

The Stakeholders Speak- Directions for the Next Century of Agricultural Education at Auburn University

Brian Parr¹
Murray State University
Murray, KY

K. Adam Aldridge²
Brookwood High School
Tuscaloosa, AL



Abstract

The purpose of the study was to provide a qualitative look at the phenomenon marked by a student developed proposal to relocate the agriscience education program at Auburn University from the college of education to the college of agriculture. Agricultural Education has a long standing relationship as a program within the College of Education (COE) at Auburn University. In fact, Agricultural Education was the original education program that led to formation of the COE. Semi-structured interviews were conducted with representatives from different stakeholder groups to better understand this unique case. Four major themes emerged from the qualitative interviews. The findings of this study are consistent with those found by Knebel (1977) nearly forty years ago. These students did identify closely with other students and their career aspirations from the college of agriculture. Many of them made the impression that they were agriculturalists who were interested in educating young people concerning this broad subject area. Not one participant indicated that they were a teacher whose subject happened to be agriculture.

Introduction

The first record of formal education in the discipline of agriculture in America dates back to the mid-1700s in Georgia. Over the next 200 years, this instruction would be further developed and delivered extensively through the colleges created by the Morrill Land Grant Act of 1862 and a second act in 1890 that established agricultural education in historically black colleges (Gordon, 2008). In 1917 the Smith Hughes Act was passed that established agricultural education as a vocational training context in our public secondary schools (Phipps et al., 2008). This development established the need for properly educated secondary teachers to provide practical and

scientific instruction to high-school boys who enrolled in vocational agriculture courses. The response to this need came in the form of secondary teacher preparation programs in vocational agriculture. These programs were primarily located within Land Grant institutions because of the technical training that was imperative to proper preparation of teacher candidates (Gordon, 2008). Agriculture teacher preparation programs grew naturally into what would become colleges of agriculture within their respective universities. The vast majority of the teacher preparation programs would remain within the colleges of agriculture even after colleges of education containing other teacher preparation programs were formed. However, during the late 1970s and throughout the 1980s a trend developed where several agriculture teacher preparation programs were consolidated into teacher education departments with other teacher preparation programs that were located within colleges of education. This move was met very often with opposition from faculty, students, and other stakeholder groups (Knebel, 1977) within the field of agricultural education. This trend sparked a national debate concerning the appropriate home for agricultural education programs. This debate even played out partially within the pages of the research journal the Journal of the American Association of Teacher Educators in Agriculture (now known as the Journal of Agricultural Education). In 1977, two articles were published that presented each side of the debate. Knebel argued that the rightful home for agricultural education was in colleges of agriculture while Binkley argued that the most appropriate home for agricultural education was within the college of education. This debate continued up into the early 1980s in this journal. In 1981, the debate focused on the impact of forming agricultural and extension

¹Professor and Head, Department of Agricultural Science, Hutson School of Agriculture, 212 Oakley Applied Science South, Murray, KY 42071; Phone:270.809.2966; Email: bparr@murraystate.edu

²Agriscience Instructor

The Stakeholders Speak-

education departments (Shinn and Cheek) which were located within colleges of agriculture countered with the position of including agricultural education in vocational education departments (Smith and Gassie) which were commonly located in colleges of education. The prevailing stance that would shape the next two decades for many agricultural education programs was that agricultural education should reside within colleges of agriculture. Subsequently, there were efforts on the part of most of the programs that were consolidated to regain their membership in the respective colleges of agriculture. Most of those programs were successful in their attempts to return to their previous homes in the college of agriculture. In 2014, there were 97 Agricultural Education programs in the nation. Of those 97 programs, 92 were located in colleges of agriculture according to their websites.

The return to colleges of agriculture has seemed to bring positive improvements and growth in the programs. In the last two decades, many agricultural education departments have expanded beyond the traditional agriculture teacher and extension educator programs to include degree options in agricultural communications and agricultural leadership. Tucker et al. (2003) recommended that agricultural education and communications programs work collaboratively for the benefit of the programs and ultimately, the students. This recommendation was built on the premise that the two programs were located in the same department. Further, agricultural leadership programs have shown much growth in many colleges of agriculture across the nation. In 2014, one college of agriculture even boasted of over 1,000 students in an agricultural leadership program (Texas A&M). The growth of many agricultural education programs appear to be related to their relative location within colleges of agriculture. However, there is another model that has rarely been described in agricultural education programs.

