From classroom to career - evaluating perceived employability skill development in agricultural students

by

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Abstract

Today's college graduates are competent and knowledgeable in their industry, but future employers question whether a graduating college student is adequately prepared for employment. Although employers seek many skills and characteristics in applicants, several employability skills (communication, time management, teamwork, problem-solving, critical thinking, professionalism, and adaptability) are essential for success and job attainment. College students will often develop employability skills through high-impact experiences, such as internships, student organizations, and formal mentoring. Understanding how these high-impact professional activities contribute to skill development remains a fundamental area for research, particularly within the context of collegiate agriculture programs. The purpose of this study was to assess how various professional activities (classroom interaction with classmates and instructors, participation level in collegiate clubs or professional organizations, internships/current employment, etc.) developed employability skills (self-management, decision-making, teamwork, and communication skills) in Michigan State University (MSU) Institute of Agricultural Technology (IAT) Community College Students. Ten MSU IAT Students, enrolled in the 2025-2026 academic year, completed a survey on their perceived employability skills and perceived engagement levels in various professional activities. While we cannot generalize to the full population, MSU IAT students had higher engagement levels in the various professional activities and higher reported proficiency and consistency in their employability skills. This study allowed MSU IAT College students the opportunity to self-assess their employability skills while providing MSU IAT Faculty the opportunity to review employability skill set competencies. This will help identify any necessary modifications within the career preparations and coursework for the MSU IAT programs across the state of Michigan.

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Introduction

Background

College students and employers have shared goals: appropriate professional qualifications for the workforce. While college graduates are competent and knowledgeable in their industry, future employers question whether a graduating college student is adequately prepared for employment (Hart, 2015). Employers would like graduates to exhibit prominent self-management, decision-making, teamwork, and communication employability skills (Crawford et al., 2014; Edmonds et al., 2016; Lea, 2019; Parella et al., 2023). According to Crawford (2014) and Edmonds (2016), these employability skills are of significant importance to prospective employers, particularly within the agricultural sector. This suggests a need to help college students graduate with the necessary employability skills needed for employment after completion of their college program (Crawford et al., 2014; Parella et al., 2023). As mentioned by Parella (2023), employability skills are usually developed through high-impact experiences and professional activities such as first-year seminars, internships, participation in collegiate clubs, and professional organizations (Crawford et al., 2014; Tate et al., 2015). Developing employability skills is critical to career readiness, so an important question arises: Are college programs effectively preparing students with the essential skills needed for their future careers? While there is research on the efficacy of employability skills and high-impact activities for career readiness, there is limited research on how effective associate degree agricultural programs are in preparing students for career readiness. To address this concern, this study seeks to assess how professional activities predicted differences in specific employability skills (self-management, decision-making, teamwork, and communication skills) in the Michigan State University (MSU) Institute of Agricultural Technology (IAT) Community College Students.

Purpose and Significance of Study

College students develop employability skills at different rates and through different means. The purpose of this study was to assess how various professional activities (classroom interaction with classmates and instructors, participation level in collegiate clubs or professional organizations, internships/current employment, etc.) predicted differences in employability skills (self-management, decision-making, teamwork, and communication skills) in Michigan State University (MSU) Institute of Agricultural Technology (IAT) Community College Students. This study also provided an opportunity for the MSU IAT College students to self-assess their employability skills while providing MSU IAT Faculty the opportunity to review employability skill set competencies. This will help identify any necessary modifications within the career preparation and coursework for the MSU IAT programs across the state of Michigan.

Research Objectives

1. Describe the level of employability skills (self-management, decision-making, teamwork, and communication skills) of MSU IAT Community College Students.
2. Describe the participation level in various professional activities of MSU IAT Community College Students.

Review of the Literature

In an increasingly competitive job market, college graduates are expected to do more than master technical knowledge—they must also possess a well-rounded set of employability skills many students struggle to develop before graduation (Hart, 2015). Multiple elements can impact the development of employability skills for college students. Elements such as family influence/expectations, career decision-making self-efficacy, academic self-efficacy, first-generation status, financial support, socioeconomic status, and values and beliefs can directly influence the preparation of college graduates for employment (Hughes et al., 2018; Morgan et al., 2003; Tate et al., 2015; Wright et al., 2013). Hughes and Gibbons (2018) found unprepared college students received less information about career development and financial support from families because of the parents' education level. This factor could hinder their child's skills and knowledge of resources to support their children's career development (Tate et al., 2015). The parents' education level could also impact an individual if they are a first-generation student (Hammond, 2017).

Additionally, the level of career and academic decision-making self-efficacy plays a key role in students' career development. For instance, if the level of self-efficacy is low, the likelihood of a student's career development is likely to be low as well (Wright et al., 2013). These aspects significantly influence students' career development, confidence, and trust in their judgment in decision-making, which, in turn, affects their ability to develop employability skills (McDow et al., 2015; Morgan et al., 2003).

Although there are many skills and characteristics employers seek in potential applicants, several employability skills are essential for success and job attainment. Some of the employability skills include communication (oral, general, and written), time management,

teamwork, problem-solving, critical thinking, professionalism, adaptability, etc. (Crawford et al., 2014; Free, 2017; Parker et al., 2019). While it depends on which industry a student might go into, the type of employability skills identified and required could differ as well. For instance, as mentioned by Lea (2019) for healthcare students, the employability skills required are "honesty, integrity, compassion, and motivation" (pg. 3). Crawford and Dalton (2014) revealed in their study the top priority and core skills are communication, self-management, teamwork, and decision-making. Each of these top skills is crucial for the workforce, but might be lacking or at a lower level of development for graduating college students. While college institutions are preparing students for technical skills and content knowledge in their future industries, the demand for employability skills is substantially required for all college graduates by future employers (Crawford et al., 2016; Crawford et al., 2019; McClure, 2022; Robinson, 2006).

Most employers expect postsecondary students will enter the workforce with high-quality essential employability/workplace skills. According to Parrella et al. (2023), college students will often develop employability skills in high-impact experiences, such as "internships, which are often required for degree completion, student organizations, or different mentoring abilities" (McClure, 2022, pg. 11). It is recommended college students should participate in high-impact experiences either once a year while in college or a minimum of two times during their college experience (Parrella et al., 2023). These high-impact experiences can help develop and improve the necessary skills needed for career development.

