

A Profile of Agricultural Education Teachers with Exemplary Rural Agricultural Entrepreneurship Education Programs

Seth B. Heinert¹ & T. Grady Roberts²

Abstract

Rural entrepreneurship education programs may be a great tool for enhancing rural livelihoods and reducing rural outmigration. Entrepreneurship has received attention in school based agricultural education, primarily through implementation of Supervised Agricultural Experience (SAE) programs. Very little research has looked at the teaching of entrepreneurship. As a part of a larger research project, this study looked at characteristics of teachers who implement exemplary rural agricultural entrepreneurship education programs. Results revealed that teachers: (a) were experienced, (b) held advanced degrees, (c) had prior experience with entrepreneurship, (d) generally were considered outstanding teachers, and (e) were described as being open minded and enthusiastic. Recommendations are made based on these conclusions.

Keywords: entrepreneurship; agricultural education; rural; teachers

Introduction

Youth, the world over, have been leaving rural areas and have shown a general lack of interest in agriculture as a livelihood (Bennell, 2010; FAO, 2010; USDA, 2015). Programs that teach agricultural entrepreneurship education to youth have existed (Acker & Gasperini, 2009; Phipps, Osborne, Dyer, & Ball, 2008). Entrepreneurship in agriculture may hold the key to engaging rural youth in agriculture and helping to stem the outflow of rural youth to urban areas. However, little is known about effective programming with this topic for this unique audience.

Agricultural entrepreneurship opportunities have existed in rural areas around the world. Whether it has been selling lavender plants in rural Washington state (Markley, Macke, & Luther, 2005) or raising poultry in Paraguay (Acker & Gasperini, 2009), entrepreneurship opportunities have abounded in rural areas all across the globe. Today, entrepreneurship has been promoted in agriculture by the Farm Bureau (2015), United States Department of Agriculture, USDA, (n.d.), and the United Nations (n.d.). Despite these seeming endless business ventures, few youth have entered agriculture as entrepreneurs. Engaging youth has been critical, especially in important industries such as agriculture, as they represent a growing segment of society worldwide and are, quite literally, the future decision makers.

The United States has had a long history of engaging youth in agriculture and entrepreneurship ventures through school-based agricultural education and youth programs such as FFA and 4-H (Phipps et al., 2008). In a unique tripartite teaching platform, agricultural education has been taught through the classroom and laboratory setting, supervised agricultural experience programs (SAE) and leadership development and competition through involvement with the FFA

¹ Seth B. Heinert is a high school agricultural educator at Ogallala High School 801 East O St., Ogallala, NE 69153, sethheinert@opds.org.

² T. Grady Roberts is a Professor of Agricultural Education at the University of Florida, PO Box 112060, Gainesville, FL 32611, groberts@ufl.edu.

(Phipps et al., 2008). A balanced agricultural education program has all three components and is represented by the central portion of the overlapping circles.

Through their SAE, students in most states have been required to have a personalized program, which can mean starting and running their own business, called an entrepreneurship / ownership SAE (Phipps et al., 2008). Students would take the necessary steps to invest their time and money to starting the enterprise, keep records on the operation, and be able to apply for awards for increased levels of efficiency through the FFA awards structure. Students would also learn skills and knowledge relevant to their operation through classroom and laboratory instruction, which helped further improve their entrepreneurship endeavors. For nearly twenty years an award was given through the National FFA Organization called the Agri- Entrepreneurship Award for the most outstanding entrepreneurship enterprise in agriculture from around the nation for students enrolled in agricultural education, but this award was cancelled in 2010 (K. Keith, July, 2015, personal communication).

Entrepreneurship education programs in agriculture can develop entrepreneurial thinking and skills (Valerio, Parton, & Robb, 2014), yet the characteristics of exemplary entrepreneurship programs have been unknown. Co-curricular and extracurricular programs have offered likely structures for capacity building of youth in competencies of entrepreneurship (Daniel & Kent, 2005; Morris, Kuratko, & Cornwall, 2013). While it has been documented that entrepreneurship programs can foster improved entrepreneurial thinking and skills, characteristics of exemplary rural agriculture entrepreneurship programs have been generally undocumented. This study fills part of the knowledge gap on the phenomenon of rural youth agricultural entrepreneurship education programs. It is acknowledged that entrepreneurship is an accepted form of SAE and has received some attention in the empirical literature (see Rank & Retallick, 2016 for a good synthesis of the research; Roberts & Harlin, 2007 for a good summary of the theory). This study, however, focuses on the *teaching* of entrepreneurship, which has not received much attention in the agricultural education empirical literature. This study will begin to address this deficit and aligns with Research Priority Areas 3 and 6 of the *AAAE National Research Agenda* (Roberts, Harder, & Brashears, 2016).

Conceptual Framework

The conceptual framework for this study (see Figure 1) is an adaptation of the one developed by Valerio et al. (2014) “in order to analyze a global sample of entrepreneurship education and training programs based on available evaluations” (p. 5). Their model consisted of programmatic characteristics, participants, and context as three separate constructs all encircling outcomes, which is a fourth construct. Each construct consisted of several sub-constructs.

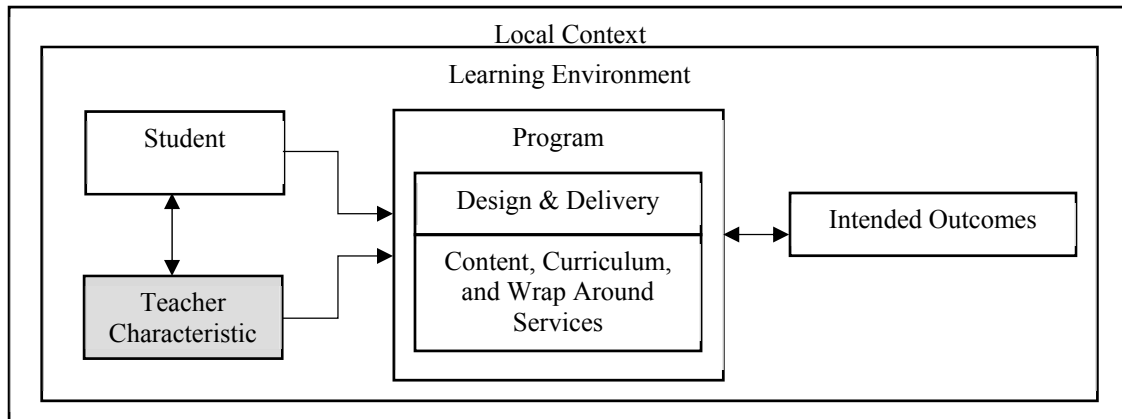


Figure 1. Conceptual model to study rural agricultural entrepreneurship education.