The Unique Case of the state of Alabama and Auburn University

Currently, the agriculture teacher education program at Auburn University is the only such program in the state. Previously, agriculture teacher education programs were located at both Tuskegee University and Alabama Agricultural and Mechanical University. Both of the aforementioned institutions are historically black (HBCUs). Auburn University is home to one of the five programs nationally that are not housed in the Colleges of Agriculture (COA). Agricultural Education has a long standing relationship as a program within the College of Education (COE) at Auburn University. In fact, Agricultural Education was the original education program that led to formation of the COE. The College of Education was founded in 1915 at what was then called the Alabama Polytechnic Institute. The University was officially named Auburn University in 1960. This humble beginning was launched with a single teacher preparation plan in a University that was largely still providing

education in agricultural and mechanical skills. In the years to follow, other teacher preparation programs such as math education, science education, music education and various others would be developed and implemented. These programs all shared the same common goal of preparing k-12 school teachers and therefore were held to similar state department of education regulations concerning the certification of school teachers. These teacher preparation programs have remained a cohesive unit in the College of Education which is still home to all teacher preparation programs at the University. Therefore, there is no institutional memory of being transplanted from the COA to the COE as there was in several other institutions. These facts would provide rationale that perhaps the faculty, students, administrators, and other stakeholder groups were satisfied with the location of the program.

However, a tension can be detected concerning the location of the program very quickly when talking to current students and alumni of the program. We, the authors, have been associated with this program for six years (as a professor) and ten years (alumni and agriscience teacher) respectively. One of the earliest memories of interaction with alumni of this program and state staff members included very distinct conversations concerning their wish for the Agriscience Education to be moved from the college of education into the college of agriculture. Several stated that they believed that this move would bring benefits ranging from increased student enrollment to a freedom from an imposed curriculum model that was ill-fitted for agricultural education teachers. It was obvious to us that they believed that this move was a type of “silver bullet” that would solve many problems. Conversations such as these provided adequate information concerning a suspicion of a level of displeasure with the location of the Agriscience Education program even though it had been the original program in the college of education. The event that solidified this concern of wide-spread concern would come in the form of a petition originated by students to have the program relocated into the college of agriculture.

Other important infrastructure concerning agricultural teacher preparation include a group of Alabama State Department of Education staff members (4) that are responsible for providing in-service training and technical support for the 310 secondary agriscience education teachers across the state. This group is also responsible for the leadership and administration of the robust student organization that is integral to secondary agricultural education known as the FFA (formerly Future Farmers of America). This student organization consists of over 15,000 (Alabama FFA, 2014) members in Alabama and upwards of 600,000 nationally (National FFA, 2014). In addition to the state staff, Alabama developed a “Team Ag Ed” in 2006 that brings stakeholders from secondary agricultural education, agricultural industry, state department of education, secondary students, and teacher preparation candidates together as

an advisory group to serve secondary agricultural education in the state (P. Paramore, personal communication April 5, 2015). Each of the stakeholder groups mentioned above have voiced concerns over the years concerning the location of the agriscience education program. In fact, one of the stated goals found within the mission of the Team Ag Ed organization included a specific attempt to relocate the program into the college of agriculture.

Statement of the Problem

Over the last several years, we have witnessed the constant barrage of comments from various members of each stakeholder group concerning their desire to see the agriscience education program at Auburn University moved from the college of education to the college of agriculture. Recently, every undergraduate student in the Agriscience Education major at Auburn University signed a petition to move the major from the COE to the COA. The students were organized by a graduate student who prepared a very elaborate proposal outlining the reasons why he believed that the move would be beneficial. Consequently, this graduate student scheduled meetings with students, faculty, and administrators in both colleges to explain the proposal. However, this proposal was met with opposition. This issue is very complicated and has to be viewed from several vantage points to fully understand. A better understanding of the concerns and demands could provide alternative options for solving a complex problem. Further, the enrollment in the program has increased substantially over the last 6 years but has not kept pace with the demand for agriscience teachers in the state. Perhaps a better understanding of the experiences of agriscience education stakeholders could provide insight concerning the shortage of students who are seeking degrees in agriscience education.