Among the vast number of skills developed through high-impact experiences, the skills of communication, teamwork, self-management, and decision-making stand out as particularly vital to career readiness. Communication skills are considered the most imperative skill a future employee can possess (Crawford et al., 2011; Crawford et al., 2014; Edmonds et al., 2016; Free,

2017; McClure, 2022). The reason communication skills are deemed the most important is employees need to listen effectively while carrying out instructions, express creative ideas, communicate pleasantly and professionally in person, online, over the phone, express creative ideas, and give clear, concise, and meaningful instructions (Edmonds et al., 2016; Free, 2017; Robinson, 2006). The next employability skill, teamwork, is imperative for employability because this skill helps employees share ideas with multiple audiences, shape interpersonal skills, build accountability on a team, enhance morale, improve conflict resolution abilities, and support collaboration while working with multiple approaches (Crawford et al., 2016; Crawford et al., 2019; Free, 2017; Lea, 2019).

An employee possessing self-management, the third employability skill, is highly important because a member of the company will be self-assertive, adaptable to changes, self-starting on projects, set goals, and complete tasks promptly (Crawford et al., 2014; Crawford et al., 2016; Lent, 2013; Parker, 2019). The final employability skill, decision-making, is an important ability to have in the workforce since it incorporates forming a judgment once enough information has been gathered from various sources, being able to analyze problems and find innovative solutions, and being able to weigh the positives and negatives of an outcome (Crawford et al., 2014; McClure, 2022; Parella et al., 2023; Poe, 2016). The reason these specific skills might be developed at a lower level for students could be because there could be a disconnect between which types of skills are learned in college programs and which students view other types of skills as more important, or a lack of high-impact experiences offered at college institutions (Crawford et al., 2014; Parella et al., 2023; Robinson, 2006).

Another reason employability skills might be lacking is due to the COVID-19 pandemic and incoming students not having the opportunities while in high school to start the development

of these four imperative employability skills. Reasons for the lack of career development in students include transitioning to a remote learning environment, the effects on mental health, and the moral development of the student; all of these factors can reduce students' confidence in reaching career goals and making decisions regarding their future (Desrochers et al., 2020; Wahyuningsih et al., 2023). Students experienced isolation and seclusion during the pandemic, and now employability skills have to be retaught and reimplemented, especially for agricultural students attending community college. Although possessing self-management, decision-making, teamwork, and communication skills is a desired outcome for future employers (Crawford et al., 2014), there is limited research available to examine how these four abilities play a role for students in agricultural colleges and how professional activities assist in their development. Professional activities, such as internships, employability skills developmental workshops, research with a mentor, joining professional clubs and organizations, and study abroad programs, offer students diverse avenues to practice and enhance these critical employability skills (Crawford et al., 2016; Deviney et al., 2014; Majid et al., 2012; Parella et al., 2023; Tate et al., 2015). Understanding how these high-impact professional activities contribute to skill development remains a fundamental area for further research, particularly within the context of collegiate agriculture programs.

Methodology

Institutional Review Board

Before conducting this research, federal regulations and policies at Kansas State University (KSU) require approval for all research and experimental studies involving human subjects. The KSU Office of University Research Services and the Institutional Review Board (IRB) reviewed the methods and designs of the research to ensure the protection of all human subjects involved in biomedical and behavioral research. The IRB approved this research (IRB-13345) to commence on October 28, 2025.

Research Design

This study employs a descriptive design. The instruments were combined and modified slightly to correct terminology connected to the study population. The instrument was sent to 148 Michigan State University (MSU) Institute of Agricultural Technology (IAT) students via Qualtrics. The students were asked to assess their proficiency in four employability skills and their participation level in various professional activities. Once they completed those components, students answered questions about their demographics.

Instrumentation

To assess student participation in various professional activities, a custom questionnaire was designed. The instrument used was modified from three instruments: E.M. McClure (2022), National Survey of Student Engagement (NSSE) (2007), and National Association of Colleges and Employers (NACE) Career Readiness Competencies (2024) (see Appendix B). E.M. McClure (2022) draws insights into students' involvement with specific high-impact activities.

Four of the five Benchmarks from the National Survey of Student Engagement (NSSE) (2007) are related to active and collaborative learning, student-faculty interaction, enriching educational experiences, and a supportive campus environment. The NSSE was modified and used as a foundation for the study in order for the students to reflect on the specific professional activities in the classroom. Finally, the NACE Career Readiness Competencies (2024) developed eight competencies' assessments for employment readiness, but this study only used four of the competencies: communication, critical thinking, professionalism, and teamwork. For the students to assess their self-management skills, the professionalism assessment was used.

Students used a Likert scale to indicate their regularity of participation and decisions about participation in certain activities. For questions related to the career and self-development employability skills competencies, the Likert scale range was 1 = *N/A* or *have not yet learned or applied this dimension and/or you do not have enough information to self-assess*; 2 = *I recognize …*; 3 = *I understand how to …*; 4 = *I sometimes…*; 5 = *I consistently….* For the question about the students' level of participation in certain professional activities, activities in an average semester, and engagement with their instructor/faculty, the Likert scale range was 1 = *Never*; 2 = *Rarely*; 3 = *Sometimes*; 4 = *Often*; 5 = *Regularly*. Lastly, the question asking about the students' engagement or plans to engage in specific college experiences used a Likert scale range where 4 = *Done (Completed One)*; 3 = *Plan to Do*; 2 = *Do Not Plan to Do*; 1 = *Have Not Decided.* The modified instrument also included questions about their demographics, such as their age, description of their gender, MSU IAT program enrollment, employment status, and highest education level.

Data were collected through an online Qualtrics survey. Students who were graduating in Fall 2025 and Spring 2026 were asked to complete the survey via a question on the instrument to

sort out those who were not graduating; it was then available for all students who were enrolled in the 2025-2026 academic year to take the survey at the end of the Summer 2026 semester. To keep the survey as anonymous as possible, the survey was emailed to all students enrolled in the MSU IAT Community College programs. The students were then asked if they were graduating in that specific semester; if yes for the Fall 2025 and Spring 2026, they were able to continue the survey. If they answered no, they were sent to the end of the survey. The survey was emailed out to all students on December 1, 2025, and closed on December 15, 2026, then again on April 22, 2026, and closed on May 4, 2026. The survey was emailed a final time for the remaining students on August 10, 2026, and closed on August 31, 2026. The students received a reminder email one week before the survey ended and the night before the survey closed.

Population and Sample

The population for this study was the Michigan State University (MSU) Institute of Agricultural Technology (IAT) students who attended one of the 10 Community College Partnerships locations in the 2025-2026 academic year ($N = 148$). There were 10 valid responses ($N = 10$), with a response rate of 7%. In the Fall 2025 semester, 30 students were eligible to take the survey, with three ($f = 3$) completing the survey. In the Spring 2026 semester, 25 students were eligible to take the survey, with three ($f = 3$) completing the survey. In the Summer 2026 semester, 104 students were eligible to take the survey, with four ($f = 4$) completing the survey.