The program context construct included sub constructs of economic, political, and cultural context. The participant characteristics construct was intended to capture the “moderating influence of what participants bring with them coming into a program” (Valerio et al., 2014, p. 4). This included sub constructs of the individual’s profile, basic demographic identifiers and personality factors or traits, education, interest and intentions and behaviors while enrolled. Outcomes were divided into four domains: entrepreneurial mindsets, entrepreneurial capabilities, entrepreneurial status, and entrepreneurial performance. This model was used to guide a series of studies. The specific focus of the current study was on teacher characteristics.

A review of the literature focused on rural agricultural entrepreneurship education programs in the United States revealed a significant gap, especially when looking at characteristics of teachers who implement these programs. Several studies about teacher characteristics have come out of Finland. Ruskovaara and Pihkala (2013) studied 521 high school teachers in Finland to determine classroom practices used in entrepreneurship education. They found practice varied based on teachers’ perception of their own entrepreneurship competency (Ruskovaara & Pihkala, 2013). The most frequently used methods were “discussions about current financial news, the effects of different financial measures, and entrepreneurship related to the subject taught” (Ruskovaara & Pihkala, 2013, pp. 208-209). Many teachers used stories about entrepreneurs and entrepreneurship related teaching materials, but few used visits to business (Ruskovaara & Pihkala, 2013). Teachers who had attended training on entrepreneurship education were more likely to take an active approach to implementing active learning strategies to their own entrepreneurship education courses (Ruskovaara & Pihkala, 2013). “Teachers who took part in training were three to four times more advanced in their use of entrepreneurship education methods” (Ruskovaara & Pihkala, 2013, p. 212). Finally, they found that teachers who felt they had no entrepreneurship education skills used more abstract teaching methods such as discussion whereas teachers who perceived they had more advanced skills used more challenging methods such as projects, entrepreneurship games, and discussions based on the economy (Ruskovaara & Pihkala, 2013).

Seikkula-Leino, Ruskovaara, Ikavalko, Mattila, and Rytkola (2010) focused on the reflection practices of high school teachers in Finland. Through analyzing the reflective writing of teachers about entrepreneurship education, they found teachers were seeking coordination between subjects for implementing entrepreneurship education (Seikkula-Leino et al., 2010). Teachers also were confused between the goals and methods of instruction and had a limited scope of what constituted entrepreneurship education (Seikkula-Leino et al., 2010).

One study focused on teacher attitudes and intentions toward entrepreneurship education. Ali, Topping, and Tariq (2009) surveyed prospective teachers at seven universities in Pakistan on their entrepreneurial inclinations. They found the majority of pre-service teachers to have positive intentions toward entrepreneurship (Ali et al., 2009).

While more studies are needed concerning teacher characteristics for entrepreneurship education, some trends persist for the studies that were available. Generally, teachers' personal characteristics did have an impact on what was taught as well as the degree of effectiveness of instruction in the entrepreneurship education classroom (Ruskovaara & Pihkala, 2013; Seikkula-Leino et al., 2010). Further, teachers appeared to be open to the prospect of teaching entrepreneurship (Ali et al., 2009).

Purpose

Entrepreneurship can be a great way to attract more young people in to agricultural careers. The broader purpose of this research was to explore exemplary rural youth agricultural entrepreneurship education programs in the U.S. Specifically, the objective of this study was to describe key teacher characteristics in these exemplary programs. The outcomes of this research have implications for preservice and inservice teacher education.

Methodology

This study used a case study design. This study consisted of three separate case studies from the United States. Case study research involves defining a case set within a bounded system (Creswell, 2013). A case is bounded in that parameters of time, place, or physical boundaries are put in place to define it for research and description (Creswell, 2005). Case studies are "intensive descriptions and analyses of a single unit or bounded systems such as an individual, program, event, group, intervention, or community" (Merriam, 1998, p. 19).

Case Selection

Cases selection began by seeking geographic diversity through reaching out to a broad group of representatives from the National FFA organization Local Program Success, the National 4-H Council, leaders of non-profit organizations focused on rural youth engagement, faculty at universities, and state FFA staff to gain a better picture of the current status of rural agricultural entrepreneurship education. Many states were recommended, but the states of Texas, Nebraska, and North Carolina were frequently suggested. These states were ultimately selected because they represent: (a) geographic diversity, (b) a variety of total state populations, and (c) ultimately would yield the maximum diversity of perspectives given the very narrow parameters initially established to identify target states.

State leaders in these three states were asked to nominate ten programs meeting the following criteria: (a) program participants are youth between the ages of 15-24; (b) agriculture is the context for teaching entrepreneurship; (c) the majority of participants live in rural communities (less than 2,500 people; USDA, 2013); (d) the program is co-curricular or extracurricular and program participants must be full time students in some form of formal education (either secondary or vocational school); (e) at least 75% of students are engaged in entrepreneurial activities; and (f) the instructor is actively teaching entrepreneurship.

Ten programs in Texas, nine programs in Nebraska, and ten programs in North Carolina were initially identified by those states' respective leaders. Contact was made with each of the

program teachers via electronic mail establishing a time for a phone interview. The researcher conducted a phone interview with each of the program teachers to gather evidence that the program met the previously established criteria. Teachers who were uninterested in participating in the study were removed from the list. Several programs were also removed because although they had robust SAE programs, they were not actively *teaching* entrepreneurship.

