).

### ***Research Gap***

Curriculum must evolve at the same rate as industry, or graduates will not be prepared to meet industry demands. Because of this realization, researchers recommend curriculum be reevaluated every two to five years in order to produce industry prepared graduates (Morgan, 2010; Cannon et al., 2016). Globalization and technology are influential factors on the agricultural industry (Robinson, 2018, p. 136); however, according to findings within the APLU report, awareness of those two impactors does not serve as the main approach to education (Crawford & Fink, 2020b).

Employability skills rather than technical skills are the main concern areas of industry professionals; however, the APLU report *From Academia to the Workforce: Critical Growth Areas for Students Today* demonstrates universities need to continue doing what they are doing in terms of student preparedness because the employability skills gaps have lessened dramatically from the 2011 to 2020. With this recognition, universities can focus on curriculum development in the areas outlined within the 2020 APLU report while also continuing the previous progress in employability skills (Crawford & Fink, 2020a). Continuing to examine industry professionals' perspectives while asking how those individuals would encourage growth of key employability skills remains a solid method of curriculum development, aligning with Finch and Crunkilton's Curriculum Development Model (1999) which includes industry perspectives as one of the key stakeholders in curriculum evaluation.

Areas of growth for agricultural curriculum research include the development of asynchronous learning material. While such material may exist, literature does not support a widespread implementation of asynchronous agricultural curriculum, nor does it examine how asynchronous agricultural curriculum might better serve student populations. The challenge involved with asynchronous curriculum development includes how to incorporate the desired employability skills into a virtual learning environment. Industry professionals could provide valuable perspective on how universities can incorporate employability skills into a virtual environment which creates a segue for students entering a globally and technologically diverse industry (Haughton & Schödl, 2020).

## **Chapter 3: Methods**

### ***Chapter Overview***

This chapter outlines the research methodology of this study-- Teaching for Career Success: An Agricultural Industry Perspective of Preparedness Needs for Diverse Workforce Development. This research was examined in the context of globalization, diversity, and generational changes currently impacting the agricultural industry. The perspective of agricultural industry professionals was examined, looking at the employability needs of graduates who will fill the estimated 8,400 job annual job openings within agricultural education, communication and government (Fernandez et al., 2019).

### ***Philosophical Assumption***

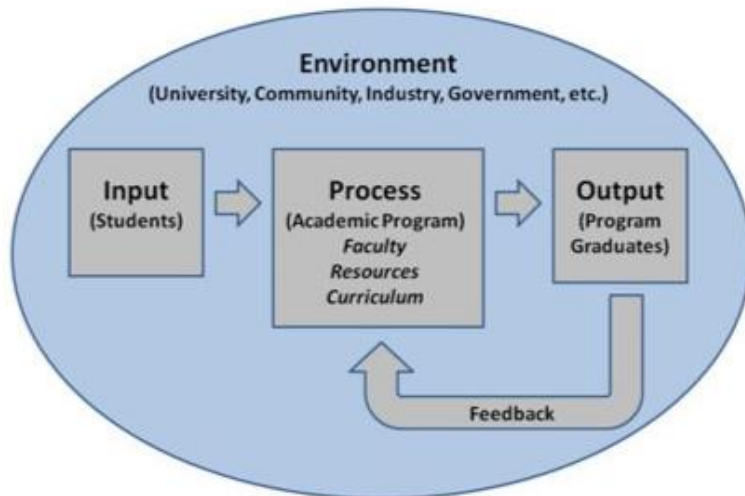
This research project used a methodological approach in which the researcher studied the research findings within the context of the industry experts' perspectives (Creswell & Poth, 2018). Using this approach allowed the researcher to examine the data within the context of the Program Systems Model which involves students, faculty, and industry as key players in curriculum development (Finch & Crunkilton, 1999). The researcher created context for the study by conducting a thorough literature review and examining the findings in detail before creating usable themes for curriculum recommendation (Creswell & Poth, 2018).

### ***Theoretical Framework***

Behind all of the data collection and methods were the theoretical frameworks of the Program Systems Model and the Human Capital Theory. Finch and Crunkilton's Program Systems Model (Figure 8) examines three key players of program development including students, faculty, and industry (1999). Industry involves the environment in which students are entering. The model involves an educational process in which the input is students and the output

is program graduates. For the output of graduates to be prepared to enter the industry environment, industry must influence the educational process (Finch & Crunkilton, 1999). Within this study, not only did industry influence the educational process, but also additional factors impacting industry such as globalization, diversity, and generational changes.

**Figure 8**



*Program Systems Model*

From *Curriculum development in vocational education and technical education: Planning, content, and implementation* (5<sup>th</sup> ed., p. 27) by C. R. Finch and J. R. Crunkilton, 1999, Pearson. Copyright 1999 by Curtis R. Finch and John R. Crunkilton

The input of industry perspectives from the agricultural communications industry environment coincides with the Human Capital Theory because of how the theory benefits society. The human capital theory is often thought of as an economic theory examining individuals' productivity; however, human capital theory goes beyond economics. Rather, the theory looks at all investments which benefit humans. Factors such as education are viewed as investments within human capital, and employability skills are viewed as factors that increase productivity (Tan, 2014). Because this study seeks to improve the output of graduates entering

the agricultural industry, the investment in improving educational curriculum contributes to producing greater human capital in the future.

### ***Research Purpose***

The purpose of this research is to strengthen the communication related employability skills of the agricultural industry by examining industry perspectives on the changing needs of the industry, leading to recommendations for curriculum development.

### ***Research Objectives***

The objectives for this research examined the perspectives of industry professionals. The following objectives were identified:

1. Determine changes in the agricultural industry impacting incoming agricultural employees.
2. Determine challenges incoming agricultural employees will face.
3. Compare APLU employability needs with industry perspectives.
4. Determine agricultural curriculum recommendations in terms of employability needs.

### ***Research Approach***

Qualitative research interprets the world by examining people and places in their natural settings, looking at how those people and places bring meaning to the world. This research was conducted with a qualitative case study approach using in-depth interviews to collect data within a bounded system. A bounded system indicates a study can be described within certain parameters such as certain people at a certain time (Creswell & Poth, 2018).

For this study, findings described the audience of industry professionals with connections to the University of Arkansas and Texas A &M- Kingsville, and the case took place over a one-month period in winter of 2021 and spring of 2022, providing data relevant to the



industry at that time. While similarities may be found between the audience of this study and other audiences, the findings cannot be generalized beyond this case. However, recommendations for curriculum development can be made (Creswell & Poth, 2018).

The goal of this research was to develop recommendations for agricultural curriculum. Because curriculum relevancy is an ongoing process, curriculum needs to be re-examined every 2 to 5 years (Morgan, 2010; Cannon et al., 2016). This research provides opportunity to integrate preparedness skills across agricultural curriculum to maintain industry relevancy.

### ***Research Subjects***

Based on Finch and Crunkilton's Program Systems Model (1999), industry experts serve as key players in educational curriculum development because those individuals represent the environment graduates will be entering. By gathering the perspective of industry experts, recommendations were able to be made for relevant agricultural communications curriculum development.

Convenience sampling was used as the sampling method for this study. Convenience sampling saves time and economic resources by sampling individuals within easy access of the researcher (Creswell & Poth, 2018). In this study, the convenience sample was made up of alumni and professionals with connections to the universities involved. Specifically, industry experts were recommended to the researcher by faculty of the University of Arkansas and Texas A&M- Kingsville. Industry experts were selected based on their connection to university career services.

This non-probability sampling technique was appropriate for this study because the purpose of the research was to identify needed employability skills rather than describe a population (Cozby & Bates, 2018). Career service personnel at the University of Arkansas

provided a contact list of industry experts working within agricultural industry organizations. The student researcher contacted these individuals with an IRB approved recruitment email (Appendix B) containing a survey link. Participants who were willing to participate in the study responded to the survey, providing consent to an IRB form before beginning.

### ***Population, Sample, and Participants***

The population for this study involved agricultural industry professionals in the U.S. who potentially work with recent agricultural graduates. The sample for this study consisted of agricultural industry professionals with connections to University of Arkansas. Specifically, these individuals were the contacts of Bumper's College Career Services. Out of 121 initial survey contacts, six contact's emails bounced back, leaving 115 contacts in the survey audience. Thirty-one individuals began the survey, and 18 individuals completed the survey, creating a 15.7% response rate. Of the eighteen individuals who completed the survey, 8 individuals agreed to participate in follow up focus groups, later transitioned to one-on-one interviews.

The survey participants ranged from less than 5 years to more than 20 years of industry experience. The less than five-year category, five to 10-year category, and more than 20-year category each represented 31% of the participants, leaving 6.9% of respondents in the ten to fifteen-year category and the fifteen to twenty-year category, combined. Industry roles included talent acquisition, human resources, recruitment, directors, sales, corporate vice presidents, public health supervisors, extension, agricultural statisticians, and production agriculture. Of these individuals, 58.26% indicated they were graduates of an agricultural program, representing twelve agricultural disciplines which included agricultural business; agricultural education, communication, and technology; animal science; apparel merchandising and product

development; crop science; food, nutrition, and health; food science; horticulture, landscape, and turf; poultry science; veterinary medicine; soil and weed science; and entomology.

### ***Subject Recruitment***

A total of three email waves were sent. Two survey recruitment emails (Appendix A and B) were sent by the researcher, and a third follow-up email (Appendix C) was sent by the career services personnel. The survey instrument (Appendix D) was developed through Qualtrics, a survey management software the researcher's institution utilizes (Qualtrics, 2022).

The survey was made up of both closed ended and open-ended responses and was organized with introductory closed ended and open-ended questions and ended with descriptive open-ended responses (Dillman et al., 2014). The survey received an expert review score of "Great" on Qualtrics, and two industry professionals and the researcher's thesis director checked over the survey before the link was sent to industry professionals.

At the end of the survey, individuals were asked if they were willing to participate in focus groups. Individuals willing to participate provided their email to be contacted for follow-up focus groups. The email addresses were stored separately from survey responses. Due to a low survey response rate of 15.7% and only eight individuals willing to participate in follow-up focus groups, the researcher transitioned to one-on-one interviews. A total of 121 industry professionals were contacted with the survey link, and out of those contacts, 18 individuals completed the surveys. One-on-one interviews provided personalized feedback for the researcher to code and analyze into survey results. Furthermore, the interviews created research validity of the survey data (Creswell & Poth, 2018).

Willing participants were sent an email notifying them to expect additional communication regarding the focus groups (Appendix E). Participants were then emailed to

coordinate times (Appendix F). Initially emails were sent to coordinate focus groups; however, after realizing there were not enough participants to create valid focus groups, a follow-up email was sent to schedule interviews based on times the participants previously indicated they were available (Appendix G).

The initial focus groups were coordinated through Doodle, an online software designed to coordinate and schedule meeting times for large groups (Doodle, n.d.). Participants were provided with interview time slots spanned out over the course of a two-week period in March of 2022. Each participant indicated what times would be convenient for their schedule, assuming they were going to participate in a focus group. When no additional survey responses came in with willing focus group participants, the researcher moved to online interviews. The researcher followed up with participants' by informing them of the instrument change, confirming their availability, and sending each of them a scheduled Zoom invitation and a Microsoft calendar reminder.

Approval to conduct this study was approved through the University of Arkansas' Institutional Review Board (IRB) (Appendix H). The IRB exists to protect human subjects during the data collection process by ensuring safe and ethical research practices (University of Arkansas, 2021). The IRB determined this study provided no threat to the individuals participating in the research. Participants received an IRB approved recruitment email to participate in the study, and participants acknowledged their consent on the surveys by reading an IRB approved consent letter and selecting "I accept."

Additionally, interview participants were incentivized with \$20 Amazon gift cards. The participants were made aware of the gift card incentive during the initial focus group recruitment email. At the conclusion of the one hour interview, the researcher asked participants for their

mailing address, and the gift card along with a handwritten thank you note were sent to each interview participant for a total of eight gift cards.

### ***Instrumentation***

Surveys served as the first research instrument in this qualitative research. This method was chosen because of the instrument's ability to inform the researcher about respondents' perspectives as a means of answering questions or solving a problem (Dillman et al., 2014). Keeping the Program System Model in mind (Finch & Crunkilton, 1999), surveys sought to answer questions regarding the industry environment recent agricultural graduates will be entering (Dillman et al., 2014).

This study specifically utilized web-based surveys developed through Qualtrics, a survey development software available through the researcher's institution (Qualtrics, 2022). The survey began with an IRB approved note, to which participants provided their consent. Both open ended and closed ended questions were provided. The initial questions gathered feedback on the industry professionals' experience such as number of years involved in the industry, their industry title, and their educational background.

From there, open ended questions were asked regarding significant industry changes and challenges. Next, closed ended questions asked respondents to rate graduate preparedness on various competency levels (Dillman et al., 2014). These questions were based on findings from APLU (Crawford & Fink, 2020). The surveys concluded with open ended descriptive questions related to competency needs and agricultural curriculum recommendations. Open ended descriptive responses were utilized sparingly in order to maintain respondent motivation (Dillman et al., 2014).

Considerations were made toward recommended web questionnaire guidelines. The decision was made to use Qualtrics as the survey programmer and host (Qualtrics, 2022). The survey was tested on both laptop and mobile devices. Related questions were separated onto separate web pages to break up the survey. Both a welcoming and closing screen were provided. A consistent, university branded theme was used across all survey pages. Respondents were able to back track on questions, and questions were not required except for the initial consent question (Dillman et al., 2014).

Additionally, multiple contacts, using various messaging was used to contact participants. Messaging was timed to contact industry professionals at an optimum time when individuals were arriving at work and checking their emails. Emails were kept short and to the point, and an expert review and cognitive interview of the surveys were conducted before implementing them. Finally, the surveys were tested across multiple devices and Qualtrics data analysis methods were reviewed prior to survey implementation (Dillman et al., 2014).

Interviews served as the follow-up instrument for this descriptive qualitative research. This method was chosen because interviews create a social interaction between the interviewer and the interviewee, revealing experience-based knowledge. In other words, interviews provide rich data from the perspective of the individual being interviewed. (Creswell & Poth, 2018).

One-on-one interviews were implemented for this study, and a semi-structured interview questionnaire was developed as the instrument protocol (Appendix I). The research objectives were used as the basis for the questionnaire, and the survey responses influenced the interview questions by building upon the themes analyzed in the survey data. Questions were designed to be open ended, facilitating discussion between the interviewer and the interviewee (Creswell & Poth, 2018).

Interviews were conducted online via Zoom, with each interview lasting one hour. The interviews were conducted over the course of one month. Zoom provided recordings of the interviews with transcriptions that were easily edited for thematic coding (Zoom, 2021). NVivo was used as the coding method. NVivo serves as a software designed to be quick and efficient by allowing the analyzer to assign and track codes into files along with their supporting excerpts (NVivo, 2021). Initial codes were predetermined according to research objectives (Crabtree & Miller, 1999). From there, the researcher relied upon emergent analysis, allowing themes to emerge from the data within each objective (Boyatzis, 1998).

A pilot study was conducted before the official interviews began. Two individuals within the agricultural industry were asked to go through the interview process. This pilot study served as a time to provide clarification and content edits to improve the questionnaire. The intent of the pilot study was to ensure the questionnaire captured the data needed to identify the research objectives (Creswell & Poth, 2018).

### ***Procedures for Data Collection***

Procedures for collecting survey data included utilizing Qualtrics, a survey development software. Qualtrics collected survey results and analyzed the data into usable statistics and tables (Qualtrics, 2022). Procedures for follow-up sampling involved face to face virtual interviews conducted over Zoom. Zoom is a leading virtual platform used on a global scale to connect individuals for business meetings and other networking purposes (Zoom, 2021). Due to low participation, the researcher opted for individualized one-on-one interviews in order to gather more personalized data rather than conducting focus groups which depend on five to eight participants per focus group as well as participant collaboration (Creswell & Poth, 2018).

Interviews were conducted via Zoom, and each interview lasted one hour. The interview was recorded with the participant's consent, and the discussion followed the semi-structured interview questionnaire designed by the researcher. Interviews were conducted, on the part of the researcher, within a private office to avoid unnecessary distractions for the interviewer or the interviewee (Creswell & Poth, 2018).

### ***Procedures for Data Analysis***

Survey data was collected and saved through Qualtrics. This software analyzes the data into reports, creating charts of open ended and closed ended questions. These charts provide convenient references for the researcher to analyze and code into themes (Zoom, 2021). This research's descriptive open-ended questions were hand-coded into themes by the researcher. The researcher then coded the themes within NVivo to cross-check the themes, an online coding software (NVivo, 2021). Graduate students within the researcher's department also cross-checked the codes with the survey responses to ensure validity (Miles et al., 2020).

Interview data was recorded and transcribed through Zoom. The researcher and a student worker edited the transcriptions for errors before submitting the transcripts to NVivo. NVivo identified themes within the transcriptions, and the researcher then revisited the coding repeatedly until no new themes emerged. This process was conducted for each interview. At the completion of coding, the themes were analyzed into findings based on the research objectives (Miles et al., 2020).

This type of data analysis is called thematic analysis in which themes emerge from the data. The end purpose is not to reduce the data down, but rather to describe what the data is saying. In order to describe the data in depth, the analysis process should be on going. Miles and Huberman describe this process as a three-step process in which data is reduced, displayed, and



drawn into conclusions and verification. This research followed all three steps of thematic analysis in order to create an appropriate data-based model for curriculum recommendations (Miles et al., 2020).

### ***Methods of Credibility and Trustworthiness***

Credibility and trustworthiness for this qualitative research were established through triangulation of an extensive literature review, survey responses, and follow up interviews. Additionally, a panel of faculty experts as well as industry professionals reviewed the survey questionnaire and the interview protocol used for data collection. Thorough and persistent notetaking was part of the research process, and a reflexivity statement established the researcher's role within the study (Creswell & Poth, 2018).

### ***Reflexivity Statement***

As a Caucasian female professional employed as an agricultural communications specialist, the researcher held vested interest in the outcome of this study because of the potential for the research findings to strengthen the industry in which she works. The researcher grew up within the agricultural industry and took her post-secondary education back to her family farm in order to diversify and strengthen the sustainability and professionalism of the farming operation. She held to a grass roots approach when looking at professional development and industry advancement, in which each individual and organization is personally responsible for their success. This mindset contributed to the researchers' analysis of the employability skills data identified within this project.

### ***Summary***

In summary, this study followed a qualitative research design, examining the experiences and perspectives of agricultural communications experts with the purpose of improving the

human capital of agricultural communications graduates and those who they serve in the workplace and beyond. Surveys and interviews were used as the research instruments for this study, and data was thoroughly analyzed to identify emerging themes and extract all possible angles of the employability needs within the time and resource constraints of this study. At the conclusion of this study, recommendations were made for relevant agricultural curriculum development.

## **Chapter Four: Results**

### ***Introduction***

Chapter four presents the results of this study by providing the generated data from the survey and interview responses. The results are organized into four sections based on the research objectives. The first section identifies changes within the agricultural industry over the lifetime of the industry professionals who participated in this study. The second section identifies the challenges incoming agricultural employees will face based on the perspectives of the study participants. The third section cross compared the responses from this study with the results From Academia to the Workforce: Navigating Persistence, Ambiguity, Change, and Conflict in the Workplace an APLU series on Employability Skills in Agriculture and Natural Resources (Crawford & Fink, 2020), and the final section identifies agricultural curriculum recommendations from the perspectives of industry professionals.

### ***Methodology Summary***

This study employed a mixed methods approach utilizing both online surveys and virtual interviews. Survey instrumentation took place in January and February of 2022. The researcher sent the surveys to industry contacts identified through the University of Arkansas Bumper's College Career Services. The initial survey recruitment email sent by the researcher gave participants two weeks to respond. Two days before the deadline, a reminder email was sent. In order to increase response rate, a second and third email wave was sent by the Bumper's College Director of Employer Relations to encourage participation.

The survey instrument consisted of 19 questions, including consent to participate and demographic questions. The majority of the questions (12 out of 19 questions) related to the research objectives and focused on gaining the industry perspectives feedback. The two final questions asked participants if they would be willing to participate in follow-up focus groups.

Focus Groups were scheduled to take place in March of 2022 through Zoom; however, due to a low number of willing participants, data collection moved to one-on-one interviews. The researcher conducted a total of eight interviews over a two-week period in March of 2022. The interviews followed a semi-structured interview questionnaire. The interviews lasted one hour, and participants received a \$20 Amazon gift card for participating.

The following sections provide data tables and direct comments from the respondents, reflecting the industry perspectives and supporting the research objectives. In order to further validate and strengthen the data, one-on-one interviews followed the survey responses. The results from the interviews are provided as they relate to the research objectives.

### ***Survey Responses***

#### *Changes within the Agricultural Industry*

The survey instruments asked respondents what significant changes occurred within the agricultural industry during their lifetime, and the following themes emerged. Each theme was coded even if only referenced one-time in order to show a complete representation of the industry professional’s perspectives (see Table 5).

**Table 5**

*Changes within the Agricultural Industry over the Lifetime of the Industry Professionals*

Significant Change	Number of References
Technology Shifts	7
Covid-19 Pandemic	6
Bioengineered Foods/ Alternative Protein	4
Consumer Preferences	3
Urban and Rural Divides	3
Regulatory Changes	3
Declining Labor Pool	3
Scientific Advancements	3
Volatile Markets/ Profit Margins	2
Sustainability	2
Shift to Corporate Agriculture	1
Women in Agricultural Leadership	1

When looking at changes within the agricultural industry during the respondents' lifetime, technology shifts proved to be the most common theme among the industry professional's responses. These responses referenced new technology spanning computers, robotics, and drones; technology shifts and how they impacted the landscape of jobs; the speed of technology transfer; and moving from spreadsheets to software systems.

The next most common theme was Covid-19 and the implications of the pandemic. Three respondents listed "Covid-19" without any additional commentary, while others discussed covid in terms of supply chain issues and staffing and retention of employees. One respondent said, "There has also been an increased interest by the public regarding the food chain given the empty shelves they see in the grocery store due to the pandemic." Additionally, one respondent commented, "Covid has obviously had a large impact in terms of staffing and retention of employees."

Another common theme with four references included bioengineered foods and alternative proteins. No commentary was given on these themes; however, one was referenced in a group of items discussing consumer preferences which received their own category theme with three references. One respondent said they experienced, "a major shift to catering to consumer preferences, such as organic, non-GMO, and alternative protein. However, these are typically based on uneducated claims, and the ag industry has catered to it instead of educated it."

When discussing urban and rural divides one respondent said a disconnect exists between food origination and consumers. One respondent expanded on urbanization by stating, "We are five generations from the farm now. The majority of people have never lived or worked on a farm and have no idea where their food comes from." Another respondent shared, "Merger and

acquisitions have been the norm with corporate companies. Farms are getting bigger and more corporate in nature and that is not always good for rural America.”

Not only did respondents discuss urbanization, they also discussed the declining labor pool as a significant change. Three individuals referenced this theme. One indicated Covid 19 as a factor contributing to staffing and retention of employees. Another individual said, “the labor shortage continues to be on the rise. It is hard to find hard working individuals that want to be in the agriculture industry. As a distributor, we see it on our level and at our customer’s places.”

Additionally, regulatory changes within the industry were discussed in terms of animal raising and food safety. “I’ve seen the regulatory environment constantly change,” one respondent said. Along with that, an increase in science proved to reoccur. Specifically, one respondent indicated science is being used as a solution to real world problems- “I’ve seen the increase in application of science on the farm to solve a variety of problems.”

Other themes receiving one to two references included volatile markets and decreased profit margins, sustainability, a shift to corporate agriculture, and women in agriculture. “A tight necked supply chain from urea to glyphosate will keep farmers from making more margin. This will also impact food/ feed costs. The market will continue to become more volatile,” said one respondent. When referencing women in agriculture, one industry professional shared, “I see women not only engaged on the farm, but as owners and operators.”

From the development of computers to the introduction of alternative proteins, the experiences of the industry professionals involved in this survey brought many significant changes throughout their lifetimes. Some individuals chose to expand on responses by providing the supposed reason for the changes or the believed impact of the changes. Going beyond changes impacting current industry professionals, survey responses moved on to gather

perspectives regarding challenges incoming agricultural employees will face in their future careers.

*Challenges for Incoming Agricultural Employees*

Through the survey instrument, industry professionals provided their perspective on the biggest challenges being faced by individuals entering the agricultural industry. Career expectations rose to the top as a challenge for incoming industry professionals, followed by adaptability and flexibility as well as various skill gaps. Table 6 provides a full representation of the challenges referenced by industry professionals.

**Table 6**

*The Biggest Challenges Being Faced by Individuals Entering the Agricultural Industry Based on the Perspective of Industry Professionals*

Challenges Faced by Incoming Professionals	Number of References
Career Expectations	8
Skill Gaps	7
Adaptability/ Flexibility	5
Mobility	3
Agricultural Knowledge Gaps	2
Labor Shortages	2
Supply Chains/ Market Volatility	2
Limited Work Experiences	1
Generational Gaps	1
Farm Contingency	1
Government Regulations	1
Covid-19	1

The most prominent theme brought up by industry professionals regarding challenges faced by individuals entering the agricultural industry includes career expectations. A total of eight references categorized this theme. One respondent expressed their perspective this way, “The biggest challenge is that there is (not) a paved road for everything- for expectations in current role, growth to new role, conflict management, and problem solving. The majority of the day-to-day industry is gray, and we are groomed in college to expect black and white.”

Other respondents discussed incoming employees' unrealistic expectations for specific roles. Specifically, one individual shared salaries and vacations as examples of commonly unfulfilled expectations. Another individual said the biggest challenge is “the industry’s inability to accommodate labor trends such as work-life balance and work from home.” One respondent shared, “Remember that working in agriculture is not an 8 to 5 job. If working with row crops or livestock, you can’t turn the lights off and go home for the day.”

Additionally, falling under career expectations, respondents described career success and the importance of entry level positions. One of the biggest challenges included, “understanding the huge opportunity for success and what it takes to achieve success.” Continuing with success, another challenge, according to industry professionals, involves, “being mobile and willing to work at entry level jobs in order to grow long term.” Mobility not only fell under the career expectation category, but received its own category with three references. Mobility in terms of location received a focus because “the ability to progress may not be where they are from.”

The idea of being willing to change locations, complimented the survey’s five references to adaptability and flexibility. “Being flexible in our industry is really important since you’ll work for many different managers and have numerous jobs along your career path. I think many companies look for their employees to be versatile and adapt to change easily,” reported one survey respondent. While respondents discussed general adaptability, specific areas where adaption proves beneficial made their way into the survey responses.

Adaption to technology development, market trends, and government trends all showed to be constant changes incoming employees will face, according to industry perspectives. One respondent described adaptability as “keeping up with current markets and understanding where producers lie within it/ how they make decisions to keep afloat.” Adaptability in regard to



government changes, according to a survey response, includes the “ability to go with these changes, learn, and still be able to provide the best products to consumers.”

Receiving similar focus as adaptability and flexibility, references to various skill gaps made their way into discussion. Skills presented as a challenge included marketing and public perception, communication and written skills, sound biology skills, digital skills, and soft skills. Business acumen and cultural awareness were also categorized under this theme. Each of these skills only received one reference, preventing them from developing into strong individual themes.

While some references fell under umbrella themes such as various skill gaps, other items emerged singularly or with only two references. Agricultural knowledge gaps came up twice in responses, and one respondent noted the challenge of “finding mentors and those that can pass agriculture knowledge.” The same respondent said a challenge exists in “finding enough people to do or be involved with agriculture”- a predicament simply described as a limited work force by another respondent.

Coinciding with agricultural knowledge gaps, one respondent believes a challenge also exists with generational gaps. They described the task as “understanding ways to communicate with different generations who may not think like you or have the same motivation as you.” Similarly, however, falling under the theme of market volatility and farm contingency, one respondent said, “No farms are started from scratch anymore. Most are passed down. Entries to the market are too high for family farms to get started.” From a merchandiser perspective rather than a producer perspective, one respondent indicated the supply chain crisis as a big challenge for individuals entering the industry.

Some challenges such as government regulations and Covid-19 only received one reference; however, the first theme of career expectations fleshed itself out through multiple responses. Adaptability and flexibility received enough attention to create their own category, and mobility proved an important challenge for some of the industry professionals. Looking at the challenges presented by industry professionals provides a segue into the employability skill needs of the industry.

