

# An Appreciative Inquiry Approach to Evaluating Culture, Structure, and Power in Agricultural Teacher Education Program Reform

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## Abstract

*This case study outlines an appreciative inquiry approach to program reform using an agricultural teacher education program at a land-grant university that had begun to suffer from a large decline in student enrollment. Documents were analyzed that provided recommendations toward a master plan for reform made by 23 key agents based on their evaluation of culture, structure, and power within the existing program. The key agents were identified using a conceptual model called the Agricultural Education Networked Learning Circle for Teacher Preparation (AENLC). The documents outlined recommendations in five areas: 1) faculty recruitment and retention; 2) courses and curriculum; 3) certification options; 4) student professional development; and 5) student recruitment. The recommendations were consistent with the literature and the study provided empirical evidence on the practicality of using appreciative inquiry and the conceptual model in creating and leveraging social capital toward teacher education program reform or renewal.*

Keywords: agricultural teacher education, program reform, appreciative inquiry

## Introduction

Over a three-year period, the National Council for Agricultural Education (2000) worked with a diverse group of more than 10,000 participants nationwide on a project sponsored by the W. K. Kellogg Foundation entitled “Reinventing Agricultural Education for the Year 2020” (p. 2). A major purpose of this initiative was to establish a long-range vision for meeting some of the fundamental needs of society through agricultural education (National Council, 2000). As a result of this project, a goal to establish “an abundance of highly motivated, well-educated teachers in all disciplines, Pre-K through adult, providing agriculture, food, fiber and natural resources systems education,” was created (National Council, 2000, p. 4). Furthermore, the Council established a goal to increase the number of secondary agricultural education programs nationwide to 10,000 by the year 2015 (National Council, 2007). Although there has been an increased demand for secondary agricultural educators with 253 new positions and 162.5 new programs, only 7,424 school-based agricultural education programs with 10,874 teachers were reported as of September 15, 2014 (Foster, Lawver, & Smith, 2014).

There are several factors impeding progress, including a decline in enrollment in agricultural teacher education programs, an increase in the number of teacher candidates choosing

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not to teach, and an increase in teacher attrition (Swan, Wolf, & Cano, 2011). According to the *2014 Supply and Demand Executive Summary*, state supervisors reported demand for an additional 86 full-time teachers and 10 part-time teachers (Foster et al., 2014), with similar trends expected for 2015. Based on the aforementioned figures, a need for addressing the teacher shortage in school-based agricultural education programs and establishing a pipeline of highly qualified teachers is paramount to accomplishing the goals and action items set forth in *Reinventing Agricultural Education for the Year 2020*.

One area of focus toward reinventing agricultural education is by addressing the training of agriculture teachers in post-secondary programs. From 1998 through 2006, there was a steady increase in faculty positions with a portion of their duties associated with teacher education; however, from 2006 to 2009 there was a decrease of 24 full-time equivalent faculty positions (Kantrovich, 2010). The recent decrease can be attributed to a decline in resources, program restructuring, or the discontinuation of teacher preparation programs (Kantrovich, 2010). With the increase in the shortage of qualified agriculture teachers and a decrease in agriculture teacher education programs, it is imperative that the agricultural education field takes another look at systemic factors associated with this problem and become proactive about addressing them instead of reactive.

## Literature Review

### Factors Attributing to the Declining Numbers in Qualified Agriculture Teachers

Enrollment in agricultural teacher education programs has steadily declined since the 1980's (Kantrovich, 2010). The number of newly qualified secondary agriculture teachers has decreased from 1,749 in 1977 to 649 in 2009, a sharp decline from the annual average of 770 (Kantrovich, 2010). In addition, not all students who receive a degree in agricultural education enter the teaching field, resulting in an increased number of unfilled positions (Kantrovich, 2010). In 2009, it was estimated that only 70% of the newly licensed agriculture teachers would take a teaching position the fall after graduating, resulting in a short supply of educators to fill current vacant positions, further threatening the possibility of increasing the number of secondary programs nationwide (Kantrovich, 2010). As a result of the decreased supply of quality agriculture teachers, the number of unfilled positions increased from 8 in 1985 to 30 in 2009 (Kantrovich, 2010). Previous studies found that factors such as extrinsic rewards, personal goals, advancement opportunities and salaries influenced graduates' decision to choose a career other than teaching secondary agriculture, resulting in competition for student enrollment with more appealing programs that offer students perceived economic security and status (Vincent, Henry, & Anderson, 2012; Watt & Richardson, 2007).

