Outreach, Mentorship, and Leadership

Argentinian Agricultural Teachers Experience North Carolina Agricultural Education Programs
Joy Morgan, Jason Bullock, Travis Park, Wendy Warner, Omar Jamarillo, North Carolina State University

Be the Leader You Would Follow: Promoting Minority Leaders in Agriculture
Jason Bullock, Joy Morgan-Fleming, Wendy Warner, North Carolina State University

Equipping Students to Address Wicked Problems in Rural Communities: The Development of a Rural Scholars Program
J. S. Robinson, Tyson, E. Ochsner, Paul Weckler, and Mark Woodring, Oklahoma State University

Implementing Soft Skill Development, Leadership Competencies and Critical Thinking Styles in an Advanced Animal Production College Course
Dr. Avery Culbertson, Dr. Katy Tarrant, Fresno State

Pack Peers Make a Mentoring Difference
Mary Kate Morgan, Joy E. Morgan, Wendy J. Warner, Travis D. Park, North Carolina State University

Solving Problems in Agricultural Education, Communications, and Leadership through Undergraduate Research: A Mentoring Opportunity for Doctoral Students
Audrey E. H. King & Lauren Lewis Cline, Oklahoma State University

Student-Led Social Science Research in an Introduction to Animal Science Curriculum
Blake Colclasure, Lauren Denofrio-Corrales, Doane University, Heartland Community College

Team-based Leadership Curriculum for a Student Leadership Internship Course
Anna Pratt & Sarah Bush, University of Idaho

University of Missouri Extension STEM Internship Program
Rebecca Mott, University of Missouri

Wild Goose Chase! Using a Smartphone Application to Boost Engagement and Group Cohesion in Leadership Education
Amy M. Gonzalez, Faith Vawter, Haley Q. Traini, Jonathan J. Velez, Oregon State University
**Introduction**

Extension has access to cutting-edge scientific knowledge generated at land-grant universities (Seevers & Graham, 2012). Additionally, Extension’s connections with local communities provide an avenue for undergraduate experiential learning opportunities (Condo & Martin, 2002). Extension exposes university students to community outreach work, which sometimes has limited visibility on college campuses. Based on experiential learning (Kolb, 1984), this nine-week summer internship embeds undergraduate interns in research, Extension, and professional development experiences alongside state and regional Extension faculty.

**Results**

- 37.5% of the 2019 interns indicated “large” gains in clarification of their career paths.
- 83% of the 2019 interns indicate that they are “likely” to pursue another research experience as an undergraduate student.
- 100% of 2019 interns indicate that their internship experience “exceeded their expectations”
- 2019 applicants represented four different colleges/universities. In 2020, nine different colleges/universities were represented in the application pool.
- To assess the longer-term impact of the project, evaluation will be conducted annually to track interns who complete the program (beginning in July of 2020). Survey questions will focus on leadership involvement, STEM involvement, connection with Extension after the conclusion of the program, graduation status, and graduate school or career information.

**Advice to Others**

- Be flexible- One of the reasons many Extension professionals enjoy their work is that no day is ever the same. Days often bring unexpected visits, events, or meetings. It is important for students to see this aspect of Extension work.
- Communicate Regularly- Our intern cohort met with the program coordinator, the faculty research mentors, and a regional Extension faculty member each Monday morning.
- Be responsive- We wanted our interns learn in a context that appealed to their interests and helped them advance in their field of study. Ideally, mentors and students should work together to determine research activities and field involvement.

**How It Works**

- Applications for the internship are available to any Missouri resident who has completed at least one year of at a public four-year institution, community college, or private college.
- Students apply in one of these areas; Food, Nutrition & Health, Agricultural Economics and Rural Communities, Animal Science and Health, or Plant Sciences. They may also select a second choice.
- Up to 8 undergraduates are selected for the internship program each year. Students in our program receive a $4,500 stipend, $3500 for housing and food, one academic credit, and parking.
- The internship experience includes working on a research project alongside an Extension faculty research mentor, as well as assisting regional Extension faculty members with programming and technical assistance around the state
- Research activities and regional involvement are determined based on faculty expertise, student interests and current project opportunities.