Purpose and Research Questions

The purpose of the study was to provide a qualitative look at the phenomenon of a student developed proposal to relocate the agriscience education program from the college of education to the college of agriculture. The student proposal provided a rational assumption that a large group of program stakeholders perceive various benefits with a move from the COE to the COA. The major benefit that was highlighted in the proposal was a potential increase in enrollment that the stakeholders believed would follow the move. The purpose of this study was to allow those stakeholders a voice in sharing the benefits that they perceived balanced with the position of those that felt that the program should remain in the College of Education. The larger purpose was to determine if the experiences associated with the location of the program may have a bearing on the number of students that choose to major in agriscience education at Auburn University.

The research questions that guided this study were:

- What are student and alumni lived experiences relative to the location of the Agriscience Education program at Auburn University?
- What were stakeholders' perceptions concerning the call for a relocation of the agriscience education program?
- What steps could be identified to better serve the stakeholders needs/desires from the Agriscience Education program?

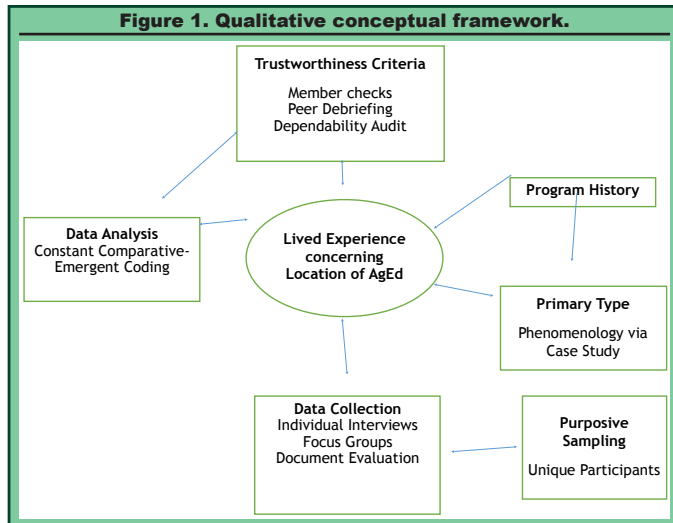
Theoretical Framework

The theoretical framework that underpinned this study was taken from Rogers' Diffusion of Innovations theory (Rogers, 2003). The particular aspects from the theory that guided this study was the attributes of what Rogers' termed as an innovation that influence potential adopters. In the context of this study, the innovation was the decision to enroll in an agricultural teacher education major at Auburn University. A disparity exists between the level of student enrollment and the potential job market in the state. At the time of this study, approximately 25 teaching jobs were opening up every year while only 12-15 students were graduating with degrees in agricultural education and only 10-12 of those entered the teaching field. Rogers identified five major attributes of an innovation that must be considered when evaluating the adoption of any innovation. Those attributes included: relative advantage, complexity, trialability, compatibility, and observeability. Rogers determined that these five attributes must be examined when attempting to diffuse any innovation throughout a social system (Rogers, 2003). The particular attribute that framed this study was compatibility. Rogers said that if a person perceives that an innovation is not compatible with their own belief system or perspective, then an adopter will be much more hesitant to accept the innovation. Specifically, within the context of this study, the attribute of compatibility was examined as a possible barrier to adoption because of the student petition that had recently been signed calling for a move of the agriscience education program from the college of education to the college of agriculture. This document provided reason to believe that the students believed that enrolling in a college of education may not be compatible with their background and expectations. In this situation, both adopters and non-adopters were found within the group of stakeholders. The interviews were designed to reflect the participants lived experiences concerning the decision to enroll in the major and their perceptions concerning the decision of others. By examining the data collected from participants in this study through the lens of Rogers' diffusion of innovations theory, we were better able to connect the interview data with possible experiences concerning the choice to enroll in the major.