Following the phone interviews, final consideration was given and ultimately three sites (one per state) were selected to include in this study. This was based on the likelihood of collecting necessary data to meet the purpose of the research and three distinct cases to examine (Merriam, 1998). With the programs selected, the teachers were contacted and dates for the site visit established. The programs and teachers were given pseudonyms to protect their anonymity.

Data Collection and Analysis

Data collection occurred through three-day site visits to each program by the lead researcher. All activities had IRB approval from [university]. Data included (a) semi-structured interviews with the teachers in each program; (b) semi-structured focus groups with students in the program, and (c) participant observation captured through field notes. Data for this study were analyzed using the constant comparative method as prescribed by Lincoln and Guba (1985). Data were analyzed using MAXQDA.

Teacher interview questions focused on: (a) the personal background of the teacher, (b) teacher perspectives of the importance of teaching entrepreneurship, and (c) the entrepreneurship backgrounds of the teachers. Student focus group questions focused on how the teachers taught entrepreneurship. Direct observations from the researcher focused on evidence of what contributed to teacher effectiveness in teaching entrepreneurship.

Trust and Rigor

Multiple sources of data were used in this study to corroborate findings and were used as a form of triangulation (Merriam, 1998). Generally, the more time spent in the setting of the study the more likely it is that the researcher will be able to accurately reflect the reality of the local situation. Research was gathered over three consecutive days on site with multiple hours spent each day interviewing or observing. Next, reflexivity, or issues of the researcher's personal bias obstructing the data, was limited through extensive memoing between the lead researcher and a second off-site researcher. Finally, member checking, or presenting initial findings to the participants to check that their responses were understood and recorded properly was used at the conclusion of every interview and focus group. Additionally, on the final day, a more thorough debriefing session with the teacher was held in order to summarize initial findings in a more holistic manner. As a final form of member checking, a draft of the final case study was e-mailed to each of the primary teachers for verification of accuracy.

Subjectivity Statement

At the time this research was conducted, I was a PhD student at [university] and a former agricultural education teacher, teaching in the U.S. and in Africa. Several pieces of my history lead me to a possible pro-entrepreneurship bias. From a young age my family's cattle ranch served as a source of identity for me as I watched my uncle find his niche marketing cattle first in the show industry and later in registered cattle genetics. My father started his own construction business when I was in high school at about the same time I went into partnership with my sister in purchasing a small herd of cattle. Years later, my wife and I started a speaking and facilitation

company. In hindsight, I now recognize that even the draw to stay on as a volunteer at the school in Africa was due, in part, to my draw to the socially entrepreneurial spirit of the school's director. In general, I recognize that I have a pro-entrepreneurial bias.

Findings

Case 1 – Clarkstown, TX

Three enthusiastic teachers were teaching agricultural education at Clarkstown High School. Ms. Johnson had been there the longest at 19 years, followed by Mr. Williams and finally Ms. Brown. While data were gathered from all three teachers, the majority came from Ms. Johnson. As such, findings for this portion are primarily reflective of her responses. Ms. Johnson taught the foundation courses, so a vast majority of students had taken at least one course from her. Further, at the time of data collection, she was teaching two primary courses of interest: entrepreneurship and foundations of AFNR (Field notes, day 1). There was significant overlap of content and practice between Ms. Johnson and Ms. Brown. Ms. Brown taught two courses of interest to this study: agricultural business management and food processing (Field notes, day 1). She was responsible for managing the meat market, which was deemed to be a primary training ground for entrepreneurship (Field notes, day 1). Mr. Williams was determined to fall outside of the scope of the study, and was not included in the data collection. His coursework focused on agricultural mechanics and fabrication and floriculture were thought to be outside of the scope of entrepreneurship (Field notes, day 1). Further, Mr. Johnson was not readily available for data collection. The survey instrument was completed by Ms. Johnson and Ms. Brown and their results are summarized below.

Ms. Johnson and Ms. Brown had different backgrounds. One had been teaching for 19 years and had a master's degree. The other had been teaching for three years and held a Bachelor's degree. Both were female and described themselves as living in a rural setting.

Ms. Johnson was an award winning, well liked, and very successful teacher from a family of educators (Field notes, day 1). An award bearing her name as the recipient for both the High School Teacher of the Year and an award for "exemplifying progressive leadership" hung in the main office of the school (Artifact 1). Her father had been the agricultural instructor at Clarkstown for forty years and she spent the first years of her career teaching with him (Field notes, day 1). She also had an uncle who was a professor of agricultural education. Her primary focus was on trying to get many opportunities for her kiddos (Field notes, day 1). She described herself as "a teacher first and an ag teacher second" (Field notes, day 1).

Several themes surfaced for the teachers at Clarkstown from interviews, observations and artifact analysis. Specifically, Ms. Johnson felt entrepreneurship was best done after gaining personal experience, that students should feel successful, and that collectively, the teachers were open minded and enthusiastic.

Personal business experience. Ms. Johnson had a family member who had been an entrepreneur. Her father had sold real estate and auctioned since she was in the sixth grade (Field notes, day 1). He continued to sell real estate in the area (Personal observation).

Entrepreneurship after experience. Ms. Johnson saw students' future entrepreneurial endeavors as best suited after they gained experience working for someone else. In a personal interview, she said,

I think that if those kiddos go off somewhere and get some world experience or some bigger life experience maybe even college or on the job training, they would be more successful if they came back in the next couple of years when the population was larger and there was maybe more demand for their business.

The continuation of a business directly out of high school, she felt may be too small-scale to sustain a students' livelihood. Ms. Johnson went on in the personal interview to say,

Several of them have seen some opportunities to start their own business and have been very successful at that. Kind of at a low scale. But, you wonder, is that something that can continue to thrive? I mean, a sophomore in high school that has his own lawn mowing business, what does he do as a graduate? Does he continue that? Or does he... I would assume it would need to be at a larger scale. Because for him to make a livelihood of that outside of high school, I don't know that there's that many yards to be mowed. But, if there's more homes and a residential area to come, that would grow. So, that's kind of what I'm seeing is that it's going to take more growth in Clarkstown for them to be more successful with their own business.