**References**


Promoting Minority Leaders in Agriculture

Introduction

- Increasing cultural diversity in agricultural education is a need and research focus.
- Data shows disparity in membership and enrollment from underrepresented groups (URGs).
- Lack of diversity is present in School-based Agricultural Education Program (SBAE).
- **Purpose:** Promote agricultural careers, develop leadership skills, and promote diversity and inclusion in SBAE programs.
- **Goal:** Provide an interactive educational and leadership-based experience for minority secondary agricultural education students.
- **Program:** Minority Leaders in Agriculture (MLA)

Results

- **Components of MLA**
  - Welcome & Overview
  - Campus Tour
  - “How Do I get Here?” presentation
  - DISC Personality Leadership Session
  - Roundtable Lunch with CALS Faculty
  - Panel Discussion from Alumni from URGs
  - “We Are MLA” Leadership Session
  - History of MLA Presentation
  - Howling Cow® Ice Cream & Evaluation

How it Works

- Funding obtained to promote agriculture careers and leadership among minority students (African American, American Indian/Native American, Alaska Natives, Asian American, Latinos, Hispanics, & Pacific Islanders) enrolled in SBAE programs.
- **Email sent through NC FFA listerv**
- **Incentives:** FFA Convention registration (if attending); NC State University gift bag; program t-shirt; & hotel accommodations (if requested)
- **Coordination of facilities, room reservations, presenters & volunteers through email & interpersonal communication**

Recommendations

- Continuation and expansion of similar educational programs are needed.
- Higher education institutions must continue to create opportunities for minority students to:
  - Develop leadership skills
  - Experience a college campus
  - Interact with undergraduate students, graduate students, and faculty
  - Learn more about academic and career opportunities in agriculture

Costs/Resources

- **T-shirts for participants & chaperones**
- **Lunch provided by campus catering**
- **Hotel lodging for participants**
- **Departmental or Recruitment funds encouraged to cover costs.**

Participants

- 38 Secondary SBAE students
- 17 Secondary SBAE teachers
- 8 Undergraduate & Graduate Students
- 8 Faculty & Staff

Evaluation Feedback

- Event was beneficial
- Students exposed to at least one new ag career.
- Teachers indicated interest in follow-up event or similar event
- Three teachers requested resources to incorporate with officer teams.
  - Consider providing students with exposure to college class environment
  - Encourage more dialogue about diversity and inclusion challenges and strategies.

REFERENCES

- Costs/Resources
  - T-shirts for participants & chaperones
  - Lunch provided by campus catering
  - Hotel lodging for participants
  - Departmental or Recruitment funds encouraged to cover costs.
Argentinian Agricultural Teachers Experience North Carolina Agricultural Education Programs

Joy Morgan, Jason Bullock, Travis Park, Wendy Warner, & Omar Jamarillo
North Carolina State University

Introduction/Need

- Global and international initiatives can be targeted for adults seeking personal & professional development experiences.
- Motivations for traveling abroad include personal growth, increase in life skills, & gain in knowledge (Beseli, Warner, Kirby, & Jones, 2016).
- Providing culturally specific experiences encourages student engagement and motivation.

Purpose: Innovative field experience designed to showcase exemplary secondary SBAE programs in NC to Argentinian agricultural educators and provide opportunities for discussions and collaboration between NC SBAE teachers and Argentinian educators.

How it Works

- Meeting between NC State University International & Global Engagement office & University Ag Ed faculty.
- Identify local SBAE programs for program visits in adequate time to address topic areas and school security protocols.
- Coordinate travel arrangements for program visits.
- Provide opportunities for culturally diverse students to interact with international visitors.

Results

- Argentinian teachers impressed with the motivation & passion of NC SBAE students.
- Emphasis on NC SBAE students’ strong leadership, confidence, and desire to enroll in agricultural education and FFA.
- Facilities and program focus were different as Argentinian schools focus more on production agriculture and processing.
- Autonomy of student course choice differed from Argentina’s predetermined course pathways.
- University faculty witnessed enjoyment between Argentinian teachers and Spanish speaking students who assisted with translating.
- NC SBAE Spanish speaking students demonstrated confidence when presenting and interacting with similar cultural group.

Recommendations

- Incorporating international and culturally diverse components into agricultural education programs has great value and interest among students and educators.
- Secondary and Post-secondary agricultural education programs should pursue collaborations with international agricultural education professionals.
- Teacher preparation programs should secure funding and incorporate an international experience in degree program.