In addition to dwindling student numbers and teacher candidates deciding not to teach, there is the issue of curricula that is not adequately preparing teachers for their future profession and thus contributing to the increase in teacher attrition (Darling-Hammond, 2006). These inadequacies in knowledge and skills include the inability to navigate professional networks, influence school policies that impact their programs, manage a diverse and "needy" student population, manage heavy workloads, and obtain the educational resources needed to sufficiently prepare students in a high-stakes testing culture (Alliance for Excellent Education, 2005; Boone & Boone, 2009; Ingersoll & Smith, 2003). Also, many agriculture teachers are not making the changes needed to promote growth in their programs due to continued use of traditional and/or outdated agriculture curriculum (Myers & Dyer, 2004).

It is important that teacher education programs prepare teachers to respond to the rapidly changing world of agriculture and have the ability to effectively teach the appropriate skills to their students while managing the myriad of other duties required of an agriculture teacher (Boone &

Boone, 2009). Although some programs are able to address these issues in the curriculum by adding courses or amending existing courses, known as the *renewal* process, undergoing reform is most appropriate for many programs (Goodlad, 1994). The three-fold goal of the reform process should be to encourage an increase in students majoring in agricultural education, to prepare a cadre of highly qualified teachers who are excited about teaching, and provide services that increase job satisfaction and decrease teacher attrition (Boone & Boone, 2009; Myers & Dyer, 2004).

### **Power, Social Regulation, and Teacher Education Reform**

The reform of teacher education has been a major consideration of governmental activity since the 1980s (Emihovich, 2005; Rennert-Ariev, Frederick, & Valli, 2012). Reforms in teacher education involve complex sets of interaction among state, university, and local programs (Rennert-Ariev et al., 2012). Often public discourse on teacher education reform focuses on socioeconomic events that impact resource allocation while the needed critical attention is diverted away from discussing the impact power and competing interests have on the decisions made. Most reform initiatives are envisioned within the ideological and political boundaries of the sponsoring organizations, thus limiting opportunities for educators to build shared commitment and widespread support (Rennert-Ariev et al., 2012). However, over the past two decades, local power structures have emerged across the country where individuals once considered to have little impact on educational policy are leading the charge in education reform (Warren, 2010).

For example, the Chicago Logan Square Neighborhood Association worked with several local schools to launch a “grow your own” teacher program and build a corps of parent volunteers to work in the schools (Warren, 2010). Similarly, the Community Collaborative for District 9 in New York gathered several thousand signatures and worked with the United Federation of Teachers union to convince the school district to launch a program that would provide incentives for experienced teachers to mentor new teachers (Warren, 2010). In education reform initiatives, it is often the people with the strongest self-interest—those impacted by the reform—missing from the table. Warren (2005) argues that agent groups must be organized in a way to build relationships that shift power from unilateral to relational. That is changing power structures that exert power “over” others to those that exert power “with” others to accomplish common goals.

### **Collective Agency within Agricultural Education**

The social structure of which an agricultural education program is a part plays a large role in the progression of the program. According to the 2006-2009 study of the supply and demand for agriculture teachers, 75% of the agricultural teacher education programs were housed in colleges of agriculture and 15% in colleges of education in 2009 (Kantrovich, 2010). Similarly, 77% of the agricultural teacher educators surveyed reported their administrative homes were in colleges of agriculture; 13% in colleges of education; and 10% in colleges of applied arts, science and technology or business and technology. These findings are significant because although the goal of agricultural teacher education programs is similar within the profession, the regulatory structures differ considerably between programs, thus impacting the processes used to achieve the desired goal of preparing qualified agriculture teachers (Graham & Garton, 2001; Myers & Dyer, 2004). If the agents making decisions have little to no knowledge on the cultural nuances of agricultural education, the potential for agricultural teacher education programs to become marginalized increases. Therefore, one must consider who the agents for the program are and what level of intentions, knowledge and skills exist?