The current population of Clarkstown, coupled with the small scope of most student projects, would likely yield limited growth opportunities for student entrepreneurial ventures as a full time occupation (Personal interview).

The program is for more opportunities for more students. Ms. Johnson viewed the purpose of the agricultural education program as to provide opportunities for as many students as possible. She said,

It's a huge part of our community. The Clarkstown FFA program is a staple for the community; it's a staple for the high school. The lab and the meat market are a jewel, a crown jewel for the school, and the community. There's a lot of pride in that. And, it brings people to Clarkstown...It's, sometimes, it's bigger than me. It definitely is. As I see my own children start to be old enough to be, you know talk about a third generation to go through the program, it's real important for me to continue to the high expectations that we have for our students. (Personal interview)

She said her vision for the program in the next few years was to "put another teacher at the middle school that would teach 7th and 8th grade and pull my Ag teachers back to the high school so we could continue to offer more up here" (Personal interview). She viewed the program as being a resource to the community that would offer more opportunities to more individuals.

Students should feel successful. Agricultural education has many different opportunities to help a student find success, according to Ms. Johnson. About students' feeling successful, she said,

But out here [in the agricultural education program], we have the opportunity to really figure out where the talent is, and their interest, and plug them into a spot and they get success and that's what it's all about. That is the big picture to me. Whether a kid is urban or rural, it doesn't really matter. But, in Clarkstown, we want our kids to be successful. They're amazing kids. Very respectful. We're blessed to get to come every day and teach. I know in other schools they herd cats

and keep fights on the down low. I get to teach every day and work with outstanding young individuals and push them to their own limits that they did not even know they had and have them experience success and that is the paycheck for me. (Personal interview)

Open-minded and enthusiastic. Students described their agricultural education teachers as being enthusiastic and open to the students being engaged in avenues beyond the scope of the agriculture program, so long as the student felt successful. Joe said,

I like the teachers. There's more like a family associated. It's not like just come to school learn and go home. There's more like a family oriented atmosphere here. Like, Ms. Johnson, I feel like the mom in her comes out and she tells us to behave and just like advises us like in a parentally way. Instead of like down there [the main school building] it just feels like a real monotone, straightforward just get to the point thing. Here we can mess around and have fun. With the teachers, it's... I like it a lot more. And they make it more, not fun, they make it more desirable to challenge ourselves because we can get more stuff done that way with them. We can learn a lot more things with them. I'm not a speaker, I don't like it. But they've been, they've helped me open up and not be so shy. (Personal interview)

Students described their agriculture teachers as always pushing them to be better. One male participant from focus group three said, "If they can see that we're going to be successful in that, then they're going to push us. But, if they don't see that we have that drive for that, they're not going to push us." Students felt the agriculture teachers would support them even in activities outside of the agricultural education arena. A male from the third focus group said,

like when it comes to other activities. Like [STUDENT] is in dance and they encourage it. They don't say, oh, you can't make it to this. They encourage it and say oh, that's alright, let's find something else. They'll work with you on whatever you want to do in life.

Overall, students felt their teachers were open minded and enthusiastic (Personal observation).

Case 2 – Prairie View, Nebraska

Prairie View High School had one lead agricultural teacher, named Mr. Reed, a co-FFA advisor, named Ms. Collins, and a volunteer welding instructor named Mr. Green. Mr. Reed had been teaching for fifteen years, ten of which had been at Prairie View. He held a Bachelor's degree in animal science and gained his teaching certificate after cattle ranching and farming cash crops for over a decade. Mr. Reed was responsible for teaching all of the agriculture coursework, supervising student SAEP, and serving as the co-FFA advisor. Even though he had recently had ankle surgery and walked with a bit of a limp, it didn't seem to have slowed down his enthusiasm for the program (Field notes, day 1). Ms. Collins was the school guidance counselor and had been the co-FFA advisor since the inception of the FFA program at Prairie View in 1990. In addition to these responsibilities, she taught chemistry, anatomy and physiology, and a career education class (personal interview). She held a Master's degree in counseling. She came across as very warm and competent. Finally, Mr. Green was a local business owner who volunteered at the school as the assistant welding instructor for the past fifteen years (Field notes, day 1). Mr. Green held a Bachelor's degree in agricultural education, but had never been hired as a teacher. He owned

several businesses in town, one of which was a welding shop. As he was a volunteer, Mr. Green is not included in any further discussion.

Several themes surfaced for Mr. Reed and Ms. Collins from interviews, observations and artifact analysis. Specifically, they had the philosophy that success breeds success and that students should feel successful, their encouragement, and that the belief in the three ring model of agricultural education.

Personal business experience. Mr. Reed had previous business experience in agriculture. He had a cow calf operation and farmed for over a decade prior to gaining his teacher licensure. Further, he still owned the land he farmed and leased it out. He felt the practical experience he gained from this previous career had positively influenced his ability to teach subjects such as animal science and agribusiness.

Our mom and dad advisors are encouraging. Many students described Mr. Reed and Ms. Collins as encouraging. One male participant from the first focus group described Mr. Reed as encouraging his students to do their best. “So, if he [Mr. Reed] sees that you’re not really fulfilling what he knows you have he’ll try his hardest to make you be better. A female focus group participant from the first focus group described them as mom and dad stating “they share the duties.” A female from the second focus group added that the advisors encouraged students to “find ways to incorporate the entrepreneurship into everybody’s different SAE.” Students’ felt Mr. Reed had high expectations that he encouraged students to live up to (Male participant, focus group 3). Another male participant from the third focus group added that Mr. Reed encouraged them to try new things. He said, “He’ll [Mr. Reed] kind of encourage you to do it and give you reasons why he thinks that you are suited for it.” These forms of encouragement seemed to work with the students as they seemed to have good relationships with both advisors (Personal observation).