Validity and Reliability

The validity and reliability of the National Survey of Student Engagement (NSSE) instrument were “designed by experts and extensively tested to ensure validity and reliability and

to minimize nonresponse bias and mode effects" (National Survey of Student Engagement, 2007, pg. 11). The National Association of Colleges and Employers (NACE) (2025) self-assessed the validity and reliability of the NACE Career Readiness Competencies (2024) instrument. To assess content validity, NACE (2025) completed two rounds of data collection, testing 373 practitioners across the four metrics (see Appendix B); each scored above 80%, and two of the four metrics scored above 90%. The NACE assessed 150 practitioners during two rounds of data collection to assess reliability. The NACE used three metrics to assess each rubric: 1) a simple percent agreement, 2) Fleiss' Kappa, a chance-corrected measure of agreement, and 3) intra-class correlation (ICC). For the first metric, over 80% of the practitioners considered the rubric to be good. For the second metric, Fleiss' Kappa ranged from 59.2% to 84.2%. For the third and last metric, all the ICCs were scored higher than .80, and more than half of the rubrics scored 0.90. McClure (2022) had a panel of experts from four universities who had experience with designing survey instruments review the validity of the survey instrument.

A pilot test was conducted to establish the reliability of the modified instrument. Cronbach's alpha coefficients indicated excellent internal consistency ($\alpha = .931$). Subscale reliabilities were also strong, with reported excellent reliability for Communication (4 items; $\alpha = .900$), Critical Thinking (3 items; $\alpha = .871$), and Professionalism (3 items; $\alpha = .930$). The Teamwork subscale (3 items) yielded an alpha coefficient of .679, indicating acceptable reliability for an exploratory measure with a limited number of items. Content validity was established through alignment of survey items with the study objectives and a review by project committee members.

Data Collection

A digital Qualtrics survey was sent out by me via email to collect Michigan State University (MSU) Institute of Agricultural Technology (IAT) Community College students' participation in various professional activities, level of employability skills (self-management, decision-making, teamwork, and communication skills), and demographics (age, gender, MSU IAT program, employment status, and education level). The survey lasted about 10-15 minutes and consisted of approximately 25 questions. A variety of question styles were presented throughout the survey, which included the following: multiple-choice, fill-in-the-blank, open-ended questions, and matrix questions.

The survey was administered through Qualtrics three times—at the end of the Fall 2025, Spring 2026, and Summer 2026 semesters. Each round remained open for two weeks, with reminder emails sent at the one-week mark and one day before closing. The survey was emailed to all 148 students each semester to ensure the results were anonymous. At the start of the Fall 2025 and Spring 2026 surveys, students were asked if they were graduating in the semester they took the survey. A "yes" response allowed them to continue the survey, while a "no" response sent them to the end of the survey. For the Summer 2026 survey, the graduation question was asked, but all students who were graduating or completing their first year in the program were allowed to continue the survey.

Students were invited to participate using a recruitment email describing the study and consent process. Prior to participation, students reviewed a consent form outlining the study's purpose and their rights, ensuring all responses remained anonymous and voluntary. If the students clicked on the provided link, they were granting their consent to participate. Once data were collected, they were evaluated and coded depending on the type of question.

Response rates were monitored after each administration, and data were securely exported and organized using Qualtrics tools. Following the final survey in Summer 2026, data collection closed, and the process of cleaning, analyzing, and reporting the findings began.

Limitations

There are several limitations to this research study. First, with only seven percent of responses for this research, the findings cannot be generalized for the population of students. One of the main limitations for this study was the students' lack of knowing who was emailing them to take the survey. Even though the other MSU IAT faculty were reminded of the email, students were possibly less likely to read an email from someone unknown. Another factor could have been the number of times they were asked to complete the survey. For instance, for any of the first-year students, they would have received a total of nine emails asking them to complete the survey. Furthermore, with students only completing the survey once during the research period, they are only able to self-perceive their ability in the moment. Finally, another limitation could have been that students were only allowed to complete the survey once rather than completing the survey each semester. A question in the Spring and Summer surveys could have asked if they had completed this survey before and allowed them to respond again.

Results

Demographics

The notable demographics of the students participating show an age range of 18 to 29 years old (two chose not to answer). Additionally, 70% were graduating from the program, and 30% were completing their first year in the program. Furthermore, 40% identify as male, 50% identify as female, and 10% identify as non-binary/third gender. When asked about their employment status, there were several options for them to select; therefore, the total did not equal 100%. Twenty percent stated they were working full-time, 70% were working part-time, 10% were unemployed and looking for work, 10% were a homemaker or stay-at-home parent, 80% were students, and 10% were retired. Of the 10 students who completed the survey, 90% were enrolled in the Agricultural Operations program, and 10% were enrolled in the Forest Technology program. Finally, the students' highest level of education was 10% with a high school diploma or GED, 40% with some college, but no degree, and 50% with an associate's or technical degree.

Research Objective One

The purpose of research objective one was to describe the MSU IAT Community College students' level of employability skills in four different skills: self-management, decision-making, teamwork, and communication skills. As depicted in Tables 1 – 4, the results show the students' perceptions for each specific skill. In the communication skills competency assessment, as shown in Table 1, five or more students rated they consistently using effective oral communication, written communication, and active listening. However, four students recognized

the elements of effective non-verbal communication and active listening skills, while three students recognized the elements of oral and written communication skills.

Table 1. *MSU IAT Students' Perceived Self-Assessment of Their Communication Skills (N=10)*

	N/A		I recognize		I understand how to use		I sometimes		I consistently	
Item	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Oral Communication	0	0	3	30	0	0	0	0	7	70
Written Communication	1	10	3	30	1	10	0	0	5	50
Non-verbal Communication	0	0	4	40	1	10	2	20	3	30
Active Listening	0	0	4	40	0	0	1	10	5	50

In the critical thinking skills competency assessment, as shown in Table 2, six or more students ranked their skills in displaying situational awareness, gathering and analyzing data, and making effective and fair decisions as consistently using critical thinking skills. On the other hand, three students stated they recognize the need for situational awareness, two students understand how to gather and analyze data, and two students recognize the need to objectively assess situations to make effective and fair decisions with their critical thinking skills.

Table 2. *MSU IAT Students' Perceived Self-Assessment of Their Critical Thinking Skills (N=10)*

	N/A		I recognize		I understand how to use		I sometimes		I consistently	
Item	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Display Situational Awareness	0	0	3	30	0	0	1	10	6	60
Gather & Analyze Data	0	0	2	20	1	10	1	10	6	60
Make Effective & Fair Decisions	0	0	2	20	1	10	0	0	7	70

In the professionalism/self-management competency assessment, as shown in Table 3, seven or more students assessed themselves as consistently acting with integrity, acting

dependably, or achieving goals in the workplace. Nevertheless, two students recognized the need to act with integrity or to be dependable in their place of work. Two students understand how to focus on achieving goals by prioritizing tasks.

