

# A Philosophical Examination of School-based Agricultural Education and NBC's Education Nation

***E.D. Rubenstein<sup>1</sup>***  
***University of Georgia***  
***Athens, GA***

***N.W. Conner<sup>2</sup>***  
***University of Nebraska-Lincoln***  
***Lincoln, NE***

***S.D. Hurst<sup>3</sup>***  
***Osceola Middle School***  
***Ocala, FL***

***A.C. Thoron<sup>4</sup>***  
***University of Florida***  
***Gainesville, FL***



## **Abstract**

The purpose of this study was to show how school-based agricultural education (SBAE) complements the philosophies and practices of Education Nation and the Common Core State Standards Initiative. Education Nation touts the importance of common core standards, industry ties, college and career preparation and community involvement. Using qualitative content analysis, four researchers reviewed journal articles, meeting proceedings, magazines, texts, agricultural education documents and Education Nation media outlets to conclude that agricultural education espouses the principles put forth by Education Nation. Reviewed literature was classified into four categories representing important parts of the SBAE program: influential philosophers, teaching methods/approaches, FFA and supervised agricultural experience (SAE) programs. After reviewing journal articles, meeting proceedings, magazines, texts, agricultural education documents and Education Nation media outlets, researchers found that agricultural education's use of individualized instruction, innovative teaching methods, community involvement and career and collegiate preparation embodied the beliefs of Education Nation. Agricultural education's use of the three-circle model of classroom instruction, FFA and SAE provides an example for the implementation of Education Nation's principles in real—world classroom settings.

## **Introduction**

In 2010, NBC News created a new initiative, Education Nation, to “explore the challenges and opportunities in education” (NBC News Education Nation, n.d., para. 2). Education Nation has held four summits in order to discuss what organizers believe to be important issues in education. These issues included common core standards, industry support, community engagement and college and career readiness (NBC News Education Nation, n.d.). At the summits teachers, parents and students consult with leaders in politics, technology and business in order to improve education in the United States (NBC News Education Nation, n.d.)

Education Nation has called for common core standards to be used to promote consistency and clarity between teachers, parents and students regarding what the student is expected to learn (Common Core State Standards Initiative, 2012). Common core standards are intended to ensure that students receive a consistently high quality education in order to prepare them for postsecondary education or careers (Common Core State Standards Initiative, 2012). In writing the standards, the National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO) sought input from national organizations, teachers, administrators, industry experts

<sup>1</sup>Assistant Professor in the College of Agricultural and Environmental Science, University of Georgia, 405 College Station Rd. Athens, GA 30602, erubenstein@uga.edu, (706) 542-9131.

<sup>2</sup>Assistant Professor in the Agricultural Leadership, Education, & Communication, University of Nebraska-Lincoln, 236 Filley Hall, Lincoln, NE 68583-0947, nconner2@unl.edu

<sup>3</sup>Agriculture Teacher, Osceola Middle School, 526 SE Tuscawilla Avenue, Ocala, FL 34471, Sara.Hurst@marion.k12.fl.us.

<sup>4</sup>Assistant Professor of Agricultural Education in the Department of Agricultural Education & Communication, University of Florida, 307C Rolfs Hall, Gainesville, FL 32611, athoron@ufl.edu

## A Philosophical Examination

and postsecondary educators (Common Core State Standards Initiative, 2012).

Today, over 800,000 students participate in School Based Agricultural Education (SBAE) throughout all 50 states and three territories (The Council, 2012). The SBAE mission of “prepare[ing] students for successful careers and a lifetime of informed choices in the global agriculture, food, fiber and natural resources systems” is still producing successful students today (The Council, 2012, para. 3). SBAE has been primarily concerned with preparing students for agricultural careers and advanced education (Newcomb et al., 2004; Phipps et al., 2008), which has been done through the use of the three-circle model of classroom instruction, SAE programs and the National FFA Organization (Newcomb et al., 2004; Phipps et al., 2008). With this being known of agricultural education and Education Nation, it is vital for agricultural education teacher preparation programs to understand the philosophical similarities between these two programs in order to best prepare preservice agricultural education teachers.

### Purpose and Objectives

The philosophical underpinnings of SBAE have been prevalent in the literature and resonate throughout SBAE programs. For example, priority five of the National Research Agenda for Agricultural Education (2011) focused on providing effective SBAE programs that offer high quality academic development, as well as career success. Therefore, the purpose of this study was to compare educational practices used within SBAE and educational practices espoused by Education Nation in an effort to show how SBAE complements the educational philosophies and practices set forth by Education Nation.

