Poster Type: Research

Employability Skills Gained as a Result of Entrepreneurial Livestock Oriented Supervised Agricultural Experiences: A Modified Delphi Study

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Introduction

Entrepreneurial livestock programs are one of the most popular supervised agricultural experience (SAE) components of school-based agricultural education (SBAE) programs in Oklahoma (Oklahoma Department of Career and Technology Education, 2016). Highlighting the acquisition of employability skills, such as basic academic skills, higher order thinking skills, and personal qualities (Hillage & Pollard 1998) through participation in entrepreneurial livestock SAEs has potential to reinforce "entry or advancement in agricultural occupations and professions" (Phipps, Osborne, Dyer, & Ball, 2008, p. 3), which is a fundamental goal of SBAE programs. The acquisition of employability skills is important, as twenty-one million people are employed directly in agriculture or agriculturally related careers (Duvall, 2017). Therefore, it is essential for administrators, instructors, and prospective employers to recognize the potential for the acquisition of employability skills when students are involved in SAE programs. To that end, the purpose and primary objective of this study was to identify the employability skills acquired by students who engaged in entrepreneurial livestock SAE programs.

Theoretical Framework

Experiential learning is a key pedagogy used in SBAE programs (Baker, Robinson, & Kolb, 2012) and thus guided this study as a framework. All aspects of the program (i.e., classroom, FFA, and SAE) can serve students as a nexus for experiential learning. Student participation in the SAE component, as well as being supported by the classroom/ laboratory and FFA components of the agricultural education model, have the potential to lead to meta-level skills that are potentially reflected in the acquisition of employability skills. Involvement in SAE programs, has the potential to expose students to a variety of careers, learn proper workplace etiquette, develop skills within a specific area, and provide opportunities to apply learned knowledge in a simulated environment. Approaches such as these reinforce what is learned in the classroom and laboratory setting and reinforce the three-component model of Agricultural Education (2016-2017 Official Manual, National FFA Organization, 2016).

Methodology

The population for this study consisted of all SBAE instructors in [State] ($N = 433$). To identify the employability skills of students who engaged in entrepreneurial livestock SAEs, the researchers elected to purposefully identify and sample a jury of instructors exhibiting expert traits related to the objective of the study (Palinkas et al., 2013). The criterion utilized to determine the jury of experts included instructors whose students' SAE projects had been selected by the [State] FFA Association as a state proficiency award finalist in the 2015-16 school year in the areas of beef, swine, sheep, and goat entrepreneurship. As a result of this criterion, 43 instructors were included in the study's sample. A three-round, modified Delphi technique (Dalkey & Helmer, 1963) was employed to seek consensus on employability skills learned through entrepreneurial SAE programs. Qualtrics® was utilized to facilitate data collection. In Round One, three statements were presented to the jury; 1) identify the *basic academic skills* students acquire through a livestock oriented entrepreneurial supervised agricultural experience program, 2) identify the *higher-order thinking skills* students acquire through a livestock oriented entrepreneurial supervised agricultural experience program, 3)

identify the *personal qualities* students acquire through a livestock oriented entrepreneurial supervised agricultural experience program. Two additional rounds were used to seek consensus on the items identified as a result of Round One. In Round Two, panelists were asked to rate their level of agreement using a six-point scale and if necessary, re-write items as presented if they believed additional clarity was needed. Items that achieved 75% agreement or higher (i.e., *Agree* or *Strongly Agree*) were retained as those reaching consensus. However, items that did not achieve 75% agreement but more than 51% were sent back to the experts in Round Three. Round Two also provided an opportunity for jurors to add additional items that may have been missed in Round One. The third and final round sought to refine consensus on items that reached more than 51% but less than 75% agreement in Round Two.

Results/Findings

Round One yielded 55 responses. Similar or duplicate statements were combined or eliminated (Shinn, Wingenbach, Briers, Lindner, & Baker, 2009) resulting in 31 responses for presentation in Round Two. Round Two resulted in *consensus of agreement* on 26 responses reflecting all three statements presented to the jury, i.e., 75% or more of the jurors selected 5 *(Agree)* or 6 *(Strongly Agree)*. The statement, basic academic skills, resulted in two skills that reached consensus of agreement. The statement, higher-order thinking skills, resulted in nine skills that reached consensus of agreement. The third statement, identify the personal qualities, resulted in 15 items that reached consensus of agreement. Round Three included three responses, two from basic academic skills and one from higher-order thinking skills. After consideration of the three items, the jury determined no additional items met consensus in Round Three. After three rounds of the study, 26 responses reached consensus of agreement. The following distribution of responses was reflected: Basic Academic Skills = 2 items; Higher-Order Thinking Skills = 9 items; Identify the Personal Qualities = 15 items.

Conclusion

This study highlights the potential for livestock oriented SAEs within the SBAE model to facilitate the acquisition of employability skills. Further, Delphi jurors listed 26 employability skills that, according to Robinson (2000), represent basic academic skills, higher-order thinking skills, and personal qualities that may be gained through entrepreneurial SAE programs.

Implications/Recommendations/Impact on Profession

Making the connection between employability skills and the potential to reinforce basic academic skills (i.e., oral communication, basic science); higher-order thinking skills (i.e., decision making, problem solving); and personal qualities (i.e., responsibility, dedication, and work ethic) with stakeholders, school administrators, and parents complements the efforts of the SBAE program to contribute to student achievement. Research should be conducted to determine additional factors needed to postulate an SAE model that would prepare students for entry-level employment in the agricultural industry. Based on findings of this study, career preparedness should play a more integral role in the development and implementation of entrepreneurial livestock SAE programs. Finally, state staff, professional teacher organizations, teacher educators, high school administrators, and community stakeholders should join forces to advise SBAE instructors in planning and implementing entrepreneurial livestock SAEs utilizing the agricultural education model while highlighting the acquisition of employability skills through the development of basic academic skills, higher-order thinking skills, and personal qualities.

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