### *Cross Comparison of Employability Skill Needs*

Looking at the Association of Public Land-grant Universities (APLU) 2020 report *From Academia to the Workforce: Navigating Persistence, Ambiguity, Change and Conflict in the Workplace*, four areas of concern for incoming employees were examined, including:

- Ability to persist in a new job
- Dealing with ambiguity in job tasks and workplace expectations
- Dealing with the pace and content of change in the workplace, and
- How to manage conflict in the workplace (Crawford & Fink, 2020).

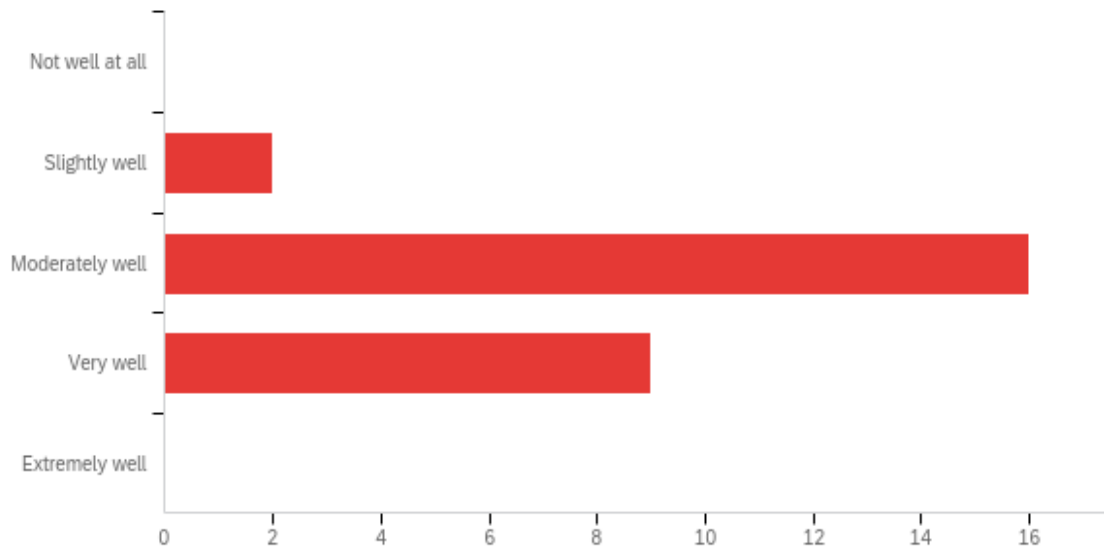
The survey questions for this study regarding employability skill needs mirrored the concern areas identified by APLU to examine if the 2020 APLU findings matched the findings of this research. Survey respondents were asked how well-prepared industry professionals believed recent agricultural graduates were to deal with each of the concern areas above, and they were asked to rate preparation on a five-point scale with the following options: not well at all, slightly well, moderately well, very well, and extremely well.

“Not well at all” responses aligned with the APLU findings, indicating an employability skill concern area. The closer a response fell toward the “extremely well” category, the less of a concern area that skill represented. None of the responses on the survey fell within the

“extremely well” category for this series of questions.

Responses from the question “How well prepared do you believe recent agricultural graduates are to succeed in a new job?” are shown in Figure 9.

**Figure 9**

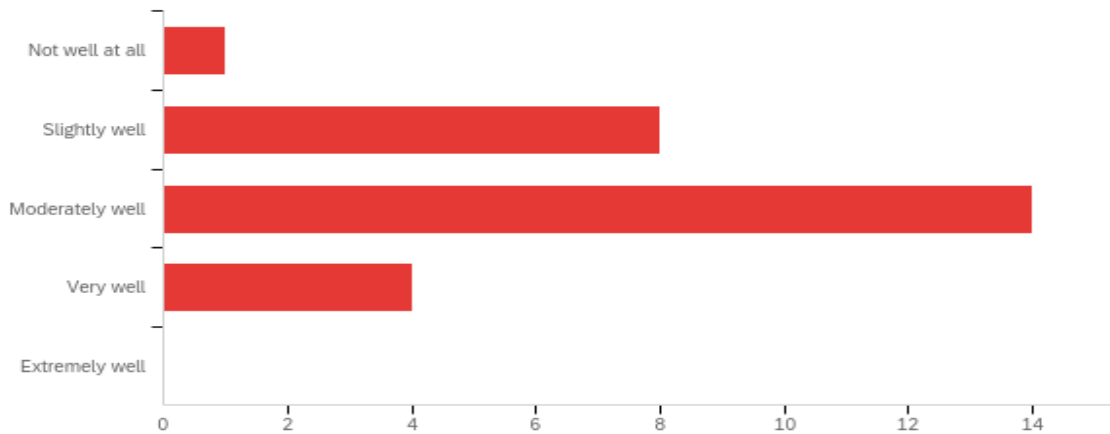


*Industry Perspectives on the Preparedness Rating of Recent Agricultural Graduates Success in a New Job*

Out of 27 responses, zero individuals rated success preparedness in the “not well at all” or “extremely well” prepared categories. The majority of respondents rated individuals in the “moderately well” category, making up 59.26% of responses. An additional 7.41% rated graduate preparedness for job success in the “slightly well” category and 33.33% rated graduate preparedness in the “very well” category.

The next question related to the APLU findings was “How well prepared do you believe recent agricultural graduates are to deal with ambiguity in job tasks and workplace expectations?” Unlike the previous question, this question did receive partial rating in the “not well at all” category; however, like the previous question, no one rated ambiguity preparedness in the “extremely well” category. The responses for this question can be seen in Figure 10.

**Figure 10**

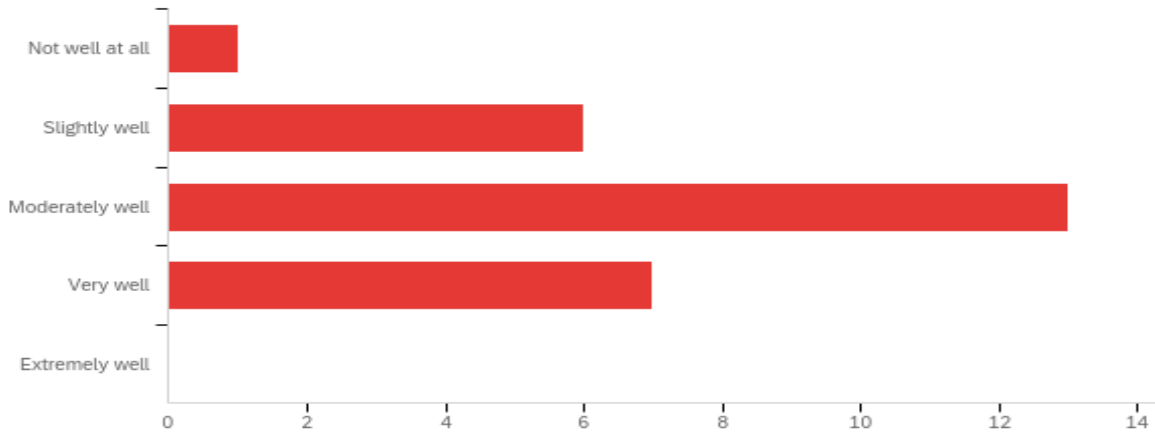


*Industry Perspectives on the Preparedness Rating of Recent Agricultural Graduates Ability to Deal with Ambiguity in Job Tasks and Workplace Expectations*

Twenty-seven individuals responded to this question, and 3.7% indicated recent agricultural graduates are not well prepared to deal with ambiguity in job tasks and workplace expectations. Another 29.6% rated recent agricultural graduates as slightly well prepared in this category, and 51.9% rated recent agricultural graduates as moderately well prepared. The remaining 14.8% rated recent agricultural graduates as very well prepared to deal with ambiguity in job tasks and workplace expectations.

From there, industry professionals were asked, “How well prepared do you believe recent agricultural graduates are to deal with the pace and amount of change in the workplace?” One individual rated preparedness for this employability skill in the “not well at all” category. The other responses fell between slightly well prepared and very well prepared, as illustrated in Figure 11.

**Figure 11**

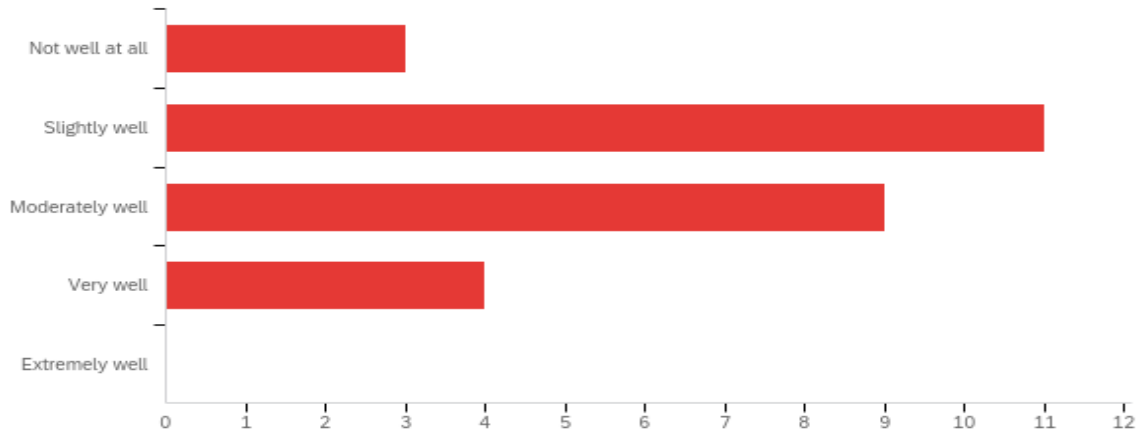


*Industry Perspectives on the Preparedness Rating of Recent Agricultural Graduates Ability to Deal with Pace and Amount of Change in the Workplace*

The majority of industry professionals rated agricultural graduates' ability to deal with pace and amount of change in the workplace as moderately well prepared, accounting for 48.2% of responses. Falling below “moderately well” prepared, 22.2% of responses fell in the “slightly well prepared” category and 3.7% of responses fell within the “not well at all” prepared category. Above the “moderately well” prepared category, 25.9% of respondents rated recent agricultural graduates' ability to deal with pace and amount of change in the workplace within the “very well” category. None of the respondents categorized recent agricultural graduates in the “extremely well” prepared category.

The final question related to APLU concern areas dealt with conflict management. The actual question read, “How well prepared do you believe recent agricultural graduates are to manage conflict in the workplace?” As illustrated in Figure 12, the majority of respondents fell within or below the “slightly well” prepared category.

**Figure 12**



*Industry Perspectives on the Preparedness Rating of Recent Agricultural Graduates Ability to Manage Conflict in the Workplace*

When looking at conflict management in the workplace, 85% of industry professionals believe recent agricultural graduates are moderately well or less prepared. Thirty-three percent (33.3%) of industry professionals rated recent agricultural graduates in the “moderately well” prepared category. Forty-one percent (40.7%) rated recent agricultural graduates as “slightly well” prepared, and 11.1% rated recent agricultural graduates as not well prepared at all. The remaining 14.8% rated recent agricultural graduates as very well prepared to deal with conflict in the workplace.

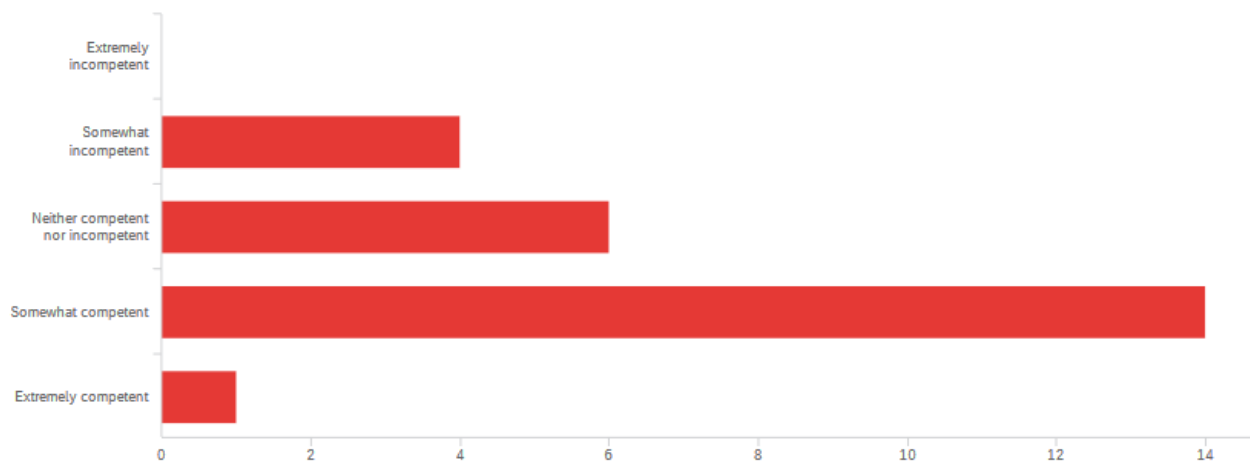
When looking at cross comparisons between the APLU findings and the findings of this survey, responses falling in the “not well at all,” “slightly well,” and “moderately well” categories were considered aligned with APLU concern areas. Sixty-seven percent (66.7%) of industry professionals indicated agricultural graduates as moderately well prepared or below in terms of succeeding in a new job. Dealing with ambiguity in job tasks and workplace expectations, 85.15% of respondents indicated recent agricultural graduates were moderately well prepared or below. Looking at how prepared recent agricultural graduates are to deal with the pace and amount of change in the workplace, 74% of industry professionals rated individuals

as moderately well prepared or below. Finally, 85.1% of industry professionals rated recent agricultural graduates' ability to manage conflict in the workplace as moderately well prepared or below.

### *Agricultural Curriculum Recommendations*

Before moving into open ended questions asking for industry professionals to provide their curriculum recommendations, respondents were asked to rate recent agricultural graduates' preparedness on emotional intelligence, business etiquette and grammar and writing skills. These questions were designed to provide recommendations on the level of focus that should be placed on those areas in curriculum. In Figure 13, one can see industry perspectives on the emotional intelligence ratings of recent agricultural graduates.

**Figure 13**



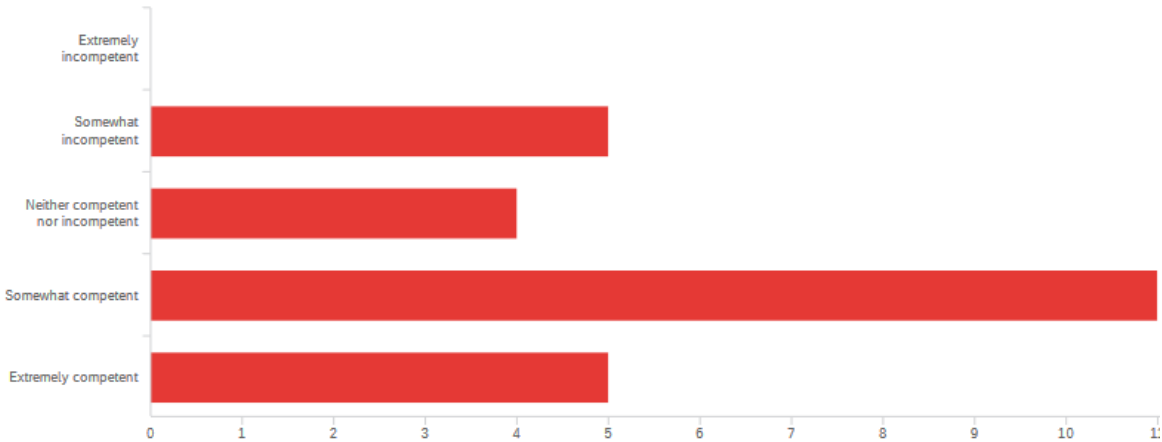
### *Industry Perspectives on the Emotional Intelligence Rating of Recent Agricultural Graduates*

Fifty-six percent of industry professionals indicated recent agricultural graduates are somewhat competent in emotional intelligence. Four percent indicated recent agricultural graduates are extremely competent in emotional intelligence, and the remaining 40% percent of industry professionals believed recent agricultural graduates were neither competent nor incompetent (the perspective of 24% of respondents) or somewhat incompetent (the perspective

of 16% of respondents).

In the area of business etiquette, the majority of industry professionals rated recent agricultural graduates as somewhat competent or extremely competent. Figure 14 provides an overview of the industry professional's responses. None of the respondents indicated recent agricultural graduates were extremely incompetent in their business etiquette.

**Figure 14**



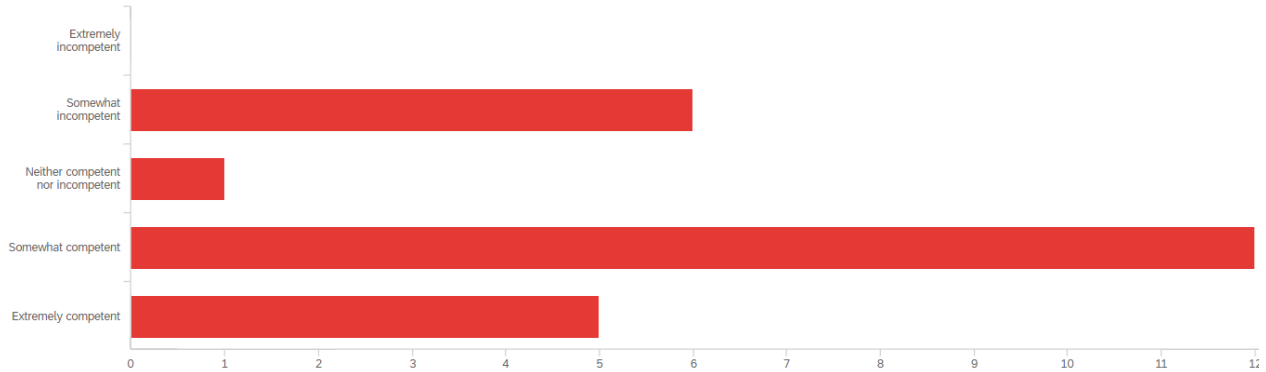
*Industry Perspectives on the Business Etiquette Rating of Recent Agricultural Graduates*

Twenty percent of industry professionals believe recent agricultural graduates are somewhat incompetent in their emotional intelligence. Sixteen percent believe recent agricultural graduates are neither competent nor incompetent. Forty-four percent believe recent agricultural graduates are somewhat competent, and 20% percent believe recent agricultural graduates are extremely competent in their business etiquette.

Finally, in the curriculum focus areas, respondents were asked to rate agricultural graduate preparedness on grammar and writing. Over 70% of respondents believe recent agricultural graduates are somewhat competent or extremely competent in their grammar and writing skills. The remaining responses fell within the neither competent nor incompetent or somewhat incompetent areas as illustrated in Figure 15.



**Figure 15**



*Industry Perspectives on the Grammar and Writing Skills of Recent Agricultural Graduates*

Twenty-five percent of industry professionals rated recent agricultural graduates as somewhat incompetent in their grammar and writing skills. An additional 4.17% indicated recent agricultural graduates are neither competent nor incompetent in their grammar and writing skills, and 50% of respondents rated recent agricultural graduates as somewhat competent in this area. The remaining 20.83% of industry professionals indicated recent agricultural graduates are extremely competent in their grammar and writing skills.

On survey feedback, agricultural curriculum recommendations next gained support through two open ended questions. The first question read, “What do you believe is the most important competency agricultural graduates should be gaining in their coursework?” and the second question read, “If you were creating a higher education agricultural curriculum, what is the most important component you would include?” These questions welcomed open ended responses, and themes were categorized based on the number of references received. Table 7 shows the results for the first question regarding agricultural curriculum recommendations.

**Table 7**

*The Most Important Competencies Agricultural Graduates Should be Gaining in their Coursework Based on the Perspective of Industry Professionals*

Competencies	Number of References
Communication	5
Adaptability/ Flexibility	5
Critical Thinking/ Problem Solving	4
Business Commonalities/ Professionalism	3
Technology/ Innovation	3
Applied Knowledge	3
Confidence	2
Sales/ Financial Markets	2
Grit/ Resilience/ Work Ethic	1
Building Trust	1
Interpersonal Skills	1
Partnering Skills	1
Well Rounded in Their Field	1
Agricultural Sanitation Knowledge	1

The two most prominent themes brought up by this question included the competency needs of communication as well as adaptability and flexibility. Communications was described as an area where students need more confidence with a total of five references related to both verbal and written communication. For the most part, these references received little commentary with statements such as “confidence in communicating properly verbally and in written form.” One respondent expanded, “[Students] needs to learn how to look someone in the eye and talk.”

Receiving the same number of references as communication, adaptability and flexibility received significant focus. Supporting this theme, one respondent said the most important competencies are “flexibility and change management- these are constant and can be disruptive or productive and employees need to be able to manage through it all.” Another individual specified situational adaptability as important. From there, the next most common theme emerged as critical thinking and problem solving.

Critical thinking and problem solving received four references in survey responses. One respondent supported his or her answer with, “I am disappointed in the amount of ‘okays’ I get in

the workplace instead of idea generation saying, ‘have we thought about this?’” Another respondent indicated individuals need to be able to think outside of the box. Beyond critical thinking and problem solving, professionalism emerged as a theme.

Professionalism and business commonalities received three references, and one individual faulted the Covid-19 pandemic for creating this need- “professionalism and soft skills is a must- due to the pandemic, I have seen a lack in this out of students.” After indicating incoming employees need to be well-rounded in their career field, another individual went on to provide the following perspective: “Also learning professionalism and how to best enter the work force/ get an agricultural based career- it seems as though a lot of schools do not help students understand professionalism behind application processes,” and finally, one respondent provided specific examples with the statement, “Some more emphasis needs to be put on business commonalities (hand shake, eye contact, time management, how to dress, etc.).”

After the responses on professionalism, technology and innovation as well as applied knowledge developed as two separate themes with each receiving three references. Technology and innovation received little discussion; however, one individual referenced the need for hands on experience in agricultural technology. Hands on experience, or applied knowledge received more discussion with one individual stating, “Textbook knowledge is important, but applied knowledge is probably more important in the real world so we don’t need to assume [incoming employees] know the applied practical knowledge. Focusing on the basics or fundamentals is so important.” Similarly, one individual commented students “have to be able to do the job, not just tell somebody what the book says.”

Although not specifically related, two themes receiving two references each, included the competency of confidence and the competencies in the areas of sales and agricultural markets.

Confidence received a reference in terms of individuals' communication skills as well as in reference to defending the work individuals do and the companies they work for. Sales and agricultural markets were referenced as areas respondents would like to see incoming employees possess more understanding in.

Additionally, the following items each received one reference: grit, resilience, and work ethic (provided by one respondent); building trust; interpersonal skills; partnering skills; individuals being well rounded in their field; and individuals possessing knowledge in regard to agricultural sanitation. There was little to no context provided with each of these references, and without receiving additional references, they could not emerge as significant themes.

Following the feedback on competencies, agricultural professionals were asked to provide perspective on curriculum development through the question, "If you were creating a higher education agricultural curriculum, what is the most important component you would include?" Responses for this question proved very diverse. Communication skills served as the most common theme, followed by cross-training within majors. Those themes along with the remaining recommendations are outlined in Table 8.

**Table 8***The Most Important Components to be Included in Higher Education Agricultural Curriculum*

Educational Component	Number of References
Communication Skills	5
Cross Training within Majors	3
Critical Thinking/ Problem Solving	2
Leadership Opportunities	2
Real Life Scenarios/ In the Field Training	2
Project Management	2
Confidence Development	1
Input from Industry Leaders	1
Federal Meat and Poultry Regulation	1
Soft Skills	1
Emotional Intelligence	1
Technology Adaptation	1
Ambiguity	1
Listening	1
Dealing with Change	1
Sales Knowledge	1
Business Acumen	1
Conflict Management	1
Taking Initiative	1
Working on Teams	1

Five individuals referenced communication skills as being an important component to include in higher education agricultural curriculum. This finding aligns with the previous results for needed competencies in which communication also rose to the top. The term “communication” received stand-alone references as well as elaborated responses. For example, one individual said the most important educational component includes, “bolstering confidence with communication without bombarding students with massive amounts of reading and writing, although this is important. Also, helping students learn how to communicate with adults in a corporate/ industry setting.”

Learning to communicate with a particular audience proved important in another response. One individual said agricultural curriculum needs to teach “how to effectively communicate to various audiences and to listen to their concerns before assuming and/ or

replying.” This comment brought up another theme of listening, although “listening” did not receive any additional references. Similar references, however, such as conflict management and working on a team did receive commentary. In regard to conflict management, a respondent said, “I think conflict management is important. With the new generation of students being adept to doing everything virtually, I think it will be important for them to learn how to handle conflict professionally.”

As for working on a team, cross-training specifically emerged as a theme with a total of three references encouraging cross-training within majors to create “a well-rounded approach in every piece of the industry.” One individual expanded by sharing the ability “to work in cross functional teams and manage projects is so important to many industry jobs.” This individual went on to explain students “need to understand that their piece of the project is time sensitive and if they’re delayed then they delay everybody else on the team. They definitely need leadership classes and project management classes.”

The mention of leadership and project management classes brought up additional themes with two references being made toward both. Additionally, comments were made toward critical thinking and problem solving. One respondent encouraged, “thinking outside the box, using new technologies to solve problems, and taking initiative in tasks and relationships.” This also brought up the theme of teaching students how to take initiative.

Additionally, individuals discussed the need for in the field training and real-life scenarios. This led into a discussion related to ambiguity. For example, one individual suggested including “real life scenarios they may face with their degree path, teaching them how to think without defined details or much direction since the real world doesn’t offer these things.” The

individual continued, “They either have to find details themselves or make some educated guesses and know how to act from there.”

Further suggestions, receiving only one reference, included incorporating input from industry thought leaders. Specifically, the individual said to “tear down the ivory tower!” Another individual valued federal meat and poultry regulations. The individual clarified not only should the information be taught, but students should be able to understand and interpret the knowledge. Other suggestions included soft skills and emotional intelligence training, technology adaption and dealing with change, as well as sales knowledge and business acumen.

All in all, communications skills received the most focus, specifically communicating within teams or various audiences. The emphasis on cross-training carried the communication theme forward by encouraging the development of teams in order to create well-rounded students. Survey responses demonstrated additional curriculum development suggestions, many of which were closely related to one another.

### ***Interview Responses***

Interview responses expanded on the initial surveys sent out to industry professionals. The perspectives the interview respondents shared aligned with the research objectives, and the themes are organized according to research objective. Both direct quotations and paraphrases were used to report data in the following sections. Direct or verbatim quotations were relied upon to deepen the reader’s understanding and give the participant’s a voice (Corden & Sainsbury, 2006). The first objective of discussion included changes within the agricultural industry.

### ***Changes within the Agricultural Industry***

Over the course of the respondent’s lifetime many changes occurred. The most significant, according to survey responses included technological changes, the Covid-19 pandemic, and

bioengineered foods and alternative animal proteins. The interviews confirmed that technology and Covid-19 significantly impacted the industry. The impact of bioengineered foods and alternative animal proteins are still being determined. The themes within Changes within the Agricultural Industry are illustrated in Table 9, and a descriptive analysis is provided for each theme following the table.