Conceptual Framework

Based on the work of Dooley (2007), the following conceptual framework was constructed to guide the

The Stakeholders Speak-



study. The research problem that was addressed through qualitative measures centered on the unrest associated with the location of the agriscience education program at Auburn University that was brought to light via the phenomenon of the signed petition calling for the move of the program from the college of education to the college of agriculture. The aspects that were pertinent to the investigation of this topic are represented in Figure 1.

Methods

Semi-structured interviews were conducted with representatives from different stakeholder groups to better understand this unique case. This study was classified as a case study based on the boundary of location for the agriscience education program within the college of education and the uniqueness of such location (Dooley, 2007). With nearly all programs in the United States being located in colleges of agriculture, the students and other stakeholder groups face unique challenges that may shape their lived experience within this defined context (Miles and Huberman, 1994). Participants were purposefully chosen (Creswell, 2007) based on their involvement with the agriscience education program and came from five stakeholder groups. Those groups included current undergraduate and graduate students, alumni, state staff, faculty, and agricultural industry professionals. Many of the participants were members of Team Ag Ed at the time of the study. A total of eight students were interviewed as well as two state department of education representatives who were also alumni of the program, two current teachers who were also alumni, and four stakeholders from agricultural industry. Also, as a professor in the program and an alum, have included our experiences as further data for analysis as our intimate involvement with this program has resulted in a certain “connoisseurship” that allowed us to better understand this case (Eisner, 1991). Representatives from each of these stakeholder groups were involved to establish corroboration or triangulation that provided a more accurate description of the participants’ experiences.

The interview procedure was developed per Creswell’s (2007) recommendations. A face-to-face interview protocol was chosen so that we could gather data from both spoken and unspoken communication. The interviews with undergraduate students were held via two focus group sessions. We believed that students would be more willing to share their experiences when in a group that could reduce the unintended coercion or intimidation that we may have presented as their professor and faculty advisor. Two graduate students were interviewed one on one. The interview with alumni and agricultural industry professionals was also conducted via focus group. The two state department officials were interviewed individually.

The participants were informed that this project was a research project that it may hold implications for systematic program improvement. The interviews were based on general questions concerning the perceptions of the implications associated with the location of the agriscience education program at Auburn University and the perceptions associated with the proposed move to the College of Agriculture. The interviews will take approximately one hour each. Memoing (Miles and Huberman, 1994) was employed both during the interviews as well as during analysis as we began to notice possible connections and threads that seemed to connect pieces of data. Following the transcription of the interviews, member checks were used to insure accuracy of transcription. Next, the data were evaluated to search for themes and sub-themes that may serve to answer the research questions. To further establish credibility, peer debriefing was employed at various stages of the process with a faculty member that had very little knowledge of the program (Lincoln and Guba, 1985). The acknowledgement of the researchers’ bias was described to establish confirmability (Lincoln and Guba, 1985). Emergent coding was employed to examine the data for recurring themes from the group of interviewees (Creswell, 2007). Conclusions were drawn based on the themes that emerged and recommendations for practice and further inquiry were made.

Acknowledgement of Potential Researcher Bias

We are obviously very close to this situation as a professor in the agriscience education program and a teacher/alumni within the state. Further, we must disclose that five of our six combined degrees were obtained through agricultural education programs in colleges of agriculture. When I (author 1) first considered coming to Auburn University, I decided not to apply because the program wasn’t located in the college of agriculture. The initial search for my position resulted in a failed search that was launched the following year and I decided to “take a chance” on a program located in a college of education. If I had been asked during the first few months of my employment with Auburn University, I would have stated that I believed that agricultural education programs should be housed within colleges of agriculture.