Bandura (2006) discussed three modes of human agency when taking into account social structures within education: *individual*, *proxy*, and *collective*. Individual agency is the capacity for the agent to make decisions within a given social structure. Proxy agency is the enlisting of others who have access to resources or expertise to secure the outcomes one desires. Finally, collective

agency is the capacity of individuals working together to produce desired results. According to Bandura (2006), the group outcomes are not only a product of shared intentions, knowledge, and skills, but also their synergistic and dynamic interactions. In order to address the teacher shortage and facilitate program reform, one must look at collective agency as a way of developing relational power within agricultural education. We hypothesized that programs with a clear command of how to leverage relational power among their agents are better able to maintain relevance in the program and facilitate reform when needed. As the demographics in agricultural education shift from well-established and well-connected educators to the next generation of professionals, it is important not to ignore the impact of power and influence on the progression of the agricultural education field.

### **Agricultural Education Networked Learning Circle for Teacher Preparation Model**

The Agricultural Education Networked Learning Circle for Teacher Preparation model (AENLC), which was adapted from Duran, Brunvand, and Fossum's (2002) Networked Learning Circle, identifies five major stakeholder groups within the agricultural teacher education program that should be considered when trying to achieve collective agency (see Figure 1). This unified body indicates the focus of the program; a comprehensive network operating in concert instead of separate entities providing specific and sometimes disjointed or competing services.

The first group is the *content specialists*. The content specialists prepare teacher candidates by teaching specialized skills in specific areas. These skills should be closely aligned to the current practices in agriculture, fusing research with application. The second group is the *teacher educators*. Teacher educators are any faculty who provide teacher candidates with educational theories and practices. They should have a clear understanding of what is occurring in schools as well as in the agricultural industry. In addition, teacher educators should be able to provide a pedagogical foundation that encourages high self-efficacy in teacher candidates toward effectively educating a diverse group of learners using multiple instructional approaches. The third group is the *governing body*. The governing body, which includes the school district, state education agencies, agricultural education agencies, and university administration, develops and administers policy with the goal of ensuring an effective and equitable educational environment. Because social power and interests may have a tendency to override local program needs, it is important that the governing body is a partner in the preparation process and that support is substantive and continual throughout the educator's career. The fourth group is the *mentors*. Mentors are made up of cooperating teachers, experienced teachers and university supervisors. In the center of it all is the *teacher candidate*. The teacher candidate is an individual who has declared an education major but have yet to complete training. The success of a program is based on several choices made by this individual: selecting a major, engaging in the teacher preparation process, incorporating best practices into instruction, and choosing to teach to name a few.

The outer components of the network should provide continued services and support for the teacher candidate, identifying the current educational climate, and responding appropriately to train him or her based on one's individual strengths and areas of improvement as well as looking at what is in the best interest of the program as a whole. In order to effectively do this, the agricultural teacher education program must maintain relational power through an open line of communication among all the agents where they can meet to assess, conceptualize, implement, and evaluate the outcomes of the program.

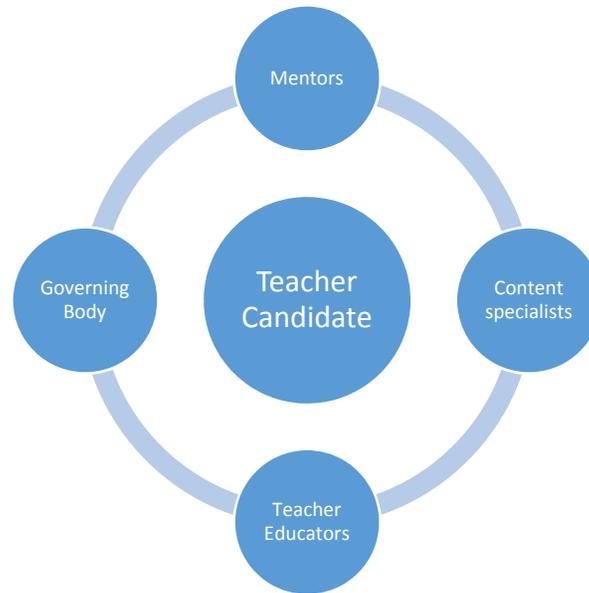


Figure 2. The Agricultural Education Networked Learning Circle for Teacher Preparation Model