**Table 9**

*The Most Significant Changes within the Agricultural Industry over the Lifetime of the Industry Professionals*

<b>Theme</b>	<b>Discussion Items</b>	<b>Supporting Quote</b>
<b>Technology</b>	Technology Impact	<p>Technology is going to play a big part in the next five years at [company], especially at those production locations.</p> <p>As far as technology, I mean, that's never going to change. We're always going to be looking for faster, simpler, and better.</p> <p>Technology literally touches every aspect of our business.</p> <p>As I look across the horizon of ag... we've adapted to technology bigger than a lot of industries out there, maybe more so.</p>
	Data Dissemination	<p>Things are going to be more data driven than ever before.</p> <p>Data is becoming increasingly more valuable and even within industry it's becoming valuable, and so I see that the incoming professionals will probably need to have a certain degree of ability to analyze data and apply it to decision making.</p>
	Challenges of Technology	<p>The openness to be able to utilize those items and the willingness to learn them is going to be key.</p> <p>As technology advances, we're going to find out more of what we can do and what is possible.</p> <p>There is a gap in understanding how to communicate with peers and with adults outside of technology.</p> <p>We do a good job of preparing kids for technology, and those things, I think the biggest challenge we have nowadays is having kids that are ready for problem solving.</p>
<b>Covid-19</b>	Impact on Work Environment	<p>What you're going to see is a lot more making decisions about where you want to work before even flying in to see the place in person, and so Covid and technology changes both have impacted that.</p>

**Table 9 (Cont.)**

<b>Theme</b>	<b>Discussion Items</b>	<b>Supporting Quote</b>
<b>Covid-19</b>	Impact on Work Environment	<p>Covid- that's something that is still a struggle right now. We're actually internally trying to figure out- does hybrid work schedule work for us.</p> <p>It created more opportunities for placement and work from home, and allowed people to move from what I would say larger cities to rural areas.</p> <p>Covid was unique from a worker standpoint, the nature didn't necessarily change our need for the workforce in the plant environments.</p> <p>In terms of building certain relationships, having a well-structured culture, ensuring people are buying into the organization beyond just their day-to-day work was quite the shift.</p> <p>Now it's more of a trickledown effect of labor, so it's another big concern for me.</p>
	Impact on Resilience	<p>There's some really incredible benefits with regard to resilience that we've gotten out of it.</p> <p>If you can figure it out now, you'll be able to handle anything later.'</p> <p>Covid has impacted our business quite well. We've had twenty-five consecutive record months in all of our history.</p>
<b>Bioengineered Foods and Alternative Animal Proteins</b>	Critics	<p>(It is) growing but just probably not quite at the speed that others are.</p> <p>Lab grown meat is never going to take over. I don't think it's ever going to take over and replace beef or pork, etc.</p> <p>Personally, I'm not sure how much demand there actually is versus how much media hype there is.</p>

**Table 9 (Cont.)**

<b>Theme</b>	<b>Discussion Items</b>	<b>Supporting Quote</b>
	Complications	I see alternative proteins following that same trend unless we can secure the supply- which to do that comes at a great financial cost.  We just went through that process of labeling, and it's not as clear cut as you would expect.
<b>Bioengineered Foods and Alternative Animal Proteins</b>	Opportunities	We are advancing that alternative protein, just so [company] is more well-rounded and can possibly give people, our customers, a more diverse portfolio than we had before.  It's going to be important to meet the global food demand, so this sector will have to grow for sure.  I am very proud of some of the products I've seen come through as alternative proteins.

*Technology*

From the introduction of emails to self-driving tractors and drones, industry professionals involved in this study cited technology as one of biggest industry changes within their lifetime, and according to responses, technology changes will continue to significantly impact the industry. Respondents voiced technology not only effects production efficiency but is also changing the landscape of the work environment. The introduction of Covid-19 launched some of these technology changes in ways industry professionals never imagined, creating a correlation between two of the most significant changes (technology and Covid-19) cited by industry professionals in this study's surveys.

To begin, one industry professional shared a significant technology change in her career and discussed how she sees technology playing a role in the future:

Technology shifts, I would say, for sure, I can- I and one of my colleagues who I sit right beside- We were talking the other day about the day that [our company] decided to incorporate Microsoft Outlook, and we were told we would start using emails to

communicate, we were like, ‘What do we need that for? We just get up and go to someone's desk,’ and so that was a big shift many years ago. As we look forward, we're going to have to- and I will wrap the pandemic in with this- our company is looking at technology at production levels, and we're trying to deliver quickly, because what we saw through the pandemic, of course, we were losing team members either due to contracting Covid or just not being able to get to work for some reason, and technology is going to play a big part in the next five years at [company], especially at those production locations.

Production and efficiency continued to arise in the technology discussion as other industry professionals indicated that while technology constantly changes, the role technology plays in the industry continues to be consistent. “As far as technology, I mean, that's never going to change. We're always going to be looking for faster, simpler, and better,” said one respondent. One individual stated, “technology literally touches every aspect of our business.” This individual went on to explain technology’s impact on inventory, delivery routing, and internal and external communication within her organization.

Other impacts discussed by respondents included changes in equipment, agricultural production, and data generation. One respondent supported technologies impact on production by sharing:

As I look across the horizon of ag... we've adapted to technology bigger than a lot of industries out there, maybe more so. You think about drones- what we do with drones, and how we measure light intensity on the crop based on the chlorophyll. There are so many things that we're doing now that we're able to adjust rates and timings; so it's been pretty cool to see how the technology has driven ag in a better way.

In terms of data production and analysis, multiple individuals discussed technologies influence and how industry professionals will be impacted by data changes in the future. One individual said:

We’re seeing more emphasis on data. I look at data as a story to tell, but a lot of employees look at it as a job to defend. That's something I see gen Z struggling with, but I think it's going to be changing through their careers. Things are going to be more data driven than ever before.

Another respondent echoed the need for data dissemination:

From a data analytics perspective, data is becoming increasingly more valuable and even within industry it's becoming valuable, and so I see that the incoming professionals will probably need to have a certain degree of ability to analyze data and apply it to decision making, and I think that it's going to be interesting to see how universities shift to make every professional coming in capable of analyzing data in some way because all of our business units touch it.

Not only does technology impact the industry on a production side, technology also touches individuals' career growth; however, industry professionals believe openness will allow individuals to perform positively:

Technology, no matter what age [employees] are, that's here to stay. The openness to be able to utilize those items and the willingness to learn them is going to be key. Employees who don't are probably going to be somewhat left behind or not utilized in a manner that they could be.

One individual continued these thoughts by saying:

The hardest part about that is just keeping up with it. Almost every time you finally get used to using what's current, the next new thing comes out. So just being, I think the hardest part is, just being flexible and keeping an open mind and not getting comfortable with the technology already figured out. New technology comes out and you debunk things that you thought were true, and just keeping an open mind, as technology advances, we're going to find out more of what we can do and what is possible.

While technology changes made their way into discussion as challenges, individuals shared their perspective on how incoming employees are handling technology. One individual discussed what she considers a negative impact of technology:

The biggest thing for me- the generation that I've seen coming out of university is so used to technology- on my phone, on my iPad, on my computer. There is a gap in understanding how to communicate with peers and with adults outside of technology. Because that's a big one- you can be the smartest person ever, and if you cannot communicate in writing, like writing an email (I have a few that write emails like they text, and I've had to caution them about that), or to be successful at [company], you have to learn how to communicate up as well as down, and communicating does not necessarily mean you're doing that by a phone or laptop or whatever. You need that one-on-one connection, and I think there's been a gap through the years that has widened just because everybody's on their phone.

Continuing with the discussion on students being used to technology, another individual shared the following perspective on technology preparedness:

We do a good job of preparing kids for technology, and those things, I think the biggest challenge we have nowadays is having kids that are ready for problem solving. They are pretty used to, and you know, we all are guilty of this, we kind of help problem solve for our kids, and don't let them figure stuff out on their own, give them too many answers, and so I think that's the biggest one, you know we've got to have [problem solving].

### *Covid-19*

Furthering with the idea of problem-solving discussion emerged on how technology and Covid-19 intersected to change the industry in terms of career expectations. One individual's perspective explained, "What you're going to see is a lot more making decisions about where you want to work before even flying in to see the place in person, and so Covid and technology changes both have impacted that." Another individual detailed how the interaction of technology and Covid-19 are bringing up new challenges for the industry as well as highlighting generational differences:

Covid- that's something that is still a struggle right now. We're actually internally trying to figure out- does hybrid work schedule work for us. Not every job can be hybrid but many jobs can. I heard a statistic yesterday from a [company] recruiter that 60% of applicants on job posting sites are applying for remote positions, so that's what they're searching for, and I think that students are going to have a huge learning curve coming into that. I actually think companies have more of a learning curve because if students have graduated in the last year or two they figured out how to balance school which means they probably expect how to balance work in that sort of environment, and I think that with gen Z especially, since they're the ones coming into the workforce, the biggest challenge with Covid is going to be, and I don't think they're wrong for this, but the mentality of, "Well it worked before, why can't you make it work again," and I completely agree with that, by the way. I think that we need flexibility, and I'm a millennial, so I'm not even that far removed from Gen Z, but that's very much not the perspective in the ag industry. The perspective is hands on, and typically your job, even if it is an office job like mine, is related to some sort of hands-on production.

One respondent shared how work changes resulting from Covid-19 impacted some employee's families. He said:

I think that affected us in a couple of different ways. From a work scenario, in the financing and banking world, and probably a lot of others, it created more opportunities for placement and work from home, and allowed people to move from what I would say larger cities to rural areas, and I think we saw mass movement of that over the last two years as people wanted to get their kids out. They were at home with them; so they

wanted to have an area where they could do that, and I think that's- that's been a big impact.

Work changes resulting from Covid-19 also brought up concerns regarding labor shortages. These shortages reportedly accounted for some of the need for increased technology and automation:

Covid was unique from a worker standpoint, the nature didn't necessarily change our need for the workforce in the plant environments. Some internships and new graduates came in and worked in a fully remote or virtual capacity. The start of which lends itself into a little bit of the technology evolution.

Additionally, Covid-19 challenged work culture and team building, creating ongoing concern for employers:

But in terms of building certain relationships, having a well-structured culture, ensuring people are buying into the organization beyond just their day-to-day work was quite the shift, and we have always been one to continue encouragement of people to come into the office if it is more of a corporate type function or internship or whatever, and we just did so through a more cautious manner with masks and a hybrid of at home and office work, but that was probably one of the biggest shifts when it came to impacts for new employees coming into the organization, and now it's more of a trickledown effect of labor, so it's another big concern for me.

Even with the challenges of Covid-19 and labor shortages, employers are choosing to see the positive impacts. One individual discussed resilience while another individual brought up perseverance even in the midst of the major changes:

I think the circumstances of the last two or three years forced people to deal with an increase in pace with the labor shortage and to a degree deal with change, and so I think in a lot of ways there's probably a little bit of trauma that has kind of come out of it, but there's some really incredible benefits with regard to resilience that we've gotten out of it as well.

I don't know that have a good answer for Covid because we're currently trying to figure that out. The other thing is, since Covid, I haven't been in the same job. Even though I've been in the same department for five and a half years, my job has felt like a totally new circus every day, and as we've onboarded people, I've said that like 'Okay, this is just the craziest it has ever been but if you can figure it out now, you'll be able to handle anything later.'

Additionally, Covid-19 impacted some aspects of the industry in a positive light with record sale years; however, even with the financial growth, supply chain issues emerged as a result. “Covid has impacted our business quite well. We've had twenty-five consecutive record months in all of our history,” shared one individual. She went on to explain the resulting supply chain concerns, “We're already taking orders for 2024 and 2025 that people are ready to pay for, and we're like, ‘Hey, we have no idea what the price is going to be in two years.’ Those are things that are going to impact us.”

Similarly, one individual described Covid-19 as a ripple effect for further supply chain issues. She also noted that the learning curve of the supply chain fall out is not limited to incoming employees but also established professionals. She said:

I think bigger than Covid, especially in commodities and in ag, is the Russia and Ukraine War, and it's caused way more havoc than Covid did as far as my supply chain goes, and so I see Covid being like an excuse, but really almost like, truly like a door that opened a ripple effect of supply chain issues and inflation, and so I think that that's just a learning curve we have to figure out regardless of if you're entering the workforce or if you've been in it.

This individual went on to explain how supply chain issues are creating problems in the production of organic products and alternative proteins, creating a transition into the bioengineered foods and alternative animal proteins discussion.

### *Bioengineered Foods and Alternative Animal Proteins*

Survey responses indicated bioengineered foods and alternative animal proteins exist as a significant change in the respondent's lifetime; however, multiple interview respondents did not agree with the significance placed on bioengineered foods and alternative animal proteins in the surveys. One individual shared how she sees value added proteins, such as prepared foods, significantly growing, whereas her company's alternative proteins are “growing but just probably



not quite at the speed that others are.” She continued, “so I don't know if I agree totally with (bioengineered foods and alternative animal proteins being a significant change).”

This individual was not alone in her perspective. One individual is involved in her local cattleman’s associations to build relationships with her clients, and she said alternative proteins were discussed at a recent meeting. From her perspective, “Yes, it's a concern, but it's nothing major.” She went on to explain in more detail, tying back to supply chain and inflation issues:

I would be more concerned about chemical pricing, fertilizer pricing, and cost of corn because that's all going to have a bigger impact on you than it is lab grown meat. Lab grown meat is never going to take over. I don't think it's ever going to take over and replace beef or pork, etc.

Similarly, an individual involved in the cattle industry shared his perspective on the question, “That's a tough one,” he said. “I'm a true agriculturalist.” He went on to explain his concerns of the potential economic impact on not only U.S.’ families, but also areas of the world where affluence is not as abundant. He finished his thoughts by sharing his perspective on the purpose of agriculture.

I know there's probably some demand. I don't know. Personally, I'm not sure how much demand there actually is versus how much media hype there is. I think it's hard to replace natural protein. Do I feel like there's going to be a place? Probably, but is it going to be a mainstay? I don't believe that it is.

At the end of the day, I think that's what our responsibility is as agriculturalists- we're feeding the world. We have to provide a safe, good, nutritious product that the average family can afford, and I think that's something that people who are not involved in agriculture forget about, and that's still a responsibility, I believe. So, yes, it's going to have an impact. Do I believe it's going to be in my lifetime, a change? I don't think so.

Individuals who are currently dealing with the development of alternative animal proteins and bioengineered foods within their companies also shared concerns regarding price and increased effort from a supply chain and development standpoint. When discussing organic products, one individual said, “The supply chain isn't there yet,” she continued, “and organic is much further along than alternative proteins are. I see alternative proteins following that same

trend unless we can secure the supply- which to do that comes at a great financial cost.”

Additional concerns arose over labeling efforts and ingredient lists:

We just went through that process of labeling, and it's not as clear cut as you would expect, and those valued customers of ours that wanted bio-engineering information on the label, probably aren't getting what they truly wanted because so many of our ingredients could be derived from a bio-engineering food- so it's caused a lot of hard work just to get through that. Now, alternative proteins- we have, I started to say stuck our toe in the water, but we've stuck one leg in the water. We are advancing that alternative protein, just so [company] is more well-rounded and can possibly give people, our customers, a more diverse portfolio than we had before.  
Even with the concerns, individuals believe alternative proteins may provide

opportunities for expansion in the future. One individual said, “it's going to be important to meet the global food demand, so this sector will have to grow for sure,” and another individual shared she is “very proud of some of the products I've seen come through as alternative proteins.” She followed this statement with:

But again, the consumers- for me, if you look at an ingredient statement for an alternative protein, it is enormous, because what we're trying to do is mimic an actual meat protein, and it takes a lot for our food scientists to get that to the level where it tastes really yummy, but I see that expanding at [company] quite a bit the next few years.

### *Challenges for Incoming Employees*

While bioengineered foods and alternative proteins received varying agreement on their industry significance, other industry changes arose out of the interviews, leading into discussion of challenges regarding career expectations and career success. In regard to how the industry is changing, one individual said looking at bringing on recent graduates is going to involve “hiring for both the existing culture and the culture that could be.” She shared, “young professionals who have their feet firmly planted in both is good,” and she believes incoming employees should maintain the perspective that many of the people they may be working with possess more experience; however, she also concedes that the industry is changing:

But also, things are different now and people don't spend twenty years in their job anymore, and so there's like a balance between that- and I would say the people that I've

seen thrive in these two, like this dichotomy, if you will- and the people that are willing to adjust and do what it takes to drive their own career forward and take the wheel.

Another individual summarized how individuals can meet the changing demands of the industry, “We look for people that can be flexible, that are getting diverse skill sets, that can do different things, and that's important.” The respondent continued, “The amount of change is fast in agriculture, so just being well rounded is the key to being ready for change.” Industry professionals indicated challenges can arise out of these changes, specifically in regard to career expectations. Within career expectations, themes which emerged included positive aspects recent graduates can bring to the industry, expectations gaps between employees and employers, and patience needed in career expectations (see Table 10).

**Table 10**

*Challenges for Recent Graduates Based on Industry Perspectives*

<b>Theme</b>	<b>Discussion Items</b>	<b>Supporting Quote</b>
<b>Career Expectations</b>	Positive Expectations	<p>I feel like the expectation is very much to bring in the knowledge of what's new.</p> <p>They're usually more adept to taking on some of the system related challenges we have around data analytics.</p> <p>For me personally, there was no pressure to be super knowledgeable and 100% perfect.</p> <p>Some of the younger generation folks we've hired probably in the last two or three years, probably test me more than some of the more knowledgeable employees that have been with the team for a little bit longer, so that always is a great incentive for me.</p> <p>We're preparing a lot of them pretty well. They just have to know, hey, we're going to come in. We're going to work,</p>
	Expectation Gaps	<p>There's a gap for sure in what the agriculture industry is willing to give versus what the incoming young professionals are willing to give.</p>

**Table 10 (Cont.)**

<b>Theme</b>	<b>Discussion Items</b>	<b>Supporting Quote</b>
<b>Career Expectations</b>	Expectation Gaps	<p>‘The company wills what my career is versus I will what my career is.’ We end up losing those people because there's a big gap.</p> <p>There's an expectation that you have this degree of some kind, whether that be a bachelors, a masters, a PhD, that when you graduate, the world is going to want you, and the pay is going to be so enormous because you're so well educated.</p> <p>Don't expect things to get handed to you right out of the gate because they're not.</p> <p>There's almost a disconnect of having positive intent and things working out versus nose to the ground and understanding ‘A’ plus ‘B’ doesn't equal ‘C.’</p> <p>They're working amongst twenty other all-stars, and it's much harder to differentiate yourself once you get to that level versus maybe what they've experienced in college or in high school.</p> <p>When it comes to like performance appraisals and feedback, there are certain instances where students, nowadays want kind of a continued guiding hand.</p> <p>There is a gap in understanding of students, understanding what they're going to have to put forward themselves to be successful.</p>
	Expectation Advice	<p>I'm having an executive speaker that's going to talk to them about being patient, you know, doing the hard jobs to get to where you want to be.</p> <p>You got to put in the work. Everyone has a piece of management, but you don't get to oversee 30 people just because you want to.</p> <p>We try to coach our managers on- it's not good enough just to tell them to hold and wait. We're looking for ways to kind of meet them in the middle.</p>

**Table 10 (Cont.)**

<b>Theme</b>	<b>Discussion Items</b>	<b>Supporting Quote</b>
<b>Career Expectations</b>	Expectation Advice	The way you gain loyalty is to show them a career path and say, 'Okay, look, we've got succession planning for you. We want you to be here.' Success doesn't mean getting a raise every year or continuing to move up the chain. Do you feel stable in your job, and are you growing as a person and in the knowledge that you have? We want them to be successful, and honestly, the only way is by pouring into people when they come in.

The biggest challenge, indicated by survey respondents, involved career expectations. To gather industry professional's perspective on this challenge, questions were asked in regard to how industry professionals would describe career expectations and how agricultural students can best prepare themselves to meet the career expectations of the industry. From those questions, themes emerged regarding positive expectations employers have toward new employees, misunderstanding of expectations, and patience in regard to career growth.

When initially asked to describe career expectations, individuals provided broad definitions. "It's kind of a broad bucket when it comes to career expectations, my mind goes initially to growth and potential to move up." Another individual discussed what she expects when young professionals show up for the first time, "Expectations- I think of the very simple stuff that a lot of people overlook. When you come to [company], we expect 'yes ma'am, no ma'am, yes, sir, no sir.' Starched jeans, starched shirt, tucked in. Obviously, a haircut." Other individuals looked at career expectations in terms of what new employees can do for them. For example, one professional said, "I feel like the expectation is very much to bring in the knowledge of what's new." This mindset became a recurring theme throughout the career expectation discussion.

### *Positive Expectations: What Can You Bring to the Industry?*

Industry professionals shared how recent graduates can bring in new ideas on how they approach work as well as how they tackle system management. One respondent said recent graduates “bring in the technology systems to be able to make working lives a bit easier. They're usually more adept to taking on some of the system related challenges we have around data analytics.” This individual attributed increased data analysis skills to curriculum offerings.

While there are expectations for recent graduates to bring certain skillsets to new careers, industry professionals also discussed how employers are willing to support recent graduates in their career growth. One individual shared her low-pressure experience with entering the industry. She said her employers very much welcomed the new knowledge she brought to the industry because many of them had been out of college for 10 to 20 years. Additionally, she shared she was afraid she might not be able to meet her employers' expectations coming in; however, those fears were eliminated once she entered the industry:

For me personally, there was no pressure to be super knowledgeable and 100% perfect. My superiors would ask me a question, “What do you think about this, or what do you think about this?” But there was no pressure to have a right or wrong answer. I was in the industry for a year, but my fear was that I'd come in, and they'd say, ‘Oh, you know you know exactly what you're talking about.’ No. Sure don't. Sure don't. So, even after a year of being in the industry there still was not that pressure to know everything.

Incoming employees may not know everything, but according to industry professionals they are challenging established professionals by bringing in new perspectives. An experienced professional shared how her time in the industry blindsided her at times to the needs of consumers; however, recent graduates are changing that:

Honestly, I will tell you, some of the newer employees that are coming either straight out of university, or maybe they've got a little bit of job experience, probably are more well versed in what's happening in the world and what consumers are asking for than people my age because they are asking those questions. For my team, some of the younger generation folks we've hired probably in the last two or three years, probably test me more than some of the more knowledgeable employees that have been with the team for a

little bit longer, so that always is a great incentive for me. I learned a lot from people that have a different perspective than someone like me that's worked for so long in an industry. You almost become blindsided to the things our consumers are truly asking for. In terms of graduate preparedness, industry professionals believe recent graduates are prepared; however, professionals also believe incoming employees have room to grow. Industry professionals presented these growth areas by identifying expectation gaps between employers and recent graduates. One industry professional shared his perspective on career expectations as well as advice he would like to pass onto youth he influences:

We're preparing a lot of them pretty well. They just have to know, hey, we're going to come in. We're going to work, and sometimes when you take a job, it's just like with mine when I signed on, and I'm doing all these duties. It doesn't mean that I'm passing a duty off. If something comes up, and I think that it's not exactly what fits in my criteria, I still do it. It's just the way that we do. You work for the end goal not for the recognition, and that's what you have to concentrate on, and I hope I'm teaching my kids that and the kids I'm around in my local area. I hope I'm teaching them that. You know. Sign up for a job. You get that job done to the best of your ability, and sometimes you have to do things you don't feel like are your responsibility, but you do it anyway.

*Expectation Gaps: Is the World Going to Want You?*

“The expectations are definitely- there's a gap for sure in what the agriculture industry is willing to give versus what the incoming young professionals are willing to give,” shared one industry professional after reflecting on her work with recent management trainees. This professional went on to explain her comment- “When the trainees go through a program, they get into this sort of victim... I wouldn't say victim is the right word, but ‘the company wills what my career is versus I will what my career is.’” She continued, “We end up losing those people because there's a big gap.” However, she said there is a difference between those who stay and those who leave:

So the difference between the trainee that succeeds and moves through the business very quickly- Those people took complete control of their learning, complete control of their career and shaped their attitudes and behaviors in order to move to the next level versus the guy who's like, ‘This company doesn't give me enough opportunity. They told me, I have to be a supervisor for so long before I get promoted, etc.’

Continuing with these thoughts, one individual shared a perspective she believes some recent graduates have toward what they can bring to the industry, and she conceded she shared this belief when she entered the industry years ago:

But I would say one thing that still happens, and it happened when I graduated with just my bachelors- there's an expectation that you have this degree of some kind, whether that be a bachelors, a masters, a PhD, that when you graduate, the world is going to want you, and the pay is going to be so enormous because you're so well educated.

When giving advice to recent agricultural graduates, one individual shared examples from a recent hire as well as experience his own career. In both instances, those individuals did not start out in the position they wanted or the position that was necessarily their expertise; however, they did gain valuable experience. He went on to explain his advice on expectations and the value of work:

Don't expect things to get handed to you right out of the gate because they're not. Most of the time you're going to work your way up to the job that you really want so nothing-nothing replaces hard work, is what I would tell students coming up. I'm not that smart, but I've always gotten up every day and tried to work hard, and do the right thing. If you do that every day, you will be successful.

While nothing replaces hard work, according to industry perspective recent graduates need to possess realistic expectations toward their work. Sharing an example of a recent graduate, whom the professional spoke very highly of, one industry professional said “there’s almost a disconnect of having positive intent and things working out versus nose to the ground and understanding ‘A’ plus ‘B’ doesn’t equal ‘C.’” She shared examples of how recent graduate’s expectations might not be met, and she provided what she believes is a healthy way to navigate real world expectations:

Hard work doesn't always equal exactly things working out the way that you want it to or the promotion or the raise or the award. Sometimes you have to adjust to- not adjust your ethics, binding, or your morals, by any means- but adjust your expectations to the environment you're in, and I think that's healthy to look at, even though it sounds negative. Just because it's kind of shocking when you get out into the real world and you see that.



One industry professional explained why this disconnect may be present by contrasting college with real-world work experiences. This individual encouraged recent graduates to take responsibility for finding out how they are performing and what is expected of them. He said seeking feedback also demonstrates a willingness to keep growing and prevents misunderstandings:

They're working amongst twenty other all-stars, and it's much harder to differentiate yourself once you get to that level versus maybe what they've experienced in college or in high school, and the feedback they get- so that would be another piece that, again, it's not really on them- maybe setting an expectation that you need to seek feedback as much as you want it. I even tell interns that it's equally part of your own experience to ensure you're asking the right questions and that you're engaging your leader because when things get going and leaders are busy it's important to still ensure they know your development is important and you're working on yourself to develop your own skills, but where you need their guidance- and having some confidence in that- is important because, again, if they don't (seek feedback) sometimes it will never happen, and they'll just sit back and wonder, "Why did I never get any good feedback until they said, 'leave'?" And then they are they going, "Great, you could have solved that."

When looking at expectations, specifically in regard to seeking feedback, one respondent discussed the change in leadership style and how incoming employees take feedback personally. This individual shared how incoming employees sometimes focus so much on the lack of negative feedback that they fail to focus on the positive feedback:

When it comes to like performance appraisals and feedback, there are certain instances where students, nowadays want kind of a continued guiding hand of 'Hey, I'm doing things well, and I need that pat on the back,' and again, this is a little bit of a change of leadership style that we're trying to tell people in general is that sometimes it's not good enough just to say, "I didn't get any negative feedback today, so that means I'm doing things well." Celebrate the wins at the same time.

Seeking feedback proved popular as a recommendation for incoming graduates; however, the idea of ownership also emerged as a theme for career expectations and job success. One individual shared the need for recent graduates and incoming employees to set their own expectations and to recognize what is required in order to meet their goals:

There is a gap in understanding of students, understanding what they're going to have to put forward themselves to be successful, and I've always said- again back to the diversity

of my team- we have a lot of overachievers on my team, but yet we have a lot of people that just want to come in, do their job, and walk out the door to go home, and to me that's a decision you need to make as you're applying to these positions or these corporations or companies or whatever. You've got to set your own expectations for yourself, too, and I've always told my team- I have goals every year, we have to put down goals in writing, but I have internal goals for myself that have been based around salary, job description, whatever, and that's key, also.

Additional advice was offered for recent graduate's career expectations.

Recommendations were provided to encourage patience among recent graduates. Industry professionals shared personal stories from their careers as well as discussed ways the industry is working to help set a healthy pace for career goals.

*Expectation Advice: Do the Hard Jobs. Someone Wants You There.*

Industry professionals voice they are seeing recent graduates expect to enter into a high-paying job or move up within a company very quickly after being hired. One individual believes these expectations took place over several generations, and respondents shared various personal experiences from starting out filing papers to moving into executive roles. Other individuals moved quickly from hourly roles to management roles, and one individual began as a regional sales manager the week after college graduation. Each industry professional brought different backgrounds to the table; however, all respondents agreed necessary steps must be taken in order to achieve growth.

Putting in the work to earn your position proved to be a recurring theme. One individual shared her experience with incoming employees. "They want to be the CEO tomorrow, basically, and they don't want to put in the hard work to get to the role they want to be at," she said. "I'm having an executive speaker that's going to talk to them about being patient, you know, doing the hard jobs to get to where you want to be." Another individual discussed his perspective by sharing, "I do not want to label generational folks, but as folks come into the job market today, they expect to move up faster than probably even when my dad or your dad or even myself came

into the job market.” He continued, “I don't know what causes that.” He conceded there may be a need for rapid movement; however, he does not believe it is realistic for individuals to expect to be a manager within a year. “You got to put in the work,” he said. “Everyone has a piece of management, but you don't get to oversee 30 people just because you want to.”