Table 3. *MSU IAT Students' Perceived Self-Assessment of Their Professionalism/Self-Management Skills (N=10)*

	N/A		I recognize		I understand how to use		I sometimes		I consistently	
Item	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Act With Integrity	0	0	2	20	0	0	0	0	8	80
Demonstrate Dependability	0	0	2	20	0	0	0	0	8	80
Achieve Goals	0	0	0	0	2	20	1	10	7	70

Finally, in the teamwork competency assessment, as shown in Table 4, seven or more students self-assessed their consistency in building strong, positive work relationships, showing respect for all in the workplace, or integrating strengths, knowledge, and talents in the overall team performance. Only one student recognized the importance of collaboration and relationship-building in team-building and the need to respect all people in the workplace, including people from diverse backgrounds. There was also one student who understood to improve the team's performance involves integrating everyone's skills.

Table 4. *MSU IAT Students' Perceived Self-Assessment of Their Teamwork Skills (N=10)*

	N/A		I recognize		I understand how to use		I sometimes		I consistently	
Item	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Build Relationships for Collaboration	0	0	1	10	0	0	0	0	9	90
Respect Diverse Perspectives	0	0	1	10	0	0	0	0	9	90
Integrate Strengths	0	0	0	0	1	10	2	20	7	70

Research Objective Two

The purpose of research objective two was to describe MSU IAT Community College students' level of participation in various professional activities such as college/professional organizations, interactions in the classroom, and with the instructor. As seen in Table 5, the top three professional activities students participated in regularly were work experience (80%, *n* = 8), internships (50%, *n* = 5), and, tied for third, membership in career organizations and varsity sports (40%, *n* = 4). The professional activities never participated in were Greek life and international travel – study abroad (100%, *n* = 10). The next two lowest-ranked activities were ROTC/reserves/military and student government (90%, *n* = 9). The students also determined how many cumulative hours were spent participating in all of the professional activities listed, as seen in Table 6. Overall, four of the ten students stated they spend one to five hours a week participating in professional activities while in the MSU IAT program.

Table 5. *MSU IAT Students' Perceived Participation in Various Professional Activities (N = 10)*

	Never		Rarely		Sometimes		Often		Regularly	
Item	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
4-H[1]	6	60	1	10	0	0	0	0	2	20
Collegiate FFA/Farm Bureau	3	30	1	10	1	10	2	20	3	30
FFA	5	50	1	10	0	0	1	10	3	30
Greek Life	10	100	0	0	0	0	0	0	0	0
International Travel – Study Abroad	10	100	0	0	0	0	0	0	0	0
International Travel - Personal	6	60	2	20	2	20	0	0	0	0
Internship	0	0	1	10	3	30	1	10	5	50

	Never		Rarely		Sometimes		Often		Regularly	
Item	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Clerkship	7	70	2	20	0	0	0	0	1	10
Judging or Competitive Events	4	40	2	20	1	10	1	10	2	20
Leadership in Career Organizations	3	30	1	10	1	10	3	30	2	20
Membership in Career Organization	3	30	1	10	1	10	1	10	4	40
Performing Arts	8	80	1	10	0	0	1	10	0	0
Philanthropic Organization	6	60	2	20	1	10	1	10	0	0
Religious Organizations	3	30	2	20	1	10	1	10	3	30
Research	4	40	0	0	5	50	0	0	1	10
ROTC/Reserves/Military	9	90	0	0	0	0	0	0	1	10
Sports - Varsity	3	30	2	20	1	10	0	0	4	40
Student Government	9	90	0	0	0	0	0	0	1	10
Volunteerism	0	0	1	10	4	40	3	30	2	20
Work Experience	0	0	1	10	0	0	1	10	8	80
Workshops or Training	1	10	1	10	3	30	2	20	3	30
Career Fairs	1	10	2	20	4	40	1	10	2	20
First-Year Seminars	3	30	3	30	1	10	2	20	1	10
Other[2]	0	0	0	0	0	0	0	0	1	10
Other[3]	0	0	0	0	0	0	0	0	1	10

Note: [1] $n = 9$; one participant did not respond
Note: [2] $n = 1$; one participant responded with "Individual Projects – social media page"
Note: [3] $n = 1$; one participant responded with "Individual Projects – social media page"

Table 6. *MSU IAT Students' Perceived Participation of Cumulative Hours Spent in Various Professional Activities per Week (N = 10)*

Hours		
Item	*n*	%
0	1	10
1-5	4	40
6-10	2	20
11-15	1	10
16-20	1	10
26-30	1	10
30+	0	0

For the students' perceived participation level in an average semester, depicted in Table 7, five of the ten students stated they are regularly actively engaged by asking questions in class or participating in class discussions, plus have delivered a class presentation or collaborated on

class projects with their classmates. In an average semester, the students stated when working with classmates outside of the course to complete assignments, four sometimes participate, two often participate, and two regularly participate in this activity. Only one student selected how they provided tutoring services to other students, while three of the ten students have never and other three out of ten students have rarely offered this service. The highest selected response for students who took part in a community-based project part of the course was rarely partaking. Lastly, eight out of ten students have either often or regularly discussed course-related content with other people outside of class.

Table 7. *MSU IAT Students' Perceived Participation Levels in an Average Semester (N = 10)*

	Never		Rarely		Sometimes		Often		Regularly	
Item	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Actively engaged by asking questions or participating in class discussions	0	0	0	0	1	10	4	40	5	50
Delivered a presentation as part of a class assignment	0	0	0	0	3	30	2	20	5	50
Collaborated with classmates on projects during class time	0	0	1	10	2	20	2	20	5	50
Worked with classmates outside of class to complete assignments	1	10	1	10	4	40	2	20	2	20
Provided tutoring or instruction to other students, either voluntarily or paid	3	30	3	30	2	20	1	10	1	10
Took part in a community-based project (such as service learning) as part of a course	1	10	3	30	2	20	2	20	2	20
Discussed course-related ideas or readings with others outside of class (e.g., fellow students, family, or colleagues)	0	0	1	10	1	10	4	40	4	40

For the students' perceived engagement level in an average semester with instructors or faculty, as shown in Table 8, 60% of students (n = 6) regularly spoke with their instructors about grades or assignments. Half of the students (n = 5) ranked they sometimes would engage in

discussions outside of the classroom with their instructors about course ideas. Forty percent of the students often talked to their instructors about career goals, while another 40% of students would regularly discuss with an instructor or advisor about their career plans. Among the ten students, five of them stated they would regularly receive timely written/verbal feedback about their academic work. Conclusively, four students would sometimes collaborate with faculty on non-academic activities like special committees or student organizations, while two students regularly collaborated with faculty.