### Conceptual Framework

The conceptual framework for this study is guided by the seminal work of John Goodlad (1994) on educational program reform. Goodlad (1994) defines program reform as a process that involves replacement or intervention; it implies that there is a problem to be fixed. To be successful, reform must be extensive and comprehensive, addressing all the identified problems (National Commission on Teaching and America's Future, 1996). To prepare for reform, an organization should go through a series of steps to identify and evaluate each issue facing the program (Swortzel, 1995). Next the program should go through the process of *conceptualization* of the issues identified. Conceptualization involves communicating thoughts, ideas, or intuition in regards to programs, measures and outcomes (Swortzel, 1995; Trochim, 1989). Everyone involved in the evaluation and reform process must continue to communicate his or her thoughts or ideas in order to achieve the best plan for the program. Before incorporating any reform changes, there should be a *master plan* for reform that results in all entities working in cooperation to make progress through change and development (Newcomb, 1993). Part of the master plan for teacher education reform should include the development of performance indicators in order to evaluate legislative mandates and the underlying philosophy and specific outcomes, practice and inputs (Raja, Ball, Booth, Haberstro, & Veith, 2009; Rojewski, 2009). Finally, the master plan should be implemented and periodically evaluated to assure the performance indicators are being met.

The literature is sparse on national reform initiatives in agricultural teacher education (Myers & Dyer, 2004). However, as the educational and economic situations throughout the country become dire, a collective front and national protocol for best practices to maintain quality and relevance will be imperative to the sustainability of our teacher education programs, secondary programs, and the agricultural industry's highly skilled workforce. This framework takes into account the intricacies of local culture and social structures and explores the feasibility of a common process that would not only assess program effectiveness, but build social capital as well.

### Purpose and Objectives

The purpose of the study was to describe the process an agricultural teacher education program used to develop a master plan for systematic program reform using the AENLC model to

identify influential agents for building social capital and facilitating change. The goal is to provide empirical evidence on how agricultural teacher education programs nationwide can structure reform initiatives taking into account local culture and social structures. To accomplish this purpose, the following objectives were used:

1. Describe the agricultural teacher education program including faculty experience and power, program's structure, student enrollment, and local culture;
2. Identify the groups' perceived high-leverage strengths and areas of growth for the local program; and
3. Identify the groups' recommendations to improve the agricultural teacher education program.
4. Describe the outline created by the program faculty that will be used to develop the master plan for program reform.

### Methods and Procedures

The focus of this study was an agricultural teacher education program that met specific criteria that were believed to provide a substantive contribution and impact to this line of inquiry. First, the program had experienced annual declines in student enrollment while the state's demand for qualified agriculture teachers was higher than the supply. Second, the program was historically recognized as providing a large contribution to the national and local culture in agricultural education. Finally, the college administrators were amenable to taking into consideration the recommendations established through this process in determining the future direction of the program.

An *Appreciative Inquiry* (AI) approach was used in this study to glean insights from the key agents about the agricultural education strengths and effectiveness to evaluate opportunities for reform and organizational change (Cooperrider, Whitney, & Stavros, 2005). This technique of participatory evaluation begins with participants discussing successful experiences, identifying the commonalities among those experiences, and creating a plan for the future to make those experiences occur more often (Coghlan, Preskill, & Catsambas, 2003) while taking into account local culture and social structures. The case study was guided by the five principles of AI as outlined by Cooperrider and Whitney (2001).

First, the *Constructivist Principle* posits that multiple realities exist. Through the use of dialogue, mutual understanding and knowledge is co-created. Second, there is the *Principle of Simultaneity*. It posits that the process of inquiry into experience is by nature an intervention because asking questions is the beginning of creating change. Third, the *Poetic Principle* lends itself to the process of inquiring about any aspect or component and posits that one can choose what one studies. It refutes the statement that organizations and people are concrete, but rather are created by environmental interactions. Next, the *Anticipatory Principle* posits that the future is created out of what is imagined through the inquiry; therefore, the more positive the image, the more positive the present action. Finally, the *Positive Principle* asserts that participant change or transformation is augmented by positivity and development of social capital. Using these two techniques, participants become more invested, excited, and engaged in the process of changing and creating something new together.

AI outlines four steps of which this case study used three. The first, *Discovery* uses interviews and dialogue to assist participants in reflecting, discussing, and identifying themes from their personal experiences. The second, *Dream* builds off of Discovery where participants imagine a future that leverages past success. The third, *Design* moves the imagined future from the dream phase and plans for its execution. The final phase, *Destiny* is the execution of the plan from design, but it was not within the scope of this case study (Cooperrider, Whitney, & Stavros, 2005).