As rapid growth expectations continue, employers share they are faced with how to navigate the need for upward movements. Employee trainings prove a popular method for setting realistic growth expectations. Investing in employees and creating internal contingency plans is another method of supporting employee's growth expectations. One young industry professional shared how she cannot imagine leaving her current company because of the level of investment they place on her growth. Her words were, “it would be really difficult for me to feel like I'm settling for anything else because for me, in my career, I do want to grow as a person, too. I don't want to be 50 years old and stagnant.” This contingency is what another individual is trying to create within his organization by developing people, providing new opportunities, and encouraging cross functional experiences:

We try to coach our managers on- it's not good enough just to tell them to hold and wait. We're looking for ways to kind of meet them in the middle, and not just say, ‘Well, we wish we could have kept him, but you know they just had a better opportunity elsewhere.’ We want to ensure we are creating those opportunities internally. In terms of expectations- again, I don't necessarily think it's good, bad, or indifferent- I understand there's some of that ‘I want it now’ mentality of not only this generation but the last few. If you are at least creating next steps that are progressive, even if it's not a role or title, it will satisfy that expectation, but I don't necessarily want to push back with, ‘Don't aspire to think so fast’ because that's not necessarily the right message, but how do we do better to kind of meet them halfway?

Meeting them halfway for one industry professional looks like outlining an internal career path for them. He said he understands many individuals make career changes based on salaries; however, his concern for bringing on a new employee is the level of investment involved in training individuals who later move on to a different organization. When hiring a

good person, he wants them to stay. He believes, “The way you gain loyalty is to show them a career path and say, ‘Okay, look, we've got succession planning for you. We want you to be here.’”

For some, career expectations are not related to salary as much as they are related to personal growth, according to interview responses. One individual shared how she made the decision to move organizations; however, she said she would have felt stable in her previous position even without traditional upward movement. “To me,” she said. “Success doesn't mean getting a raise every year or continuing to move up the chain. Do you feel stable in your job, and are you growing as a person and in the knowledge that you have?”

As the topics of discussion moved from career expectations to success, industry professionals were asked to explain what job success looks like to them as well as provide skills incoming employees need for career success. Career expectations such as career advancements found direct tie-in to many of the skills recommended for job success, and industry professionals shared a desire to help set individuals up for success. One individual said, “We want them to be successful, and honestly, the only way is by pouring into people when they come in.” With this mindset, perspectives were shared on how recent graduates can meet the employability skill needs of the industry.

### *Employability Skill Needs*

As with the survey responses, the researcher sought to compare the industry skill needs identified by APLU with the skill needs shared by industry professionals throughout the interview process. The skill needs of ability to succeed in a new job, navigating ambiguity in job tasks and workplace expectations, dealing with the pace and content of change in the workplace,

and managing conflict in the workplace received open ended questions to gather industry perspective on those concern areas (Crawford & Fink, 2020).

*Ability to Succeed*

Skills needed for success in a new job garnered much discussion. To start, employers look for one’s ability to fit into a work environment. From there, individuals are encouraged to take ownership for their success through job tasks and work responsibilities. Timeliness, while noted as simple, was considered a skill needed for success, and respecting time also lead into the idea of putting others first. In Table 11, the reader can see how each of these themes developed through interview discussion.

**Table 11**

*Employability Skills Related to Recent Graduate’s Ability to Succeed in a New Job Based on the Perspective of Industry Professionals*

<b>Concern Area</b>	<b>Theme</b>	<b>Supporting Quote</b>
<b>Job Success</b>	Cultural Alignment	<p>How are they going to fit into your dynamics, your group, your culture? Adaptability to those things would be what you're looking for.</p> <p>It's very important that our employees, that our values lineup, and that our motivations lineup.</p> <p>Getting the right person is more important to me than anything. Diversity of thought too- that's important.</p> <p>Different things like that- that builds a stronger team, especially when you've got people of different ages, different ethnicities, different backgrounds, and they've seen it with me as I come in, I come to somebody, and I’m like, hey, I’ve got a question about this, and they're like, ‘I don't know, but I'll help, you know. I’ll try.’</p>

**Table 11 (Cont.)**

<b>Concern Area</b>	<b>Theme</b>	<b>Supporting Quote</b>
<b>Job Success</b>	Ownership	<p>If you don't take the initiative, if you don't set the call up, or you don't draw that face-to-face interaction then it's hard to get the job done. Initiative really determines that person's success, to be honest with you. That's probably number one.</p> <p>Ownership is one of our values, and so when my boss even mentions that something might be an area of ownership for me, I literally just take it and start building out the whole process.</p> <p>I mean, when somebody gives you a job or tasks to do, like my job, because they didn't have a compliance role before me, I kind of had to make it my own.</p> <p>I'm a big believer in, you are responsible for your own success so it's your responsibility to communicate up. I'd like to see a little more of that, more ownership.</p> <p>You want someone that can come, and they have initiative and drive, and they can show that leadership to stay out in front of you. If they're always behind you, then you probably didn't make the right hire.</p> <p>To me, it's all about your accountability. If you want to be successful, you will be because you have the initiative.</p> <p>It's left up to you. We trust you. We hired you. Go do your job.</p>
	Time Management	<p>Are they doing, obviously, some of the tangibles of getting to work on time and acting with professionalism?</p> <p>I would say hiring managers throughout the business would say they would prefer someone with one to two years of work experience rather than somebody fresh out of school, and it's because you have to teach, like, 'show up to meetings.'</p>

**Table 11 (Cont.)**

<b>Concern Area</b>	<b>Theme</b>	<b>Supporting Quote</b>
		<p>Being able to multi-task is really important, but also being able to prioritize those tasks and to work on the things that are most important on that day. To me that determines your success.</p>
		<p>Usually what differentiates some of the good or bad is timeliness.</p>
		<p>Just respect everyone's time.</p>
Others First Mindset		<p>Effectively communicate with people- talk to them, listen. You've got two ears one mouth. Listen first and then speak.</p>
		<p>A lot of listening. Be polite, be respectful, make your comments when needed.</p>
		<p>I worked really hard getting to know my team better, getting to know their personalities, as well as their family lives.</p>
		<p>Listen, watch people, observe people because, as a leader here at [company] you have to be an expert at observing.</p>
		<p>Is it all about me or is it all about somebody else? And it's good to have people that don't always think of self first- that think of others, first. It's one of the golden rules. We'll look for that.</p>
		<p>Be willing to put your pride aside, communicate, and figure other people out on your team, because you can discover strengths, and then you can use those strengths to make your team even better.</p>
		<p>It's not about the individual. It's about what our society, what our team, or our groups are all doing, and working and knowing that there's places for everyone.</p>

## *Cultural Alignment*

Cultural alignment, according to industry professionals, proves to be a success factor for incoming employees. Some industry professionals said finding an employee who is the right fit for the company can be more important than the knowledge he or she brings to the workplace, and multiple respondents shared cultural or organizational alignment as being one of their biggest concerns when bringing on a new graduate. One individual shared questions he asks when bringing on a new employee. Specifically, he said he looks at an individual's ability to adapt to the culture of the organization:

It's the same with anytime you bring on a new person, whether a recent graduate or transfer from somewhere else- how are they going to fit into your dynamics, your group, your culture? Adaptability to those things would be what you're looking for.

After a hiring decision is made, organizations use various measurements to rate employee success, including those which measure cultural alignment. One individual shared a nine-box calibration measurement which applauds individuals for their cultural alignment and performance. With this measurement, an individual's team rates them from "needs some support" to "high performer ability to grow and move up." She said seeing trainees come through and grow within their training program is rewarding. To one industry professional, if an individual is not aligned with the values and motives of the organizations, there may be need for concern:

It's very important that our employees, that our values lineup, and that our motivations lineup. Honestly, I'd say that, more than anything, if they're just here to get a paycheck, and they're not going to be a person that wants to grow personally, I feel like that would kind of be a red flag. Just because, if you don't want to grow, the company's not going to grow, and yes, of course, you need a paycheck to survive. You also want somebody who enjoys their job because they're going to do a better job.

When looking at cultural alignment and growth potential, industry professionals said company cultures vary significantly, and someone who struggles in one culture may thrive somewhere else. Also, when looking at cultural alignment, one individual shared how he has



worked with a diverse number of people with varying backgrounds, and being able to connect and collaborate with them is extremely important. However, with organizational diversity specifically, he said he considers diversity of thought:

Getting the right person is more important to me than anything. Diversity of thought too- that's important. I'm one of those it shouldn't matter your skin color. What should matter is your diversity of thought and how you think through things. Emotional intelligence, the leadership initiative, the communication side- just that whole skill set. To me, that's their diversity and their skill set. That's really what I'm looking for today.

Another factor that contributes to the success of a team and navigating cultural or generational differences involves taking ownership. "I'm not a 'that's not my job' person," said one industry professional. She went on to explain how she teaches trainees to handle difficult situations for the betterment of the organization:

When I teach people that come in, I go, okay, one thing we're never going to say is, 'that's not my job.' We can say, 'Hey, so and so knows more about that than I do. I don't know, but I'll find out.' Different things like that- that builds a stronger team, especially when you've got people of different ages, different ethnicities, different backgrounds, and they've seen it with me as I come in, I come to somebody, and I'm like, hey, I've got a question about this, and they're like, 'I don't know, but I'll help, you know. I'll try.'

### *Ownership*

Ownership continued in conversation as a skill necessary for career success. Supported by industry perspectives, taking ownership and demonstrating initiative can determine one's performance, and initiative can come in the form of project management, including the conversations required to complete a project. One industry professional shared what he teaches new hires about initiative and successful project management:

Being able to have the initiative to get your projects done- we have associates that work a lot of different projects, so what I always tell our new people is, when you're working with somebody else it's up to you to drive that conversation because that person you may need the information out of has another full-time job, and you're trying to tap their knowledge to get their understanding of how to complete the project. If you don't take the initiative, if you don't set the call up, or you don't draw that face-to-face interaction then it's hard to get the job done. Initiative really determines that person's success, to be honest with you. That's probably number one.

Industry professionals discussed ownership through their own experiences. Tying into organizational values and navigating ambiguity, one individual explained how taking ownership leads to career success in terms of growth potential:

Ownership is one of our values, and so when my boss even mentions that something might be an area of ownership for me, I literally just take it and start building out the whole process and what it looks like and that sort of thing, and so I would say that the ability to deal with ambiguity makes a big difference in like career progression. Another individual shared how her experience as the only individual in her role requires

her to take ownership. She said her company's openness contributes to her ability to take ownership:

I mean, when somebody gives you a job or tasks to do, like my job, because they didn't have a compliance role before me, I kind of had to make it my own. Now, I'm really lucky at [company] that they are very open. One of their core values is bias for action, and so they're very much a just do what you need to do as long as it gets done. If it works, we can continue doing that and growing it. If it doesn't work, that's not a problem we just need to figure out how to make it work.

Based on industry professional's experiences, some individuals take ownership while others are provided with the correct resources yet do not take the steps to succeed. One individual contrasted two individuals she worked with, looking at how those individuals approached ownership. According to this professional, this individual did not take responsibility for their success:

There's someone in our office right now who's working on a report that they're supposed to send every week, and that report actually informs quite a few very high-level people in the company of what's going on in our group each week, and so a lot of people depend on it. That hasn't been going as well, and this person has been told 'hey you need to do this instead.' The person has been given the tools to succeed. They've been told what to do, but not how to do it, so it's dead in the water there. It's a really big shame that that's not being communicated up and down, but I'm a big believer in, you are responsible for your own success so it's your responsibility to communicate up. I'd like to see a little more of that, more ownership.

In contrast, she shared how taking ownership by being resourceful and asking the right questions lead to success:

We hired a girl, and I mentor her, and my favorite thing about her- I asked her once in an interview what her biggest strength is, and she said she's very resourceful, and she is. She really is, and she has had two different roles in our group and has transitioned into them flawlessly because if she doesn't have the answer she goes and looks for it first and just doesn't waste too much time looking for it before she follows backup, and so let's say that she doesn't find anything, she can say 'hey I've not found anything. I wanted to touch base make sure I'm not headed in the wrong direction.' Having that mindset has helped her and made her definitely stand up and stand out among her peers.

Industry professionals shared they are willing to provide the right resources; however,

they do not want to hold incoming employee's hands. One individual shared his perspective on choosing a successful hire:

Are they self-starters? That's really important to me. Can you give them a potential project and give them just a little bit of detail, and then will they take that and formalize a work plan to get it done or scope out the project? Sometimes in my job I'm covered. I'm chasing a Chinese fire drill, and I'm chasing too many different things, and I've got an associate. I've got to have this associate take small bits of information I may give them and then take them and run to formalize a project. If I have to spoon feed somebody, I probably don't need them. Now, I understand there's a little bit of that early on. You want someone that can come, and they have initiative and drive, and they can show that leadership to stay out in front of you. If they're always behind you, then you probably didn't make the right hire.

Another industry professional shared a similar perspective in regard to taking ownership:

For my team, and in my area of work, thriving in ambiguity is actually what I look for. Can they take instructions and run with it? I'm not saying don't follow up. I want them to follow up, but do you have to hold their hand through each step? How often will they need to check in for guidance? So that's the biggest one. I look for self-motivated.

Initiative and success go hand in hand, according to one industry professional, and he believes his education as well as mentors prepared him for career success. He said individuals who want to be successful will be, encouraging individuals to work hard and take ownership for their success:

I will say this, I was ready. My degree at Arkansas when I came out with a master's, I didn't feel like I wasn't prepared. When I walked across the state line, I was not intimidated. I knew how to interact with people. I knew how to get up and give a presentation. I felt like I could communicate well, so I wasn't intimidated. I was confident that I would be successful if I worked hard. To me, it's all about your accountability. If you want to be successful, you will be because you have the initiative.

If you're not, it's probably on you, or you're probably in the wrong job. Then you've got to self-reflect.

"If you want to be successful you will be" reflects the perspective of industry professionals; however, rather than leaving success ambiguous, one recurring tangible for success involved simply showing up on time. "It's Simple. Simple. Simple. Did they show up on time?" said one professional. She continued by discussing the importance of her sales team taking ownership. Once individuals are in that role, there is no one to manage their time for them, she explained:

As a salesperson, outside salesperson, you are what we call, on your own island. Your boss does not call you at 8 a.m. to make sure you're out of the bed. They don't call you at 4 p.m. on a Friday, and, 'Are you still working?' It's left up to you. We trust you. We hired you. Go do your job. Hit your numbers. Sell what you need to sell and move on, and we want to hit our- we have management business objectives and goals. They're essentially goals you get paid more for, so put your numbers on the board, hit your goals, and move on. We're not going to sit here and put our thumb on you. You have the freedom. Call us if you need us, but you have the freedom to go do the business.

Based on this perspective, ownership and time management coincide to meet personal and business objectives, contributing to the success of the individual and the company. Additional perspectives also noted the importance of showing up on time and respecting other's time.

### *Time Management*

"Are they doing, obviously, some of the tangibles of getting to work on time and acting with professionalism," began one individual when discussing recent graduate success. Industry professionals noted, showing up on time may seem very basic; however, they believe it is foundational, and needing to train individuals for basic competencies makes one professional question the time investment required to bring on a recent graduate. "When hiring recent grads there's this freshness about them that's essentially teaching them. When you're hiring a recent grad for a role versus hiring somebody with some experience in the workplace, there's a lot more work that goes into it." This individual expanded:

I would say hiring managers throughout the business would say they would prefer someone with one to two years of work experience rather than somebody fresh out of school, and it's because you have to teach, like, 'show up to meetings, think about what you say before you say it,' and I know that those seem very basic, but they're also like really core concepts at the beginning to like grab on to. 'Don't give up the first time to somebody tells you that you're failing.' That would be the biggest hesitation for folks, and what would scare them the most by hiring recent grads is just how much work goes into that. There's a lot of questions- I mean, not that it's not worth the pain- I weigh when hiring a recent grad, the benefits of that, and I'm like, you're gonna get some longevity. This is going to be worth the investment long term. Hopefully, we get some longevity. You never know with Gen Z.

One professional shared their perspective on why recent graduates may struggle with time management, and other individuals discussed the importance of time management and time expectations, and how those two concepts relate to career success. "I think the part that you struggle with sometimes when you come in, there's so much new stuff coming at you to learn," one professional shared. "Being able to multi-task is really important, but also being able to prioritize those tasks and to work on the things that are most important on that day. To me that determines your success."

Prioritizing and managing time can manifest in different ways, according to industry perspectives. Responding to calendar invites, managing your calendar, and being aware of time go along with being in a professional role. Furthermore, professional's believe time management can determine an individual's success, specifically from an etiquette standpoint:

Usually what differentiates some of the good or bad is timeliness. Again, it seems straightforward enough. As calendars get filled, it's equally important to be on time or mitigate when you may be late. Communication, your email communications and other kinds of critical components beyond just doing it, but also being responsive. At times, students will have a general expectation like, 'Oh well, if I know what I'm working on, then I'll just work on it until I'm done.' What I try to tell a lot of interns that come into the organization is that it's totally fine if you get a request and it's going to be a couple days, but make sure you respond and let them know, 'Hey, I saw it. I expect to have something back to you by here. Please let me know if this meets your expectations,' ensuring there's kind of a set timeline of when they can expect to provide that back to the requesters.

Continuing with the connection of etiquette and respecting time, one individual shared the importance of being aware of other's time when interacting with them:

Ask people about their life. Set that connection with them, and then work on business. You'll know pretty quickly if a guy or lady wants to talk about that or if they want to get straight down to business, and you have to judge that. You may have some that are very black and white, and they want to talk about the production schedule or the delivery dates or those items or the loan application, well then, you move right into that. You may ask the questions, as soon as you know, you move into that. Just respect everyone's time.

Throughout interview responses, respecting other individual's time complimented the idea of putting others first. An others first mentality was attributed to success as a professional and provided positive benefits for both team and organizational performance.

### *Others First*

Industry professionals believe putting others first can start with listening and observing. One individual shared how communication and working with other people can contribute to employee success by allowing individuals to adapt to other's ideas and be a team player. Others first communication, he said, is "what [recent graduates] need to concentrate on." He continued, "and when I think communication, that doesn't mean you have to go write a novel or anything like that, but effectively communicate with people- talk to them, listen. You've got two ears one mouth. Listen first and then speak."

Listening and being mindful of individual's life outside of the business world is one way industry professionals recommend putting the needs of others first. When discussing business etiquette, one individual shared how success in this area involves:

A lot of listening. Be polite, be respectful, make your comments when needed. Try not to force conversations. Let it come naturally and visit about that. You know, I see sales guys all the time, who go to a business meeting or after hour function, and it's like they have a checklist of exactly who they want to talk to, and what they want to talk about, and it comes across that way. You've got to be professional, and respect others, and know everyone probably has an outside life. Ask about those. Someone who has the same interest as you do- you probably have a real connection there, and it's not all about the business. You're making life skills and life contacts. Being respectful of everyone's

individual items, knowing that everybody's got family and things that are going to come up also- you just have to respect those.

Another individual shared how a tragedy in her life caused her to be more mindful of the needs of others. She believes this experience grew her emotional intelligence and allowed her to lead her team more effectively. By putting others first, she said she grew as well. After receiving a low emotional intelligence score nearly ten years ago she said, "I worked really hard getting to know my team better, getting to know their personalities, as well as their family lives." She continued:

Sometimes you have a team member come into work, and you know something's wrong, something's happened. You need to be able to go to them, one on one and say, "Hey, it seems like you're having a bad day is there anything I can do to help? I try not to be people's mother or big sister, but I try to help when I can, and like I said, you kind of evolve, too.

Reflecting on personal tragedy, this industry professional shared what her evolution looked like:

At that point, I changed a lot because I realized there were people here that I worked with that had no idea that happened, and so now I try to treat people with as much grace as I can because I don't know what happened before they walked into the office, so I think that's why I said, if I retook that survey, I probably would score differently than I did. For individuals wishing to grow in their focus on others, one professional shared a

practical way to grow more aware of the needs of others. According to this individual, putting your phone down can lead to leadership advancement:

Listen, watch people, observe people because, as a leader here at [company] you have to be an expert at observing whether that person is having a bad day, whether that person is struggling in the role you have placed them in, whether they are struggling because they're an overachiever and they need more to do. You have to observe that, and if you're on your phone, if you're doing other stuff and you're not observing the team you're in, you're not going to advance that quickly.

Other practical ways to grow an others first mentality is to volunteer your time while still in school. Industry professionals look for certain characteristics when hiring recent graduates, and one individual specifically looks at extracurricular involvement while in college. He believes these volunteer activities demonstrate attitudes beyond what a student's GPA can reflect:

Is it all about me or is it all about somebody else? And it's good to have people that don't always think of self first- that think of others, first. It's one of the golden rules. We'll look for that, I mean, I'll look at the GPA. That's important. GPA is kind of like your temperature or kind of like the pH of the soil, you know. That's the first thing you're going to look at, and then you're going to go, okay, what are the activities? What's their major? What have they done outside of just their studies? And that just shows the leadership. That's the leadership component you're looking for.

While leadership development in college is important, industry leaders do not expect individuals to come to them perfect but they do expect them to learn. One individual shared her perspective on this. "I'm not saying college has to prepare them- they have to be cookie cutter and have to be perfect by the time I receive them," she said. However, she did say if graduates do not come to her organization prepared, the organizations does teach them how to take care of a customer and what sacrifices are involved in doing so. Another individual discussed college preparation in terms of a willingness and openness to learn. Because much of the senior level management in her company does not possess degrees, degrees are not viewed as necessary for job placement; however, according to this professional, degrees do reflect humility and the desire to be a lifelong learner.

Humility remained consistent within the theme of others first as individuals discussed how this mentality benefits company culture and team advancement. One professional reflected on her experience moving from an outside sales role to an internal role. She said this movement created a negative culture at first, but it also helped her gain perspective and help the internal team recognize the needs of the external sales team. "Everybody's got to get over there pride then, and there's got to be a leadership and a culture built that's like, 'Okay, we're going to help service everybody,'" she explained. Reinforcing to her team that when an external sales person is hired, they are treated like a customer, allowed her to build a servant minded team.



This individual modeled humility by asking for help from an individual she previously did not value. She did not want to reach out to this individual; however, for the advancement of her team, she finally did. The professional reflected:

Well, I brought her into my office, and thought, you know what, I'm going to let her try. Let's try, and it turned out to be one of the best things I could have ever done because she taught me so much. That's the thing, so anytime I have a problem, I call [her coworker], and it's helped me to gain more respect for someone else. I think it all comes back to an all roads lead to communication kind of deal, and be willing to put your pride aside, communicate, and figure other people out on your team, because you can discover strengths, and then you can use those strengths to make your team even better.

Making the team better is the key, one individual shared. "It's not about the individual. It's about what our society, what our team, or our groups are all doing, and working and knowing that there's places for everyone." This individual continued by talking about how maturity impacts this mindset, "That's probably the hardest item there is, and sometimes we often say, 'Hey, he or she needs to grow up,' or 'Don't be so...', I don't want to say selfish, but almost. Think about the broad deal, and not just singularity."

Cultural alignment, ownership, time management, and an others first mentality developed as themes throughout discussions about skills recent graduates need for career success. Many of the themes overlapped. For example, ownership discussion often came up in discussions of ambiguity as well as in career success. Similarly, an others first mindset made its ways into conversation regarding conflict management. The themes outlined under Ability to Succeed in a New Job were highlighted in that section because the respondents specifically mentioned those items as overall success skills. The following sections provide industry professional perspectives on how to best navigate ambiguity, pace and amount of change in the workplace, and conflict management.

## *Ambiguity*

The consensus among industry professionals is that ambiguity maintains a strong presence in the real-world work environment. After being asked about navigating ambiguity, one individual said it this way, “It’s really funny that you bring that up because literally we do so much of that here. The ambiguity is thick. You have to be able to like take very slight direction and run with it essentially.” Two discussion items emerged within ambiguity; they are: make it tangible and seek clarifying information (see Table 12).

**Table 12**

*Employability Skills Related to Recent Graduate’s Ability to Navigate Ambiguity Based on the Perspective of Industry Professionals*

<b>Concern Area</b>	<b>Theme</b>	<b>Supporting Quote</b>
<b>Ambiguity</b>	Make it Tangible	Try to take things and make them as tangible as possible to get that end product.  (Desires for someone) to come on to the team that has a clear idea from their job description, forward- this is your role, this is, this is our expectation for that role, and this is how you do that role.
	Seek Clarifying Information	There's always going to be those problems come up that are unique. There's not going to be the book definition of how to answer this problem, and you're going to have to go with your own intuition, your own resources.  You can always ask how and why, but the most important question is, ‘You're asking me to do this, what are you expecting to get out of it?’  Now some decisions you're going to get 80% of the information. If you're waiting on 100% all of the time, you'll never get anywhere, and sometimes in sales you have to take 60% and go.  I know this sounds redundant, but communication. Simply, kids need to know follow up communication.

**Table 12 (Cont.)**

<b>Concern Area</b>	<b>Theme</b>	<b>Supporting Quote</b>
<b>Ambiguity</b>	Seek Clarifying Information	<p>Asking the right questions to the right people will give you so much information.</p> <p>I'm not going say there's not some places that are very ambiguous on what they set out here on purpose. I think you've got to kind of set your parameters and your goals and know where they're at and keep checking in and communicating.</p> <p>If I were an incoming new hire, I would try to maintain weekly communication, not multiple times a day, but having a weekly touch base is always a helpful way to set aside time to go over some performance and make sure you're on the right track.</p>

*Make it Tangible*

Looking at ambiguity, one individual stated she thrives in this type of environment. She then went on to explain how she handles ambiguity. The key is to break the problem down and make it tangible:

When someone gives you something ambiguously, they typically say what they want as the end product, not how to do it, and I just look at that as working backwards, or even if someone says, ' [respondent's name], I've been working on budgets today,' so they say, 'Do the complete budget for the entire department.' My first thought would be how much do we spend? And so instead of just turning around and asking that, my second question would be do we have a budget already? I would ask, are there some resources I can get started with? Do you have last year's budget or a year by year spend? So, direct sources that will at least will enable you to get familiar with the project is a good way to bridge a gap immediately, but also get a direct answer. So, either, yes, they have resources or, no, they don't. Try to take things and make them as tangible as possible to get that end product.

Because ambiguity is a large factor in the business world, one industry professional is working to reduce ambiguity on her team. As someone who is working toward the end of her career, this individual wants to remove ambiguity for new team members. She explained steps her team takes to remove ambiguity including training manuals and online training modules. She

said her team used to teach new graduates in a live, hands-on setting, but her team found, new team members learn more effectively with the online training modules. This professional desires for someone, “to come on to the team that has a clear idea from their job description, forward- this is your role, this is, this is our expectation for that role, and this is how you do that role.” Creating clear expectations is one way her team seeks to reduce ambiguity.

### *Seek Clarifying Information*

Identifying expectations remained a consistent theme in the ambiguity discussion. One industry professional encouraged recent graduates to trust their intuitions and use common sense to identify solutions to problems. He contrasted the college experience with the industry environment by discussing how an industry problem may not have step-by-step instructions, “There's always going to be those problems come up that are unique. There's not going to be the book definition of how to answer this problem, and you're going to have to go with your own intuition, your own resources.” To identify unknown solutions, this professional recommended a clear causation analysis method. He recommended asking questions such as, “How do we ensure its effects upstream, rather than just mitigating the impact downstream? How do you understand why something happened, instead of just addressing the issue? How do you solve the underlying problem?”

Not only should individuals ask questions related to the problem, industry professionals also recommend seeking clarifying information from leaders. When navigating ambiguity, one industry professional said you can identify expectations by:

Just asking. So whoever gives you the task just ask, ‘What do you want? What is your end goal? Do you want numbers? Do you want pictures? Do you want me... Are you asking me to do this to eventually take over whatever it is that is happening?’ You can always ask how and why, but the most important question is, ‘You're asking me to do this, what are you expecting to get out of it?’