### Methods

This philosophical paper utilized qualitative content analysis to analyze the collected Journal articles texts, agricultural education documents and Education Nation media outlets. Due to the use of historical data, the University of Georgia Institutional Review Board exempted this research from IRB review. According to Bauer (2000), qualitative content analysis may be used to analyze data collected from any source, including media outlets. In accordance with Flick (2006) a theoretical model was used to help derive the categories. Agricultural education's three-circle model was used as the theoretical model and consists of the following three components: classroom/laboratory instruction, supervised agricultural experience (SAE) and FFA (Newcomb et al., 2004; Phipps et al., 2008). Four researchers reviewed each of the collected journal articles, meeting proceedings, magazines, texts, agricultural education documents and Education Nation media outlets to ensure consistency. The following two journals were selected due to their acceptance in the field of agricultural education: (a) Journal of Agricultural Education/ Journal of the American Association of Teacher Educators in Agriculture (18

articles) and (b) Journal of Southern Agricultural Education Research (1 article). Additionally, an Internet search was conducted to locate and review additional documents that would provide insight for the research. Two articles from the Agricultural Education Magazine, one proceeding of the American Association for Agricultural Education, two documents from the National Council of Agricultural Education, one article from The School Review, one Common Core document, eight Textbooks and the Education Nation website were selected as part of the documents used for the content analysis. A total of 35 documents were selected and examined for this study. The documents date from 1938-2012.

The journal articles, meeting proceedings, magazines, texts, agricultural education documents and Education Nation media outlets were compared with one another and were exposed to a procedure that allowed for the reduction of data. The initial reduction of data disregarded data that was deemed irrelevant to the study (Flick, 2006). The second round of data reduction lumped similar findings together and allowed for the summarization of the findings (Flick, 2006). In order to uphold the trustworthiness and rigor of the study, the researchers utilized peer-debriefing, methodological journaling, saturation of the data, triangulation and rich thick descriptions of the data (Lincoln and Guba, 1985).

### Results/Findings

Based on the analysis of journal articles, meeting proceedings, magazines, texts, agricultural education documents and Education Nation media outlets research, the results/findings sections were categorized into four sections: influential philosophers, teaching methods/approaches, student organizations/FFA and work based learning/SAE. Each one of the identified categories represents an integral part of the SBAE program and the goals of Education Nation and focuses on providing educational experiences that lead to academic growth and career success.

#### Influential Philosophers

##### John Dewey

Dewey (1938) called for an educational environment that moved away from traditional teacher centered classrooms, which required students to regurgitate information, to a progressive approach in which students were submerged in a contextual experience and encouraged to learn based off of the experience. Learning takes place through authentic experiences in which the learner focuses on prior knowledge in order to make sense of the current situation (Dewey, 1938). According to prior literature, Dewey's philosophy has been incorporated in SBAE program's delivery for at least the last 25 years, due to a programmatic change from vocational education to career and technical education (Phipps et al., 2008; Roberts, 2006). Additionally, Education Nation purports that it is imperative to provide students with the opportunity to experience Science, Technology, Engineering and Mathematics (STEM) through

non-traditional means which include: scientific exploration, opportunity and means to invent new technologies and products and the empowerment of solving real world problems (Martin, 2014).

**Charles Prosser and David Snedden**

During the beginning of the 20th century, Charles Prosser and David Snedden began to promote the need for agricultural education to become more vocational in nature (Gordon, 2008). Prosser and Snedden believed that the purpose of public education was to develop a better-educated workforce to promote the American industrial economy. During the writing of the Smith-Hughes Act of 1917, Prosser was given the opportunity to assist in the development of the proposed bill, allowing for agricultural education to become more vocational in nature (Moore and Gaspard, 1987). The work of Prosser and Snedden has had a lasting impact on the instructional outcomes of agricultural education (Gordon, 2008).

**Rufus Stimson**

During the early 1900's agricultural teaching methods consisted of lecture and physical skill labor training on the school farm (Stimson, 1915). Rufus W. Stimson believed that these teaching practices were impractical because students were forced to watch others complete the skill due to limited supplies and equipment. Therefore, Stimson believed that students should utilize their home farms to practice and develop skills (Stimson, 1915). This belief is the foundation to Stimson's philosophy of vocational education (Stimson, 1907 as cited in Moore, 1988) and aligns with Education Nation's (2012) push for hands on learning and skill development.

The foundational tenets of the project method, an instructional methodology, were used to develop student skills and competencies (Stimson, 1915). Students were expected to utilize their home farms to conduct projects that would further their learning within agricultural education. Each project was designed to be hands-on and provide a practical real-world application of classroom instruction. Rufus W. Stimson has had a profound impact on Career and Technical Education, especially agricultural education, in the United States. Most prominently, his impact has been seen in the implementation of SAE. Agricultural education would be irreparably different without Rufus W. Stimson's innovation (Moore, 1988).