Twenty-three key agents representing the groups of the AENLC model served as informants for this study. The two faculty members for the program and the department head

nominated 20 participants based on the nominee's knowledge of the agricultural education culture at both the state and local levels. Nominees included five experienced teachers who had previously served as cooperating teachers and teacher leaders for the state, five novice teachers who had recently graduated from the program, the four college of agriculture faculty members who teach agriculture content courses, three graduates who were certified to teach but took agricultural industry jobs, and three state-level governing board members. The three governing board members included a Board of Education employee, a FFA state staff member, and a governmental representative assigned to support agricultural education instruction. Three of the college faculty members teaching agricultural content areas were unable to participate.

The first activity merged destiny with dream. Informants discussed their standard for the premier agricultural teacher education program through a creative drawing activity. After drawing their interpretation of that premier program, each participant shared his or her views and experiences in the large group while the characteristics mentioned were compiled into a master list. Next the participants discussed their feelings about the list of characteristics as a group. After the list was discussed, the group identified important themes as it relates to high-leverage strengths for a premier agricultural teacher education program. The purpose of this activity, according to the Constructivist Principle was to establish mutual understanding and co-create themes as a group. Once themes were identified for discussion, small groups were formed.

According to Fern (2001), large groups of 12 or more members are more likely to focus on the information they have in common rather than on the unique aspects of their backgrounds and experiences within the culture; therefore, the group was broken into smaller groups of 3 – 4 individuals when it became appropriate to glean individual insights. Each group was stratified to have one member of each agent group of the AENLC represented, with the agricultural education faculty and department head floating between groups in order to maintain the desired representation. This representation was important part of the intervention per the Principle of Simultaneity.

Each small group was provided a laptop to record notes, two themes from the list generated by the larger group, a program of study from a comparable agricultural teacher education program, and one of the state approved agriculture career pathways to discuss. The themes assigned to the groups were local program development, appealing to diverse populations, program public image, outside partnerships, teacher training, supervision of student teachers, faculty responsibilities, use of academic professionals, curriculum, and content knowledge. For the dream phase, the small groups were given three hours to conceptualize the assigned topics, provide high-leverage strengths and areas of growth for the program, as well as recommendations and action steps for addressing the areas of growth. In line with the Positive Principle, the small groups' intentions were to promote social capital development. This intention in combination with positivity contributed to the engagement and creation of new ideas (Cooperrider, Whitney, & Stavros, 2005)

Next, the larger group reconvened to share their notes and provide other participants the opportunity to hear and discuss the reports given. Notes were taken to capture the discussion during the large group session. Finally, per the design phase, the faculty for the program met to develop an outline for developing a master plan for program reform based on the recommendations of the group in the hopes of aligning with the Anticipatory Principle to allow the imagined to become the future. The following results section is a summary of our analysis of all the documents collected from the informants.

## Results

### Overview of the Program

The local program consisted of two faculty members, one member with agricultural education training at the Ph.D. level and one at the Masters level. Combined there were five years

of secondary agriculture teaching experience, 30 years of youth development experience, and four years of teacher education experience. There were no tenured or tenure-track faculty teaching in the program. The program had seen a turnover of four tenured or tenure-track faculty members in five years, taking with them much of the institutional knowledge and decades of teacher education experience. The program is a degree option within a sociology department housed in the college of agriculture; therefore, faculty members outside of the agricultural education field were the decision-making agents for this program.

The teacher education concentration required 126 hours of coursework including, 48 general education hours, 33 professional education hours, and 45 agricultural content and elective hours. Students took all professional education courses in the College of Education. Students were also required to participate in 2000 hours of agriculture work, over 80 hours of secondary classroom observations, and twelve weeks of a teaching internship. The program did not certify at the graduate level and all other graduate options in agricultural education were suspended due to a lack of tenure-track faculty. Finally, enrollment in the teacher education concentration in the previous five years had consistently decreased from 36 to 20 total students in the 4-year program with the female enrollment increasing from 60% to 85%.