References:


“I am amazed at the confidence of the students. They are confident in what they are saying and leading in their school and community. This is an area where I see the most difference.”
– Argentina Teacher

“I am amazed at the confidence of the students. They are confident in what they are saying and leading in their school and community. This is an area where I see the most difference.”
– Argentina Teacher

“North Carolina teachers need a similar opportunity. How great would it be if we could travel internationally and then bring back new ideas and incorporate global curriculum into our classes and teaching practices.”
– NC Teacher
Equipping Students to Address Wicked Problems in Rural Communities: The Development of a Rural Scholars Program
J. Shane Robinson, Tyson E. Ochsner, Paul Weckler, Mark Woodring

Part 1: Seed Projects
• Developing youth to become leaders and entrepreneurs in rural communities
• Renewing rural health systems to help end persistent poverty
• Exploring technological innovations for rural broadband and IoT connectivity.

Part 2: Rural Scholars Program
• Developing Rural Scholars for Civic and Community Engagement – a 16-week course taught in Spring 2020
• 10-week immersive summer research and service experiences in rural communities

Part 3: Rural Renewal Symposium
• Connect researchers, students, and community members
• Award a Rural Renewal Research prize
• Award a Rural Renewal Civic Action prize
• October 12 and 13, 2020

To learn more, visit: ruralrenewal.okstate.edu

Figure 1. Conceptual Framework: Enhancing community capitals for greater resilience and improved rural livelihoods
Implementing Soft Skill Development, Leadership Competencies and Critical Thinking Styles in an Advanced Animal Production Course

Dr. Avery Culbertson, Dr. Katy Tarrant
California State University, Fresno

Introduction

In addition to technical skills, employers seek applicants who possess soft skills such as communications, both written and oral; critical thinking competencies; team building; and problem solving skills. Yegani (2009) emphasized that research has shown communication skills, conflict resolution, and a general knowledge of business and economic principles were among the highly rated skills that the poultry industry expects from recent poultry science graduates’ (p. 1340). Sandlin, Price and Perez (2018) recommended instructors of natural science degree programs incorporate both technical and soft skill development into their curriculum as employers from these said fields seek to hire employees with both skill sets. The incorporation of a soft skill and leadership competency development can impact team dynamics, improve stakeholder communications and relationships and increase employability of students upon graduation. Through understanding the needs of potential employers for students graduating with a Bachelor of Science degree in animal production, it was the goal of the authors to revise the curriculum for the advanced production course to reflect the emphasis on soft skills in new hires.

As part of the Animal Science and Agricultural Education Program at Fresno State, classes are offered in production and management for beef, sheep, hogs, dairy and poultry. In the poultry science degree plan, students enroll in classes related to poultry science and housing management. Following an introduction to poultry production course that introduces technical skills related to the poultry industry, students enroll in Advanced Poultry Production (APP) as part of a degree program. APP is designed with the goal of developing students to be highly valued candidates for employment within the poultry industry upon graduation.

Entry level poultry management positions require the ability to mitigate complex problems that include decision making about poultry health and wellbeing, team development and conflict resolution, crisis management, and assessing logistical and budgetary issues. Moreover, the poultry industry experiences a constant evolution of best management practices for production as industry perspective changes by the time the student becomes employed. As a result of positive reviews from faculty, administration and the industry, the team will be continuing to use this format for the APP course in the future. Other animal science faculty in the department have been supportive, and are recommending elements of this type of development be implemented in other advanced production classes. Curriculum should be developed based on industry needs and by utilizing current leadership and soft skill development curriculum and practices.

References


How It Works

An agricultural leadership professor has partnered with a poultry science professor who works closely with the industry. For the APP class, the professors learned up in designing curriculum to address technical skill and soft skill development through lectures and application, both in the classroom and at the poultry facility. Skills and leadership competencies developed in the class include; public speaking and communication, team dynamics, personal leadership development, change and crisis management, and critical thinking. Theoretical concepts are then applied through reflection, industry visits, simulations and interaction with members of the public outside of the poultry industry. Students are also assessed on perceptions of leadership and on critical thinking skills. The University of Florida Critical Thinking Instrument (UFCTI) is used to measure critical thinking styles ranging between two constructs, engagement and seeking information.

As part of the poultry science degree, a commercial poultry facility providing hands-on experience is housed on campus. This broiler chicken production facility houses chickens throughout the year and runs through student employment. The facility provides the application step to conceptual knowledge taught in the classroom. The facility is supported by local industry, which provides support through establishing educational and hands on experiences.