**Teaching Methods/Approaches**

SBAE has a tradition of utilizing teaching methods that support problem-based learning (Phipps et al., 2008). Teaching methods/approaches that have been categorized within problem-based learning include problem-solving, inquiry-based learning and experiential learning (Eggen and Kauchak, 2001). Teaching methods within the constructivist theory allow instructors to provide students with educational experiences that

allow learners to construct their own knowledge in a way that encourages critical thinking and development of their own thoughts and opinions (Fosnot, 1996). The central tenet of constructivism posited that the learner creates personal knowledge and meaning based on their personal experiences (Steffe and Gale, 1995). Constructivism is divided into a continuum, which includes cognitive constructivism, social constructivism and radical constructivism (Doolittle and Camp, 1999). According to Doolittle and Camp (1999), Career and Technical Education aligns neatly with cognitive constructivism and adheres to the central tenets that knowledge is actively constructed and that cognition is a process that is continually evolving (Von Glasersfeld, 1984, 1998).

Additionally, SBAE has utilized Kolb's (1984) model of experiential learning as a conceptual framework for providing students with an authentic learning experience for many years (Phipps et al., 2008). Kolb's comprehension of experiential learning consists of a concrete experience, reflective observation, abstract conceptualization and active experimentation. The curriculum within SBAE programs allows instructors to provide an experience for the student that aligns with the curriculum (Phipps et al., 2008). According to Phipps et al. (2008), the instructor would focus on personal reflection in order for the student to think about the experience and break the reflection apart in an effort to make sense of the experience. The abstract conceptualization stage would then allow the student to create rules and generalizations regarding the experience and the exemplified concept (Kolb, 1984). The final stage allows for the student to test the generalizations they created (Kolb, 1984). An experiential learning philosophy aligns with the learning theory of constructivism and has been commonly used in the SBAE classroom (Roberts, 2006).

The problem-solving approach has also been used extensively in SBAE (Boone, 1990; Phipps et al., 2008) due to Dewey's (1938) educational philosophy that emphasized the importance of an experience in order to entice students to think critically about the issue at hand. According to Phipps et al. (2008), the problem-solving approach that has been used in SBAE consists of the scientific method and allows the student to develop critical thinking skills that help the student to thrive in a complex society. Boone (1990) posited that the problem-solving approach allows students to utilize the scientific method in a way that allows the student to critically think through a problem, test probable solutions and access results. The researcher found that "the problem solving approach to teaching increases the level of student retention of agricultural knowledge learned during an instructional unit" (p. 25). A study conducted by Dyer and Osborne (1996) found that problem-solving approach is more effective in strengthening the problem solving capabilities of students than the subject matter approach. The problem-solving approach has been widely accepted by SBAE and has been considered one of the best methods of teaching agriculture (Phipps and Osborne, 1988).



## A Philosophical Examination

SBAE has included science as a part of its curriculum since the advent of agriculture classes in the public school (True, 1929). Agriculture has been shown to be an appropriate context for science integration (Thoron et al., 2011). Increased emphasis on standardized testing has prompted SBAE to focus on science integration in an effort to enhance students' science knowledge, which would be accessed through standardized tests (Ricketts et al., 2006). A study by Ricketts et al. (2006) supported previous research that found students enrolled in agriscience courses scored higher on standardized science tests than students that were not enrolled in agriscience courses (Enderlin and Osborne, 1991; Mabie and Baker, 1996; Conroy and Walker, 1998; Chasson and Burnett, 2001). Agriscience courses play an important role in increasing students' scientific ability by providing a context for scientific concepts and application (Ricketts et al., 2006). SBAE currently has teachers that believe it is important to continue adding science concepts into the agriscience curriculum (Thoron and Myers, 2009). However, the need for continued science integration is inherent with in-service and pre-service teachers (Thoron and Myers, 2009). According to Thoron and Myers (2009) SBAE is currently at a unique point in its evolution. The current generations of pre-service teachers have experienced the push for science integration when they were secondary students (Thoron and Myers, 2009). This experience has helped to create agriscience teachers that understand the importance and significance of continued science integration into SBAE (Thoron and Myers, 2009).

Myers et al. (2009) found that the majority of the members of the National Agriscience Teacher Ambassadors Academy (NATAA) surveyed used inquiry-based techniques at least two times per week. In addition, 68% of the NATAA instructors surveyed provided time for students to design and conduct experiments at least once a week. Thoron et al. (2011) found that professional development focused on inquiry-based learning helped to increase in-service teachers' knowledge of inquiry-based instruction and to "maintain positive perceptions of their teaching and school environment" (p. 103). Similarly, NBC News Education Nation (2011) highlighted a science teacher's classroom in which the students were learning about physics by using hands on learning that included designing and conducting experiments.

In addition to SBAE's focus on academic integration, SBAE fulfills a vocational role that provides technical skills to students that may be applied to the agricultural workplace (Dailey et al., 2001). By providing a plethora of agricultural courses, SBAE has been able to provide students with the opportunity to learn and enhance many workplace skills that may be transferred to different types of careers (Dailey et al., 2001). According to Education Nation (2012b), schools should provide students with a solid education in STEM, which will allow the student to be equipped with the appropriate knowledge and skills to obtain employment, apprenticeships and admittance

into community colleges, vocational schools, or four-year degree programs.