Open to new ideas. Students described the advisors as being open to new ideas. One female from the first focus group described it as

They’re just very open to ideas, like very susceptible. Like, if you have an idea, some people might look at you like you can’t do it because of your age, or you can’t do it because you’re a girl, but they’re always really open and positive. They’re always reinforcing like good feedback. Like you can do it. And giving you different ideas about how you can make it happen and if you need help, I’ll be there. They’re very flexible with their schedule and yours so like if you need help they’ll set up a time and they’ll help you. They’re just kind of always there, like I don’t know, they’re kind of like parents I guess of FFA. So, whatever you need, they’ll be there and they’ll help you and they won’t criticize any of your ideas that you want to do.

Other students echoed this openness to ideas through conversations they would have with their teachers concerning SAEP ideas or other projects (Field notes, day 1).

Accommodating and knowledgeable. Several students had formed a chicken cooperative that was located at Mr. Reed’s house. The students generated the idea, got all of the permissions, and solicited all of the materials. However, they lacked the location to set up their enterprise. A male from the second focus group described it as, “Like if you don’t have anything, he tries to help set you up with like, your guys class, he helped you do chickens because some people didn’t really have a job. So, he’ll help you out in many different ways.” Mr. Reed assisted in all parts of the chicken operation. A female participant in the program from the first focus group said he had helped

them develop schedules and hosting the facilities at his place. She said, "Because we didn't have any place else to put it and he was like, yeah, you can put it at my house." Both advisors were knowledgeable and very helpful in offering advice to the students (Female participant, Focus group 1). Another female from the first focus group added that if a student wasn't able to make it out there to feed due to overscheduled calendars, or other reasons, "if you would give them a call, they would be more than happy to help us out." So, the chicken cooperative served to showcase Mr. Reed and Ms. Collins' accommodating attitudes and knowledge of running a successful poultry operation.

Hint, don't tell. Mr. Reed and Ms. Collins approached offering advice to students through questioning and hinting suggestions to them, not directly telling them his opinion. A female from the first group put it as, "Like, you might have an idea and then they'll help you with it or they might like hint at something and then you're like, oh, we can start this. And then they kind of help you make it prosper." Students did not seem put off by this, but rather appreciated being given the space to come to their own conclusions.

Success breeds success. Mr. Reed's general philosophy is that he tries to do anything "all to try and get students to be successful." (Memo). He stated more than once that success breeds success (Field notes, day 1). It seemed that success for him, and his students, came in the form of established SAE, proficiency awards, and LSE's (Personal observation).

Three ring model. Mr. Reed modeled his program after the national model, which consisted of classroom/laboratory instruction, SAEP, and active membership in the FFA. This has been typically known as the three-ring model. About this, he said in a personal interview,

Well, I guess I'm a firm believer of the three ring approach of the ag ed program. To me, I think outside of an ag program the big circle is FFA. Everybody wants FFA but they don't really understand. They may understand well you have to have an ag teacher, that's getting better as whole, people are understanding that. But, I think the SAE component if you don't manage it, and you don't get kids and families and parents and administration community to buy in to that SAE component, it will shrivel up and it will, you'll just have a two circle program. And I don't think that, I'm a firm believer that kids will learn more outside my classroom than they will inside the classroom. But, I put that seed there that, hey, there's an opportunity of what you're doing outside of the classroom for achievement and recognition. That's why I'm such a firm believer, you know, of SAE.

SAE was strongly promoted through classroom instruction, course materials, and a culture that was apparently spread between students and within the community (Personal observations, Field notes, Artifact 1).

Rural Nebraska has opportunities. Both Mr. Reed and Ms. Collins expressed the faith that rural Nebraska was loaded with opportunities for young people. Mr. Reed was talking about his opinions on SAE and proficiency areas when the topic of babysitting came up. He said he did not encourage students to fill out the proficiency award for babysitting. Then, he stated, "That doesn't say that that's [babysitting] not a worthy and legitimate enterprise, but I just think in rural Nebraska, where live, there are opportunities" (Mr. Reed, personal interview).

Case 3 – Beautiful Hills, NC

Agricultural education is taught at Beautiful Hills High School by three instructors: Mr. Miller, who served as the main informant, Mr. Hill, and Mr. Turner. They all taught agricultural courses, shared supervisory responsibilities for SAEP, and co-advised the FFA. Mr. Miller had been teaching for 12 years, all at Beautiful Hills and held a master's degree. He had been a former state FFA officer for North Carolina and came from what he described as being a successful FFA program. Mr. Hill had been teaching for ten years and held a master's degree. Mr. Turner had been teaching for three years and held a Bachelor's degree. He had recently transitioned from natural resources and ecological management into education. The three teachers appeared to have a good working relationship and very fluidly shared their responsibilities with one another. Mr. Miller and Mr. Hill were on twelve-month contracts, whereas Mr. Turner was on a ten-month contract.

Mr. Miller was very likeable, fast paced, and busy (Field notes, day 1). He had a self-described “do first and ask forgiveness later” personality who thrived on competition (Field notes, day 1). Every observation day was fast paced, with little down time (Field notes, day 2).

Personal business experience. Mr. Miller had been selling organic vegetables for several years (Field notes, day 2). He commented that if he were not teaching, he would be doing something in the horticulture industry such as running a greenhouse (Field notes, day 2). He was also peripherally involved with his in-law's business as well (Field notes, day 2).

Advise, don't tell. Students said one of the things they liked about their advisors was their advisors had a tendency to suggest ideas to students, without telling them outright what to do. A male participant from the first focus group described his advisors as saying things like, “have you considered.” He went on to say, I mean they don't push anything on you, they just try to give recommendations that they think would help better you...” Another male participant of the first focus group described a hypothetical interaction between a student and Mr. Miller,

Like [Mr. Miller] will come up and [male student] has an awesome project going right now, and he'll just kind of look at you and say, “How's the project going? Have you done this lately?” and he's on top of it. “Have you checked the pH of this” and he'd be like “Yeah, I did that yesterday.” And he just makes sure he's on the right path, but he lets him explore new things that like [Mr. Miller] didn't tell him to do.