Communicating and navigating ambiguity remained directly linked throughout interview discussions. One individual shared, “someone told me one time if you can’t answer the question, you probably don't have enough information so dig a little deeper.” He went on to explain how reaching out and communicating with individuals can clarify a problem. He also noted, individuals may never identify all of the information but a decision must be made anyway:

Now some decisions you're going to get 80% of the information. If you're waiting on 100% all of the time, you'll never get anywhere, and sometimes in sales you have to take 60% and go, but I think in general you've got to get enough information to where you feel like you can make a good educated decision. If you're at that point, it's about reaching out, understanding, and connecting with people to try to help you get that answer.

Connecting with people consistently emerged as a way to navigate ambiguity. The following comments were made in regard to following up and developing confidence in communication:

I know this sounds redundant, but communication. Simply, kids need to know follow up communication. A lot of kids these days, they don't know how to follow up. They don't know how to ask for the sale. They're just kind of waiting on someone to tell them that they want the product, or they don't want it.

Being a people person, be a people person and know who your audience is. Asking the right questions to the right people will give you so much information. And don't be afraid to ask questions because a lot of the people that have all those letters behind their name, their brain level is up here. It's really high. They explain everything on a high level, so asking the same question different ways is totally fine. Otherwise, if they continue explaining on a level that's above your understanding, you're not getting anything out of it. A lot of it honestly is just not being afraid, and if somebody makes a comment or asks a question that you have more questions about, just ask the question because it may be very simple and black and white to them, but not necessarily to you and me.

I'm not going say there's not some places that are very ambiguous on what they set out here on purpose. I think you've got to kind of set your parameters and your goals and know where they're at and keep checking in and communicating. What do you need to be doing and adjusting? You know, talking with your clients or your employers or those things, and that's back to communication- having good skills for that.

One individual explained what happens when someone does not seek out clarifying information and recommended a communication flow for recent graduates. According to this professional, when navigating ambiguity thoroughness is key:

Being extra thorough, making sure you're doing all that is expected of you, because if you are great. It's good to have that validation and confirmation, but if you're not, unfortunately, people are going to talk about you before they talk to you. It helps you protect your own brand and reputation if you have direct communication with your manager, and I would also add to that as a frame of reference, if I were an incoming new hire, I would try to maintain weekly communication, not multiple times a day, but having a weekly touch base is always a helpful way to set aside time to go over some performance and make sure you're on the right track.

*Pace and Amount of Change in the Workplace*

At times, pace and amount of change in the workplace merged into discussion on ambiguity. For example, one individual discussed the ambiguity that comes with career decisions such as moving away from home. There is no way to know what changes those decisions will bring, this professional said, but they may lead to positive career growth in the future. He recommends accepting that change happens, and he encourages recent graduates to be nimble and flexible as they navigate ambiguity that comes with change. Discussion items which emerged out of dealing with pace and amount of change included the need for experiencing pace and amount of change in order to be successful within it. Table 13 provides an overview of some of the conversations which supported the need for experience.

**Table 13**

*Employability Skills Related to Recent Graduate’s Ability to Deal with Pace and Amount of Change Based on the Perspective of Industry Professionals*

<b>Concern Area</b>	<b>Theme</b>	<b>Supporting Quote</b>
<b>Pace and Amount of Change</b>	Experience is Key	I honestly only think that you can learn an increase in pace and ability to manage change by dealing with change and dealing with an increase in workload and responsibility and pace.  If you're not growing your territory or you're actually reverting back, you're dying. I tell them, your territory is never going to stay the same and should always be growing.

<b>Concern Area</b>	<b>Theme</b>	<b>Supporting Quote</b>
<b>Pace and Amount of Change</b>	Experience is Key	<p>There's a level of insecurity even from the most knowledgeable students because they just don't know, you know, some of our team members have worked part time, or they were graduate assistants, but there's a big difference coming into a large corporation.</p> <p>I can tell you the rest of us who have been here for five or 15 or 50 years, we've done things so many different ways that we've seen what works and what doesn't so were resistant to change.</p> <p>Experiences- Do something in your daily routine to flip it upside down a little bit.</p> <p>The amount of change is fast in agriculture, so being well rounded is the key to being ready for change.</p> <p>Developing those skills to be flexible and to be open minded- you can spend an entire quarter on a project, and then the company suddenly decides to go a completely different direction.</p>

### *Experience is Key*

Many of the industry professionals began their discussion on pace and amount of change in the workplace by discussing the impacts of Covid-19. One individual described her job as a daily circus, yet she believes if she can persevere through these trials, she can handle anything in her future career. Another individual shared how she believes the experiences of Covid-19 created resilience within her and her team, and she believes experience can be the best tool for navigating pace and amount of change:

The circumstances of the last two or three years forced people to deal with an increase in pace with the later labor shortage and to a degree, deal with change, and so in a lot of ways there's probably a little bit of trauma that has come out of it, but there's some really incredible benefits with regard to resilience that we've gotten out of it as well. I honestly only think that you can learn an increase in pace and ability to manage change by dealing with change and dealing with an increase in workload and responsibility and pace.

Other industry professionals agree experience is the best method of learning change; however, not all change experiences were attributed to Covid-19. Industry professionals voiced change is constant within the industry. One individual, specifically, looks at change as a positive indicator of growth:

The amount of change- that's a good question because in distribution it's always changing. That's what I tell salespeople, there's never going to be a year that your territory is going to be the same. There will always be a customer die. There will always be a customer sell, quit, go bankrupt. There will always be new additions. If you're out of... I don't know if you see the quote behind me, but 'If you're not growing, you're dying,' and that was a saying by our owner, so if you're not growing your territory or you're actually reverting back, you're dying. I tell them, your territory is never going to stay the same and should always be growing.

Industry professionals believe recent graduates are prepared to deal with pace and amount of change. Although, one individual questions whether or not recent graduates are ready to accept change. Another individual believes recent graduates are ready but insecure. This individual believes leadership and communication skills can help improve that insecurity:

I think students are very well prepared to go into the workplace. There's a level of insecurity even from the most knowledgeable students because they just don't know, you know, some of our team members have worked part time, or they were graduate assistants, but there's a big difference coming into a large corporation. I think, understanding that insecurity would be good at [universities]- again, I keep going back to communication, learning how to communicate, and leadership skills will lessen that insecurity.

College is believed by some industry professionals to help prepare students for pace because of the way academic semesters are set up. For example, one individual referenced midterms and finals being scheduled at the same time as a way for students to learn pace management. In fact, one individual believes recent graduates should be more prepared for change than experienced professionals:

I said this the other day in a meeting with some recent grads. If you do not adapt to change, you will be left behind. I think that recent grads, especially when they come in, they should be the most adaptable to change, the most eager to change and receptive because I can tell you the rest of us who have been here for five or 15 or 50 years, we've



done things so many different ways that we've seen what works and what doesn't so were resistant to change.

On the other hand, one individual does not believe college prepares individuals for change because the assignment dates and project expectations are outlined in a syllabus, and if a change does take place, instructors communicate those changes ahead of time. She explained, “We're taught what is happening now, but they don't prepare us for, ‘It's going to this way right now, but in the future, it could be this way, and it's going to be your job to make that transition.’” In order to build skillsets for transitioning, this individual recommends ways students can experience pace and amount of change while in college:

So skills- learning to be flexible. Experiences- as far as in college, move places to live every year, or honestly, even small things- if you go to the same cafeteria or the same place to eat every single day, change that up. Do something in your daily routine to flip it upside down a little bit. It seems so minor and small, but little steps are going to make it easier to say, ‘Okay, this isn't a big deal, I can, we can do this.’ Because, especially in college, there's not a whole lot that you have control over- your schedule is one of them. Obviously don't start skipping classes. Whatever you can change, you know, every once in a while, throw yourself a curveball.

Curveballs can help create flexibility, according to industry professionals, and flexibility and openness are two skill-sets employers are looking for in recent graduates. One individual combined flexibility with being well rounded, “We look for people that can be flexible, that are getting diverse skill sets, that can do different things. The amount of change is fast in agriculture, so being well rounded is the key to being ready for change.” Continuing with the idea of flexibility and openness, one individual explained what change might look like in the workplace:

Developing those skills to be flexible and to be open minded- you can spend an entire quarter on a project, and then the company suddenly decides to go a completely different direction. There's going to be some anxiety and grief there because it's like, ‘What did I just waste my entire quarter on?’

This frustration leads into another concern area for recent graduates. As with many of the items discussed in interviews, communication remained a consistent talking piece when navigating conflict. This industry professional shared a perspective which combined both

conflict management and pace in the workplace. When looking for a recent graduate to add to her team, she looks at:

How do they handle frustration. Will they come to me and tell me? (Which, I want that, not all managers do.) I would rather someone come tell me, ‘Hey, I’m frustrated with this’ or ‘Hey, I’m confused. You’ve told me this, but he said this.’ I would rather have that than someone go home and sulk and feel bad about themselves and tell their friends about it, because most likely, I have no idea, they feel that way. And that’s not common, but I do think it makes a huge difference in the dynamic of a team. My team is so fast paced, and so I’m just moving forward constantly that unless than things brought to my attention, I’m probably not going to catch on to it.

*Conflict Management*

Industry professionals rated recent graduates conflict management skills as mid to low. One industry professional said, “I’m going to be really pessimistic here and say zero, and that is not anyone’s fault it’s just the way the world works.” Another individual voiced conflict management skills depend on the person, and one industry professional said conflict depends on the discussion. “I think sometimes a lot of things that people say are complex are just discussion items,” he said. The idea of discussion supported what other individuals talked about in regard to the importance of communication in conflict resolution. Furthermore, individuals discussed the need to know oneself, know one’s audience, and then solve the problem. These themes are highlighted in Table 14.

**Table 14**

*Employability Skills Related to Recent Graduate’s Ability to Manage Conflict Based on the Perspective of Industry Professionals*

<b>Concern Area</b>	<b>Theme</b>	<b>Supporting Quote</b>
<b>Conflict Management</b>	Communication is Key	Over communicating, and I don't mean that to be needy but there's so many disconnects that happen when you work with people, and typically it comes down to, ‘Oh, I thought this.’  We've got to be a little more open to visit and talk through ideas, and that takes parties on both sides.

**Table 14 (Cont.)**

<b>Concern Area</b>	<b>Theme</b>	<b>Supporting Quote</b>
<b>Conflict Management</b>	Communication is Key	I would say the most important thing in conflict management is to be able to have the conversation face to face.
	Know Yourself	One, that it's actually more human nature for individuals to assume the best of themselves, but the worst of everyone else, and the flip side of that adds a layer of complexity- it's easier for me to think you assume positive about me.
		Sometimes the newer graduates that come to the team have less drama because it takes you about a year and a half to figure out that there is drama.
		Know that it exists. No matter where you're going to work, there's always going to be some kind of conflict or drama, and being secure enough to either face it head on, or secure enough to go to a manager to get help.
Know Your Audience	When the kitchen gets a fire and it gets hot, they said go stand close to the fire. Because, you can understand their concerns and their issues better that way, and then it helps you make a better decision because you can feel the empathy where they are and the reason they may have so much grief about a certain problem.	
	You've got to have people you can talk to openly and freely, but that doesn't mean you should trust everybody.	
Solve the Problem	So just learning how to speak to other people- like, in sales or finance, if I'm disagreeing with somebody I would talk about numbers. In marketing, I would probably talk about the consumer, you know, that sort of thing.	
	She was so caught up in this conflict of, 'I've got to fight you for this,' that she couldn't think about, we're business partners, and that fact that I'm here to service you.	

**Table 14 (Cont.)**

<b>Concern Area</b>	<b>Theme</b>	<b>Supporting Quote</b>
<b>Conflict Management</b>	Solve the Problem	With conflict management, I always teach, you let dump their bucket. After that, you go, 'Okay, here are the next steps we're going to do to fix this problem for you.  Critical thinking is the other biggest one- can you think through a problem?

*Communication is Key*

Whether dealing with conflict management, navigating ambiguity, or building relationships, communication remained the most consistent theme throughout industry respondents' discussion, receiving over fifty references. Looking at communication in conflict, one industry professional encouraged over communication. When asked how recent graduates can best learn conflict management skills, this individual said:

Over communicating, and I don't mean that to be needy but there's so many disconnects that happen when you work with people, and typically it comes down to, 'Oh, I thought this.' It's kind of a shame to get to that point where multiple parties are really frustrated, and also people are complaining on each other, gossiping on each other. It's just easier to over communicate expectations and also make sure that you're following through.

Another individual shared their conflict resolution method for recent graduates, which involves keeping an open mind and working through the discussion:

I think we as a society try to not have those issues and everyone is a little more passive. We've got to be a little more open to visit and talk through ideas, and that takes parties on both sides. When you have those discussions be open with those discussions, and when someone has a point of view, and you may have a different one, instead of saying, 'No, we need to do this,' ask for reasons, get some background, and then point out somethings and have that open discussion because that can be a lot of your resolution to conflict is just a different approach to how you visit about it.

Not only do industry professionals encourage recent graduates to learn how to communicate often and openly, professionals also encourage much of that communication to involve face to face interaction. Among industry professionals, there is growing concern that

technology is preventing younger generations from learning in-person communication skills, and one individual is not sure universities are helping with this resolution:

I would say the most important thing in conflict management is to be able to have the conversation face to face, and we've already gotten kind of away from that, and I think Gen Z is probably getting further and further away from it whether we like it or not. We used to dump people to their faces not over text messages. I would say as much as we can encourage and coach to have those conversations in person or over the phone or something along that line, you can have more indicators of how people feel and their voice inflection. That would be super helpful because in business there's a lot of direct conversations that have to happen, and I don't think university is always the best at being direct. You know what I mean, pretty indirect and vague in my experience.

While having face to face interactions can reportedly let an individual know how someone else is feeling, industry professionals also encourage students to know their own feelings. Self-awareness emerged as a theme relating to conflict management throughout industry discussions.

### *Know Your Self*

Gaining perspective on internal dialogue and an individual's personal feelings in a situation can help mitigate conflict, according to industry perspectives. Specifically, when dealing with office conflict and drama, professionals shared the importance of being aware of other's perceptions. Self-awareness was encouraged as well as self-confidence to seek out the help needed to work through a solution.

One individual encouraged self-inventory to determine how personal communications impact other people. Additionally, this individual encouraged inner dialogue to analyze and put conflict in perspective. She encouraged asking questions about whether or not the problem would matter 6 months or a year later. Additionally, this individual discussed lessons in learning how others perceive her:

I mentioned earlier about having a lot of positive intent and assuming everyone assumes the best of intentions. I wish there's a couple of things I'd known. One, that it's actually more human nature for individuals to assume the best of themselves, but the worst of everyone else, and the flip side of that adds a layer of complexity- it's easier for me to

think you assume positive about me. One of my biggest flaws I've tried to be self-aware of is I'll say what's on my mind and not pay attention to how it's delivered, and so I might be working on reporting, and be like, oh my gosh, this is so dumb. Someone might think, 'I can't believe she just said this report is dumb. I need this.' What I what I really meant was, this system is so slow, it takes 25 minutes to pull this one report, this is so, this part is so dumb. So, like flipping responses. It's easier for someone to see more of a negative outcome than a positive intent when what I said was negative.

Another topic of self-awareness that emerged in conflict management involved drama.

One industry professional said she thought drama would go away after school, yet she found the workplace to be more dramatic at times. However, she said when a new team member who is not familiar with team conflict enters the team, this addition can be positive for everyone:

Sometimes the newer graduates that come to the team have less drama because it takes you about a year and a half to figure out that there is drama sometimes, but I do think they can help decrease the drama in an existing group of team members is what I've found here. When you get a new team member in that just wants to do a good job, wants to succeed, then that has a ripple effect on even team members that have been on the team for 10 years. So it can go both ways.

When drama does arise (and based on the perspectives of industry leaders, it will), one industry professional encouraged recent graduates to be secure enough in themselves to be able to work through the conflict or seek out the help to do so:

Know that it exists. No matter where you're going to work, there's always going to be some kind of conflict or drama, and being secure enough to either face it head on, or secure enough to go to a manager to get help, and you know, working through that. If I had to say three things (in regard to conflict management): leadership skills, communication skills, and working on how secure you are in your own self, and those three things are hard, I mean, it took me a while to be secure enough in who I am to be able to speak up, but learning those in school would be very helpful.

### *Know Your Audience*

Whether dealing with drama or other types of conflict, being aware of one's audience formed as a consistent theme. Industry professionals shared how knowing one's audience can help an individual gain valuable perspective. Other individuals discussed the importance of

knowing when to trust one's audience, and another individual discussed how she communicates differently with different people when resolving a problem.

One individual shared advice passed down to him in regard to conflict management. He said moving closer to the conflict helps gain perspective and expedites resolution. In this way, he encourages individuals to get to know their audience by empathizing with them:

I always say- someone told me this and maybe this will help someone as well. When the kitchen gets a fire and it gets hot, they said go stand close to the fire. Because, you can understand their concerns and their issues better that way, and then it helps you make a better decision because you can feel the empathy where they are and the reason they may have so much grief about a certain problem. If you do this, you normally can get to the solution in a quicker fashion.

Rather than get closer to her audience, one industry professional encourages knowing one's audience in order to determine trust. She said she learned hard lessons in trusting her personal feelings to those she worked closest with. She admits those individuals' intent may have been positive; however, information does spread, and individuals may misunderstand positive intent. Her advice to recent graduates involves:

As new hires, we're so excited to start our careers, and we love the people we're working with, and we just assume positive intent all the time. We just need to be a little more emotionally intelligent when it comes to conflict, and a little more reserved. Now, you've got to have people you can talk to openly and freely, but that doesn't mean you should trust everybody, and so I think that's the biggest thing I would say is just not over sharing and to assume positive intent, but understand it's not always assumed.

Moving from assumptions to approach, one industry professional believes your audience determines how you navigate conflict. This individual said they would approach their supervisor, a team member on another team, or someone on the supply chain or marketing in completely different ways. Knowing your audience becomes very important when sharing opinions, she said. For example, she believes showing disagreement toward her supervisor can be appropriate if approached in the right way. She described managing conflict as:

Being able to appropriately and completely voice your thoughts without leaving any questions. I feel like that's what happens or that's why conflicts go negative so fast is because one person, the other, or both can't fully figure out how to say what they want to say, or the other person just isn't understanding. So just learning how to speak to other people- like, in sales or finance, if I'm disagreeing with somebody I would talk about numbers. In marketing, I would probably talk about the consumer, you know, that sort of thing.

### *Solve the Problem*

Running toward the solution rather than away from the problem is the message industry professionals shared with recent graduates. Problem solving remained an important discussion point in conflict management with some individuals voicing problem solving and critical thinking as being one of the biggest challenges recent graduates face today.

One individual shared in great detail an instance where she dealt with customer conflict. She said the customer was immediately on the defense because she was worried the professional was not going to take ownership for the problem resolution. Once the professional communicated with the customer that they were on the same team, she said relief swept over the customer:

She was so caught up in this conflict of, 'I've got to fight you for this,' that she couldn't think about, we're business partners, and that fact that I'm here to service you, and I'm going to take really good care of you, and so when I said, you're right. She just exhales. She's like, 'Okay, I can finally relax now, and we can get to solving this problem.'

This industry professional went on to encourage individuals to show up to the problem and take ownership. She said, "Don't be scared. Show up and understand. You've got to show up. If you don't show up, I think customers are going to think you're running from the problem." In order to not run away from the problem, this individual encourages her team to allow customers to share their concerns and feelings. "With conflict management, I always teach, you let dump their bucket," she said. From there she outlines a plan to work toward a solution. She continued, "After that, you go, 'Okay, here are the next steps we're going to do to fix this



problem for you.” What this individual calls “Conflict Management 101” involves “let somebody dump their bucket, develop a plan and move forward, and follow up on that plan. A lot of people can do the pretty talking, but they can't follow through.”

Thinking through and following through with a problem is a desired skillset among recent graduates, industry professionals shared. One individual used an example of a team member who works through problems before even coming to the industry professional. This individual said this skillset falls under the model of thought leadership, and recent graduates who develop this ability will stand out:

Critical thinking is the other biggest one- can you think through a problem? I've got someone on my team who is so good at this, almost too good at this to where she'll come to me and be like, ‘Okay, I've had all these issues this week, and she'll name three off,’ and I'm like, oh my gosh why didn't you tell me? That's something that really stands out- critical thinking, and then the new buzzword is thought leadership. I do think that's important for my area of work because we are looking at innovative, especially sustainability stuff online. If you have that, that's going to be a major added bonus to whatever career you go into, but I also think that can be developed.

Conflict management brought up important conversations for gaining communication and problem-solving skills. In the midst of that discussion, knowing one's self and knowing one's audience served as two ways to help mitigate conflict. Industry professionals are looking for individuals who can work through conflict to arrive at a solution whether the conflict includes workplace drama or industry issues.

### *Curriculum Recommendations*

Following the competency discussion, industry professionals were asked to provide their recommendations for curriculum. Before asking professionals how they would design a curriculum, the researcher asked questions regarding how much curriculum focus should be placed on emotional intelligence, business etiquette, and grammar and writing skills. Following the discussion on these items, main curriculum focus areas were outlined.

### *Emotional Intelligence*

Emotional Intelligence found its way into discussion when looking at job success and conflict management. From being self-aware to putting others first, industry professionals attributed those characteristics to emotional intelligence. One professional described emotional intelligence as “the ability to be level headed through challenges and manage emotions really well and recognize your own personal brand.” In this discussion the item of face-to-face communication came up, and the industry professional referenced how individuals are missing out on emitting emotions and frustrations because of online interactions. According to this individual, the industry can teach technical skills, but the soft skills are the mark of success. Three themes of emotional intelligence are outlined in Table 15.

**Table 15***Industry Professionals' Perspective on Emotional Intelligence in Recent Graduates*

Curriculum Focus	Theme	Supporting Quote
<b>Emotional Intelligence</b>	Understanding Emotional Intelligence	<p>Sometimes you can work on a weakness forever, and you may not ever get to where you want to be, but if you can take your strength and magnify it, you probably have more success doing that than trying to work just on a weakness, all the time.</p> <p>If you can't self-assess yourself, you probably won't improve and you have to keep improving to continue.</p> <p>If you don't have a lot of emotional intelligence, you need to really work on that.</p> <p>Emotional intelligence- this is something that if we can get more people to realize and understand, we'd be a whole lot better off.</p> <p>So emotional intelligence, for me, what I got most out of it was really getting to the root of my problem, and then figuring out how to voice that and what words to use that don't come off wrong.</p>
	Learning Emotional Intelligence	<p>Working directly with clients was intimidating but good. You can see tensions rise; you can see awkwardness. Those little things really build up.</p> <p>The more you do to increase your exposure to learning and working, the more you'll gain emotional intelligence skills faster.</p> <p>What I did was, I went to our HR business partner to get a little help in understanding that.</p>
	Teaching Emotional Intelligence	<p>My supervisor and I literally just read a book last quarter, <i>Emotional Intelligence 2.0</i>.</p> <p>I think anyone can take value in understanding how they're perceived and wanting to seek that out.</p> <p>You just have to start from self-analysis. I don't know if just teaching about it is enough. I think you have to know where you stand first.</p>

## Understanding Emotional Intelligence

Industry professionals noted some individuals possess more emotional intelligence than others, and some professionals believe emotional intelligence is somewhat a result of personality; however, they do believe emotional intelligence can be learned. In fact, multiple industry professionals shared personal experiences of developing emotional intelligence throughout their careers. Some voiced they were currently working on improving in this area.

When it comes to emotional intelligence, one professional shared he believes there is a connection between emotional intelligence and maturity. He said experiences shape one's emotional intelligence, and he has witnessed varying degrees of emotional intelligence among his team members. He said the last two students he worked with possessed emotional intelligence in that they were aware of their strengths and weaknesses. He encourages incoming employees to focus on their strengths in order to be successful:

I felt like they were pretty good. They were aware of their strengths their weaknesses, and we talked about that because we all have them. I'm big about focusing on your strengths and minimizing your weaknesses. Sometimes you can work on a weakness forever, and you may not ever get to where you want to be, but if you can take your strength and magnify it, you probably have more success doing that than trying to work just on a weakness, all the time.

Strengthening emotional intelligence is important, according to industry professionals.

One professional shared, "Self-assessment is so important if you want to be good at your job. If you can't self-assess yourself, you probably won't improve and you have to keep improving to continue." Not only will individuals grow their personal understanding of themselves, industry professionals said they will also be able to better understand their team. One individual shared the balance between not possessing enough emotional intelligence and possessing too much:

But you have to work on it, and it's a fine line, if you don't have a lot of emotional intelligence, you need to really work on that. If you have too much, sometimes you can't work because you're so involved in people's lives, and you know, be caring and all of that, but it's important. You've got to understand your team. You've got to understand the individuals that work with you to even be successful at your job.

Some industry professionals shared how they developed emotional intelligence throughout their career, while others shared they were currently working on emotional intelligence. “So this is something I’ve been kind of interested in and learning more about,” one individual said. She discussed how her words come up off the wrong way at times. Her intention is not to offend anyone. She said, “It just kind of comes off that way, and so emotional intelligence- this is something that if we can get more people to realize and understand, we'd be a whole lot better off.”

Another individual shared how she tends to be an emotional person, but she is learning not everyone is that way. When she feels a certain way, she said she digs to find out what is behind her emotions. Sometimes when she is upset, she said, the other person may think they are experiencing a normal conversation. “So emotional intelligence, for me, what I got most out of it was really getting to the root of my problem, and then figuring out how to voice that and what words to use that don't come off wrong,” she said.

### Learning Emotional Intelligence

Learning emotional intelligence takes on many forms, according to industry professionals. One individual discussed how her education contributed to her emotional intelligence growth. She attributed three things to developing her emotional intelligence. One, her time spent taking leadership classes. Two, her interaction with clients and team members during a campaign development course, and three, her time as an undergraduate and graduate assistant. Reflecting back on the campaign development course, she said, “Working directly with clients was intimidating but good. You can see tensions rise; you can see awkwardness. Those little things really build up how you talk to people, how you interact with them, and how you show them their valued.” She recalled one student on the team with low self-confidence who,

over the course of the semester, used her ability to take direction to build her self-confidence and perfect the team's final submission. Working with other people in a team setting, she believes grows emotional intelligence.

Increasing exposure and navigating boss and employee relationships, is also a means of increasing emotional intelligence, according to industry professionals. One individual shared how her graduate assistantship blurred the relational lines between her and her professors; however, this opportunity allowed her to learn relationship management. Additionally, stepping outside of her home department and meeting people from other disciplines and other universities allowed growth. "The more you do to increase your exposure to learning and working, the more you'll gain emotional intelligence skills faster," she said.

After scoring low on an emotional intelligence test many years ago, one industry professional sought out feedback as a means of growing her emotional intelligence. She believes life experiences shape your emotional intelligence:

What I did was, I went to our HR business partner to get a little help in understanding that, and part of it was my upbringing my, my dad told me I could do anything in the world, but he made me a tough, tough girl, you know, and being in agriculture- when I came into agriculture, it was pretty much a male dominated field and still, if you look at CEOs of agriculture companies, it's still a little dominate. We have more female role models now than we did, but I think if I took that same survey now, I would probably be a little different, and I think life changes you, too. I think you're born with a personality that affects your emotional intelligence and just how you communicate, but I think I would score differently now.

While education can shape emotional intelligence and individuals can take measures to develop their emotional intelligence, industry professionals also shared ways industry organizations are working to increase emotional intelligence. Professional also noted how emotional intelligence trainings while in college would be beneficial.

Teaching Emotional Intelligence

Industry professionals shared multiple ways emotional intelligence is being taught within organizations both formally and informally. When asked about how individuals can best learn emotional intelligence, one individual said, “Actually, this question is really funny. My supervisor and I literally just read a book last quarter, *Emotional Intelligence 2.0*.” She then went on to explain how this book and the corresponding assessment were growing her self-awareness and helping her get to the core of the emotions.

Additional methods of measuring emotional intelligence were discussed throughout interview responses. One individual said he took the Blue EQ assessment when in a leadership class. This assessment, he said, ranks individuals’ strengths and development areas, using percentages. He said he believes emotional intelligence increases in importance as leadership roles expand; however, emotional intelligence is for everyone. Discussing social medias impact on emotional intelligence, this individual shared:

I think anyone can take value in understanding how they're perceived and wanting to seek that out, and again some of these students these days- now that there are so many apps that put you more in public and encourage people to be more and more visible- and just because they want to be visible it doesn't necessarily give them a good perception of how they're being seen amongst peers or employers or wherever else. Then you have to hide under an inflated sense of ego, and how do you manage stepping into an organization where you're one of many, and everyone's input and contribution is valuable not just yours.