### FFA

As a member of FFA, students have the opportunity to participate in a number of events and activities, including Career Development Events (CDEs), officer positions and chapter-level activities. Studies have shown that students who were FFA members had more leadership and personal development abilities than non-members (Stewart et al., 1985, as cited in Rutherford, Townsend et al., 2002).

The FFA mission states "*The National FFA Organization is dedicated to making a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education*" (The National FFA Organization, 2012). Additionally, agricultural education is often recognized as educating the whole person and providing life knowledge, characteristics of many CTE classes. Career Development Events are designed to encourage to students develop abilities that will help them in a competitive job market, such as critical thinking and communication (National FFA Organization, 2012). Career Development Events such as Prepared Public Speaking, Livestock Evaluation and Parliamentary Procedure help FFA accomplish its mission. In order to keep CDEs up to date and relevant, the materials are often selected and organized by colleges, universities and industry leaders. At the national level, there are 24 CDEs (National FFA Organization, 2012). Depending on the event, students may compete individually, or as teams (National FFA Organization, 2012).

Membership and participation in the FFA has been shown to have many benefits to students. Talbert and Balschweid (2004) found that FFA members statistically rated agricultural education and history and social studies as more important than non-members. The significantly higher rankings of these topics may contribute to the students' personal growth and subsequent career success. In another study, students and graduates who had FFA membership or were in high school agriculture education classes rated higher in the cooperative/helpful and pleasant/friendly/cheerful categories on the Affective Work Competencies Inventory than non-members or those who were not in agriculture classes (Benson, 1982). This study demonstrates the affect that FFA has had on these members' career success and leadership qualities. Not only do supervisors see the benefits, FFA members do too. Carter and Neason (1984) compared the self-perceptions of personal development of FFA members who had high and low participation using the Personal Development Index. Members with high levels of participation rated themselves statistically higher than low participation members on leadership, orientation to agricultural occupations, citizenship and cooperation (Carter and Neason, 1984). Members who were categorized as having high involvement also had overall higher self-perceptions of personal development

(Carter and Neason, 1984). Carter and Neason (1984) demonstrated that high FFA participation could be linked to feelings of self-efficacy in leadership and traits connected to development of the whole person.

As part of being an officer at any level, an FFA member is expected to take a leadership role, grow from the experience and improve the chapter (National FFA Organization, 2012). Several studies have been conducted on FFA officers in an attempt to determine how serving as an officer has affected them. In 1979, Owings and Nelson attempted to determine the personality traits of FFA officers who attended the 1976 leadership conferences at the National FFA Center and to compare the traits of state and chapter officers. The Myers-Briggs Type Indicator was used to determine traits. After analysis, it was found that 72.1% of the sample was extroverted rather than introverted, 68% were sensing rather than intuitive, 62.6% were feeling rather than thinking and 59.9% were judging rather than perceptive (Owings and Nelson, 1979). Chapter and state officers differed significantly only on the sensing/intuitive measure, with more state officers classified as intuitive than chapter officers (Owings and Nelson, 1979). Owings and Nelson summarized by describing the typical chapter officer at these conferences as, "outgoing, good with detail and routine, people-oriented and working well under structured situations" (Owings and Nelson, 1979, p. 43). This study again shows the importance of FFA when describing those who would likely be successful, demonstrating the addition to the officers' life knowledge.

Rutherford et al. (2002) assessed FFA members attending the Washington Leadership Conference (WLC) in 1997 regarding their self-perceived leadership skills using the Leadership Skills Inventory. Statistically significant relationships were found between level of involvement in FFA and working with groups, understanding self, communicating, decision making and leadership (Rutherford et al., 2002). Additionally, participants who were officers at any level had significantly higher leadership scores than non-officers (Rutherford et al., 2002). A study conducted by Wingenbach and Kahler in 1997 used the Youth Leadership and Life Skill Development Scale (YLLSDS) to determine that significant positive relationships existed between participation in FFA leadership activities and membership in FFA and YLLSDS scores. Both of the above studies indicate the positive affect that FFA has on self-perceived and independent measures of leadership qualities.

Not only do FFA members excel in leadership in high school, they continue to see success into their collegiate and working lives (Ricketts and Rudd, 2004; Park and Dyer, 2005). In 2004, Ricketts and Rudd concluded that former FFA Florida state officers considered their agricultural education program the most influential construct for development of their leadership ability, while the FFA construct was rated as the second most influential. Park and Dyer (2005) investigated the relationship between positions of leadership in a college of agriculture and

prior high school FFA and 4-H experience. The results showed that FFA and 4-H members held more offices and were members of more organizations on average than those who were not FFA or 4-H members (Park and Dyer, 2005). Additionally, almost half of the college of agriculture's ambassadors were FFA members, while over a quarter were in 4-H (Park and Dyer, 2005).