Students indicated all their teachers practiced this advice-giving mode. One female from the first focus group put it as, “...like [Mr. Miller] and [Mr. Hill] and [Mr. Turner] do to us, recommend things. ‘Are you sure you want to do this? Why don't you try this?’ like, just get them [other students] out of their comfort zones and just being able to offer advice.”

Another dimension of the advise, don't tell theme, was that students felt as though their teachers gave them freedom. One male participant from the first focus group said, “They just kind of let you run with it...they do [monitor you], but they don't really control you ... they just kind of let you do what you want to do and see how it unfolds in your favor.” Students seemed to have a great deal of personal autonomy at all times (Personal observation). Mr. Miller said they just knew where the boundaries were, and he could trust them (Field notes, day 2).

If you're interested. Advisors seemed to send the message to students that they would do anything within their power to help them regardless of what they happened to be, so long as the student was interested (Personal observation). A female participant from the third focus group

described it as, “they’re not going to force you.” A male from the second focus group described it as, “like the ag teachers are very supportive about your opinions about something you want to do.” The teachers seemed to want the students to take the initiative on individual projects. Then, when they did, the teachers would help as much as possible. Mr. Miller wrote, in an email follow up to my visit,

I feel that it is very important that we try and challenge students to think about ways that they can take their interests and try to parlay them into a career or business. This for me is a key to students being productive in their communities because when you are happy with yourself and your "job" then it seems you feel like you can be more involved in civic organizations and the world around you. I also feel that it is important that we try and spark entrepreneurial spirit to challenge students to come up with new ideas that will positively change the world around them. I teach what I think is the future leaders of our world and with that in mind I feel that it is important that I build their self-confidence so that when an opportunity presents itself they are prepared to meet the challenge with open arms. (Mr. Miller, email)

A male from the third focus group said many students requested taking agriculture classes from the guidance counselor, whereas for some students, it’s just a spot. This student said the agriculture teachers, “So, they’ll pay more attention to the people who actually want to be in that class and take that into their future career and put more attention into them. But, they will still help the other people.” Expanding on individual student’s interests could readily be seen through such examples as students in class research projects and student’s SAEP (Personal observation).

Knowledgeable. Agriculture teachers were very knowledgeable in their respective content areas as well as advising FFA events (Personal observation). Students described their teachers as being able to “expand my knowledge” (Male participant, focus group 2). A male from the first focus group said,

[Mr. Miller], he just got outstanding teacher of the Southeast region. I mean, you’re going to trust him more than somebody who’s just now starting out and I mean they’re fresh out of college. All of our advisors know just about anything you want to ask them and if you need something they’ll put you where you need to be to get it and then they’ll tell you how to do it and then I mean they just make life easier for all of us.

These sentiments of trusting teacher’s knowledge and competency carried through to many student interactions and could be seen during early morning CDE practices as Mr. Miller taught students how to understand soil horizons and late afternoon SAEP visits as former members expressed gratitude for the advice they had received on their tomato enterprise (Personal observations and field notes, day 1).

Passionate. Some students appreciated the passion for the job that their teachers showed. One male participant from the first focus group said he had observed other ag teachers that just didn’t care about their jobs. However, of his teachers, he said, “But, in the three we have, it’s not just a job because if they just showed up just to get paid, they wouldn’t spend the amount of time they spend after school and before school and even during school...” That student went on to say he felt the teachers actually cared about their students and were just looking out for them (Male participant, focus group 1). A female participant from the third focus group talked about Mr. Turner’s passion for engaging students. She said he struggled to understand some student’s apathy.

This student said he was working hard to engage them both in and out of class (Female participant, focus group 3).

Approachable. Agriculture students at Beautiful Hills High School seemed to think their agricultural teachers were approachable. Many could be seen down in the ag building during breaks simply visiting casually with their advisors (Personal observation). A few of the many quotes from students were:

“You walk up to them and talk to them like your family or you’re really close friends” (Female, focus group 1).

“They’re really like down to Earth.” (Male participant, focus group 2).

“...they’re fun to be around” (Female participant, focus group 2).

“...they can relate...to us more” (Male participant, focus group 3).

“They speak to us like we’re people” (Female participant, focus group 3).

“It’s never a thing of authority with them” (Female participant, focus group 3).

“We all respect them a lot” (Female participant, focus group 3).

Generally, students seemed to have a good relationship with their agricultural teachers based on their approachable personalities.

Individualization. Many students seemed to think that their teachers offered individual attention and advice. Personal advice was offered while working on projects or outside of class time based on the fact that, as one female participant from the third focus group said, “we have personal connections with them all, and they’re all very different. So, they know us really well.” A male from the third focus group felt his agricultural teachers gave individual help if you needed it. A female from the same focus group said, “They know what will work, and help tailor to our needs.” Even though there were well over 200 students in the program, the advisors seemed to know and connect to each one on an individual basis (Personal observation).

Conclusions

From this study, it can be concluded that teachers from within the three cases evaluated shared five characteristics. In no particular order of importance, those characteristics were that the teachers were experienced, held advanced degrees, had prior experience with entrepreneurship, generally were considered outstanding teachers, and were described as being open minded and enthusiastic. Perhaps the key distinction between these teachers and other *excellent* agricultural education teachers was their prior experience with entrepreneurship.

Experienced

All of the teachers of primary focus for each case had over a decade of teaching experience, with the average years of teaching experience being over 15 years. Since entrepreneurship is inherently risky, it may be that teachers need enough time to become comfortable with their roles to begin branching, or advising students to branch, into more entrepreneurial ventures.

Advanced Degrees

Two of the three primary teachers at each school held masters degrees. However, arguably the most entrepreneurial case from Prairie View, Nebraska, had a lead teacher with only a Bachelor’s degree. So, while it is a noteworthy point of comparison, it is the opinion of this researcher that this is a relatively small factor.