### High-leverage Strengths and Areas of Growth

The results for research objective two are a summary of the discussion on high-leverage strengths and areas of growth for the program. A few strengths were identified, but the major focus of discussion was on areas of growth. The groups agreed that many quality resources were available at the University for the Local Program, including high quality agricultural content courses. In addition, students gained practical experience and advice through student organizations and relationships with faculty. The connection that the program has with the state and local governing bodies was also strong. Below are the statements that were captured concerning high-leverage strengths.

- The college has a reputation of being small, family-oriented, and students are known by name.
- Currently student organizations fill the role of providing practical experiences for students. They allow for personal interaction for with faculty sponsors, connect students with internship opportunities, and provide opportunities to work in the community.
- There has been an increase in representation from the program at state [agricultural education and FFA] events over previous years.
- Student teachers from the program are more confident in front of the classroom and professional than student teachers from other programs I have worked with.
- Introduction to Horticulture and Greenhouse Management should definitely be kept in the curriculum.
- University supervisors visit student teachers more during the student teaching internship than I've seen with others.

The group felt that available internships and fieldwork did not reinforce content knowledge for students. The group also found that some necessary coursework was lacking or unsatisfactory while other required courses were unnecessary. When compared to other universities, the local program required many more courses, resulting in very few course options for students within required coursework and electives. In addition, continuing education courses were not offered to current educators. The final concern was recruitment of faculty. The groups identified that it was important to re-evaluate faculty recruitment in order to recruit and maintain quality teacher educators. Below are the statements recorded on areas of growth.

- Offer internships that build on content knowledge before the student teaching internship.
- Build a stronger connection between in-service teachers and program faculty.

- Offer courses exposing students to SAEs.
- Offer an agricultural mechanics and technology course for teaching content.
- Expose students to adequate multiculturalism.
- Offer Biological Sciences in Agricultural Applications (BSAA) courses for students and in-service teachers.
- Offering special education courses focusing on secondary education.
- Require only necessary coursework.
- Offer more options for fulfilling required coursework.
- Increase opportunities for practical teaching experiences throughout the plan of study.
- Recruit and retain agricultural education faculty.
- Increase the number of continuing education courses.
- Improve public's perception of the program.

### Group Recommendations

As a result of the discussion of high-leverage strengths and areas of growth, the group provided 48 specific recommendations to improve the current agricultural teacher education program. For research objective three, redundant recommendations were removed leaving 35 unique recommendations. The recommendations fell into five categories: 1) faculty recruitment and retention; 2) courses and curriculum; 3) certification options; 4) student professional development; and 5) student recruitment. Several recommendations were identified from the group that dealt with the importance of building human capacity in faculty and students (see Table 1). These recommendations included expanding the types of educators used to include tenure-track, non tenure-track, and adjunct or master teachers, as well as diversifying the student population.

**Table 1**

*The Group's Recommendations for Building Human Capacity*

Theme	Recommendations
<b>Faculty Recruitment and Retention</b>	Identify "master" or retired teachers that can be utilized in teaching. Establish pre-determined needs for adding faculty members. Recruit faculty members from diverse universities with teaching experience. Maintain strong connections between mentoring groups and governing bodies. Implement an annual self-evaluation program. Maintain a strong connection between students and faculty as well as in-service teachers.
<b>Student Professional Development</b>	Provide more structure for internships and field experiences. Develop a course to prepare cooperative teachers for student teachers. Setup a priority schedule with university making time available for practical experience at university farms. Provide opportunities for students to serve as teacher's assistants in content areas courses. Using university connections (career services) and alumni to help develop the connection inside and outside the curriculum.
<b>Student Recruitment</b>	Foster program recruitment of high school/collegiate students. Make connections with teachers throughout the state. Target underrepresented populations. Balance between research driven and practical application. Personalize the university (size) and take advantage of the reputation of the college (small, family-like, you are known, open door policy).

In addition, the group identified several recommendations for curriculum and instruction (see Table 2). The group identified specific courses that were considered unnecessary or missing within the curriculum of the current program. The overall perception was that all courses in the curriculum should be reevaluated for appropriateness and effectiveness. In addition, recommendations were made for improving the certification options to better meet the needs of the state. Furthermore, the group felt that although resources were available for student professional development, they are not being used to their full capacity. The group recommended specific changes in the opportunities for professional development in order to make better use of the available resources at the university and throughout the state. These recommendations included, designating time to use the university agricultural farms, improved cooperating teacher training and opportunities for students to practice teaching skills within the university. The groups also recommended improving student recruitment efforts by improving connections with secondary teachers and increasing recruitment targets.