Table 8. *MSU IAT Students' Perceived Engagement Levels with Instructors or Faculty in an Average Semester (N = 10)*

	Never		Rarely		Sometimes		Often		Regularly	
Item	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Spoke with an instructor about grades or assignments	0	0	0	0	3	30	1	10	6	60
Engaged in discussions with faculty outside of class about course readings or ideas	0	0	2	20	5	50	1	10	2	20
Talked with a faculty member or advisor about career goals or plans	0	0	0	0	2	20	4	40	4	40
Received timely written or verbal feedback from faculty on academic work	0	0	0	0	4	40	1	10	5	50
Collaborated with faculty on non-academic activities (e.g., committees, orientation, student organizations)	0	0	2	20	4	40	2	20	2	20

As for the students' intentions to engage in specific experiences while in the college program, shown in Table 9, 100% of them have completed an internship, clerkship, or some form of work experience. Other experiences the students have completed include 90% (n = 9) engaging in community service, and 30% (n = 3) have taken part in a learning community where two or more students were concurrently enrolled in two or more classes. Some activities the

students did not plan to engage in include enrolling in a foreign language program (50%, *n* = 5) or a study abroad program (60%, *n* = 6). Ultimately, 40% of students (*n* = 4) did not participate in an independent study or design their own course.

Table 9. *MSU IAT Students' Perceived Engagement or Plans to Engage in Experiences During College (N=10)*

	Have Not Decided		Do Not Plan to Do		Plan to Do		Done (Completed One)	
Item	*n*	%	*n*	%	*n*	%	*n*	%
Complete a clerkship, internship, field placement/research opportunity, or work experience	0	0	0	0	0	0	10	100
Engage in community service or volunteer	1	10	0	0	0	0	9	90
Take part in a learning community or structured program where students are enrolled in two or more classes together	2	20	2	20	3	30	3	30
Enroll in a foreign language course	3	30	5	50	1	10	1	10
Study abroad through an academic program	4	40	6	60	0	0	0	0
Participate in an independent study or design your own course	2	20	4	40	2	20	2	20

Discussion

The purpose of this study was to describe how Michigan State University (MSU) Institute of Agricultural Technology (IAT) Community College (CC) students assessed their employability skills in self-management, decision-making, teamwork, and communication. Furthermore, this study evaluated MSU IAT CC students' participation and engagement level in various professional activities with professional college organizations, activities within and outside of the classroom, and interactions with their instructors.

The first research objective assessed the level of employability skills of agricultural community college students, where students self-reported on four employment readiness assessments. For the communication skills assessment, the highest-ranked skill (50%, $n = 5$) was consistently using effective oral, written, and active listening skills, while the lowest skill was non-verbal communication skills (40%, $n = 4$). Although the impacts of COVID-19 and the relationship to employability skills are limited, this could be tied to the pandemic, where students were required to use oral, written, and active listening skills, but had a challenging time constantly using non-verbal skills such as observing their instructors' and classmates' body language or maintaining eye contact with someone (Desrochers et al., 2020; Wahyuningsih et al., 2023).

Furthermore, for the critical thinking skills assessment, 60% ($n = 6$) of students consistently use situational awareness in the workplace, 60% ($n = 6$) consistently gather and analyze data to solve a problem, and 70% ($n = 7$) consistently demonstrate effective decision-making and problem-solving skills in their lives. Additionally, for the professionalism/self-management skills assessment, 80% ($n = 8$) of students consistently act with integrity in the workplace by being accountable and respectful to others, 80% ($n = 8$) consistently act as a

dependable, diligent member of a work environment, and 70% (n = 7) consistently achieve their goals and prioritize tasks according to importance and urgency. Lastly, for the teamwork skills assessment, 90% (n = 9) of students consistently build strong, positive work relationships, 90% (n = 9) of students consistently show respect for diverse perspectives, and 70% (n = 7) of students consistently integrate their own and their colleagues' strengths, knowledge, and talents to improve the team's performance. Overall, based on the students' self-reported perception of their employability skills, one can assume the students have higher confidence in their abilities. With this notion of the students having confidence in their skills, this connects to students having a stronger self-efficacy (McDow et al., 2015; Morgan et al., 2003; Wright et al., 2013).

The second research objective assessed the level of engagement and participation in various professional activities of agricultural community college students by asking students to identify their involvement in college organizations, classroom contribution, and interaction with the course instructor. The highest selected professional activity students participated in was work experience, where eight of the ten students selected regularly participated, while the least participated in were Greek life and study abroad opportunities. The reason work experience is ranked higher might be because students are required in the MSU IAT program to partake in a professional internship for one semester. Greek life opportunities are ranked lowest because most community colleges do not offer fraternity or sorority opportunities. Additionally, while most community colleges and the MSU IAT program do offer study abroad opportunities, students might not partake because of cost, time constraints, personal responsibilities, fear of a potential language barrier, among other reasons (Deviney et al., 2014). When asked about the students' perceived participation level in cumulative hours spent, 40% (n = 4) spent only one to five hours per week in their selected activity. The low cumulative hours could be because students did not

consider their work experience hours if they worked a part-time or full-time job, or the club they are involved in only meets once a month.

While in the classroom, 50% (n = 5) of students regularly ask questions or participate in the class discussion, 50% (n = 5) have regularly delivered a presentation as a class assignment, 50% (n = 5) regularly work on group projects during class time, and 40% (n = 4) of the students would regularly discuss course content with others outside of the classroom. However, 40% (n = 4) of students stated they sometimes work with classmates outside of class to complete assignments, 30% (n = 3) have never provided tutoring or rarely provided tutoring, and 30% (n = 3) never took part in a community-based project required as a course assignment. The main reason the students have never or rarely participated in activities outside of the classroom could be time constraints, lack of a connection with the other students, or uncertainty about the impact on the overall grade.

While interacting and engaging with their instructors, 60% (n = 6) of students would regularly speak with their teachers about their grades/assignments and 50% (n = 5) have received feedback in a timely manner about academic work. Unlike the 50% (n = 5) of students who have sometimes discussed with faculty outside of the classroom or the 40% (n = 4) who have sometimes collaborated with faculty about non-academic activities. The MSU IAT students are assigned a program coordinator who serves as their academic advisor and instructor for some courses. These results show 40% (n = 4) of the students self-reported they often discuss career goals or ideas with a faculty member or advisor, and another 40% (n = 4) self-reported doing so regularly.