Results- Emergent Themes

Theme 1

The move has been long anticipated- The first theme that emerged from all groups was the anticipation of this move from the college of education to the college of agriculture. Several of the alumni and the state staff members as well as the agricultural industry professionals indicated that this proposed move was something that they had desired and actually worked toward for years and even decades. Henry is an upper level executive in the Alabama Farmers Federation (ALFA) Henry was very instrumental in establishing the Team Ag Ed organization and has been involved in agriscience education throughout the state for many years. In fact, Henry even served on the search committee for the position that I (author 1) currently hold. Henry was also instrumental in lobbying the state legislature for an appropriation of three million dollars to be awarded to agriscience education teachers for extended duties including professional development and attendance at student FFA events that occur outside of the normal school day. It would be a grave understatement to say that Henry is an influential man in the field of agriscience education in Alabama. He is a very politically savvy man that holds the respect of many groups involved in Alabama agriculture. During the interview, Henry indicated that this move was something that "had been a stated goal of Team Ag Ed since its inception". Henry went on to describe how he and others had gone as far as meeting the president of the university and the deans of the two colleges to work out a plan to move the degree program. He stated that these plans had been put on hold when both colleges underwent changes in leadership four to five years ago. Harris is the state department leader for agriscience education and a former agriscience classroom teacher as well as an alum of the agriscience education program at Auburn University. Harris stated that his office has been trying to support a move such as this for a number of years. Harris went on to say that he had even hoped that this move may have been made before he graduated over 15 years ago. This theme also resonated among many of the students interviewed. Several interviewees asked if this move could possibly come to fruition before they graduated. One graduate student, Tom, went as far as to state that "if my master's diploma will read 'College of Agriculture' when I graduate in August, I will burn my undergraduate diploma." As a faculty member, I too have anticipated that a proposal to carry out this move would surface for the last six years. As I talked with each stakeholder group over the first few months on the job, it seemed that each one wanted to take me aside and explain their desires and rationale for moving the agriscience education program out of the college of education and into the college of agriculture. This theme emerged with nearly every interviewee.

Theme 2

Residing in the college of education is a recruitment problem- Frances is a young professional who is also employed by ALFA who graduated from the college of agriculture five years ago with a degree in agricultural communications. Frances stated clearly that she "did not major in agriscience education solely because it was not in the college of agriculture." In a follow-up conversation, Frances went on to explain that she was the product of a very strong agricultural background. Her father was a cattleman and she was actively involved in the FFA in high school, especially in showing cattle. She said that agriculture was her identity and that she did not want to have to forfeit that identity by choosing a major that was outside of the college of agriculture. Olivia is a junior in agriscience education that changed her major after her sophomore year from animal science. Olivia stated "I almost didn't change to agriscience education because it wasn't in the college of agriculture." Olivia told the story of how she sat down with an academic advisor to discuss her major change and realizing for the first time that agriscience education wasn't in the college of agriculture. Olivia said that she immediately stopped the process when this became apparent and she asked the advisor if they could resume the process after she met with me. I talked to Olivia that day and assured her that this was normal procedure and that she would still attend many classes in the COA and could even apply for most of their scholarships. Olivia made the decision to change to agriscience education but not without great internal struggle. Harris also supported this theme by describing the loss of students to Mississippi State University where the ag ed program is located in the college of agriculture. He stated that this is a major selling point to Alabama students. Harris told of how several former state FFA officers had chosen to attend MSU largely because of the location of the program. Jack is a student who was very active in the FFA as a high school student and is now active in recruiting other FFA members into agriscience education at Auburn. Jack has attended several recruiting events along with college of Ag recruiters at various FFA events. Jack said, "the location of our program causes a lot of confusion in high school students." He went on to explain "they see all of the events put on by the college of ag and all the invitations to become a member of the COA family only to find out that they will be kind of a step-brother if they choose to major in ag ed since it isn't in the College of Agriculture." Hannah is an alternative master's student in agriscience education who completed her undergraduate in animal science. Hannah stated in her interview that she chose to pursue an animal science degree first so that she could have the whole "COA experience" even though she knew that her ultimate goal was to teach. As a professor in the program and an alum, we do feel that this is the major concern with being located in a COE. We have personally talked to many potential students that desperately want to be identified with agriculture and it has definitely affected their decisions concerning a major.