Because emotional intelligence is valuable, industry professionals recommend students gain emotional intelligence while in college. One professional said her company is teaching emotional intelligence modules to incoming employees because emotional intelligence gaps exist. She believes professional development seminars with emotional intelligence components would be valuable for student development. Other industry professionals shared her perspective of emotional intelligence trainings being beneficial while in college. Specifically, one professional recommends universities gain access to emotional intelligence assessments which

provide action plans for improvement. This individual said emotional intelligence starts with self-analysis:

You just have to start from self-analysis. I don't know if just teaching about it is enough. I think you have to know where you stand first. A lot of those assessments will give you guidelines of how to improve or how to be more aware of your presence, or on the flip side of that there's a lot of that self-respect. That's also another key area for students to understand. You can't self-deprecate yourself. There is a level of that that does come out, and if you don't have at least the confidence in yourself to be able to be where you're at and not feel like you're an imposter in your skin, that type of assessment will give you some context of how to go about improving.

From this discussion, emotional intelligence is needed for job success. Self-assessment is encouraged by industry professionals, and agricultural organizations are looking for ways to build emotional intelligence trainings into their work environment. These educational components present opportunities for universities to explore as well.

### *Business Etiquette*

Industry professionals were asked to share their perspective on what business etiquette skills a recent agricultural graduate should possess as well as discuss how someone might best learn business etiquette skills. Timeliness frequented discussion, creating a solid theme outlined previously under skills needed for business success. Other business commonalities such as good eye contact, shaking hands, minding your manners at the table, and avoiding filler words were all listed as importance etiquette competencies; however, two themes which rose to the top dealt with communication. Those two themes, outlined in Table 16, included being able to read the room and the importance of writing proper emails.



**Table 16***Industry Professionals' Perspective on Business Etiquette in Recent Graduates*

<b>Curriculum Focus</b>	<b>Theme</b>	<b>Supporting Quote</b>
<b>Business Etiquette</b>	Read the Room	<p>I would say the ability to communicate with people in both a way that you can stand up for yourself but also recognize where you fit in the picture.</p> <p>Always lean on the side of being formal until you build a central rapport on when to start reducing your formality and language.</p> <p>Reading the room, not just with a person, but with like the environment.</p> <p>I have a very common thing where I'll bring interns in to listen to executives. It's such a unique opportunity to just exhibit care and interest that goes a long way.</p> <p>As a college graduate, I suggest just listening first, and just kind of watching, seeing what everyone else is doing, and go from there</p> <p>Me personally, if I'm the youngest person in the room, I'm watching everyone else to figure out, okay, are we working right now, are we kind of working, is this just a social thing?</p>
	Write Proper Emails	<p>[Organization] started a writing etiquette course you can take on how to write an email professionally, and I think that's been helpful.</p> <p>Again, I go back to those three things: leadership skills will advance you faster than anything, communication skills will advance you faster than anything, and learning how to write emails.</p> <p>You just need to make sure you can express your point in a logical manner than everyone can follow.</p> <p>Knowing what to put in an email and when to pick up the phone and call. Those would be my tips on communication. Obviously, grammar and things like that are important, but that helps with personal brand a lot, too.</p>

**Table 16 (Cont.)**

<b>Curriculum Focus</b>	<b>Theme</b>	<b>Supporting Quote</b>
<b>Business Etiquette</b>	Write Proper Emails	I would say the biggest one is communication-verbal and written, and I'm not talking about a 50-page paper. I'm talking about, can you write an email, and it go to say, the CEO of [organization] without looking like you don't know what you're talking about.

### Read the Room

Reading the room, to industry professionals, is being aware of where an individual fits in the business dynamics. This presence dictates the level of formality as well as helps an individual know when to speak and what to say. “I would say the ability to communicate with people in both a way that you can stand up for yourself but also recognize where you fit in the picture,” said one professional. Another individual shared their organization coaches around knowing your audience, and they offered the advice, “Always lean on the side of being formal until you build a central rapport on when to start reducing your formality and language.”

Professionals discussed how formality changes based on who you are around. For example, one gentleman said he would communicate differently with a division manager than he would with a friend at a retail location. As you get to know your customer, he said you begin “to understand what’s proper to do and not do.” Similarly, a professional shared how meals with a customer are not as laid back as the environment on the internal, live side of the business.

Another individual shared how someone might act differently depending on the situation. She said:

I can just think of one team off the top of my head that are very professional in a meeting and very like cut and dry, but then you go out to a Bourbon tasting with them and they’re a totally different group of people, but yeah, reading the room, not just with a person, but with like the environment.

Understanding the presence one brings to the room is another important consideration, professionals shared. One individual recounted mind-blowing experiences where younger generations were given the opportunity to interact with CEOs and COOs, and the interns exhibited low formality and disengaged body language. This individual said, “I probably took it more personally because I have a very common thing where I’ll bring interns in to listen to executives. It’s such a unique opportunity to just exhibit care and interest that goes a long way.”

Industry professionals explained reading the room involves a great deal of listening. “As a college graduate, I suggest just listening first, and just kind of watching, seeing what everyone else is doing, and go from there,” said one individual. Furthermore, if someone is the youngest person in the room, industry professionals encouraged individuals to not talk too much. A young professional shared how she listens to find out if the room is discussing business or talking about their personal lives:

Me, personally, if I’m the youngest person in the room, I’m watching everyone else to figure out, okay, are we working right now, are we kind of working, is this just a social thing? So, especially if I’m not the one who invited them, or if they invited the group, and I just happened to be going along, I figure out, okay, what are they talking about? Where do I fit into that, and do I have anything honestly to include?

While reading the room became an important business etiquette discussion topic, teaching students how to write a proper email also received significant focus. Individuals shared times where email etiquette matters, and individuals shared perspective on how technology impacts email communication.

#### Write Proper Emails

“And I think I said this in the survey, they need to get off their phones” - one individual began her discussion on business etiquette with this statement. She believes, along with other professionals, that cellphones have contributed to a decline in proper email usage. Students today

are sending emails in the same format as text messages, and professionals do not believe this is acceptable. One individual shared how her organization is working to solve the email etiquette problem, and she shared some personal advice for college students:

[Organization] started a writing etiquette course you can take on how to write an email professionally, and I think that's been helpful. I've steered a couple of people on my team in that direction, because you can't write an email and not capitalize letters or use acronyms to mean something because not all people know that, and if I had to say one thing to a student today, I would say, get off your phone, at least while you're in school. Quit texting at the back of the class.

She continued by sharing three things she believes individuals should be learning in coursework.

Email was included:

But get off those devices while you're in class, pay attention, learn. Again, I go back to those three things: leadership skills will advance you faster than anything, communication skills will advance you faster than anything, and learning how to write emails.

Other individuals echoed technologies impact on communication. One individual sees both text messages and emails as a detriment to the written world because everything is so quick and fast. When writing an email or another form of written communication, this individual said, "You just need to make sure you can express your point in a logical manner than everyone can follow." One logical method of communicating involves the sandwich technique. Knowing the proper content and time to send an email is important to industry professionals:

The sandwich technique. So, like sending an email with positive, whatever negative feedback you have to deliver, and then positive. That's really important. Simply starting an email with, "Hello, so and so," and ending up with a "thank you" or "sincerely" or something along those lines is really important from a communication perspective, and then knowing what to put in an email and when to pick up the phone and call. Those would be my tips on communication. Obviously, grammar and things like that are important, but that helps with personal brand a lot, too.

When asked for needed competencies, one individual specifically noted the importance of email communication, discussing who that communication impacts down the line. This

individual noted the value of leadership; however, she also emphasized the need in curriculum for quality written communication:

I'm not going to say leadership again, because that's something that you do learn more once you get into a role, you learn to have the basic leadership skills and understand what leadership looks like, but I would say the biggest one is communication- verbal and written, and I'm not talking about a 50-page paper. I'm talking about, can you write an email, and it go to say, the CEO of [organization] without looking like you don't know what you're talking about.

Writing proper emails continued in the discussion on grammar and writing skills.

Individuals noted the importance of proper grammar in email communication; however, some individuals were more concerned about the content. For those without strong grammar and written skills, they shared their diligence on writing and rereading correspondence before sending it out.

### *Grammar and Writing Skills*

For the most part, industry professionals value grammar and writing skills, and the way those skills impact one's personal brand; however, some individuals questioned the level of importance grammar and writing should receive in agricultural curriculum. When looking at upward mobility, one industry professional said, grammar and writing skills are very valuable; however, this individual believes those skills could be encouraged in an advice session rather than taking up space as a main curriculum focus. The perspectives industry professionals share in regard to the focus that should be place on grammar and writing skills are highlighted in Table 17.

**Table 17**

*Industry Professionals' Perspective on Grammar and Writing Skills in Recent Graduates*

<b>Curriculum Focus</b>	<b>Theme</b>	<b>Supporting Quote</b>
<b>Grammar and Writing Skills</b>	Important but Not Most Important	Just to be aware of your price of entry.  They certainly will make note of it when you're doing it wrong.  You want your students to graduate and be able to use proper grammar when speaking or writing, but you don't want to bombard them so much that they can't move forward.  We have to focus on good clear communications. Teamwork, and those kinds of things, is more so applicable to the job world and the market and being successful than it would be to make sure you can write a fine letter with all your dictation and those items.

Looking at upward mobility, or job placement in general, one individual said grammar and writing skills play a valuable role. She said she tries not to judge people based on those skills, but she has witnessed leaders immediately reject job candidates because of spelling errors. Her advice to recent graduates includes, “Just to be aware of your price of entry.”

Another individual stated grammar is extremely important, and using spell check can impact other professionals' opinion of an individual. Double-checking communication is important; however, the structure of communication may be more valuable, according to some industry professionals. One professional encouraged a business communications class in which students learn space efficiency. This individual said executives applaud well-crafted writing.

Well-crafted writing can be more important because individuals may be writing emails or other correspondence to external partners on behalf of their leaders or their team. Because of this visibility, one professional said they expect “a level of attention to detail and care of how it's

been crafted.” Continuing with this, an industry professional said when someone writes something well, others may not note the proper grammar and spelling; however, “they certainly will make note of it when you’re doing it wrong.” As for crafting well-written emails, this individual said, “Usually what will happen is someone will draft a very long nice email to an executive, and they’ll get, ‘Sounds good’ back. It is what it is, but just ensuring that, again, know your audience.”

When drafting emails, industry professionals who are aware writing is not one of their strengths, shared how they will write content, set it aside, and come back to it multiple times. They do this, they said, because grammar and writing are important for making someone sound educated. One professional voiced he does not believe students are receiving enough writing focus while in high school. Because of this, he encourages students to take technical writing classes while in college. Specifically, he attributes his experience as a master's student to improving his writing skills- his master’s degree and his wife, both received credit.

Industry professionals acknowledged the importance of grammar and writing in curriculum; however, they conceded other skills may be more important. One individual discussed the struggle she believes educators must have when deciding how much writing to include in curriculum. If someone is weak in their grammar and writing, professionals encourage them to be aware of those weaknesses and take measures to improve. Individuals voiced they took extra writing classes to improve, when necessary, but as far as agricultural curriculum focus, one professional said:

It's a real fine line. As an educator, I know, probably professors have to think about that all the time. You want your students to graduate and be able to use proper grammar when speaking or writing, but you don't want to bombard them so much that they can't move forward, or they have so much to read and write that the paper they end up with does not look well because they had to read ten books to write the paper.

Another individual finalized his discussion on this topic with:

We have to focus on good clear communications. Teamwork, and those kinds of things, is more so applicable to the job world and the market and being successful than it would be to make sure you can write a fine letter with all your dictation and those items. You have to be able to communicate. You need to be able to type and get the majority right, but do I think it needs to be a focus? Probably not. We're not trying to create literature and English majors. We're creating people who are solving problems, figuring out how to feed the world. We're making the next scientists to solve issues- the next teachers who are going to teach children how to be productive citizens in their communities. I think that's more important.

Industry professionals' perspectives reflect grammar and writing skills are important; however, conversations demonstrated some skills may be more valuable such as leadership and problem solving. The following sections move into specific curriculum recommendations industry professionals provided during interview discussions.

### *Curriculum Design*

Curriculum design perspectives served as the main goal for this study's findings, and industry professionals provided valuable suggestions for agricultural coursework. The themes outlined in this section overlapped with themes generated in previous discussion. The main focus areas industry perspectives outlined include communication and leadership taught through cross-functional teams, project management, and industry interactions. Supporting quotes for these themes are highlighted in Table 18.



**Table 18***Industry Professionals' Recommendations for Curriculum Development*

<b>Curriculum Recommendations</b>	<b>Discussion Item</b>	<b>Supporting Quote</b>
<b>Communication and Leadership</b>		Do they communicate well in the interview? Do they interact with every team? Good eye contact is important. Some people- that's not their strong suit, but it is important. As you look to hire people, I want people that can connect to me.
		It's resetting the mindset that you're a business partner, and to be a business partner, you have to be up front, you have to be truthful, and you have to communicate.
		Leadership and communication. You can't learn to be a leader if you can't communicate, so honestly, it's almost to me one in the same.
		Working on learning leadership skills and communication skills doesn't necessarily mean you have to read a huge book and write a huge paper. To me, it means learning that in the classroom.
	Cross Functional Teams	A little bit of those goes a long way because it's a good, rounded approach to know what you have and what other industries offer, so you don't get so narrow minded.
	I think you build an applicable curriculum by just being well rounded. Especially, yes, you need to have your certain hours in your curriculum for your major, but my question is- would the electives be built around your core values?	
	When I was a portfolio manager, I would have a marketing manager, supply planner, demand planner, the product manager all working on a problem, trying to get a problem solution, trying to scope it out and get everybody's input so you could understand and define the problem.	

**Table 18 (Cont.)**

<b>Curriculum Recommendations</b>	<b>Discussion Item</b>	<b>Supporting Quote</b>
<b>Communication and Leadership</b>	Cross Functional Teams	<p>Students wouldn't love this, but I have seen it done in the past. You have them, work through a potential project. Maybe it doesn't have to be a semester long project, but maybe a few week-long project, and have a team captain or a group switch teams and have an expectation of a deliverable at the end.</p> <p>I think those are big opportunities for comm kids to get multi-business unit exposures and then other people to get exposure to how great comm, leadership, and education majors are.</p> <p>As far as if there was any curriculum that sort of helped with that, I would say no, because we know it would just be interactions that were kind of forced, and team projects are really great alignment to how it is in the workplace</p>
	Project Management	<p>Make every single one from day one be project based.</p> <p>Give them little to no direction and see if they apply the same structure to the next project.</p> <p>I think those kids get first look at those jobs because they know they came from a background where they had situations they had to work through, and they know their work ethic is there.</p>
	Industry Interactions	<p>You're going to research a company and do a presentation, and we're going to work on those skills as you go along, or 'Hey, here's the key issues in agriculture.' How you would build a campaign around that? It's highlighting some of the real issues that some of the organizations have dealt with and knowing there's a varied amount of ways to get to a solution.</p> <p>Maybe do more case studies. Day-to-day work can be kind of monotonous.</p>

**Table 18 (Cont.)**

<b>Curriculum Recommendations</b>	<b>Discussion Item</b>	<b>Supporting Quote</b>
<b>Communication and Leadership</b>	Industry Interactions	<p>I think the whole reason that we as people pay for college education is to get a frickin' job, so you tell me what I have to do to get a job.</p> <p>My boss is having an offsite for his direct reports and bringing in a man that deals with leadership skills, so even still in industry, we still do that. We still need help.</p> <p>I think that curriculum needs to catch up with what is truly going on in industry.</p>

Communication

Communication received the most attention of all desired skill sets, accounting for over fifty industry perspective references. Individuals value communication as a needed competency because this skill overlaps into many of the other employability skills. For example, navigating ambiguity, dealing with conflict, and problem solving all were noted to involve communication skills. Individuals shared they look for someone with solid communication skills when adding a new hire. Specifically, professionals are looking for individuals who can connect with them:

Do they communicate well in the interview? Do they interact with every team? Good eye contact is important. Some people- that's not their strong suit, but it is important. As you look to hire people, I want people that can connect to me. You feel like they can collaborate, and what I mean by that, you don't always have the right answer, and sometimes someone else has a better answer. Are you willing to hear that? That's important to the cross functional team work that you're going to have.

In terms of curriculum, individuals would like to see a communication focus. Industry professionals specifically mentioned business communication classes would be valuable in which students learned presentation skills and small group discussion skills. Team projects and real-life scenarios were other recommended communication methods. One individual heavily encouraged a sales class to teach communication skills because of the need for assertive, follow

through communication. In sales she said, “It's resetting the mindset that you're a business partner, and to be a business partner, you have to be up front, you have to be truthful, and you have to communicate.”

As mentioned, communication received significant focus throughout all interview responses; therefore, many of the references toward the need for communication were intertwined in previous themes, and industry professionals believe there are multiple ways to instill good communication skills. The most significant of which are listed in the following sections on leadership, cross-functional teams, project management, and industry interaction.

### Leadership

Leadership received thirty references throughout industry leaders' interviews. While many curriculum recommendations were made, industry professionals believe leadership should be at the core of curriculum, and course work should allow individuals to focus on “developing themselves as a leader and understanding who they are as a person.” Some of those leadership skills come through experiences and maturity, industry leaders said; however, business classes and communication classes were attributed with developing leadership skills. Specifically, one industry professional intertwined leadership and communication:

Leadership and communication. I'm probably going to say that 50 times. Those two go hand in hand. You can't learn to be a leader if you can't communicate, so honestly, it's almost to me one in the same. Leadership skills incorporate communication skills, and I've said, instead of so much reading and writing papers...Working on learning leadership skills and communication skills doesn't necessarily mean you have to read a huge book and write a huge paper. To me, it means learning that in the classroom- maybe just even, you know, practicing- If you think back to when you had to take speech as an undergraduate it was nerve racking to get up and do a speech in front of people, but I've said, if you learn that leadership skill in front of people, when you come into a work environment you're not as insecure to do that.

Industry professionals said there is a balance between the technical and soft skill classes; however, one individual valued the classes where she gained the opportunity to talk to and learn

about people. This learning style allowed her to observe other individuals, and she believes this classroom method would be beneficial for undergraduates. Staying with the idea of leadership, another individual recommended teaching professional development courses on adaptability, grit, and resilience. Looking at ways to develop leadership skills, industry professionals provided two methods which emerged into themes: cross-functional teams and project management.

### Cross-Functional Teams

Being well-rounded was a theme throughout the interview process, and individuals recommended achieving this in two ways. One, individuals shared personal experiences of taking classes outside of their discipline in order to build cross-discipline skillsets. Secondly, individuals encouraged cross-functional teams in which students step outside of their area of expertise and share their strengths while also learning about and building upon the strengths of other professionals.

Individuals shared how taking a wide range of courses benefited them in their career, and they said they would encourage students to do the same. One individual discussed how she never expected a pest management course to be beneficial; however, she uses the knowledge from that course in her career frequently. Another individual shared he spent five years earning his bachelor because of the number of extra hours he took. He noted his parents may not have been happy about this, and he recognizes tuition is already a factor for students; however, he believes taking those extra electives positively impacted his career trajectory. He said, “A little bit of those goes a long way because it's a good, rounded approach to know what you have and what other industries offer, so you don't get so narrow minded.”

Similarly, another professional shared he also took a wide variety of classes, and he is now encouraging his children to do the same. He said he encourages his children to take course

which will challenge them and expand their skillsets because, according to him, an easy earned “A” is not as valuable as a “B” that made an individual grow. In this way, he said a grade is not a measure of success. This individual also provided a possible course path which focuses curriculum around one’s core values:

I think you build an applicable curriculum by just being well rounded. Especially, yes, you need to have your certain hours in your curriculum for your major, but my question is- would the electives be built around your core values? You need to pick a certain class- let's say you create your core values and then you pick, ‘Okay, there's three of the core values that we want to create with our students.’ Communications would be one of them- connectivity, collaboration, working with project teams and cross-functional, and then the next one could be leadership. Maybe you build out a certain number of elective hours with those three core values that you create for that major. Instead of keeping a wide open on electives, maybe you direct them to the right electives.

In addition to creating a well-rounded course path, industry professionals also recommend cross-functional opportunities to collaborate. Partnering individuals with those outside of their major, provides exposure to different perspectives, according to industry professionals, and working on a cross-functional team brings all of the key players together to work through a solution. One individual shared how cross-functional teams help bring about a solution in a real-world setting:

When I was a portfolio manager, I would have a marketing manager, supply planner, demand planner, the product manager all working on a problem, trying to get a problem solution, trying to scope it out and get everybody's input so you could understand and define the problem. If you don't understand the problem, you can't provide a solution.

Team building in general was recommended as a valuable curriculum tool because working on teams allows individuals to develop leadership and conflict management strategies. Specifically, one individual recommended changing up team leadership midway through a semester in order to create volatility and simulate a real-world situation outside of student’s control:

Students wouldn't love this, but I have seen it done in the past. You have them, work through a potential project. Maybe it doesn't have to be a semester long project, but

maybe a few week-long project, and have a team captain or a group switch teams and have an expectation of a deliverable at the end. Don't even let them know what's happening ahead of time. It does show sometimes changes will happen out of your control that doesn't necessarily change the deadline or the expectation of what needs to be done, but then- how do you build rapport with this new person, understanding where you were headed, and still deliver a high-quality product?

Then have them reflect on what that experience was like. Obviously, from an industry standpoint, for us there's the constant stuff like work needs to get done, there's changes in volume of turkeys coming in, the pricing of feed and commodities. Inflation will rise, logistics will bring constraints, and you're always making decisions where you kind of have to pivot and do something the day of or week of to make a big impact on the bottom line, but having them just experience something that's a little bit of out of their control- how do they manage around that to deliver a product- is potentially a good experience, because it changes the pace and brings in a bit of volatility even amongst the team where they'll have to work through it and just know that sometimes people leave teams and people get more thrown on their plates just by nature of someone stepping out.

Another individual shared her perspective on the benefit of real-world experiences. As an agricultural communications major, she believes she received a well-rounded education because her communication curriculum was subject matter focused. She believes this set her apart from traditional communication majors as far as being prepared for her career in agriculture.

Additionally, she believes individuals from her communications department would perform well in any career path simply because they can communicate well. In order to create cross-functional curriculum, this individual recommends pulling in ag business curriculum into agricultural communications curriculum and vice versa in order to create real life work experiences. She said, "I think those are big opportunities for comm kids to get multi-business unit exposures and then other people to get exposure to how great comm, leadership, and education majors are."

As far as creating real-world experiences, one individual believes team projects are the best way to encourage authentic interactions. "As far as if there was any curriculum that sort of helped with that, I would say no, because we know it would just be interactions that were kind of forced, and team projects are really great alignment to how it is in the workplace," she said.

Project management in classes was another theme industry professionals believe should be considered in curriculum in order to learn how to work within teams and create results.

### Project Management

Project management is an essential curriculum tool recommended by industry professionals. Project management, according to industry professionals, teaches ownership, critical thinking, and conflict management. One industry professional said instead of reserving project management classes for junior and senior level students, she “would make every single one from day one be project based.” Another individual recommended professors lay out the structure for one project, and then “give them little to no direction and see if they apply the same structure to the next project.”

One individual said the only way they know how to teach ownership is through project management. This, the individual said, allows individuals to take responsibility for the project, do a full analysis on the project, make needed changes, and complete the project in a timely manner. Completing the project and not just starting the project is important to industry professionals. One individual said her organization has trouble when interviewing individuals on whether or not they are starters and finishers; however, she said project management experience helps validate that.

Industry professionals concluded they would like to see more hands-on project management classes, and one industry professional discussed how project management is essentially the idea behind agricultural program’s supervised agricultural experiences. He said these experiences set individuals apart in the job market:

I think those kids get first look at those jobs because they know they came from a background where they had situations they had to work through, and they know their work ethic is there. So, we carry a big, I'd say ag in general, carries a big burden on its shoulders that we produce kids who work, and they problem solve, and industries gobble



them up. That's part of the rural brain drain. We produce good kids, and then industry hires them and moves them away.

Preparing individuals for the industry is the desire of industry professionals. Because of this, industry professionals encourage interaction with the industry while students are still in college. Case studies and bringing industry representatives into the classroom are curriculum methods professionals recommend for preparing individuals for the industry.

### Interact with Industry

Industry professionals encourage students to gain experience in the industry before entering the workforce. Methods of building interaction with the industry into the curriculum include reaching out to industry to identify real world problems in the form of case studies. Additionally, industry professionals encourage finding ways for students to interact with industry leaders.

Industry professionals voiced technical agricultural knowledge should not be the only focus of agricultural curriculum. Understanding current states of the industry as well as shifting trends are important competencies to teach students. One professional shared her experience with working on a poultry science project in which her team had access to veterinarians and nutrition specialists. She said she would like to see students have more access to those resources. Similarly, an individual reflected on her time in a magazine development course. She said rather than making that an internal publication, opportunities to partner with and create a publication for an external organization, could create valuable industry connections.

These industry connections can be built through internships, professionals said; however, bringing the industry into the classroom through case studies would also familiarize individuals with the process of working through real-world problems. One individual explained why she believes case studies are valuable:

Because oftentimes it's not necessarily about the outcome as much as the process to get there. That just helps students think a little differently- how to approach things rather than just getting an 'A' in the class. You're going to research a company and do a presentation, and we're going to work on those skills as you go along, or 'Hey, here's the key issues in agriculture.' How you would build a campaign around that? It's highlighting some of the real issues that some of the organizations have dealt with and knowing there's a varied amount of ways to get to a solution. Not everyone's going to look the same, and it causes someone to kind of step back and think 'Oh well, let's think about common sense.' Let's think about what would bring the biggest value. Let's reduce impact or whatever that could be, but I think that would be a good way to go about it.

Case studies, according to one professional, can also give students a taste of what students can experience in a typical career environment. She explained how time passes differently while in college compared to being in the industry:

Maybe do more case studies. Day-to-day work can be kind of monotonous. It really can. You go from university where you measure everything by semesters and by season, and then all of a sudden, they're sitting in the same desk every semester, every season, every Christmas. You kind of lose sight of momentum. I think, maybe a focus on that could be helpful for students, especially coming into Corporate America because things don't move fast here.

Preparing students for the office environment is what one industry professional believes college does; however, she would like to see more individuals prepared to enter the plant environment. Conversations with industry leaders, she said, would make this need more tangible. Specifically, she would like to see curriculum which drives students toward a plant environment. Her experience with educators has involved professors telling her there are jobs available for the degrees their students are obtaining (she specifically referenced animal welfare), but based one conversation she has had with other industry leaders she is not convinced this is the case. She would like to see students prepared for careers where there are more opportunities. She recounted an experience while recruiting at a school:

There was also professor out there, and he was lecturing his students when I was there on working in a plant before you go to an office environment, so I'm not saying it's necessarily the school at all, you just notice themes at each of these schools, and it saddens me when you go to the schools, and you don't have the opportunities that they're

looking for and hoping for, and we also know that there's not a lot out there. I think that higher education focuses a lot on the curriculum and the research phase. Especially ag schools are all very research based, but there's not a lot of applicability there, and I think the whole reason that we as people pay for college education is to get a frickin' job, so you tell me what I have to do to get a job.

This individual said she would be willing to bring her in-house leadership development team into universities to conduct personal development seminars for students. This idea was echoed by other individuals who suggested bringing industry leaders into the classroom to teach leadership or other skill sets. "My boss is having an offsite for his direct reports and bringing in a man that deals with leadership skills, so even still in industry, we still do that. We still need help," one professional said. She suggested touring areas of campus students have never been to or exposing students to production facilities to give them an off-site type experience that will, in her words, "advance students forward."

As for advancing students forward, industry leaders believe maintaining industry conversations can keep curriculum relevant. One industry professional referenced her experience in a doctoral program and noted how some of the curriculum was no longer relevant:

Some professors I've had in this program, you can tell, they never changed their curriculum from semester to semester, and I don't quite understand that, and if you don't change your curriculum, if you don't have new things coming in, how in the world would a student be totally prepared, specifically, to go into the agriculture field? Now, I'm in a public policy program, which is a little bit different, you know, the policy doesn't change a whole lot, but in agriculture, those regulations that govern agricultural production are changing sometimes monthly, and I think that curriculum needs to catch up with what is truly going on in industry.