Overall, FFA has a long track record of living up to its mission of "premier leadership, personal growth and career success" (National FFA Organization, 2012). FFA has also been shown to help educate the whole person and facilitate gains in characteristics that could be considered life knowledge. In conjunction with the three circle model of classroom teaching, SAE and FFA, FFA provides the opportunity to use classroom and individualized learning into a leadership environment.

### Alumni and Community Involvement

The FFA Alumni Association is meant to help garner community support and assist agriculture teachers with recruitment, fundraising and personal development programs (National FFA Organization, 2012). Those interested in becoming an FFA Alumni member need not have been in FFA; membership is open to anyone interested in supporting FFA (Jewell, 1981). Jewell (1981) found that the presence of an FFA Alumni had a significant positive relationship with the percentage of agriculture students who were also FFA members and the number of advisory committee meetings. The presence of an alumni affiliate also somewhat positively affected teacher perception of administrative support, job satisfaction and familiarity with FFA activities (Jewell, 1981). FFA Alumni affiliates benefit the teacher and the FFA program through these positive relationships.

Though FFA has a long history of alignment with leadership, few studies have been done explicitly addressing how FFA affects community leaders (Brannon et al., 1989). Brannon et al. (1989) formulated an instrument to determine community leaders' level of participation in and perceptions of vocational agriculture. The leaders indicated that vocational agriculture/FFA had a great impact on their success as community leaders (Brannon et al., 1989). Additionally, 44% of all community leaders and 49% of male community leaders were involved in vocational agriculture programs (Brannon et al., 1989). It was also reported that leaders who had participated in vocational agriculture had a higher degree of involvement in community activities than non-participants (Brannon et al., 1989).

### SAE

SBAE has embraced the project method since Stimson first utilized the method in his classroom in 1908 (Roberts and Harlin, 2007). Today, the agricultural education profession uses the term SAE as the term for Stimson's project method (Phipps et al., 2008). Over the past 100 years, there have been several changes to the purpose of SAE in agricultural education. The focus on skill-based projects has shifted to a professional devel-

## A Philosophical Examination

opment focus that enhances the students' knowledge of the agricultural industry (Roberts and Harlin, 2007).

Historically, SAE has been a form of individualized application for students to apply the knowledge gained from classroom instruction to a real-world setting (Newcomb et al., 2004; Phipps et al., 2008). When developing an SAE program, agricultural students individually select a project area that is tied to a career interest within the agricultural industry (Barrick et al., 1992; Newcomb et al. and Phipps et al., 2008). In turn, students are able to strengthen and develop workforce and societal skills necessary to be successful in their careers and life (Barrick et al., 1992). In addition, Roberts and Ball (2009) argued that industry relevant skills and knowledge must be incorporated in the agricultural education curriculum; SAE programs provide students the opportunity to develop these skills. Further, agricultural education programs must develop lasting relationships with industry representatives to ensure that students learn the necessary skills to be a productive member of the workforce (Phipps et al., 2008 and Roberts and Ball, 2009). Similarly, NBC News Education Nation (2012c) posited that a charter school in Miami, Florida, has successfully partnered with industry and developed programs in which students spend part of the day learning a skill that will prepare them for the workforce as well as post-secondary education. Partnerships with industry have created a strong relationship between the school district, industry and the community and have allowed students to have real life experiences that allow them to learn by doing (NBC News Education, 2012c).

According to the American Management Association's Critical Skills Survey (2010), U.S. employers reported that the future workforce must be equipped with skills beyond reading, writing and arithmetic, with skills such as problem solving and critical thinking. Phipps et al. (2008) stated that student involvement in SAE programs further promotes the acquisition of problem-solving and critical thinking skills. Students who complete an SAE program are required to make decisions that affect the program's economic productivity and overall success (Newcomb et al., 2004). Finally, the development of these vital skills will assist students in becoming successful members of society and well-prepared employees for the workforce (Barrick et al., 1993).

To ensure that SAE programs are properly implemented, teachers are expected to supervise the student's developed program (Newcomb et al., 2004; Phipps et al., 2008). Traditionally, supervision has occurred through annual home visits to the students' SAE programs. During the home visit, teachers are, in many cases, presented with an opportunity to interact with the student's parents. This opportunity is used to provide parents with an understanding of SAE programs as well as a set time that the teacher can garner support for the agricultural education program (Newcomb et al., 2004; Phipps et al., 2008). Similarly, teacher visits to industry partners and work-based placements for high

school students allows the teacher to build relationships with both industry partners and the student (NBC News Education Nation, 2012c). Based on this interaction, a lasting impression can be made on parents that will further benefit the students' education (Phipps et al., 2008). Finally, parent, community members and employers can conduct more informal supervision (Newcomb et al. and Phipps et al., 2008). Further, support for the agricultural education program can be promoted through the interactions that community members and employers have with students' SAE programs (Phipps et al., 2008).