Finally, 100% (N = 10) of the students have completed at least one clerkship, internship, or field placement, or other work experience while in the college program. Another highly

selected engagement was a community service or volunteer opportunity, where 90% (n = 9) have completed one. With students completing an internship or community service, this can help support the student's relatively strong employability skills ratings and prior research where high-impact experiences contribute to the development of the skills (McClure, 2022; Parrella et al., 2023; Tate et al., 2015). The engagement experiences students do not plan to complete were course enrollment in a foreign language class (50%, n = 5) and a study abroad program (60%, n = 6). For this reason, it would make sense why students selected they never participated in a study abroad program, since 60% had no plan to complete one and 40% had not decided. With students having a perceived higher confidence level in their employability skills, there is a higher correlation to students having an increased level of self-efficacy due to their engagement in and out of the classroom (McDow et al., 2015; Morgan et al., 2003; Wright et al., 2013).

Overall, the findings of this study also contribute to addressing the gap of limited research on agricultural college students and the influence these high-impact professional activities have on skill development. With previous research establishing an imperative connection between employability skills and professional experiences for college students (Crawford et al., 2014; Parrella et al., 2023), there is a small amount of research to examine how these skills are perceived and developed among agricultural community college students. The results of this research suggest MSU IAT CC students perceived themselves as possessing strong skills in communication, teamwork, self-management, and decision-making. The study's results also suggest the MSU IAT CC students actively engaged and participated in professional experiences like internships, work experiences, and community service. These findings provide insight into how professional activities could prepare students for workforce readiness. This

study contributes insight into community college students pursuing careers in agriculture and the development of their employability skills.

Recommendations for Future Research and Practice

From the reported data, students are confident in the skills they have continuously developed while in the Michigan State University (MSU) Institute of Agricultural Technology (IAT) Community College (CC) Programs. In order to generalize to the population of the MSU IAT CC students, a similar study needs to be conducted, but with some alterations. For instance, allow students who were not graduating in the Fall or Spring semester to take the survey, but add a question at the start of the Spring and Summer semesters: “Have you completed this survey in the Fall and/or Spring semester?” Incentivizing the students to complete the survey, such as extra credit or entering a drawing to win a prize, would help improve response rate. This survey can also be completed at the end of the student’s internship to determine if the professional opportunity helped the student's growth in areas of improvement.

Additionally, other college programs who want to evaluate their program and assess the employability skills might want to focus on one specific skill and add additional questions about how the various professional activities have helped with the development of said specific skill. This will help determine if more content should be added to the courses for students to continue to develop the specific employability skills. This can also help determine if instructors need more training on how to create a lesson or activity which allows students to engage with content to improve the specific employability skill(s).

Also, this research could investigate the total time the students are in the program and survey students at the end of each semester versus doing a snapshot at the end of the program. If they are to use a similar questionnaire, it is recommended to shorten the survey to improve completion rate. The survey could also be sent out to alumni to get their perception of what skills

were developed during their time in the program and which ones might be lacking in the program.

While students are confident in their self-perceived skills fostered in the CC program, the MSU IAT program could do more specific research on certain courses which focus on career development skills. For instance, if the MSU IAT program wanted to evaluate AT 100 – Career Development in Agricultural Technology to determine the effectiveness of growing students' employability skills. It is recommended to use an assignment or an assessment instrument to help assess the student's skill level for each type of employability skill.

Finally, it is suggested the MSU IAT CC program help guide students to participate in high-impact experiences and explain the long-term benefits of engaging. For instance, most of the IAT CC locations have an agricultural club, collegiate farm bureau, or a joint group. During the AT 100 course, the MSU IAT CC program coordinators could have current second-year students guest speak about the club or have Michigan Farm Bureau representatives speak to the class about joining. Another recommendation is for the program coordinators to create mini lessons or activities throughout AT 100 or AT 293 – Professional Internship in Agricultural Technology for students to consistently develop their employability skills. The lessons/activities only have to take up ten to fifteen minutes of the class time and have a reflection portion at the end on how to apply the skills. Adding small changes to the courses would help students to build up their self-efficacy, confidence, and real-world application of the employability skills.

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Appendix A - IRB Approval Letter for Protocol IRB-13345

KANSAS STATE UNIVERSITY

Office of Research Integrity, Compliance and Security

TO: Gaea Hock
Communications & Ag Education
Manhattan, KS 66506

Proposal Number: IRB-13345

FROM: Lisa Rubin, Chair
Committee on Research Involving Human Subjects

DATE: 10/28/2025

RE: Proposal Entitled, "From Classroom to Career - Evaluating Employability Skill Development in Agricultural Students."

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is EXEMPT from further IRB review. This exemption applies only to the proposal - as written – and currently on file with the IRB. Any change potentially affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the Federal Policy for the Protection of Human Subjects, **45 CFR §104(d), category:Exempt Category 2 Subsection ii.**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that research is exempt does not imply that investigators have no ethical responsibilities to subjects in such research; it means only that the regulatory requirements related to IRB review, informed consent, and assurance of compliance do not apply to the research.

Any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.

Electronically signed by Lisa Rubin on 10/28/2025 12:53 PM ET

Appendix B - Questionnaire Survey

KANSAS STATE UNIVERSITY

Consent Form

Dear Participant:

I am Lance Fowler, a graduate student in Agricultural Education at Kansas State University and the Program Coordinator at Delta College. I am working on a research project with the Michigan State University (MSU) Institute of Agricultural Technology (IAT) and my advisor, Dr. Gaea Hock, assesses how various professional activities predict differences in specific soft skills (self-management, decision-making, teamwork, and communication skills) with the MSU IAT Program. We are asking for your help in participating in this research by conducting a short survey, and we would greatly appreciate your valuable input.

What will be asked of you – Participation in this survey includes demographics about yourself, your education, and your experiences in various professional activities like FFA, 4-H, College Clubs, professional workshops, etc. We will

also ask about the professional activities participated in to determine where you rank the following employability skills: self-management, decision-making, teamwork, and communication skills.

Benefits - The findings from this study will be used to enhance the curriculum taught at the Institute of Agricultural Technology at Michigan State University and the Community College Partnership to more effectively equip future graduates for the workforce.

Your rights – Participation in this study is completely voluntary, and you can withdraw at any time without penalty or loss of benefit. Your responses will be kept confidential. No personally identifiable information will be associated with your responses. Your information will only be used for this research study and will not be distributed for future research. There is a slight risk that you may feel inclined to answer in a certain way; however, to eliminate all bias, all responses collected will be anonymous. Results will be presented as a group.

How We Will Protect Your Privacy – All results will be kept confidential and in an online password-protected database. The individual results will never be shared with anyone, including program coordinators. We will not share any results that can identify survey participants.

Contact Information – If you have any questions in regards to this study, please contact Lance Fowler (fowler37@msu.edu) or Dr. Hock (ghock@ksu.edu) with the provided contact information below. For questions about your rights as a subject or about injuries caused by this research, contact the Kansas State University Office of Research Integrity, Compliance and Security (ORICS) at 785-532-3224 or Lisa Rubin (email: rubin@ksu.edu), Chair, Committee on Research Involving Human Subjects, 203 Fairchild Hall, KSU, Manhattan, KS.