Industry interactions were encouraged by industry professionals because of the relevance collaboration brings to the industry. Industry professionals believe collaboration whether in a cross-functional team managing a project or through deliberate conversations with industry professionals brings a dimension to curriculum that helps set individuals up for the culture and

environment of the industry workplace. A further industry perspective summary is provided in the following section.

### ***Results Summary***

The online survey provided to industry participants collected both quantitative and qualitative responses. The questions gathered data regarding current needs areas of the agricultural industry as well as involved questions from curriculum developers within the Bumpers College Agricultural Education, Communication, and Technology Department at the University of Arkansas (Crawford & Fink, 2020). Some of the main takeaways from the survey results are highlighted in the following paragraphs.

When asked questions related to incoming employee preparedness, none of the responses indicated incoming employees were extremely well prepared (highest rating). In fact, 59.3% of respondents rated incoming employees' likeliness to succeed as moderately well (middle range) prepared. When dealing with ambiguity, 51.9% of respondents believe incoming employees are moderately well prepared or less than moderately prepared. Forty-eight percent of participants said incoming employees are moderately well prepared when dealing with pace and amount of change in the workplace. Conflict management provided the lowest scores with 40.7% of respondents ranking individuals as only slightly prepared.

In the area of emotional intelligence, 56% of respondents indicated incoming employees were somewhat competent while 40% indicated incoming employees were neither competent or incompetent or they were somewhat incompetent. Forty-four percent of respondents indicated incoming employees were somewhat competent in business etiquette and 20% indicated extreme competence. Similarly, in grammar and writing over 70.8% of respondents ranked incoming employees as somewhat or extremely competent.

In addition to quantitative responses, the survey cultivated qualitative responses. When asked “What significant changes have occurred within the agricultural industry during your lifetime?” the most common themes included: rapidly changing technologies, the Covid-19 pandemic, and bioengineered foods/ alternative animal proteins. Next the survey asked “What do you believe is the biggest challenge facing individuals entering the agricultural industry today?” and themes emerged regarding adaptability, agricultural and generational knowledge gaps, work expectations, and career self-management. Additional sub themes emerged within each of these categories.

Moving from personal experiences to industry recommendations, industry professionals provided suggestions for curriculum development. When asked, “What do you believe is the most important competency agricultural graduates should be gaining in their coursework?” respondents reported communication skills, applied knowledge, business commonalities and professionalism and adaptability as top themes. Finally, respondents were asked, “If you were creating a higher education agricultural curriculum, what is the most important component you would include?” and the responses prioritized communications skills, cross-training within disciplines, and problem solving/ critical thinking.

This research project combined survey questionnaires with industry perspective interviews to create a detailed look at the needs of the agricultural curriculum and to be able to make curriculum recommendations based on those needs. The respondents for the surveys and the interviews were the same audience; therefore, the interviews helped strengthen and validate survey responses. While some new themes such as cultural alignment emerged within interviews not previously covered in the industry surveys, the main themes remained consistent, creating validity.

Each research objective received significant discussion. Significant changes industry professionals faced during their career included technology changes, the results of the Covid-19 pandemic, and bioengineered foods and alternative animal proteins. Responses from the surveys and interviews aligned on the topics of technology changes and the Covid-19 pandemic; however, not all industry professionals in the interview feedback were convinced of the significance of bioengineered foods.

When examining challenges recent graduates will face coming into the industry survey responses indicated career expectations were the most prominent challenge. The researcher sought to answer why career expectations were a challenge for recent graduates, and interview responses identified three themes related to this topic. Industry professionals believe recent graduates can bring new skillsets and perspectives to the industry; however, concerns include a misunderstanding of career expectations in terms of what is expected in the workplace and what incoming employees should expect in terms of salary and position. The message industry professionals shared with incoming employees includes be patient, do the hard jobs, someone wants you to succeed.

Looking at graduates' ability to succeed, survey responses indicated recent graduates are moderately well prepared. The interview discussions provided themes for success in the workplace. These themes included recent graduates being aligned to the culture of the company. One individual may struggle in one job and thrive in another based on how aligned they are with the culture of the company. Additionally, students who take ownership for their careers tend to be more successful. Industry professionals also shared the value of time management and how this skillset puts others first. An others first mindset emerged as its own theme for career success

by encouraging recent graduates to develop a servant attitude toward both internal and external of the organization.

The next topic of discussion included ambiguity. On survey responses, industry professionals said recent graduates were moderately well prepared to deal with ambiguity. Breaking a task down to make it tangible and reaching out to clarify information were the two significant themes emerging out of the ambiguity interview questions.

From there, discussion onto how well recent graduates deal with pace and amount of change in the workplace. Survey responses indicated that recent graduates are moderately prepared in this area, and industry professionals suggested one can only learn these skillsets through experience. Developing well-rounded skillsets and stretch experiences as simple as navigating midterms and finals while in college were recommended ways of increasing an individuals ability to deal with pace and amount of change.

Conflict management, and graduates' ability to deal with conflict, proved to be most concerning for industry professionals, rating recent graduates as slightly prepared. Four themes emerged out of this discussion on how recent graduates can increase their conflict management skillsets. These themes included being a good communicator, being self-aware, being aware of one's audience, and being able to problem solve.

Moving from needed competencies to curriculum recommendations, individuals were asked questions related to areas which faculty at the researcher's university desired to identify how much focus should be placed on them. These included the areas of emotional intelligence, business etiquette, and grammar and writing skills. Additionally, individuals were asked to share their curriculum recommendation ideas for agricultural students.

In the areas of emotional intelligence, industry professionals said individuals need to understand it and learn it. Organizations are currently teaching it, and they encourage universities to do the same. As for business etiquette, industry professionals discussed the importance of being able to read the room and learn how to write proper email. From there, industry professionals discussed the level of curriculum focus that should be placed on grammar and writing skills in the workplace. Professionals concluded grammar and writing are very important; however, there are competencies which should receive greater focus in curriculum.

Competencies which should receive greatest focus in curriculum, according to survey responses included communication, cross-training, critical thinking, leadership, real-life scenarios, and project management. Industry responses from interviews provided similar themes including communication, leadership, cross-functional teams, project management, and interaction with the industry.

While many other discussion topics arose, this chapter reflects the most significant themes identified by the survey and interview responses. Areas of improvement were identified; however, those industry professionals who participated in this research are eager and willing to help recent graduates be successful. Many professionals voiced that someone helped them get started, and they want to do the same for students. “Don’t be scared” as mentioned under the skills needed for career success, proved a popular message for those going into the industry.



## **Chapter 5: Interpretation and Recommendations**

### ***Introduction***

Chapter 5 serves as the culmination of this research work *Teaching for Career Success: An Agricultural Industry Perspective of Preparedness Needs for Diverse Workforce Development*. Here I explain how the research I conducted relates back to the purpose of this project. For reference, the purpose statement was as follows: The purpose of this research is to strengthen the communication related employability skills of the agricultural industry by examining industry perspectives on the changing needs of the industry, leading to curriculum development recommendations.

Additionally, in this chapter I explain how this research met the research objectives. Because the survey and interview instruments were structured around the research objectives, the write-up of the data and the resulting conclusions were easily organized. By way of reminder, the four research objectives include:

1. Determine changes in the agricultural industry impacting incoming agricultural employees.
2. Determine challenges incoming agricultural employees will face.
3. Compare APLU employability needs with industry perspectives.
4. Determine agricultural curriculum recommendations in terms of employability needs.

While industry professionals were not groomed to focus on communications within their discussion, communication was intertwined throughout all of the employability needs discussion, emphasizing the need to incorporate communication as a main focal point in agricultural curriculum; however, from industry perspectives, I concluded educating individuals on

communication can take on many forms such as through leadership development opportunities and industry interactions.

The problems surrounding this research relate back to the need for online asynchronous agricultural curriculum, specifically to reach underrepresented populations who might not have access to educational training in agricultural communications. Rather than focus specifically on online curriculum and underrepresented populations, this research focused on the changing needs of the industry as a whole and examined the role technology plays in professional development. I concluded from industry perspectives that cultural alignment and diversity of thought are valuable components of employee success. Additionally, this research caused me to rethink online curriculum because of the concerns technology has brought to professional communication. At the same time, there are benefits to technology such as being able to work remote that were not available previously. I believe technologies impact on individuals' ability to communicate effectively opens door for further research.

All of the conclusions from this research were organized to create a theory for curriculum development, aligning with Finch and Crunkilton's Program Systems Model. The data collected from this research provide curriculum recommendations to be implemented in the academic program (Finch & Crunkilton, 1999). Finally, the output of students from the programs impacted by these recommendations are intended to strengthen the agricultural industry both internally and externally, thereby aligning with the Human Capital Theory (Tan, 2014).

This chapter is organized with a summary of the results followed by a discussion of how the results align with previous literature. Next, the summary statement follows, drawing conclusions from the results. Implications are then made for further research, and exciting implications are outlined for practice and recommendation. A relationship of the results is drawn

back to this study before moving into limitations of this research. The chapter ends with a summary and conclusion of this industry perspective research.

### ***Summary of Results***

The present study focused on meeting the research objectives regarding changes within the agriculture industry, challenges recent graduates will face, employability needs of recent graduates, and curriculum recommendations for developing graduates prepared for the needs of the industry. To summarize the results, the industry has been heavily impacted by technology and the Covid-19 pandemic. The dynamics of communication and workplace environments have changed significantly, and industry professionals believe recent graduates will be impacted by the results of these changes. Additional changes emerging in the industry include bioengineered foods and alternative animal proteins. Although, the impact of these changes is somewhat unknown.

As for recent graduate's abilities to adapt to these changes, the majority of industry professionals believe graduates are prepared because of their familiarization with technology and their navigation of Covid-19 while in school. Some of the implications of those two themes do create challenges, however, for both existing and incoming professionals to overcome. Those challenges present themselves as employability needs. The most significant challenge recent graduates face includes career expectations.

Career expectations involved both employers' expectations and recent graduates' expectations. Industry professionals expressed the expectation of recent graduates bringing fresh perspectives to the industry, and that was noted as a positive thing. Industry professionals shared concerns about coming in and being expected to know everything, yet those individuals were given room to grow and were encouraged to succeed. The challenges resulted from

misunderstandings regarding what is expected of recent graduates in the workplace and what is expected by recent graduates in terms of salary and titles. Industry professionals encouraged recent graduates to be patient in career advancement and take ownership of their success. Finally, industry professionals voiced they want incoming employees to succeed and they are willing to invest in recent graduates to make that happen.

From there, research moved into examining skills needed for career success. Industry professionals discussed four themes they believe help individuals succeed in a new career. To start, professionals said employees thrive best in a company culture where they fit. Fitting into a culture involves values and motives which align. When looking at diversity, industry professionals desire diversity of thought, and they believe factors such as conflict management and communication allow individuals to adapt to cultural and generational differences.

The next item of success from industry professionals encouraged individuals to take ownership of their success. Professionals shared the difference between those who succeed and those who do not take complete control of their career advancement. Taking control of their success may involve navigating freedom within their role, managing a project, or communicating upward to clarify information. One area of control that professionals would like to see more responsibility in is time management.

Time management emerged as a theme as industry professionals discussed the need for recent graduates to show up on time to meetings. They also discussed how training individuals to show up requires more time on the part of the organization, and that commitment can be a hesitation when hiring new employees. Additionally, industry professionals need individuals to respect others time when in conversation and when meeting project deadlines.

The final success item industry professionals want recent graduates to understand is the need to put others first. Others first involves listening and observing. Industry professionals encourage individuals to respect individuals' lives outside of the workplace, allowing individuals to connect with one another and empathize with other's struggles. Industry professionals encouraged individuals to put their phones down in order to make observations easier. Listening and being aware of the needs of others encourages emotional intelligence development. Another factor regarding putting others first involves humility. Humility, according to industry professionals, contributes to a positive company culture.

As a concern area outlined by APLU, ambiguity became an important part of industry discussion. Industry professionals said they constantly deal with ambiguity in their careers. Professionals also shared ambiguity exists in terms of career expectations and future career and industry changes. To navigate ambiguity, professionals encourage recent graduates to make ambiguity tangible. If handed a task, professionals encouraged individuals to work backward to solve the problem by examining previous projects and available resources. From there, professionals encourage individuals to seek clarifying information. Whether dealing with career expectations or project management, professionals told recent graduates to just ask the questions.

Pace and amount of change was another discussion point of APLU. Survey results showed that industry professionals believe recent graduates are moderately prepared. Recent graduates may be moderately prepared for change, but industry professionals question whether or not recent graduates are willing to accept change. Industry professionals believe experience is the best way for students to learn how to deal with pace and amount of change. Being well-rounded helps individuals handle change, and simple changes in everyday life were encouraged to acclimate individuals to change.

Conflict management was an important discussion topic because industry professionals rated recent graduates as being moderately prepared to deal with conflict on the survey results. In the interviews, the conflict management ratings were even lower with some individuals said they would rate recent graduates' ability to deal with conflict management as zero. Four themes developed from this topic which include communicating, being self-aware, knowing your audience, and solving the problem.

Professionals encouraged recent graduates to communicate openly when dealing with conflict. Face to face communication was encouraged as a means of understanding the emotions of one's audience. Similarly, individuals were encouraged to understand their own emotions and recognize what is behind their feelings and why they are taking it personally. Recent graduates were also encouraged to know their audience and communicate with them based on what they know about them. For example, communicating with someone in marketing might be different than communicating with someone in finance. Moving closer to the conflict was also encouraged as a means of understanding your audience. Finally, individuals were encouraged to follow through and solve the problem by letting people dump their frustration, making a plan, and resolving the problem.

Conflict management was the last APLU competency discussed; however, additional competencies emerged in terms of curriculum recommendations. Here individuals shared their perspective on the focus certain items such as emotional intelligence, business etiquette, and grammar and writing should receive in curriculum. Industry professionals were then asked to share their suggestions for building relevant agricultural curriculum.

In the area of emotional intelligence, industry professionals said emotional intelligence is important and it provides implication for dealing with change, handling conflict, and building

relationships. Industry professionals explained what emotional intelligence is, and they discussed the importance of recent graduates developing their emotional intelligence. Individuals discussed how emotional intelligence is somewhat related to personalities; however, based on personal experiences shared by professionals, emotional intelligence can be learned. Industry corporations are training their employees on emotional intelligence, and they encourage universities to teach emotional intelligence modules in professional development courses and seminars.

Discussion around business etiquette included basics such as maintaining eye contact, shaking hands, and dressing appropriately; however, two key themes emerged involving reading the room and writing proper emails. Reading the room involves listening and understanding one's presence. Professionals encouraged recent graduates to gauge the formality of the room. If recent graduates are the youngest ones in the room, they were encouraged to listen before speaking and find out if business or personal lives are being discussed.

Putting down one's phone was a suggestion for reading the room and increasing awareness of others. Phones also surfaced in the discussion on email etiquette as industry professionals discussed how texting impacts email communication. The formality of emails has decreased and individuals are sending text lingo in professional settings. Additionally, poor grammar in emails is a concern for industry professionals, and recent graduates are encouraged to draft and reread emails before sending them out. More important than the grammatical structure of the email, is the content. Industry professionals desire clear and concise communication.

This discussion moved into discussion on grammar and writing. Individuals were asked to explain what level of focus industry professionals should be placing on grammar and writing in coursework. Industry professionals concluded grammar and writing are important, but the

ability to communicate and problem solve are probably more important. This transitioned into further discussion on curriculum recommendations.

Communication, although listed previously under conflict management, came up frequently in the curriculum discussion. Professional communication classes were valued because of the important role communication plays in the success of the individual and in the industry. Communication in classes could take on the form of presentations, small group discussions, or project management. Assertive, follow through communication was specifically mentioned as being important, and a sales class was one recommendation for making that happen.

Leadership heavily tied into communication throughout discussion, and industry professionals desired for leadership to be at the core of curriculum focus. Classes relating to business and communication specifically with cross-functional teams and project management opportunities were listed as ways to develop leadership skills. Cross-functional opportunities both in taking a well-rounded course load and being involved on cross-discipline teams provide opportunities for students to work in a real-world setting. Taking a class that makes challenges someone and makes them more well-rounded can actually be more impactful than earning an A in a course. Furthermore, project management teaches ownership and encourages students to not only be starters but also finishers- a skill employers look for during interviews.

Preparing individuals for the industry is the overall goal of curriculum development, and industry professionals believe the best way to make that happen is to keep industry material relevant by bringing industry perspectives into the classroom. Internships were encouraged, but more so, real-world case studies and industry collaborations were recommended as a valuable tool for creating industry interaction. Industry professionals want to encourage universities to



engage with industry corporations to ensure the output of students' degrees are aligned with the jobs available in the industry

### ***Discussion of Results***

In this study, the success of the graduate was the underlying goal in order to strengthen the individual and thereby strengthen the industry. Looking at the Program Systems Model, the method of creating successful students involves their entry into an educational program influenced by the needs of the industry environment they will be entering at the output of those students' graduation (Finch & Crunkilton, 1999). Therefore, the purpose of the research was to take the results of the industry perspectives and formulate them into relevant curriculum recommendations. This section will move through the objectives of the research comparing the results of this study with previous literature.

Beginning with industry changes over the lifetime of industry respondents, technology and Covid-19 were most significant. Technology changes in regard to globalization and industry competition have impacted the industry (Fernandez et al., 2019); however, globalization is not the prominent concern of industry professionals when thinking about the impact technology will have on incoming employees. Technology, in the minds of industry professionals, first makes them think about advancement in regard to increased agricultural production (Parke, 2015).

Additionally, technology has changed interactions in the workplace creating both positive and negative results. From a positive perspective, technology has allowed many individuals to relocate due to remote accessibility. Negative impacts include individuals missing out on face-to-face interactions. This is believed to result in a decline of communications skills. For example, remote working opportunities reduced collaboration by 25% (Berkley, 2021).

As for Covid-19, technology is tightly intertwined. The workplace has drastically changed both from a cultural perspective and from pace and amount of change. Many employees moved to remote positions and are now looking at ways to stay remote because remote work allowed individuals to relocate back to families or move their families to rural settings. Not surprisingly, concerns exist on how remote work may impact in person communication and collaboration in the workplace (Berkley, 2021). These concerns are valid, considering that Gen Z is comfortable with navigating technology, yet they struggle with face-to-face interactions (Pennsylvania, 2019).

The negative impacts of technology on communication abilities and personal interactions concerns me. While many benefits of asynchronous online learning are touted, I believe asynchronous learning creates communication hurdles to overcome, and I am not convinced asynchronous learning or remote work will effectively replace in person interactions. As the impacts of Covid-19 and the technology revolution continue, more conclusions will be able to be drawn on this subject (Berkley, 2021).

Another major impact of the Covid-19 pandemic involved changes with supply chains. Some industry professionals reported positive business growth as a result of the pandemic, but are now seeing some supply chain issues forecasted for the future. Other aspects of the industry saw immediate negative impacts from the pandemic, and some of those issues are now being exacerbated by the Russia-Ukraine Crisis, specifically the meat industry is being impacted because of livestock feed supplies and seed oils which allow for the production of certain products, specifically in the organic and alternative protein product areas (Welsh, 2022). This brings the technology and Covid-19 discussion back to globalization (Fernandez et al., 2019).

On top of global changes such as technology advancements and world crisis, challenges exist among recent graduates in regard to career expectations. Expectation gaps exist between what recent graduates are willing to give and what the industry is willing to provide, creating ambiguity. Changing expectations are not a new problem, as the needs, wants, and expectations of the ag industry, specifically in regard to communication, have been rapidly changing for quite some time (Doefert & Miller, 2006). Understanding career expectations continues to be a challenge for recent graduates (Crawford & Fink, 2022).

Specifically, Gen Z believes they are overworked and underpaid, and they often want to work their dream job immediately after graduation (Wilkie, 2019). This expectation is not realistic as career advancement takes patience and proving yourself. We learned from industry perspectives that there is sometimes a misperception that the world is going to want you right out of college. While there are positive benefits recent graduates can bring to the workplace, employers also share hesitations about bringing on recent graduates due to the amount of training investment required to help them and the company be successful (Crawford & Fink, 2022).

Industry professionals involved in this research encouraged individuals to seek out feedback to clearly define what their employer expects of them, and recent graduates are encouraged to take ownership of their career expectations by completing assignments regarding time management and budgeting while still in college to help them gain perspective. Additionally, this study discussed the importance of interacting with industry leaders in order to set realistic career expectations (Crawford & Fink, 2022; Easterly et al., 2017).

The next topics covered in this research included competency needs identified by APLU- succeeding in a new job, navigating ambiguity, dealing with pace and amount of change, and managing conflict (Crawford & Fink, 2022). The results of this study validated that those

concern areas were indeed gaps in incoming employees, and organizations are creating personal development opportunities to help fill in those gaps in their training programs for current and incoming employees.

The APLU study focused on succeeding in a new job as it related to persevering through life transitions. The audience of this study looked more at skills needed for incoming employees to succeed in the workplace. One overlap of life transitions and navigating personal skills includes time management (Crawford et al., 2011; Crawford & Fink, 2022). Simply showing up on time to work, coming to a meeting, or completing work in a timely manner include expectations industry professionals would like to see recent graduates meet, and Gen Z believes jobs and internship experiences help prepare them to show up on time in future careers more so than high school or college prepared them for time management skills (Wilkie, 2019).

Cultural alignment, taking ownership, timeliness, and putting others first were the four main themes of career success. Cultural alignment can be viewed from the perspective of diversity (Gillies, 2017); however, the industry professionals in this study examine cultural alignment as being shared values and motives. Diversity does relate to ethnicity, age, and thought, but diversity was not the main focus concern of individuals in this study. Diversity of thought is a valued skillset, and this is an important consideration in the workplace culture discussion because an increase in underrepresented individuals does not necessarily lead to increased benefits for the organization (Ely & Thomas, 2020)

Taking ownership was another skill related to recent graduate success in the workplace. Ownership is encouraged among recent graduates by looking at ownership in terms of self-management, including skills such as being self-starters and demonstrating a sense of urgency toward tasks (Crawford et al., 2011). Self-starting was an ownership characteristic mentioned by

industry professionals, and while APLUs 2020 report did not directly discuss ownership, characteristics such as being independent thinkers and seeking clarifying information relate back to ownership (Crawford & Fink, 2022).

Putting others first was the final discussion item under job success. A need exists for individuals to be excellent listeners and consider others perspectives. In 2011, listening skills were valued above all other communication skills, and not surprisingly, this need continues (Crawford et al., 2011; Steede et al., 2017; Easterly et al., 2017). Humility and honesty toward work performance was encouraged as a means of putting the needs of one's team and the organization first, and emotional intelligence, specifically being aware of where one fits into the big picture was supported by literature and this study's findings (Crawford et al., 2011; Crawford & Fink, 2022).

From there the research moved into navigating ambiguity, and many of the suggestions literature provided for dealing with ambiguity coincided with those of industry professionals in this study. The transition from college rubrics and assignment outlines to ambiguous tasks and expectations in the real world created a great deal of ambiguity in the recent graduates' careers. Asking clarifying questions and breaking tasks or expectations down into tangible items serves as an effective means of navigating ambiguity (Crawford et al., 2011; Crawford & Fink, 2022). Additionally, breaking tasks down into manageable chunks can reduce Gen Zers anxiety toward workplace expectations (Wilkie, 2019).

Looking at dealing with pace and amount of change in the workplace, stretch experiences such as navigating an underground railroad on a study abroad aligned with industry perspectives which suggested changing up where you live or try out new restaurants while in college as these experiences can serve as ways to acclimate oneself to change (Crawford & Fink, 2020b).

Additionally, one suggestion of literature was to include cross-disciplinary experiences in your education, and specifically, cross-discipline courses and cross-functional teams are ways industry professionals recommend becoming more well-rounded and adept to change (Crawford & Fink, 2020).

Managing conflict remains an important skill for recent graduates to bring to the workplace. Industry professionals rate recent graduates conflict management ability as needing improvement, and Gen Z reports, as a whole, they are not confident when it comes to managing conflict (Wilkie, 2019). Communication remains the key to working through conflict. Individuals are encouraged to step in and engage the conflict as well as provide themselves with experiences where conflict may arise such as in a team setting (Crawford & Fink, 2020b).

Much of the conflict discussed in this study related back to workplace drama. Individuals are encouraged to separate conflict from discussion items and take time to listen to other individual's perspective. Additionally, recent graduates should try not to take conflict personally and should work to know their audience and be aware of potential conflict that may arise. Not everyone can be trusted with information. Even if individual's intentions are good, information can be misconstrued. Recent graduates are encouraged to seek out individuals they can confide in; however, those individuals may not be those they work closest with (Crawford & Fink, 2020b).

I believe understanding one's audience when dealing with workplace conflict provides implications for understanding one's audience in the midst of crisis communication on an industry scale (Kurtzo et al., 2016; Steede et al., 2016; Esterly et al., 2017). Perhaps even the minimal focus on crisis communication in agricultural communications curriculum made aspects of the Covid-19 pandemic more difficult for industry professionals to navigate. Faculty and

students did not show interest in crisis communication prior to Covid-19 despite the fact that industry was saying gaps existed in this communications area (Cannon et al., 2016). However, there may be more important factors at play, such as experience and emotional intelligence.

Emotional intelligence is growing popular in industry and education discussions because of the role emotional intelligence can play in understanding career expectations, managing conflict, and growing in awareness of one's audience. These benefits are prompting organizations to teach emotional intelligence in their professional development trainings and industry professionals are recommending universities look at ways to incorporate emotional intelligence into curriculum (Crawford & Fink, 2020).

One consideration I believe needs more attention involves social media applications and how they play into individual's career expectations and workplace presence. The individual who shared this perspective suggested social media is creating heightened sense of egos and narrowed validation which may create challenges for individuals to listen to advice and step into an organization where they must value other's opinions and perspectives. Emotional intelligence areas of self-awareness and relationship management may play into this discussion (Bradberry & Greaves, 2009).

When looking at business etiquette and grammar and writing skills, professional competencies were discussed by APLU; however, little attention was given toward grammar and writing skills. Effective writing was valued in literature, and this supports industry professionals desire for content that is clear and impactful. I believe in communications majors writing should continue to be a main curriculum focus; however, oral communication and relationship communication seemed to be more valuable for the needs of the industry (Cannon et al., 2016).

The curriculum recommendations of communication, leadership, cross-functional teams, project management, and industry interactions are all supported by literature and provide implications for working through many of the concern areas identified by APLU (Crawford et al., 2011; Crawford & Fink, 2020). I would suggest leadership courses focus on students being active listeners, being able to engage in genuine conversation, being able to work effectively on a team, and being able to engage in critical thinking and strategic planning, as these competencies needs were voiced by both industry perspectives and literature (Easterly et al., 2017; Steede et al., 2016).

As educators and employers navigate the Gen Z generation, I also believe instilling confidence in skillsets is going to be necessary in order for individuals to be successful (Wilkie, 2019). Confidence can be developed through the curriculum recommendations suggested in this study, but underneath those curriculum components are the emotional intelligence elements of self-awareness and social awareness (Crawford & Fink, 2020; Bradberry & Greaves, 2009).

### ***Summary Statement***

Several conclusions can be drawn from this study which strengthen the communication related employability skills of the agricultural industry by examining industry perspectives on the changing needs of the industry, and these conclusions can lead to a theory for curriculum development recommendations. Specific curriculum recommendations were made by industry professionals; however, additional theories can be made based on other underlying themes of the research.

Communication remained the main theme behind many of the competency discussions. For example, understanding career expectations dealt brought in discussion about communicating with employers to find out what the desired expectations are. Similarly,



ambiguity related back to asking clarifying questions. Even dealing with pace and amount of change involved collaboration through well rounded experiences such as cross-functional teams. Communication was also at the core of conflict management.

Emotional intelligence involved internal communication with self-dialogue to help understand emotions, and emotional intelligence also involved communication with others to gain perspective on how others view them as well as to gain more empathy for others perspectives and feelings. One of the main considerations of business etiquette involved reading the room which employed the communications skills of listening and gauging when to be involved in conversation. Looking at grammar and writing skills, creating communication content that is not only well written, but also clear and effective is key.