## Conclusion/Discussion

Based upon the research and literature analyzed, agricultural education has embraced and embodied the principles presented and discussed by NBC's Education Nation. Through the use of classroom/laboratory instruction, the National FFA Organization and SAE, agricultural education provides examples for implementation of Education Nation's initiatives (Phipps et al., 2008). Since the passage of the Smith-Hughes Act of 1917, agricultural education has promoted individualized instruction, utilized innovative and proven teaching methods, promoted community support, conducted home visits and prepared students for the workforce or post-secondary education (Hillison, 1987; Moore, 1987; Phipps et al., 2008).

A variety of teaching methods are utilized within SBAE that promotes the overall goals of Education Nation. Some of the innovative teaching methods utilized in SBAE include: problem-based learning, experiential learning and inquiry-based learning (Boone, 1990; Myers et al., 2009; Phipps et al., 2008; Roberts, 2006; Thoron et al., 2011). The use of these teaching methods promotes student learning and knowledge retention through agricultural education (Phipps et al., 2008; Ricketts et al., 2006).

Members of the agricultural education profession must stand together and be recognized as an integral component to the educational profession/society. This requires agricultural education to adopt and implement the Common Core Standards and the initiatives of NBC's Education Nation. The need for preparing students for the workforce and postsecondary education is evident in SBAE (Newcomb et al., 2004; Phipps et al., 2008). Further, agricultural education promotes skill and career training through the curriculum that is taught in agricultural education programs (Newcomb et al., 2004; Phipps et al., 2008), supporting the needs presented by Education Nation (2012). To enhance students' preparation for the workforce and post-secondary education, students in agricultural education are presented with the opportunity to experience and apply their knowledge to real-world situations through the National FFA Organization and SAE programs. Through each component of the total agricultural education program, students are adequately provided with the resources to be successful in the workplace and post-secondary classroom (Newcomb et al., 2004; Phipps et al., 2008).



SBAE is firmly rooted in community support and need (Phipps et al., 2008), supporting Education Nation (n.d.) that encouraged parents and community members to have an interest in ensuring that student receive a high-quality education. The SBAE program promotes parental and community involvement through the integral components of FFA and SAE (Newcomb et al., 2004; Phipps et al., 2008). Through SAE programs, agricultural education continues to meet the call of Education Nation by conducting home visits to promote the agricultural education curriculum and student involvement in SAE programs (individualized learning).

### **Implications**

This study provides findings that elicit three overarching implications for local SBAE programs, agricultural education organizations and agriculture teacher education programs. First, based on the findings that SBAE prepares students to enter the workforce or post-secondary classroom (Hillison, 1987; Moore, 1987; Newcomb et al., 2004; Phipps et al., 2008), secondary agricultural educators and agricultural education organizations (National FFA Organization, The Council, Team Ag Ed, etc.) should promote the achievements of their students on the local and state level. This could promote the need for SBAE in every public school, state and federal funding and local support for appropriate agricultural teaching facilities. Second, because students have been found to increase knowledge gain due to proven teaching methods (Phipps et al., 2008; Ricketts et al., 2006), secondary agricultural educators should continue to utilize innovative and proven teaching methods. This will assist students in developing problem-solving, critical-thinking and personal development skills. Further, teacher education programs should continue to prepare preservice teachers to implement proven and innovative instructional strategies and teaching methods. Third, because SBAE has historically demonstrated the goals and innovations of Education Nation and the Common Core State Standards (Phipps et al., 2008; Ricketts et al., 2006), teacher educators and secondary teachers must continue to promote preservice teacher education programs to high school and undergraduate students. Fourth, agricultural education teacher preparation programs must continue to rejuvenate curriculum to incorporate new and innovative strategies that enhance the overall education experience of high school and middle school students.

### **Literature Cited**

Barrick, R.K., L.R. Arrington, T. Heffernan, M. Hughes, L. Moody, P. Oglie and D. Whaley. 1992. *Experiencing agriculture: A handbook on supervised agricultural experience*. Alexandria, VA: The National Council for Agricultural Education.

Bauer, M. 2000. *Classical content analysis: A review*. In Bauer, M. and Gaskell, G. (eds.), *Qualitative researching with text, image and sound-a handbook*

(pp. 131-150). London: Thousand Oaks, New Delhi: Sage.