On behalf of MSU IAT, thank you in advance for your participation in this study. With your help, we can continue to produce high-quality future employees of the agricultural industry.

By clicking the button below, you acknowledge that your participation in the study is voluntary, you are 18 years of age, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason.

Please note that this survey will be best displayed on a laptop or desktop computer. Some features may be less compatible for use on a mobile device.

- ○ I consent, begin the study
- ○ I do not consent, I do not wish to participate

Are you graduating from the MSU IAT program in the Fall 2025 semester?

- ○ Yes
- ○ No

Describe the level of employability skills - Communication

Instructions: This assessment is intended to assess student proficiency in Communication.
To use the assessment, review the competency definition and behaviors, then select the score that corresponds to your self-assessment.
Communication: Clearly and effectively exchange information, ideas, facts, and perspectives with persons inside and outside of an organization.

1. Please assess your level of *Oral Communication.* Use

the N/A Answer when you have not yet learned or applied this dimension and/or you do not have enough information to self-assess.

- ○ I recognize the elements of effective oral communication skills, such as asking appropriate questions.
- ○ I understand how to use oral communication skills to convey meaning.
- ○ I sometimes use effective oral communication skills to convey meaning.
- ○ I consistently use effective oral communication skills to convey meaning.
- ○ N/A

2. Please assess your level of *Written Communication*. Use the N/A Answer when you have not yet learned or applied this dimension and/or you do not have enough information to self-assess.

- ○ I recognize the elements of effective written communication skills, such as using clear topic sentences and providing evidence to support claims.
- ○ I understand how to use written communication skills to convey meaning.
- ○ I sometimes use effective written communication skills to convey meaning.
- ○ I consistently use effective written communication skills to convey meaning.
- ○ N/A

3. Please assess your level of *Non-verbal Communication*. Use the N/A Answer when you have

not yet learned or applied this dimension and/or you do not have enough information to self-assess.

- ○ I recognize the elements of effective non-verbal communication skills, such as monitoring body language and posture, proximity, gestures, and eye contact.
- ○ I understand how to use non-verbal communication skills to convey meaning. I sometimes use effective non-verbal communication skills to convey meaning.
- ○ I sometimes use effective non-verbal communication skills to convey meaning.
- ○ I consistently use effective non-verbal communication skills to convey meaning.
- ○ N/A

4. Please assess your level of *Active Listening*. Use the N/A Answer when you have not yet learned or applied this dimension and/or you do not have enough information to self-assess.

- ○ I recognize the elements of effective active listening, such as asking clarifying questions and summarizing what was heard.
- ○ I understand how to use active listening skills when communicating with others.
- ○ I sometimes use active listening skills when communicating with others.
- ○ I consistently use active listening skills when communicating with others.
- ○ N/A

Describe the level of employability skills - Critical Thinking

Instructions: This assessment is intended to assess student proficiency in Critical Thinking.
To use the assessment, review the competency definition and behaviors, then select the score that corresponds to your self-assessment.
Critical Thinking: Identify and respond to needs based upon an understanding of situational context and logical analysis of relevant information.

5. Please assess your level of *Display Situational Awareness*. Use the N/A Answer when you have not yet learned or applied this dimension and/or you do not have enough information to self-assess.

- ○ I recognize the need for situational awareness, such as gathering information, anticipating needs, prioritizing issues, and setting achievable goals.
- ○ I understand how to use situational awareness in the workplace.
- ○ I sometimes use situational awareness in the workplace.
- ○ I consistently use situational awareness in the workplace.
- ○ N/A

6. Please assess your level of *Gather & Analyze Data.* Use the N/A Answer when you have not yet learned or applied this dimension and/or you do not have enough information to self-assess.

- ○ I recognize the role of data gathering and analysis in fully understanding a problem.
- ○ I understand how to gather and analyze data to solve a problem.
- ○ I sometimes gather and analyze data to solve a problem.
- ○ I consistently gather and analyze data to solve a problem after considering the quality of the data.
- ○ N/A

7. Please assess your level of *Make Effective & Fair Decisions*. Use the N/A Answer when you have not yet learned or applied this dimension and/or you do not have enough information to self-assess.

- ○ I recognize the need to objectively assess situations using relevant information from a variety of perspectives to make effective and fair decisions.
- ○ I understand the elements of effective decision-making and problem-solving, such as problem identification, identifying values, and determining solutions and logistics.
- ○ I sometimes demonstrate effective decision-making and problem-solving.

- ○ I consistently demonstrate effective decision-making and problem-solving.
- ○ N/A

Describe the level of employability skills - Professionalism/Self-management

Instructions: This assessment is intended to assess student proficiency in Professionalism.
To use the assessment, review the competency definition and behaviors, then select the score that corresponds to your self-assessment.
Professionalism: Knowing work environments differ greatly, understand and demonstrate effective work habits, and act in the interest of the larger community and workplace.

8. Please assess your level of *Act With Integrity*. Use the N/A Answer when you have not yet learned or applied this dimension and/or you do not have enough information to self-assess.

- ○ I recognize the need to act with integrity in the workplace by being trustworthy, accountable, and respectful of colleagues and stakeholders.
- ○ I understand how to act with integrity in the workplace.
- ○ I sometimes act with integrity in the workplace.
- ○ I consistently act with integrity in the workplace.

- ○ N/A

9. Please assess your level of *Demonstrate Dependability*. Use the N/A Answer when you have not yet learned or applied this dimension and/or you do not have enough information to self-assess.

- ○ I recognize the need to be a dependable, diligent member of a work environment, including being present, prepared, and showing attention to detail.
- ○ I understand how to be a dependable, diligent member of a work environment.
- ○ I sometimes act as a dependable, diligent member of a work environment.
- ○ I consistently act as a dependable, diligent member of a work environment.
- ○ N/A

10. Please assess your level of *Achieve Goals*. Use the N/A Answer when you have not yet learned or applied this dimension and/or you do not have enough information to self-assess.

- ○ I recognize the need to focus on achieving goals in the workplace.
- ○ I understand how to focus on achieving goals in the workplace by prioritizing tasks.
- ○ I sometimes achieve goals in the workplace by prioritizing and completing tasks.

- ○ I consistently achieve goals in the workplace by prioritizing and completing tasks.
- ○ N/A

Describe the level of employability skills - Teamwork

Instructions: This assessment is intended to assess student proficiency in Teamwork.
To use the assessment, review the competency definition and behaviors, then select the score that corresponds to your self-assessment.
Teamwork: Build and maintain collaborative relationships to work effectively toward common goals, while appreciating diverse viewpoints and shared responsibilities.