Each of the curriculum development recommendations involved communication in some way, and industry professionals said communication and leadership are one in the same. Working on cross-functional teams, managing projects, and interacting with the industry all include important back and forth communication, involve expressing perspectives in an assertive yet respectful way, and include observing and listening for personal development.

These conclusions provide curriculum recommendations which place communication at the core and involve both internal and external dialogue. Leadership and stretch experiences play a valuable role in increasing communication skillsets. Not only do these conclusions provide implications for curriculum theory they also provide implications for further research. For example, exploring internal dialogue in terms of what that looks like in the classroom creates areas to explore. Additionally, examining communication validation on social media and how that impacts individuals' ability to listen and relate to their peers would be an interesting study.

This study also allows room to be strengthened. These opportunities are outlined in the following section.

### ***Implications for Further Research***

Additional qualitative studies regarding competencies needed among recent agricultural graduates are warranted, I believe. My intentions for this study were to build upon research previously conducted by colleagues and superiors such as Doerfert and Miller (2006). Furthermore, based on recommendations by Morgan curriculum needs to be reevaluated every 2 to 5 years (2010), and this research came at a time when agricultural curriculum, specifically agricultural communications curriculum was in need of review. Rather than focus on the curriculum currently being offered as Cannon and colleagues did in 2016, this research examined industry perspectives for curriculum developers to be able to examine and implement in a study more closely aligned with Easterly and colleagues (2017).

Involving industry perspectives aligned with the Program Systems Model, an evaluation model used previously within the agricultural communications discipline (Morgan, 2010; Finch & Crunkilton, 1999). Previous research by Kurtzo, Hansen, Rucker, and Edgar (2017) examined gaps between agricultural communicators and the public; however, this research sought to provide perspective on gaps industry professionals are seeing as graduates come out of academic programs.

In this study, I sought to cross-compare the efforts of APLU with the perspective of industry contacts related to the University of Arkansas. Because the career development center desires to prepare students for the organizations which recruit from our university, I believed it would be beneficial to make sure the APLU employability needs aligned with those who recruit from the University of Arkansas. I believe other institutions would benefit from conducting similar research through the career development centers of their agricultural colleges. This would

create opportunities for personalized data to be collected, as the qualitative nature of this study prevents generalization to all institutions.

Recommendations, however, can be made toward the academic programs of other institutions. If a similar study is conducted at other institutions, I recommend incentivizing survey responses in order to increase the response rate (Dillman et al., 2014). I did incentivize interview responses; however, had my survey response been greater, I would have conducted focus groups rather than interviews. Because of the rich qualitative data available through focus group collaboration, I would recommend individuals use focus groups as a research instrument (Creswell & Poth, 2018).

Because the APLU study covered many employability needs areas in depth, I sought to compare the same concern areas identified by APLU. While this provided a broad overview of the needs of the industry, there are now areas I recommend further research expand on. Specifically, I believe the agricultural discipline would benefit from exploring emotional intelligence in greater detail, especially in regard to how individuals can best learn emotional intelligence through curriculum coursework. Based on industry perspectives saying that an others-first mindset and being able to observe others are valuable, I believe servant leadership and listening skills may play into teaching emotional intelligence.

I also believe social media and the impacts those application have on realistic expectations and genuine interactions in both college and the workplace deserve more attention. Industry respondents encouraged recent graduates to put their phones down and observe. Industry professionals also discussed how text messaging is impacting professional communication. A look at phones' impact on recent graduates' success within the agricultural discipline, would, I believe, create valuable insight into technologies impact in the classroom and

the industry environment. Based on connections between this study's data, I believe researchers might find a negative correlation between social media reality and emotional intelligence.

When looking at emotional intelligence, communication both intrapersonal and interpersonal are be important components, based on industry perspectives. Because of this, I believe it would be interesting to see if agricultural communication majors who focus on communication theory and application demonstrate different emotional intelligence score than agricultural majors in other disciplines, or in disciplines outside of agriculture. A cross-comparison between disciplines could lead to interesting implications to measure curriculum success and strengthen collaboration between disciplines.

One thing I hoped to gain through this study was identifying effective methods of asynchronous interactions that could be translated over into asynchronous agricultural communications curriculum. For the most part, I found that industry leaders believe technology has hurt communication ability and ability to emote and read emotions. Some discussion did support the benefits of remote work; however, motivation plays a key role in remote success. Industry professionals voiced graduates coming out of the Covid-19 pandemic who navigated online learning while in college, may be better prepared for remote work experience than some of the established industry professionals. This opens a door for further exploration.

In summary, I recommend this research be conducted at other institutions in order to accurately represent the competency areas universities should focus on based on their industry contacts. Gathering perspectives at multiple institutions would paint a broader picture of what is happening across the agricultural communications discipline nationwide. Other opportunities to explore include exploring emotional intelligence in the classroom and the discovering the impact of technology related to phone use and asynchronous learning. All of these opportunities relate

back to the Program Systems Model by impacting the academic program students pass through as they prepare for entry into the industry (Finch & Crunkilton, 1999).

### ***Implications for Practice and Recommendations***

This research provides implications for agricultural curriculum, specifically in regard to agricultural communications disciplines because it was conducted at time when curriculum development was in need of review (Morgan, 2010). Industry perspectives provide recommendations for curriculum development based on the current needs of the industry. Because APLU provided a framework for employability needs, curriculum recommendations were able to be gathered in a relevant and efficient manner rather than having to identify concern areas (Crawford & Fink, 2020).

The most relevant challenges recent graduates will face include increased asynchronous work experiences as well as continued supply chain impacts. I am not sure how long the Covid-19 impacts will continue; however, I believe as globalization and technology continue to advance, new supply chain issues will continue to emerge (Fernandez et al., 2019; Parke, 2015; Welsh, 2022).

From my interviews with industry professional, I believe some aspects of technology are hurting emotional intelligence, specifically in regard to self-awareness and relationship management. This study helps highlight some of those concerns and provides methods of working around some of those issues by providing practical ways to work through career expectations, ambiguity, and conflict. Implications from the curriculum recommendation portion of the findings demonstrate how communication and leadership opportunities in coursework can help mitigate some of the technology fall out (Gaskell, 2022; Berkley, 2021).

I recommend educators consider reducing technology in the classroom, perhaps even taking away phones, electronic notes, and PowerPoints at times, and increasing small group discussions. Specifically, I would give small groups agricultural issues or real-world case studies to problem solve. Finding ways for individuals to follow through with their action plans formed in those discussions would create even greater ownership and would develop students who are starters and finishers (Gaskell, 2022; Berkley, 2021).

While the technology advancements of the industry lean toward being conducive to remote learning and remote working, I recommend institutions encourage in person learning when possible. A hybrid option could mitigate some of the fall-out of remote work. While remote work increases flexibility and mobility, collaboration is reduced, and I believe this may lead to greater conflict and less cultural cohesiveness within organizations (Ely & Thomas, 2020; Gaskell, 2022; Miller, 2021; Berkley, 2021).

As for creating a culture within academic disciplines, I would encourage institutions to learn from the cultures of industry organizations. For example, I would identify organizations which heavily recruit students from my institution, and I would have conversations with them about their company culture and what they do to build company culture and invest in their employees. Similar efforts could then be made to build culture at academic institutions. Having said that, recent graduates can bring positive cultural elements to agricultural organizations; therefore, maintaining some autonomy by creating a hybrid of multiple company cultures could be beneficial (Egan, 2011).

In order to increase self-awareness and professionalism, I recommend giving students assignments in which they are asked to observe professional social settings including job fairs, networking events, banquets, business meetings, or after hour social events. Staying on the

outside of the room and taking notes would be a beneficial way for individuals to familiarize themselves with those business settings. Observations should be followed by individuals participating in those events. This could look like students being observers during their freshman year and being participants their sophomore year forward. Some of those interactions could take place through internships; however, industry partnerships that require less commitment than an internship such as inviting students to sit off to the side in a business meeting could be a practical way for students to learn how to effectively read the room (Bradberry & Greaves, 2009).

I would also recommend students be paired with industry mentors to work through discussions on career expectations and emotional intelligence. Industry professionals voiced they would love to help students in this way because someone else helped them get to where they are. Respecting industry leaders time becomes a concern here; therefore, keeping these mentorships within internships may be the best method at this time; however, I believe this study demonstrated the more interaction that can happen between industry and education, the more relevant graduates will be (Cannon et al., 2016; Crawford & Fink, 2020).

From this research, I recommend agricultural curriculum incorporate email training. Grammar and writing can be a part of that discussion, but also, content and clarity should be an important component. Texting has changed the way recent graduates communicate through email, and being able to construct a properly written emails has implications for upward career mobility (Wilkie, 2019).

Overall, I believe the agricultural discipline should focus on leadership opportunities. Cross-functional teams designed to create a well-rounded perspective of agricultural knowledge and diversity of thought is one way to go about teaching leadership that simulates a work environment where team members come from various backgrounds. Additionally, teams should

be given real world projects to manage as a means of taking ownership for ambiguity, communication, and time management (Wilkie, 2019). Finally, industry conversations should be encouraged at all times, and I believe the best way to do that is to create and maintain relationships with successful, servant minded alumni who desire to give back to the program they graduated from (Cannon et al., 2016)

These implications and suggestions are made with the Human Capital Theory in mind. Developing students who are well-rounded and prepared to meet the employability needs of the industry provides social and economic benefits to the industry and the industry's circle of influence (Tan, 2014). The Program Systems Model can be used to take these recommendations and build them into academic programs (Finch & Crunkilton, 1999).

### ***Relationship of Results to Theory***

The overarching purpose of this research was to develop recommendations for agricultural curriculum relevant to the needs of the industry. The method of arriving at this theory incorporated the theoretical framework of the Program Systems Model which involves the key players of students, faculty, and industry professionals. The students going through the program influenced by this research are essentially the end product, or the output. The faculty involved serve as the target audience of this research, and they are the ones intended to be influenced by the implications of this study. The industry professionals create the environment in which students will enter, and since the end goal is for the graduates of the program to be successful in the industry, the industry professionals served as the research subjects (Finch & Crunkilton, 1999).

The Human Capital Theory kept the end goal in mind, a purpose supported by the industry perspective of an others first mindset. The Human Capital Theory is concerned with the



big picture. While Human Capital Theory examines economic success, other investments such as education also support this theory, and the curriculum recommendations made within this study invest in human capital by strengthening the economic impact the agricultural industry can make by being made up of successful professionals (Tan, 2014).

The literature gathered for this study helped build a case to explain why a review of employability needs was necessary. The feedback of industry professionals supported the idea of technology playing a significant role in the industry, trickling over into the impacts of Covid-19 and global issues such as the Russia-Ukraine Crisis (Fernandez et al., 2019; Parke, 2015; Welsh, 2022). In the same way, industry professionals' discussion regarding recent agricultural graduates backed up the Gen Z literature, validating the research findings (Wilkie, 2019). Literature regarding agricultural communications coursework and employability needs of the industry aligned with research findings as well, building a stronger case for the direction agricultural curriculum can take in the future (Doerfert & Miller, 2006; Easterly et al., 2017; Crawford & Fink, 2020).

While the results of this study aligned with literature and supported the theoretical framework behind this work, limitations did exist. Those limitations are identified in the following section. Finally, after the limitations a summary and conclusion are provided.

### ***Limitations***

Limitations of this research involved the Covid-19 Pandemic and low survey response rate. At the time this research began in 2020, I was working entirely remote as a graduate assistant. Similarly, many industry organizations moved to a form of remote or hybrid work, slowing down communication and creating delays in the research process (Berkley 2021).

When beginning the research, I did not foresee Covid-19 representing one of the biggest changes in agricultural industry professional's lifetime because the pandemic was still new and little to no research was available on the matter. After conducting the research and gaining industry perspective, I began to see just how much of an impact Covid-19 had on the industry and how it complicated the environment recent graduates will be entering (Vaiknoras et al., 2022).

Secondly, my survey response rate was lower than I expected. This created limitations to my study because I initially planned to conduct focus groups; however, due to a low response rate (15.7%) I did not have enough participants to substantiate credible focus groups. I moved to one-on-one interviews instead. The interviews were used to create validity between survey responses and interview responses to account for the low survey response rate (Creswell & Poth, 2018).

Speculations can be made on why survey response rates were low. Covid-19 upended the industry, creating what one industry professional described as a daily circus. These rapid changes may have impacted individual's ability to find time to respond to the surveys (Vaiknoras et al., 2022). Additionally, while multiple email waves were sent out to industry professionals, different methods of incentivization and more in-depth email campaigning might have elicited greater responses (Dillman et al., 2014).

### ***Conclusion***

Industry changes are inevitable, which means the industry environment is continually evolving. What is true one day may be totally different the next as evidenced by Covid-19. In order to proactively respond to the changes, individuals must be prepared to accept and meet them. Individuals enrolled in college are given the unique opportunity to learn skillsets necessary

for career success, prior to entering the industry. In order for these individuals to meet the demands of the industry, industry professionals input their feedback into educational curriculum to build relevance.

The point of this research was to build those relationships between industry individuals and curriculum theory with the end result creating agricultural curriculum recommendations. Communications and leadership were at the core of curriculum recommendations, and other concern areas such as career perseverance, ambiguity, pace and change, and conflict management can be mitigated through those two-curriculum focuses. Building culture through cross-functional opportunities and building real world applications through industry interactions create ways to successfully teach agricultural communications and prepare individuals for diverse workforce development.

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## Appendices

### Appendix A: Recruitment Email

Hello,

You are invited to participate in a research project studying employability skill needs of agricultural graduates. The information collected from this survey will be used to build agricultural curriculum relevant to the needs of the industry and may potentially impact those you work with in the future. This study is being funded by USDA-CSREES Higher Education Challenge Grant.

The overall purpose of this research project is to develop curriculum recommendations for developing employability skills within the future agricultural workforce. You were identified by Catherine Beasley, Director of Employer Relations- University of Arkansas Bumpers College, as someone who would be an ideal participant in this survey, and/or you were recommended by another participant as a valuable contributor to this research.

If you agree to participate in this study, you will complete an online survey instrument. This survey will take approximately 15 minutes. The survey will close on Tuesday February 1, 2022.

Your participation in this survey is voluntary. You may decide not to participate or to withdraw at any time without your current or future relations with the University of Arkansas being affected.

This study is confidential and all data will be reported as group data. The records of this study will be kept private. No identifiers linking you to this study will be included in any sort of report that might be published. Research records will be stored securely and only the research team will have access to the records. If you have questions regarding this study, you may contact Madelaine Giebler at (417) 312-1747 or [mpgieble@uark.edu](mailto:mpgieble@uark.edu).

This research study has been reviewed by the Institutional Review Board at the University of Arkansas. For research-related problems or questions regarding your rights as a research participant, you can contact Ro Windwalker, the University's Compliance Coordinator, at (479) 575-2208 or email [irb@uark.edu](mailto:irb@uark.edu).

Please indicate your consent to participate in this study by clicking on the following survey link:  
[https://uark.qualtrics.com/jfe/form/SV\\_2ghyhc1RI5vgHI4](https://uark.qualtrics.com/jfe/form/SV_2ghyhc1RI5vgHI4)

If you know of another individual within the agricultural industry, who would be willing to participate in this study, please forward this email to them.

Thank you,

Madelaine Giebler

## Appendix B: Recruitment Follow-up Email

Hello,

I am following up on your participation in the employability skill needs survey for the development of agricultural communications curriculum. This research will be used to create a curriculum model for other institutions to follow, and the overall purpose is to develop students prepared to meet the employability needs of the agricultural industry. This research is being conducted as part of a USDA- Higher Challenge Education Grant.

You were identified by Catherine Beasley, Director of Employer Relations- University of Arkansas Bumpers College, as someone who would be an ideal participant in this survey. Completing this survey will take approximately 15 minutes of your time and will potentially strengthen the future agricultural workforce.

*If you already completed the survey, thank you for your participation and please disregard this message. If you have not completed the survey, please consider doing so by February 1st. Also, please consider forwarding this email to anyone within your organization who could provide valuable feedback.*

Your participation in this survey is voluntary. You may decide not to participate or to withdraw at any time without your current or future relations with the University of Arkansas being affected.

This study is confidential and all data will be reported as group data. The records of this study will be kept private. No identifiers linking you to this study will be included in any sort of report that might be published. Research records will be stored securely and only the research team will have access to the records. If you have questions regarding this study, you may contact Madelaine Giebler at (417) 312-1747 or [mpgieble@uark.edu](mailto:mpgieble@uark.edu).

This research study has been reviewed by the Institutional Review Board at the University of Arkansas. For research-related problems or questions regarding your rights as a research participant, you can contact Ro Windwalker, the University's Compliance Coordinator, at (479) 575-2208 or email [irb@uark.edu](mailto:irb@uark.edu).

Please indicate your consent to participate in this study by clicking on the following survey link: [https://uark.qualtrics.com/jfe/form/SV\\_2ghyhclRI5vgHl4](https://uark.qualtrics.com/jfe/form/SV_2ghyhclRI5vgHl4)

Thank you,

Madelaine Giebler

## Appendix C: Recruitment Follow-up Email from Career Services Personnel

Good morning,

I hope you will be able to help us. We have a grad student at the University of Arkansas who is gathering data about the skills students need for the agricultural industry. I plan to use the data you submit to create professional development programming for our students – students you may hire someday. Would you consider taking the 15 minute survey? This would greatly help guide us in the programming we create.

Survey: [https://uark.qualtrics.com/jfe/form/SV\\_2ghyhclRI5vgHl4](https://uark.qualtrics.com/jfe/form/SV_2ghyhclRI5vgHl4)

**Deadline: Monday, February 21st**

The survey is anonymous, so if you have already participated- thank you!

All the best,

Catherine

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A note from the researcher:

I know time is one of your most valuable assets. Growing up on a dairy farm, my dad used to say, "I have more time than money, and I am flat broke." Now, with my father working in the industry managing sugar production, our family continuing our own farming operation, and with me working and going to school, I have an entirely new appreciation for time the little girl in the milk barn could not even wrap her mind around. The only thing hastening me then was the frantic bawling of calves as I moved from one bottle holder to the next.

Time management is crucial in my own life, and I believe we need to be teaching time management skills to students, but I could be wrong. Maybe there are other more important skills being overlooked, or maybe you, too, believe time management is essential. I need your perspectives to help make those decisions and shape what is being taught to students. I would love for you to join the conversation by taking the following survey:

[https://uark.qualtrics.com/jfe/form/SV\\_2ghyhclRI5vgHl4](https://uark.qualtrics.com/jfe/form/SV_2ghyhclRI5vgHl4)

Your fifteen minutes of time right now could make your work experience more productive and efficient four years from now as you work with graduates who have benefited from your perspective. Thank you for your consideration.

Sincerely,

Madelaine

## Appendix D: Survey Instrument

### Start of Block: Default Question Block

#### Q1

Thank you for taking the time to complete this survey. Before we get started, here are a few details to fill you in on the research you are participating in. Behind all of the fine print are future industry leaders who you may get the pleasure of working with someday.

This information will be used to build agricultural communications curriculum relevant to the needs of the industry. The overall purpose of this research project is to develop curriculum recommendations for developing employability skills within the future agricultural workforce. This study is being sponsored/funded by USDA-CSREES Higher Education Challenge Grant.

If you agree to participate in this study, you will complete the online survey instrument. This study will take approximately 15 minutes. Your participation in this survey is voluntary. You may decide not to participate or to withdraw at any time without your current or future relations with the University of Arkansas being affected.

This study is confidential and all data will be reported as group data. The records of this study will be kept private. No identifiers linking you to this study will be included in any sort of report that might be published. Research records will be stored securely and only the research team will have access to the records. If you have questions regarding this study, you may contact Madelaine Giebler at (417) 312-1747 or [mpgieble@uark.edu](mailto:mpgieble@uark.edu).

This research study has been reviewed by the Institutional Review Board at the University of Arkansas. For research-related problems or questions regarding your rights as a research participant, you can contact Ro Windwalker, the University's Compliance Coordinator, at (479) 575-2208 or email [irb@uark.edu](mailto:irb@uark.edu).

Q2 Please indicate below your consent to participate in this study.

- I consent to participate in this study. (1)
- I do not consent to participate in this study. (2)

Q3 The following survey is designed to assess the competencies of agricultural graduates entering careers in the agricultural industry. Questions are based upon current agricultural curriculum within land-grant universities as well as findings from a 2020 research report conducted by the Association of Public Land-Grant Universities (APLU). Please answer the

following questions based on your professional experiences and your interaction with agricultural graduates.

Q4 How long have you been involved within the agricultural industry as a professional?

- Less than five years (1)
- Five to ten years (2)
- Ten to fifteen years (3)
- Fifteen to twenty years (4)
- More than twenty years (5)

Q5 What is your job title within the agricultural industry? You may leave off identifying information such as the name of your organization. i.e. communications specialist, poultry production supervisor, crop specialist, etc.

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Q6 Are you a graduate of an agricultural program?

- No (1)
- Yes (2)

Q7 What is the name of your degree program(s)?

1. Agricultural Business (1)
2. Agricultural Education, Communication, and Technology (2)
3. Animal Science (3)
4. Apparel Merchandising and Product Development (4)
5. Crop Science (5)
6. Environmental, Water, and Soil Science (6)
7. Food, Nutrition, and Health (7)
8. Food Science (8)
9. Horticulture, Landscape, and Turf Sciences (9)
10. Hospitality Management (10)
11. Human Development and Family Sciences (11)
12. Human Nutrition and Dietetics (12)
13. Poultry Science (13)
14. Other (14) \_\_\_\_\_

Q8 How well prepared do you believe recent agricultural graduates are to succeed in a new job?

- Not well at all (1)
- Slightly well (2)
- Moderately well (3)
- Very well (4)
- Extremely well (5)



Q9 How well prepared do you believe recent agricultural graduates are to deal with ambiguity in job tasks and workplace expectations?

- Not well at all (1)
- Slightly well (2)
- Moderately well (3)
- Very well (4)
- Extremely well (5)

Q10 How well prepared do you believe recent agricultural graduates are to deal with the pace and amount of change in the workplace?

- Not well at all (1)
- Slightly well (2)
- Moderately well (3)
- Very well (4)
- Extremely well (5)

Q11 How well prepared do you believe recent agricultural graduates are to manage conflict in the workplace?

- Not well at all (1)
- Slightly well (2)
- Moderately well (3)
- Very well (4)
- Extremely well (5)

Q12 How competent are recent agricultural graduates in their emotional intelligence?

- Extremely incompetent (1)
- Somewhat incompetent (2)
- Neither competent nor incompetent (3)
- Somewhat competent (4)
- Extremely competent (5)

Q13 How competent are recent agricultural graduates in their business etiquette?

- Extremely incompetent (1)
- Somewhat incompetent (2)
- Neither competent nor incompetent (3)
- Somewhat competent (4)
- Extremely competent (5)

Q14 How competent are recent agricultural graduates in their grammar and writing skills?

- Extremely incompetent (1)
- Somewhat incompetent (2)

- o Neither competent nor incompetent (3)
- o Somewhat competent (4)
- o Extremely competent (5)

Q15 What significant changes have occurred within the agricultural industry during your lifetime?

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Q16 What do you believe is the biggest challenge facing individuals entering the agricultural industry today?

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Q17 What do you believe is the most important competency agricultural graduates should be gaining in their coursework?

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Q18 If you were creating a higher education agricultural curriculum, what is the most important component you would include?

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Q19 Is there anything else you would like to add?

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Q20 Would you be willing to participate in an online focus group as a follow up to this survey?

- Yes (1)
- No (2)

Q21 Please share your email if you are interested in being contacted for a follow up online focus group. Your contact information will be stored separately from your survey responses.

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**End of Block: Default Question Block**

## **Appendix E: Focus Group Recruitment Email**

Good afternoon,

Thank you for your time spent taking my industry perspective survey. Your responses are already being utilized in a research poster I submitted over the weekend! Adaptability, self-management, agricultural knowledge gaps, and labor shortages were common themes throughout the responses, and those are just the beginning.

You indicated you would be willing to participate in a follow up focus group discussion. I wanted to touch base and let you know you can expect to receive an email invitation in the next few weeks. My research committee will be meeting this week to finalize those dates, and then you will be given the option to select the best meeting time for you.

I hope you are well, and I look forward to our future discussions.

Thank you,

Madelaine

## **Appendix F: Focus Group Scheduling Email**

Good afternoon,

I hope your work day is wrapping up! I am sending a friendly reminder regarding the Doodle Poll sign up for our upcoming focus groups. If you are still able and would like to be a part of our discussion (and receive an Amazon gift card), please share your time preferences on the following link: <https://doodle.com/meeting/participate/id/YaOXWDEb>

I will send out email invitations for the focus groups by the end of the week. We will try to select times that work best for everyone.

Thank you again,

Madelaine

## **Appendix G: Interview Follow-Up Email**

Good afternoon [Participant],

Thank you for your patience as my team and I are working to gather your all's industry feedback. I sincerely apologize; however, we are moving to one-on-one interviews rather than focus groups due to a low number of participants. On the positive side, your interview will provide a very rich and individualized perspective.

You previously indicated you are available on [previous availability]. Does that time still work for you? If so, I will send a Zoom invitation for a one-on-one meeting at that time. Also, you will still be receiving your \$20 Amazon gift card as an appreciation for your time.

I look forward to hearing back from you!

Thank you again,

Madelaine

## Appendix H: IRB Approval Letter



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**To:** Madelaine Paige Giebler  
**From:** Douglas J Adams, Chair  
IRB Expedited Review  
**Date:** 03/23/2021  
**Action:** Exemption Granted  
**Action Date:** 03/23/2021  
**Protocol #:** 2010290185  
**Study Title:** Teaching Agricultural Communications for Career Success: An Industry Perspective of Competencies Needed for Diverse Workforce Development

The above-referenced protocol has been determined to be exempt.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing those changes. All modifications must provide sufficient detail to assess the impact of the change.

If you have any questions or need any assistance from the IRB, please contact the IRB Coordinator at 109 MLKG Building, 5-2208, or [irb@uark.edu](mailto:irb@uark.edu).

cc: Jill Rucker, Investigator

## Appendix I: Interview Protocol

### Industry Professional Interview Questionnaire:

1. Tell me a little bit about your background in the agricultural industry, including your current position.
2. On the survey you previously filled out, the three most prominent changes within the agricultural industry during the respondents' lifetimes, included technology shifts, the Covid-19 pandemic, and bioengineered foods/ alternative animal proteins. What do you believe is the impact of each of these changes on incoming employees?
3. Career Expectations
  - A. How would you describe career expectations for an incoming employee?
  - B. How do you believe incoming employees could be better prepared to meet the career expectations of the industry?
4. Job Success
  - A. How do you measure job success for an incoming employee?
  - B. What skills do you believe prepare students to be successful in a new job?
5. Ambiguity
  - A. What does dealing with ambiguity in job tasks and workplace expectations look like to you?
  - B. How would you recommend preparing an individual to deal with ambiguity?
6. Pace and Amount of Change in the Workplace



- A. Based on your experiences, how well prepared do you believe recent agricultural graduates are to deal with pace and amount of change in the workplace?
- B. What skills or experiences do you believe prepare individuals to deal with pace and amount of change in the workplace?

7. Conflict Management

- A. How would you rate graduate preparedness regarding conflict management?
- B. What is something you would like students to learn regarding conflict management?

8. Emotional Intelligence

The survey you filled out previously asked questions regarding emotional intelligence. Emotional intelligence relates to self-awareness, self-management, social awareness, and relationship management.

- A. How can someone best learn emotional intelligence?

9. Business Etiquette

- A. What business etiquette characteristics do you believe a recent agricultural graduate should possess?
- B. How would you recommend someone learning those skills?

10. Grammar and Writing Skills

- A. How valuable are grammar and writing skills in the workplace?
- B. What level of focus do you believe should be placed on grammar and writing skills in agricultural curriculum?

11. Bringing on a recent graduate

A. You are looking for a recent agricultural graduate to add to your team, what competencies do you need them to possess?

B. What concerns you about bringing on a recent graduate?

12. If you could design an agricultural curriculum with the needs of the industry in mind, what would it look like?

13. Is there anything else you would like to add?