Prior Entrepreneurial Experience

All of the primary focus teachers had some prior or ongoing personal experience with entrepreneurship. Arguably, Ms. Johnson had not had direct experience with entrepreneurship. However, coming from a family of entrepreneurs no doubt had an influence on her. Mr. Reed had the most extensive history of business operation with his farming and ranching experience. However, Mr. Miller had an ongoing involvement with the sale of organic vegetables.

Generally Outstanding Teachers

There is little doubt that all three teachers were simply excellent teachers. They had been recognized within the state and nation as being exceptional teachers. They were progressive in their teaching pedagogy and knowledge base. It may be that as outstanding teachers, they recognized a need for entrepreneurship, in addition to myriad other needs for their students, and took strides to fill the gap.

Open-Minded and Enthusiastic

Collectively, all teachers had themes somehow related to being “open-minded” and “enthusiastic.” The programs had a paradoxical balance between high expectations and tightly run policies and procedures with the flexibility to let students explore, especially through their SAE. This tight/loose paradox came across to students as the teachers being open-minded to the students trying new ideas with their SAE, as well as during classroom and laboratory instruction. Students universally found their teachers to be enthusiastic in their teaching style, as well as when offering student advice.

This study aligns with others that indicate teachers teach what they have experienced and feel competent to teach. Ruskovaara and Pihkala (2013) found Finish teachers practice varied based on their perception of their own entrepreneurship competency and the perception teachers had of their own entrepreneurship education skills closely connected to the implementation of entrepreneurship education.

Recommendation for Teachers

Find youth entrepreneurs. While much is known about the characteristics of entrepreneurs, the specific manifestation of those traits in students may be obscured. Student with a strong aptitude for entrepreneurship may not be immediately evident in a traditional school setting. Teachers need to understand that these students may not be their top academically performing student, or possess other traits that one would be looking for in a traditional definition of a successful student. However, it is likely that students with a strong potential for entrepreneurship success exist in their classrooms. Those students should be identified and their propensity for entrepreneurship encouraged.

Work with the local entrepreneurial ecosystem. While the United States generally has a favorable ecosystem for entrepreneurship, the local ecosystem within the three cases represented by this study varied dramatically. Teachers should, at minimum, understand that the local context where they teach will be unique and will vary on the favorability it offers toward youth entrepreneurship. This does not mean that nothing can be done for offering entrepreneurship education in an unfavorable ecosystem. Rather, teachers should recognize the strengths and weaknesses the local context offers and work to help aspiring student entrepreneurs work within their given community’s constraints.

Be enthusiastic and open-minded. The teachers in this study were enthusiastic, not only about entrepreneurship, but also generally about helping students succeed. The scope of their vision extended beyond the bounds of their discipline. All three shared a passion for watching their students succeed in activities the students found meaningful and enthusiastically made strides to help their students achieve. The teacher's open-mindedness created an environment where it was okay for students to try new ventures. While the teachers would make suggestions and offer advice to students concerning ongoing activities or their SAE, it was ultimately the student who took ownership and the direction of their efforts. So, teachers should work to develop an enthusiastic, open-minded approach to their careers.

Engage students through their SAE to identify ways to incorporate entrepreneurship. First, teachers in this study took a strong, proactive approach that emphasized SAE in their respective programs. Second, teachers worked within the system of SAE to move as many students as possible to an entrepreneurship type of SAE. While entrepreneurship can mean simply owning a single animal to show at a local fair, these teachers were also advising students with innovative entrepreneurship SAE. Encourage innovation within entrepreneurship type SAE.

Develop communicable outcomes for entrepreneurship education. There are many competing goals and potential outcomes for school based agricultural education across the nation and within a local community. Entrepreneurship education did not appear to be a primary focus for any of the programs within this study. However, teachers within these programs were able to articulate the intended outcomes to varying degrees concerning the entrepreneurship education dimension of their program. Should a teacher of agriculture decide that entrepreneurship should become an area of focus within the program, it is important to be able to communicate the intended outcome for that particular domain. Teachers within this study tend to consider developing entrepreneurial mindsets within students to be a worthy outcome, and consequently take programmatic efforts to make that happen.

Imbed entrepreneurship in practice through experiential learning. Experiential learning has been used in a variety of contexts to facilitate engagement and learning in entrepreneurship education. Teachers within this study used classroom experiences such as having students write a business plan, pitching their business ideas in a Shark Tank style presentation, and using scenarios to think critically about real world examples of situations entrepreneurs may find themselves in. A student's SAE is also an experience and may be used as a learning tool if done properly. However, there is almost limitless opportunity to enhance instruction through experiential learning activities and practice for entrepreneurship education in a SBAE context.

Work with students to identify and overcome barriers to entrepreneurship and ways to break down the barriers. Students in this study recognized barriers to initiating an agriculturally based entrepreneurship firm. Land access, capital, and generational transfer of assets are relatively universal issues youth in agriculture will face. No doubt these may be major hurdles for students to overcome. However, teachers can facilitate solutions to these issues either directly, or by introducing students to other entities that can help, such as banks, non-profit organizations, or government entities.

Consider what does, and does not, influence student's career decision. Students in this study were consistent in identifying what they thought did and did not influence their career decisions. Love of the career and the ability to succeed in the career were two of the top three career influencers in all three cases, with personal goals being one of the top three factors in two of the three cases. Teachers can capitalize on this, especially if they are trying to encourage students to consider entrepreneurship as a career option. Entrepreneurs are passionate about their careers and

exhibit other characteristics that may align with student's interests. Teachers in this study practiced individualized attention for their students. While positive peer pressure was used, as was especially evident in the case of the pod system in Prairie View, teachers in this study did not show evidence of trying to use peer influence or perceived social status as motivators for students.

Grow your own affinity for and understanding of entrepreneurship. They had previous experience with entrepreneurship. They generally exhibited an innovative spirit and a willingness to try new things. Teachers hoping to enhance entrepreneurship education at their school should, in effect, become entrepreneurial, or at least take steps to understand entrepreneurship and the way entrepreneurs operate.