The Stakeholders Speak-

Theme 3

Moving colleges will affect course work requirements- Rhett is an alum of the program and shared some thoughts on the problems associated with the program's location. Rhett said, "we need to quit having to take all of those useless classes." Rhett went on to explain that he had to take a class called "Great Books" that did not benefit him as an agriscience teacher. When we followed up on the question, it became apparent that Rhett was referring to core courses that are required of all students. Several students held similar points of view concerning college of education related course work. Ashley is a senior who stated "I don't think we need to take all of those foundation classes that the college of education requires." Ashley went on to explain that she didn't feel like the classes were applicable to agriscience teachers. This theme also resonated with Tom, a graduate student who believed that a move would change the course requirements. Tom said "I think we are seen as second rate citizens in those foundations classes." We probed further concerning this statement and Tom told me that it wasn't the instructors of the courses that made him feel that way, it was the other students. He couldn't or wouldn't provide specific examples of instances that shaped these feelings but he said "I just think they [the other students] look down on us."

As a professor in this program, I understand that the core is simply the core, the same for everybody. I also understand the standards that are presented in the COE courses that all future teachers take and that the state department rightfully demands that they be upheld. It is my position that the beliefs that the course work would change substantially if a move were to take place are largely unfounded.

Theme 4

A double major could be a happy medium. The vast majority of teacher preparation programs at this university lead to double-major degrees. For example, mathematics education students are double majors in the College of Science and Mathematics. This allows students to gain the necessary technical expertise along with the pedagogical strategies. Each interviewee was questioned concerning the creation of a double major between the COE and COA for agriscience education students. Carson is a graduate student who believed this strategy could hold some merit. Carson said, "it's not exactly what I was hoping for when I signed the petition, but it could be a good step." Danielle is a senior that was currently doing her teaching internship when she was interviewed. Danielle said, "*yes! I would have loved to be a double major, that would have made me feel more at home in the COA instead of just an outsider who was taking a bunch of courses there.*" The problem that came up with this option is that this isn't a quick fix like transplanting may be. This was evident in Tom's response. Tom said "*yeah, I guess that having a double major would be good but there isn't one that we could do right now in the COA and who knows how long that*

would take, I will probably be long gone." The general reaction among all interviewees concerning the possible double major was very positive. We too believe that this could be the solution to this specific case. The creation of a double major will allow students to be majors of both colleges which will fulfill their need to identify with the culture and technical nature of the COA while simultaneously honing their craft of teaching through pedagogical instruction in the COE.

Discussion, Recommendations, Implications

The people in this study made it very clear that the anticipation of this proposal to move Agriscience Education from the COE to the COA has been long and often frustrating. This was evident in the gestures and words that each provided when questioned about their experience as an Agriscience Education stakeholder. Great descriptions were provided that illustrated the challenges associated with recruitment into the program. While the participants experience with coursework that they attributed to being a part of the COE may not be totally accurate, it was certainly an emergent theme. And, the positive response to the questions concerning the implementation of a double major provides implications for future guidance in the program.

While it was no surprise that the anticipation of this type of move existed, it was striking as how prevalent this theme actually was among students. Each interview with students started with a brief introduction followed by showing the participants a copy of the proposal which contained their signature and simply asking them to "tell us about this." A very common response was "this is something I have been hoping for a long time". Some students had even started their degree program in hopes that they would graduate from the COA with an Agriscience Education degree. The pervasive nature of these responses obviously exhibits that this issue is something that most, if not all Agriscience Education students seriously consider on a regular basis. If this is something that is so common in their thoughts, it stands to reason that it is an issue that should be addressed.

However, the most concerning theme was that of the negative impact that the location of the program may be having on recruitment into the program. There is a definite shortage of well qualified agriculture teacher applicants in our state and Auburn University is the sole supplier of these teachers. Something must be done to close this gap through recruitment of more potential teachers into the Ag Ed program before drastic consequences are realized in the secondary agriscience education programs.

Participants' reactions concerning the COE coursework was also concerning. It seemed that there was simply some misunderstanding. We did pick up on an attitude that blamed all courses that the participants didn't find particularly useful on being housed in the COE. This is also an issue that should be addressed.

Finally, the creation of a double major appears to be a way of bringing these stakeholder groups together

on this issue. The creation of the double major may be exactly what is needed in this specific case. This will allow the students to be majors of both colleges which may fulfill their need for identity. We did not hear any participant refer to the need for the Agriscience Education faculty members to answer to an administrator in the COA. It seemed that the only concern was the students' perceptions of how they were received in their classes by COA peers and professors as well as their eligibility for agricultural scholarships.