11. Please assess your level of *Build Relationships for Collaboration*. Use the N/A Answer when you have not yet learned or applied this dimension and/or you do not have enough information to self-assess.

- ○ I recognize that collaboration and relationship-building are important parts of team-building.
- ○ I understand how to build strong, positive work relationships for successful collaboration.
- ○ I sometimes build strong, positive work relationships with colleagues for collaboration.

- ○ I consistently build strong, positive work relationships with colleagues and supervisors for collaboration.
- ○ N/A

12. Please assess your level of *Respect Diverse Perspectives*. Use the N/A Answer when you have not yet learned or applied this dimension and/or you do not have enough information to self-assess.

- ○ I recognize the need to respect all people in the workplace, including those from diverse backgrounds.
- ○ I understand how to respect all people in the workplace, including those from diverse backgrounds.
- ○ I sometimes show respect for and include all people in the workplace, including those from diverse backgrounds.
- ○ I consistently show respect for and include all people in the workplace, including those from diverse backgrounds.
- ○ N/A

13. Please assess your level of *Integrate Strengths*. Use the N/A Answer when you have not yet learned or applied this dimension and/or you do not have enough information to self-assess.

- ○ I recognize my own and my colleagues' strengths, knowledge, and talents.

- ○ I understand how my own and my colleagues' strengths, knowledge, and talents can be integrated into the team to improve team performance.
- ○ I sometimes integrate my own and my colleagues' strengths, knowledge, and talents into the team's performance.
- ○ I consistently integrate my own and my colleagues' strengths, knowledge, and talents into the team's performance.
- ○ N/A

Describe the participation in various professional activities.

Instructions: This assessment is intended to assess student participation level in a variety of activities. To use the assessment, review the options, then select the score that corresponds to your self-assessment.

14. Rate your level of participation in the following activities.

	Regularly	Often	Sometimes	Rarely	Never
4-H	○	○	○	○	○
Collegiate FFA/Farm Bureau	○	○	○	○	○
FFA	○	○	○	○	○
Greek Life	○	○	○	○	○
International Travel - Study Abroad	○	○	○	○	○

	Regularly	Often	Sometimes	Rarely	Never
International Travel - Personal	○	○	○	○	○
Internship	○	○	○	○	○
Clerkship	○	○	○	○	○
Judging or Competitive Events	○	○	○	○	○
Leadership in Career Organizations	○	○	○	○	○
Membership in Career Organization	○	○	○	○	○
Performing Arts	○	○	○	○	○
Philanthropic Organization	○	○	○	○	○
Religious Organizations	○	○	○	○	○
Research	○	○	○	○	○
ROTC/Reserves/Military	○	○	○	○	○
Sports - Varsity	○	○	○	○	○
Student Government	○	○	○	○	○
Volunteerism	○	○	○	○	○
Work Experience	○	○	○	○	○
Workshops or Training	○	○	○	○	○
Career Fairs	○	○	○	○	○
First-Year Seminars	○	○	○	○	○
Other: (Please List Below and Rate)	○	○	○	○	○

	Regularly	Often	Sometimes	Rarely	Never
Other:	○	○	○	○	○
Other:	○	○	○	○	○
Other:	○	○	○	○	○

15. On average, how many cumulative hours per week do you spend participating in the activities in question one (e.g., student organizations, campus publications, student government, fraternities/sororities, intercollegiate or intramural sports)?

- ○ 0
- ○ 1-5
- ○ 6-10
- ○ 11-15
- ○ 16-20
- ○ 21-25
- ○ 26-30
- ○ More than 30

16. How often do you participate in the following activities in an average semester?

	Regularly	Often	Sometimes	Rarely	Never
Actively engaged by asking questions or participating in class discussions	○	○	○	○	○
Delivered a presentation as part of a class assignment	○	○	○	○	○
Collaborated with classmates on projects during class time	○	○	○	○	○
Worked with classmates outside of class to complete assignments	○	○	○	○	○
Provided tutoring or instruction to other students, either voluntarily or paid	○	○	○	○	○
Took part in a community-based project (such as service learning) as part of a course	○	○	○	○	○

	Regularly	Often	Sometimes	Rarely	Never
Discussed course-related ideas or readings with others outside of class (e.g., fellow students, family, or colleagues)	○	○	○	○	○

17. How often did you engage with instructors or faculty in an average semester?

	Regularly	Often	Sometimes	Rarely	Never
Spoke with an instructor about grades or assignments	○	○	○	○	○
Engaged in discussions with faculty outside of class about course readings or ideas	○	○	○	○	○
Talked with a faculty member or advisor about career goals or plans	○	○	○	○	○
Received timely written or verbal feedback from faculty on academic work	○	○	○	○	○

	Regularly	Often	Sometimes	Rarely	Never
Collaborated with faculty on non-academic activities (e.g., committees, orientation, student organizations)	○	○	○	○	○

18. How often have you engaged in or plan to engage in the following experiences during college?

	Done (Completed One)	Plan to Do	Do Not Plan to Do	Have Not Decided
Complete a clerkship, internship, field placement/research opportunity, or work experience	○	○	○	○
Engage in community service or volunteer	○	○	○	○
Take part in a learning community or structured program where students are enrolled in two or more classes together	○	○	○	○
Enroll in a foreign language course	○	○	○	○
Study abroad through an academic program	○	○	○	○

	Done (Completed One)	Plan to Do	Do Not Plan to Do	Have Not Decided
Participate in an independent study or design your own course	○	○	○	○

Demographics

19. How old are you?

20. How do you describe yourself?

- ○ Male
- ○ Female
- ○ Non-binary / third gender
- ○ Prefer not to say
- ○ [ ] Prefer to self-describe

21. Which MSU IAT program are you enrolled in? - DOUBLE CHECK THIS

- ○ Agricultural Operations
- ○ Fruit & Vegetable Crop Management
- ○ Landscape Management
- ○ Viticulture
- ○ Forest Technology
- ○ Food Processing, Technology & Safety
- ○ Urban Forest Management

22. What best describes your employment status while you were in the MSU IAT Program? (Select all that apply.)

- ☐ Working full-time
- ☐ Working part-time
- ☐ Unemployed and looking for work
- ☐ A Homemaker or stay-at-home parent
- ☐ Student
- ☐ Retired
- ☐ Other

23. What is the highest level of education you have completed?

- ○ Some high school or less
- ○ High school diploma or GED
- ○ Some college, but no degree
- ○ Associates or technical degree
- ○ Bachelor's degree
- ○ Graduate or professional degree (MA, MS, MBA, PhD, JD, MD, DDS etc.)
- ○ Prefer not to say

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