Benson, P.W. 1982. The relationship of FFA, Vo-ag and work experience with work attitudes. *Journal of the American Association of Teacher Educators in Agriculture* 23(3): 51-57. DOI: 10.5032/jaatea.1982.03051

Boone, H.N. 1990. Effect of level of problem solving approach to teaching on student achievement and retention. *Journal of Agricultural Education* 31(1): 18-26. DOI: 10.5032/jae.1990.01018

Brannon, T., C.W. Holley and J.P. Key. 1989. Impact of vocational agriculture/FFA on community leadership. *Journal of Agricultural Education* 30(3): 37-45. DOI: 10.5032/jae.1989.03037

Carter, R.I. and A.B. Neason. 1984. Participation in FFA and self-perceptions of personal development. *Journal of the American Association of Teacher Educators in Agriculture* 25(3): 39-44. DOI: 10.5032/jaatea.1984.03039

Common Core State Standards Initiative. 2012. *Common core state standards initiative*. <http://www.corestandards.org/>

Dailey, A.L., C.A. Conroy and C.A. Shelley-Tolbert. 2001. Using agricultural education as the context to teach life skills. *Journal of Agricultural Education* 42(1): 11-20. DOI: 10.5032/jae.2001.01011

Dewey, J. 1938. *Experience and education*. New York, NY: Collier Books.

Doolittle, P.E. and W.G. Camp. 1999. Constructivism: The career and technical education perspective. *Journal of Vocational and Technical Education* 16(1). <http://scholar.lib.vt.edu/eJour.s/JVTE/v16n1/doolittle.html>

Dyer, J.E. and E.W. Osborne. 1996. Effects of teaching approach on problem solving ability of agricultural education students with varying learning styles. *Journal of Agricultural Education* 37(4): 38-45. DOI: 10.5032/jae.1996.04038

EGgen, P.D. and D.P. Kauchak. 2001. *Strategies for teachers: Teaching content and thinking skills*. Boston, MA: Allyn and Bacon.

Flick, U. 2006. *An introduction to qualitative research (3rd ed.)*. London, UK: Sage.

Fosnot, C.T. 1996. *Constructivism: Theory, perspective and practice*. New York, NY: Teachers College Press.

Gordon, H.R.D. 2008. *The history and growth of career and technical education in America*. Long Grove, IL; Waveland Press, Inc.

Heald, F.E. 1929. *Our leadership in agricultural education: Rufus W. Stimson, pioneer*. *Agricultural Education* 1(3): 3,4,14 and 15. <http://www.naae.org/links/agedmagazine/archive/Volume01/v1i3.pdf>

Hillison, J. 1987. February. *The Smith-Hughes Act at 70*. *Agricultural Education Magazine* 59(8): 4.

Hillison, J. 1993. The role of Virginia in the development of the FFA. *Journal of Agricultural Education* 34(2): 37-45. DOI: 10.5032/jae.1993.02037

Jewell, L.R. 1981. *Vocational agriculture teacher and program factors related to future farmers of America*