Future Plans/Advice to Others

As a result of positive reviews from faculty, administration and the industry, the team will be continuing to use this format for the APP course in the future. Other animal science faculty in the department have been supportive, and are recommending elements of this type of development be implemented in other advanced production classes. Curriculum should be developed based on industry needs and by utilizing current leadership and soft skill development curriculum and practices.

Cost/Resources Needed

Professors/Instructors with expertise in production, leadership competencies and soft skill development are needed for the partnership. For the professors, there is a time commitment to design the curriculum to incorporate lecture time for soft skill development. Additionally, resources are needed to purchase the UF Critical Thinking Inventory assessment. Students do not need to pay any additional fees for the class.
Pack Peers Make a Mentoring Difference
Mary Kate Morgan, Joy E. Morgan, Travis D. Park, and Wendy J. Warner

Introduction and Need for Idea
- Transitioning to college can be an intimidating experience for many first year and community college students.
- Many students entering the Agricultural and Extension Education program come from towns with populations that are a fraction of the size of the student population at NC State.
- To combat feelings of isolation and aid students in their transition to NC State, Pack Peers – Peer Mentor Program was started in 2018.
- All incoming first year students are paired with an upperclassman to help with the often difficult, first few weeks on campus.

How It Works
- An undergraduate student assistant was responsible for development, implementation, and coordination of the Pack Peers Program.
- Over the summer, a list of incoming students was obtained by the program coordinator.
- To recruit upperclassmen to serve as peer mentors, an email was sent to all current students explaining the program and asking for participation as well as a Google Form for interested students to fill out with general information about themselves and their interests.
- A similar Google Form was also sent to incoming students to introduce the program, collect background information, and gather data regarding concerns about starting at NC State.
- Responses were used to pair students based on at least one common interest or concern.
- Incoming students who did not complete a survey were still paired with a Pack Peer.
- Upperclassmen serving as Pack Peer mentors received notification with the name, contact information, and reason for pairing of their Pack Peer mentee.
- A sample email was provided to personally invite their mentees to attend the departmental welcome back event and first departmental club meeting of the year.

Results to Date/Implications
- The Program was introduced in Fall 2018 and continued in Fall 2019.
- 120 students entering the Agricultural and Extension Education Program at NC State have had the opportunity to participate.
- Approximately 45 upperclassmen volunteered to serve as mentors, with about 15 mentors who served for two years in a row.
- An estimated 60-70% of new students have utilized their Pack Peer.
- Approximately 20% of former freshmen/transfer students who initially participated as mentees, returned to serve as a mentor.

References:

Costs and Resources Needed
- Access to incoming students’ contact information is imperative to the success of the program.
- The use of Google Suite or utilization of Google Forms is also helpful for creating surveys.
- An estimated 15 hours was spent creating and matching mentors and mentees.

Future Plans/Advice to Others
- Pair each entering student with a mentor, even if they do not indicate initial interest, as many incoming students are not in the habit of checking their email daily and may miss the initial recruitment email.
- Some peer mentors might need reassurance if their mentee is unresponsive or does not want to participate.
- During the implementation year, monthly events were planned for Pack Peers.

“Coming to NC State as a transfer student, I really would have enjoyed the opportunity to participate in a program like Pack Peers. Pack Peers allows students to connect with those that they will see over the rest of their college career, as well as giving them a sense of belonging and support during the nerves that arise when starting at this university. I have loved serving as a mentor in this program, as I have gained lifelong friends with my Pack Peers.
-Ally, Pack Peer Mentor

“Pack Peers was a great thing for me because coming from a small town the idea of transitioning to such a large university scared me. Thankfully I had Ally to rely on and show me the ropes during the first few weeks to ease that transition.”
-Malachi, Pack Peer Mentee
Solving Problems in Agricultural Education, Communications, and Leadership through Undergraduate Research: A Mentoring Opportunity for Doctoral Students
Audrey E. H. King & Lauren Lewis Cline
Oklahoma State University

Idea
• How can we best prepare ourselves for faculty life?
• Do we feel prepared to mentor students through the research process?
• Are our undergraduate students properly prepared for graduate school?
• How can undergraduate research be incorporated into our programs?

Let doctoral students teach undergraduate research!