Offer wrap around services for student entrepreneurs such as financial services or more formalized mentoring with business leaders. Students in this study identified family members and occasionally community members as serving a mentoring role. Additionally, one of the advisors from the Prairie View School thought they should try to connect students to business leaders more directly. Teachers of agriculture can serve a brokering role between students and services that will help them be successful as young entrepreneurs. As with the suggestion of solving barriers, teachers can try and facilitate this directly, or outsource the wrap around services to an affiliate group, such as their Alumni. However, it is accomplished, wrap around support services may help aspiring young entrepreneurs to be successful.

Recommendation for Teacher Educators

Provide an environment for pre-service teachers to gain entrepreneurship experience. All the teachers in this study had some prior experience with entrepreneurship, either directly or through a family member.

Offer professional development in entrepreneurship. A dearth of teaching resources for entrepreneurship education exist (e.g. Daniel & Kent, 2005) and could be adapted for an agricultural education context. Ruskovaara and Pihkala (2013) found teachers who took part in entrepreneurship education trainings were three to four times more advanced in their use of entrepreneurship education methods.

Help teacher candidates understand the differing entrepreneurial ecosystems they may face. Teachers in this study had adapted to meet the needs of their local communities, despite differences.

Imbed entrepreneurship education into existing curricula. Teachers from this study stated a need for entrepreneurship to be threaded throughout instruction, rather than a stand-alone topic.

Recommendations for Future Research

Future research should examine the teaching of entrepreneurship in different agricultural education programs. Although similarities were found in these three programs, differences were also noted.

SAE proved to be a valuable teaching tool for entrepreneurship. Future research should identify ways that entrepreneurship can be incorporated into, or enhanced through SAE. Entrepreneurship/ownership is an existing category for proficiency areas within the national FFA structure. Perhaps the current structures limit the innovativeness of entrepreneurship type SAE. Future research may need to explore the most effective means for approaching the entrepreneurship

domain within SAE, as well as adjustments to SAE that could further incentivize innovations within entrepreneurship type SAE's.

Compare the entrepreneurial mindset of different groups of students. It may be that students with different previous experiences or different demographic backgrounds have different entrepreneurial mindsets. Exploring this would be informative to practitioners seeking interventions for these audiences.

References

- Acker, D., & Gasperini, L. (2009). *Education for rural people: The role of education, training and capacity development in poverty reduction and food security*. Rome, Italy: FAO
- Ali, A., Topping, K. J., & Tariq, R. H. (2009). Entrepreneurial inclinations of prospective teachers. *New Horizons in Education*, 56(2), 1-16.
- Bennell, P. (2010). *Investing in the future: Creating opportunities for young rural people*. Rome, Italy: IFAD.
- Creswell, J. W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (2nd ed.). Upper Saddle River, NJ: Pearson Education.
- Creswell, J. W. (2013). *Qualitative inquiry and research design* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Daniel, T. A., & Kent, C. A. (2005). An assessment of youth entrepreneurship programs in the United States. *The Journal of Private Enterprise*, 20(2), 126-147.
- FAO. (2010). *Promoting employment and entrepreneurship for vulnerable youths in West Bank and Gaza Strip*. Retrieved from <http://www.fao.org/docrep/012/i1450e/i1450e00.pdf>
- Farm Bureau. (2015). *Rural entrepreneurship initiative*. Retrieved from <http://www.strongruralamerica.com/challenge/>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Markley, D., Macke, D., & Luther, V. B. (2005). *Energizing entrepreneurs: Charting a course for rural communities*. Lincoln, NE: Heartland Center for Rural Entrepreneurship
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.
- Morris, M. H., Kuratko, D. F., & Cornwall, J. R. (2013). *Entrepreneurship programs and the modern university*. Northampton, MA: Edward Elgar.
- Phipps, L. J., Osborne, E. W., Dyer, J. E., & Ball, A. L. (2008). *Handbook on agricultural education in public schools*. (7th ed.). Clifton Park, NY: Thomson Delmar.
- Rank, B. D., & Retallick, M. S. (2016). Synthesis of contemporary SAE research 1994–2014. *Journal of Agricultural Education*, 57(4), 131-145. doi: 10.5032/jae.2016.04131

- Roberts, T. G., Harder, A., & Brashears, M. T. (Eds). (2016). *American Association for Agricultural Education national research agenda: 2016-2020*. Gainesville, FL: Department of Agricultural Education and Communication.
- Roberts, T. G., & Harlin, J. F. (2007). The project method in agricultural education: Then and now. *Journal of Agricultural Education*, 48(3), 46-56. doi: 10.5032/jae.2007.03046
- Ruskovaara, E., & Pihkala, T. (2013). Teachers implementing entrepreneurship education: Classroom practices. *Education + Training*, 55(2), 204-216.
- Seikkula-Leino, J., Ruskovaara, E., Ikavalko, M., Mattila, J., & Rytkola, T. (2010). Promoting entrepreneurship education: The role of the teacher. *Education+Training*, 52(2),117-127.
- United Nations. (n.d.). *World Population 2012*. Retrieved from http://www.un.org/en/development/desa/population/publications/pdf/trends/WPP2012_Wallchart.pdf
- USDA. (2013). *Report on the definition of "rural"*. Retrieved from <http://www.rurdev.usda.gov/Reports/RDRRuralDefinitionReportFeb2013.pdf>
- USDA. (2015). *Rural America at a Glance: 2015 Edition*. Retrieved from <http://www.ers.usda.gov/media/1952235/eib145.pdf>
- USDA. (n.d.). *Rural microentrepreneur assistance program*. Retrieved from <http://www.rd.usda.gov/programs-services/rural-microentrepreneur-assistance-program>
- Valerio, A., Parton, B., & Robb, A. (2014). *Entrepreneurship education and training programs around the world: Dimensions for success*. Washington, DC: The World Bank