## A Philosophical Examination

- alumni affiliates. *Journal of the American Association of Teacher Educators in Agriculture* 22(2): 54–63. DOI: 10.5032/jaatea.1981.02054
- Kolb, D.A. 1984. *Experiential learning: Experience as the course of learning and development*. Englewood Cliffs, NJ: Prentice–Hall, Inc.
- Lincoln, Y.S. and E.G. Guba 1985. *Naturalistic inquiry*. Newbury Park, CA: Sage Publications.
- Martin, E. 2014. Commentary: Engagement in STEM begins with autonomy and responsibility. <http://www.nbcnews.com/feature/education-nation/commentary-engagement-stem-begins-autonomy-responsibility-n94931>
- Moore, G.E. 1987. February. The status of agricultural education prior to the Smith–Hughes Act. *Agricultural Education Magazine* 59(8): 4.
- Moore, G.E. 1988. The forgotten leader in agricultural education: Rufus W. Stimson. *Journal of the American Association of Teacher Educators in Agriculture* 29(3): 51–58. DOI: 10.5032/jae.1988.03051
- Moore, G.E. and C. Gaspard. 1987. The quadrumvirate of vocational education. *Journal of Technical Education* 4(1).
- Myers, B.E., A.C. Thoron and G.W. Thompson. 2009. Perceptions of the National Agriscience Teacher Ambassador Academy toward integrating science into school–based agricultural education curriculum. *Journal of Agricultural Education* 50(4): 120–133. DOI: 10.5032/jae.2009.04120
- National FFA Organization. 2015. The three-circle model. <https://www.ffa.org/About/WhoWeAre/Pages/AgriculturalEducation.aspx>
- National FFA Organization. 2011. November. FFA statistics. <https://www.ffa.org/about/howeare/Pages/Statistics.aspx>
- National FFA Organization. 2012. National FFA Organization agricultural education. <https://www.ffa.org/Pages/default.aspx>
- National FFA Organization. n.d.a A brief history of the National FFA Organization. [https://www.ffa.org/documents/about\\_ffahistory.pdf](https://www.ffa.org/documents/about_ffahistory.pdf)
- National FFA Organization. n.d.b Historical timeline of FFA. [https://www.ffa.org/documents/about\\_ffatimeline.pdf](https://www.ffa.org/documents/about_ffatimeline.pdf)
- NBC News Education Nation. 2011. September 26. Classrooms in action: A window on great teaching [Video file]. <http://www.nbcnews.com/video/nbc-news/44673903#44673903>
- NBC News Education Nation. 2012a. September 26. From high school to higher ed and beyond: College and career readiness [Video file]. <http://www.educationnation.com/index.cfm?objectid=FFE0DF66–081C–11E2–BC7C000C296BA163>
- NBC News Education Nation. 2012b. September 25. Summer spotlight: Getting back to work [Video file]. <http://www.nbcnews.com/video/nbc-news/49163708#49163708>
- NBC News Education Nation. 2012c. September 25. Coming together: The community turns around Worcester Tech [video file]. <http://www.nbcnews.com/video/nbc-news/49165077#49165077>
- NBC News Education Nation. n.d. NBC news Education Nation. <http://www.educationnation.com/>
- Newman, L.H., J.D. McCracken, J.R. Warmbrod and M.S. Whittington. 2004. *Methods of teaching agriculture (3rd ed.)*. Upper Saddle River, NJ: Pearson Prentice Hall.
- Owings, J.A. and C.L. Nelson. 1979. FFA leaders and personality traits. *Journal of the American Association of Teacher Educators in Agriculture* 20(1): 40–44. DOI: 10.5032/jaatea.1979/jaatea.1979.01044
- Park, T.D. and J.E. Dyer. 2005. Contributions of agricultural education, FFA and 4–H to student leadership in agricultural colleges. *Journal of Agricultural Education* 46(2): 83–95. DOI: 10.5032/jae.2005.02083
- Phipps, L.J., E.W. Osborne, J.E. Dyer and A. Ball. 2008. *Handbook on agricultural education in public schools (6th ed.)*. Clift Park, NY: Thomson Delmar.
- Phipps, L.J. and E.W. Osborne. 1988. *Handbook on agricultural education in public schools (5th ed.)*. Danville, IL: Interstate.
- Ricketts, J.C. and R.D. Rudd. 2004. Leadership development factors leading to the success of former Florida state FFA officers. *Journal of Southern Agricultural Education Research* 54(1): 242–253.
- Roberts, T.G. 2006. A philosophical examination of experiential learning theory for agricultural educators. *Journal of Agricultural Education* 47(1): 17–29. DOI: 10.5032/jae.2006.01017
- Rutherford, T.A., C.D. Townsend, G.E. Briers, R. Cummins and C.R. Conrad. 2002. Leadership self-perceptions of WLC participants. *Journal of Agricultural Education* 43(2): 22–33. DOI: 10.5032/jae.2002.02022
- Steffe, L.P. and J. Gale. (eds.). 1995. *Constructivism in education*. Hillsdale, NJ: Erlbaum.
- Stimson, R.W. 1915. The Massachusetts home project plan for vocational agricultural education. *The School Review* 23(7): 474–478. <http://www.jstor.org/stable/1076877>
- Talbert, B.A. and M.A. Balschweid. 2004. Engaging students in the agricultural education model: Factors affecting student participation in the National FFA Organization. *Journal of Agricultural Education* 45(1): 29–41. DOI: 10.5032/jae.2004.01029
- The National Council for Agricultural Education. 2012. The council. <https://www.ffa.org/thecouncil/Pages/index.html>
- Thoron, A.C. and B.E. Myers. 2009. Perceptions of preservice teachers toward integrating science into school–based agricultural education curriculum. *Proceedings of the American Association for Agricultural Education Research* 528–541.
- Thoron, A.C., B.E. Myers and K. Abrams. 2011. Inquiry–based instruction: How is it utilized, accepted and assessed in schools with national Agriscience teachers ambassadors? *Journal of Agricultural Education* 52(1): 96–106. DOI: 10.5032/jae.2011.01096



True, A.C. 1929. A history of agricultural education in the United States 1785–1925 (No. 36). United States Government Printing Office.

Virginia Future Farmers of America. n.d. Virginia's role in the development of the FFA. <http://www.vaffa.org/history/virginiaffa.html>

von Glasersfeld, E. 1984. An introduction to radical constructivism. In P. Watzlawick (ed.). *The invented reality*. New York, NY: Norton.

von Glasersfeld, E. 1998. Why constructivism must be radical. In M. Laroche, N. Bednarz and J. Garrison (Eds.), *Constructivism and education*. Cambridge, UK: Cambridge University Press.

Wingenbach, G.J. and A.A. Kahler. 1997. Self-perceived youth leadership and life skills of Iowa FFA members. *Journal of Agricultural Education* 38(3): 37–45. DOI: 10.5032/jae.1997.03018

*Join us next year!*

**63rd Annual NACTA Conference**  
**Purdue University**