Tips and Tricks
• Schedule weekly instructor debriefs
• Co-teach with multiple disciplines when available
• Be flexible in course design and schedule
• Narrow research topics prior to class beginning
• Give each a student a different piece of the research to report
• Student buy-in is a must
• Utilize online learning platform
• Ask for help!

Resources
• Team of two multidisciplinary doctoral students
• One-credit hour pilot course
• Three multidisciplinary undergraduate students
• Guide through design, data collection, and reporting
• Project-based, student-centered format

Results
• Undergraduate students feel more prepared for graduate school
• Fostered an appreciation for research in undergraduate students
• Increased awareness of research done in related disciplines
• Respect and understanding of one another's disciplines has grown
• Student’s poster abstract accepted to National AAAE
• Spring 2020 follow-up course
• Developing conference manuscript
Increased public interest toward animal production practices (Yadavalli & Keithly, 2014)

Consumer demand continues to shift animal industries

Intro to animal science students explored consumer perceptions of industry topics by conducting social science research

1-week unit; 2 lectures & 1 lab

Introduced current issues in animal science and basic social science research

Students selected one topic and designed a six item Likert-type scale and semi-structured interview guide

Research and lab report completed

Research conducted on topics such as farrowing crate use in swine production, environmental impacts of dairy production, greyhound racing, use of cages in layer industry, etc.

Students appreciated importance of consumer perceptions and how they can be measured

Promoted class culture and appreciation for varying opinions

Time is largest resource

Knowledge on basic social science research (e.g., scale construction, semi-structured interview guide creation)

Ag ed/com programs can support core science faculty implementing this type of unit/lab

Promotion of social sciences in core sciences important for the future of our discipline

Unit will continue and be shared with other institutions

Project could be shared with SBAE instructors

Similar units/labs could be developed for other core agricultural science courses (e.g., intro to agronomy)
Team-based Leadership Curriculum for a Student Leadership Internship Course

Anna Pratt & Sarah A. Bush, University of Idaho

Background
Idaho FFA State Leadership Conference (SLC)...
• 4-day annual event in April
• 12 leadership and career development events
• ~1500 high school students attend
• 25 undergraduate UI students assist in implementing SLC
• Student feedback indicated more training and support for collaboration was needed

Learning Outcomes
Students will be able to...
1. Understand & implement leadership processes
2. Trust teammates & implement conflict management strategies
3. Communicate professionally
4. Implement event coordination practices & procedures
5. Use tools to strengthen commitment & accountability
6. Manage crisis & conflict in teams
7. Evaluate personal and team performance

How it Works
Students...
• Apply and interview with a selection committee
• Enroll in a weekly course January-April
• Assigned a role such as:
  - Orchestrating CDEs and LDEs
  - Organize workshops
  - Plan service projects
  - Coordinate industry tours
  - Manage media outreach
• Given access to a shared drive and previous documents
• Provided with class, team, and individual coaching
• Team-based curriculum (Lencioni, 2002)

Three Student Teams
• Public Relations Team:
  - Delegates, workshops, service day, photography, and social media managers
• Awards and Events Team:
  - CDEs, proficiency, and STAR award managers
• Sessions Team:
  - Arena, backstage, AV, awards, stage materials, line-up and courtesy corps managers.

86% of students reported appreciating the team experience and curriculum

Reported Student Benefits
- Appreciated the team experience and curriculum

Costs
- A faculty member and/or graduate student time investment
- Idaho FFA Association provides hotel rooms and food for students, approximately $5,200.

References
Wild Goose Chase!
Using a Smartphone Application to Boost Engagement and Group Cohesion in Leadership Education

**Purpose**
Through an online team-based scavenger hunt app, we wanted to create a culture that fostered trust, collaboration, and engagement with a large group, while getting a sense of how students conceptualized leadership.

**How It Works**
- Divide students into teams.
- Design missions and post them on GooseChase.
- Students need to complete all missions in an established time.
- Missions can be text-based, image-based, or video-based.
- The team with the most points will be the winner.

**Results**
- Students demonstrated harmony and growing rapport during the missions.
- Students began to link concepts and skills related to leadership.
- The results show us that GooseChase could be used as catalyst for students to think critically.

**Future Plans**
More missions and an increased completion time will be implemented in the future.

**Costs**
The GooseChase subscription for the Premium Educator option cost $199. Students did not incur any expenses as the application is available for free for iOS and Android devices.

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