**Table 2***The Group's Recommendations for Curriculum and Instruction*

Theme	Recommendations
<b>Courses and Curriculum</b>	Add SAE and FFA course. Implement collegiate SAE project. Add Lab Methods course. Add Ag Sales, Ag Marketing and Ag Management courses. Provide an advanced technology course to replace computer course. Implement courses that focus on teaching the agricultural content. Require the introduction to agriculture education course for freshmen and ensure that it is aligned to the state articulated course. Make room for more electives. Consider offering students course choices for required courses. Consider eliminating rural sociology course. Work to build in courses that count for general education requirements. Utilize feedback from current educators on best practices. Offer online continuing education courses. Offer 1-2 week summer courses for continuing education in agricultural content. Require courses that expose students to diverse cultures. Incorporate methods of instruction and evaluation of instructional strategies earlier in curriculum.
<b>Certification Options</b>	Work with State Board of Education to count more agricultural content courses for other secondary endorsements. Identify courses that count towards additional certifications. Introduce a graduate-level option for provisional teachers.

**Outline of Master Plan for Program Reform**

The program faculty, in collaboration with departmental and college administration, analyzed the recommendations of the group and developed the following action steps as an outline for developing a master plan for program reform.

1. Develop a strategic vision for the agricultural education program.
2. Revise the curriculum to reflect the new vision. Revisions should include but not limited to:
  - a. A defined plan of action for secondary endorsements in core content areas.

- b. Agriculture content courses that teach students how to teach the state career pathway areas.
  - c. Professional content courses that reflect the state teaching standards of diversity, professional communications, educational technology, community outreach, collaborations, reflection and professional development, and instruction and assessment.
3. Develop an undergraduate fellowship program that will:
  - a. Identify high-achieving high school students;
  - b. Recruit them into agricultural education;
  - c. Provide substantive financial support toward a degree in agricultural education; and
  - d. Establish a professional development program from matriculation through the first four years of teaching agriculture that focuses on growth and retention.
4. Build relationships with community colleges that help identify potential students and foster a smooth transition for accepted transfer students.
5. Develop a strategic plan for recruiting quality students who are diverse in their interests, devoted to life-long learning, and dedicated to educating others about agriculture.
6. Create an advisory committee independent of the current departmental external advisory committee that meets twice a year to assess the progress and relevance of the program. This committee should be made up of agents as identified by the AENLC.
7. Deliver high quality residential and distance education programs for graduate students.
8. Provide continuing education opportunities for practitioners. Special areas of interest are:
  - a. Professional Development in agricultural content areas
  - b. Certifying provisionally licensed agriculture teachers
  - c. Novice teacher development and mentoring
  - d. National Board Certification
9. Promote diversity and international programs by developing new partnerships and working with underserved populations.
10. Identify and implement administrative, structural, and programmatic changes for the program that will position it as a viable, credible, and relevant program in the College of Agriculture.
11. Develop a plan of action for tenure-track faculty concerning scholarship, grant acquisition, and promotion and tenure.
12. Utilize academic professionals to facilitate the daily operations of the undergraduate program. Duties shall include teaching courses, advising students, providing professional development opportunities, and maintaining records and reports for the teacher education program.

### **Conclusions and Recommendations**

This Appreciative Inquiry approach yielded important information toward the development of a master plan for reforming the local program. The first set of recommendations call for action by the college governing body. The group determined that most critical to this reform initiative was teacher educator quality and retention. The program has access to many institutional and governmental resources but the high turnover rate in faculty had a large and negative impact on the program. The high turnover rate may be due to the power and social structure that exists locally. The perception of an oppressive environment by the agricultural education faculty may have contributed to the turnover. Although the group discussed this as a possibility based on their personal observations, in the absence of confirmation from former agricultural education faculty, it can only be viewed as conjecture.

The group reported a lack of confidence in the program's ability to effectively train teacher candidates. There was discussion that the consistent decrease in enrollment was due to pervasive negative perceptions of the program by stakeholder groups within the state. The group recognized a need for a strong but diverse teacher education team and impressed upon the program to make it a priority to address faculty issues first. This finding is consistent with the literature that agricultural teacher educators play a large role in the quality of the agricultural teacher education program. In order to diversify the input for agricultural education and provide a range of opportunities to expand and collaborate with other fields of education, a diverse professoriate is necessary. The group recommended determining the most suitable qualifications of desired faculty and establishing a recruitment process to hire these individuals. Furthermore, support mechanisms should be put into place to promote faculty retention, including using clinical faculty and instructors (Zeichner, 2010).