The findings of this study are consistent with those found by Knebel (1977) nearly forty years ago. These students did identify closely with other students and their career aspirations from the college of agriculture. Many of them made the impression on me that they were agriculturalists who were interested in educating young people concerning this broad subject area. Not one participant indicated that they were a teacher whose subject happened to be agriculture. Our reflections are very similar to that of the students, we were first hooked by the exciting field of agriculture and later came to love and further appreciate our role as an educator. Further, Knebel (1977) noted a trend in decreased enrollment that he attributed to the location of the programs in the COE. The finding from this study related to the difficulties associated with recruitment of students due to the location of the program certainly echo his sentiments.

Based on the findings of this case study, it is recommended that the administrators in both colleges make every effort to bring this double major to fruition for the benefit of current and future students. This finding also supports earlier recommendations. Knebel (1977) expressly stated that the best option for agricultural education was to be delivered through a cooperative manner between the colleges when he said,

The reader should not interpret the arguments to imply teacher education in agriculture should be divorced from the college of education, nor should agricultural education be separated from any other viable coordinated teacher education administrative unit within the university. In fact, given the choice of alternatives, the writer would opt for a closely coordinated interdisciplinary affiliation with the college of agriculture, and its subject matter departments in agricultural sciences, and also closely associated with the college of education and its professional teacher education departments (p. 10).

Further, it is recommended that the administrators of the Agriscience Education program make it very clear that the wishes of the stakeholders have been heard and that action will follow to help improve this situation. It would also be beneficial for administrators of the program to explain the nature of the academic "core" as well as the state department of education standards that are presented in each of the courses delivered through the COE that would remain intact even if a move should take place.

This study should be followed up with examinations of other programs that may have experienced similar challenges and especially with those who have adopted a double major to evaluate the benefits or hurdles that have been encountered.

Literature Cited

- Alabama FFA Association. 2014. The FFA reporter. From www.Alabamaffa.org
- Creswell, J.W. 2007. Qualitative inquiry and research design: Choosing among five approaches. (2nd ed.). Thousand Oaks, CA: Sage.
- Dooley, K.E. 2007. Viewing agricultural education research through a qualitative lens. *Journal of Agricultural Education* 48(4): 32-42. DOI: 10.5032/jae.2007.04032
- Eisner, E.W. 1991. *The enlightened eye: Qualitative inquiry and the enhancement of educational practice*. NY: Macmillan.
- Gordon, H.R.D. 2008. *The history and growth of career and technical education in America*. (3rd ed.). Long Grove, IL: Waveland Press.
- Knebel, E.H. 1977. Teacher education programs in agricultural education should be located in colleges of agriculture. *Journal of Agricultural Education* 18(3): 3, 7-10, 32. DOI: 10.5032/jae.1977.03003
- Miles, M.B. and A.M. Huberman. 1994. *Qualitative data analysis*. (2nd ed.). Thousand Oaks, CA: Sage.
- Lincoln, Y.S. and Guba, E.G. 1985. *Naturalistic inquiry*. Thousand Oaks, CA: Sage.
- National FFA Organization 2014. FFA statistics. From www.ffa.org
- Phipps, L.J., E.W. Osborne, J.E. Dyer and A. Ball. 2008. *Handbook on education in public schools* (6th ed.). Clifton Park, NY: Thomson.
- Rogers E.M. 2003. *Diffusion of innovations* (5th ed.) New York: Free Press
- Shinn, G.C. and J.G. Cheek. 1981. Agricultural teacher education functions can be delivered more effectively through a department of agricultural and extension education. *Journal of Agricultural Education* 22(2): 3-8, 63. DOI: 10.5032/jae.1981.02003
- Smith, C.W. and E.W. Gassie. 1981. Agricultural teacher education functions can be delivered more effectively through a department of vocational education. *Journal of Agricultural Education* 22(2): 3-8, 63. DOI: 10.5032/jae.1981.02003
- Tucker, M., S.R. Whaley and J. Cano. 2003. Agricultural education and agricultural communications: Striking a proper balance in the academy. *Journal of Agricultural Education* 44(1): 22-30. DOI: 10.5032/jae.2003.01022