With the foundation of a diverse and knowledgeable team of faculty, the group recommended the program look at the quality of the courses. The group identified unnecessary coursework and recommended removing specific courses or overlapping course requirements so that the curriculum had more flexibility to meet the needs of the individual student without compromising quality. In addition, the group identified holes within the program of study and recommended adding required courses or replacing topics within current courses. Recommendations to improve course offerings are consistent with literature where a review of several studies reported positive relationships between education coursework and teacher performance (Darling-Hammond, Berry, & Thoreson, 2001; Henry et al., 2014). The group also strongly recommended that the teacher educators work closely with content specialists both within and outside the institution, including specialists in the agriculture industry and in-service teachers, to make sure that there is a seamless flow from theory to real-life application.

The next set of recommendations call for action by both the teacher educators and the governing body. Several agents commented that certification options for students need to be re-evaluated and requirements more transparent to potential recruits and in-service teachers. It is perceived that the certification process is disjointed and a series of "hoops" to jump through. In addition, those who have contact with students who may be interested in teaching don't know or understand the process, making it difficult to explain it to their students. A more fluid and transparent certification process would only benefit the recruitment process.

The group also recommended that the program pursue options to allow for secondary endorsements within the 4-year curriculum in other content areas such as science and math. Several studies have asserted that the integration of science into agriculture courses would contribute to education reform at the secondary level by helping students meet state standards, thus supporting the relevance of agricultural education in schools (Warnick, Thompson, & Gummer, 2004). In addition, the group recommended that post-baccalaureate certification options be introduced. More specifically, options for individuals who are interested in full-time graduate studies, those currently teaching under provisional licensure, and secondary agricultural education endorsements for core content teachers. This recommendation also addresses the issue of student recruitment in agriculture in that an increase in the number of highly qualified teachers teaching agriculture content increase the number of students exposed to agriculture earlier, potentially impacting their decisions to stay in the field.

The next set of recommendations targeted the responsibilities of the teacher educators, the mentors, and the content specialist in providing relevant professional development experiences for teacher candidates. The group recommended that both internships and field experiences have more structure in order to offer students specific content knowledge. In addition, teacher training should be offered to cooperating teachers in the areas of effective instructional strategies, authentic assessment of teaching, and fostering a healthy mentoring relationship. The group also recommended that practical experience be offered to students at the university, including experiences assisting in content area courses and university farm experiences. Consistent with the

literature, students need to be exposed to situations where they must act on what they learn so that they can develop a strong professional philosophy focused on students as well as perspectives on practice.

Finally, the group recommended that the program faculty place a larger focus on recruiting students into the program, including working to foster a stronger relationship with current educators in the field. It is important to realize that direct contact with students and teachers is necessary to develop relationships that will lead to successful recruitment efforts. Studies have shown that increasing students' interest in agricultural education will potentially result in more successful recruitment processes and increased student enrollment (Esters, 2007; Harms & Knobloch, 2005; Vincent et al., 2012). Therefore, as agricultural educators work to increase student interest in agriculture, they must broaden their programs in order to target new groups of students and foster new relationships.

In addition to the recommendations provided by the group, there are three general recommendations for the study. First, the local program should continue to work with the agent groups as they develop their master plan for reform based on the outline presented in research objective four. Once the master plan is complete, the program should conduct an analysis of the plan with agents representing the institution and agricultural education at the state and national levels before implementing it. Next, this study should be replicated with other agricultural teacher education programs to investigate outcomes based on variations in local culture and social structure.

Finally, the AENLC model should be taught to teachers for use in school-based agricultural education programs. As a new generation of agricultural educators enters the field, and more demands are placed on them to develop quality programs, it is important that they understand how to assess structural changes and take the necessary measures to ensure that their programs do not become outdated, marginalized, or completely obsolete. With slight changes in the terminology used to identify the agent groups, the systematic process outlined in this study can assist school-based agriculture teachers in utilizing partnerships to understand the nuances of local culture and social structure and build social capital that will be instrumental to the viability of their programs.

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