Poster Type: Research

A Qualitative Study Investigating Students' Perceptions of Experiential Learning within an Agriculture Curriculum

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Introduction

Priority Area 1 of the *National Research Agenda: American Association for Agricultural Education's Research Priority Areas for 2011-2015* recognizes the need for agricultural literacy (Doerfert, 2011). Also in Priority Area 1, it encourages the study of "delivery method preferences and effectiveness" (Doefert, 2011; p. 8) in agriculture and natural resources. It has been long stated that agriculture "is too important a topic to be taught only to the relatively small percentage of students considering careers in agriculture and pursuing vocational agriculture studies" (National Research Council, 1988; p. 1). One of the key methods of teaching agriculture is through hands-on application. Experiential learning is championed because it allows the learner to make lasting connections with the subject matter through engagement and reflection (Northern Illinois University, 2011). By introducing agriculturally centered lessons and utilizing experiential learning theories, researchers can have a positive impact on increasing agricultural literacy (Blair, 2009).

Theoretical Framework

Kolb's (1984) model of experiential learning was used as the theoretical framework for this study. Experiential learning builds on the foundation that learning is a process which focuses on experimentation, active engagement, and reflection (Baker, Robinson, & Kolb, 2012). Experiential learning is a valuable tool in education because through engagement, it promotes an atmosphere for critical thinking and problem solving (Wozencroft, Pate, & Griffiths, 2014).

The model for experiential learning conceptualizes learning based on experiences in four components: concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb, 1984). Concrete experience begins with the learner experiencing a situation. Reflective observation requires the learner to examine the concrete experience in order to conceptualize a variety of perspectives to place meaning with the experience. In abstract conceptualization, the learner builds on their reflective experiences to examine and infer logical conclusions from the experience. Finally, active experimentation propels the learner to make decisions and apply concepts to new and future experiences (Dunlap, Dobrovolny, & Young, 2008).

Methodology

The purpose of this study was to examine student perceptions of using experiential learning while being taught agricultural lessons. This study implemented qualitative methods to gain an in-depth understanding of student experiences related to agricultural lessons and experiences. The researchers developed questions related to the lessons and student experiences in an attempt to ensure responses adequately represented students' true thoughts and feelings.
The following research objectives guided this study:

1. Explore students' prior and current perceptions of agriculture.
2. Explore students' views toward the agriculturally contextualized lessons.
3. Describe the students' views of experiential learning as it relates to the agricultural lessons.

The focus group was used to investigate research objectives and consisted of 10th grade Biology students (N = 21). Masadeh (2012) reported focus groups allow for participants to engage in

deep discussions concerning related topics. The author further contended because of the intentional design of focus groups, they are beneficial in producing precise responses rather than generalizations (Masadeh, 2012). The focus group was conducted and facilitated by an additional researcher who had knowledge of the ongoing project.

After the focus group was conducted, responses were digitally recorded and later transcribed verbatim into Microsoft Word ©. Additionally, focus group responses were compared with detailed notes and observations from the interviewer for coding and theme analysis.

Results/Conclusions

This study took place during the spring of 2015 at a private school in northeast [State]. Private schools were identified as schools that received no state funding and/or that are members of the [State] Association of Independent Schools. Students were taught six (6), 45-minute lessons that were contextualized in agriculture focusing on a variety of agricultural topics. Students received modified instruction through the incorporation of hands-on activities. Examples of the activities included fertilizer spreading, experience with soil textures and profiling, and a fully functional high-tunnel for plant growth and fertilizer responses.

Based on the objectives of this study, three overall themes emerged from student responses via the focus group:

1. A low and negative perception of and awareness of agriculture.
2. Enjoyment and satisfaction of experiential learning and agricultural activities,
3. Increased appreciation for agricultural production practices, and the importance of the role agriculture plays in food production and society.

The focus group revealed students had a relatively negative and narrow perception of agriculture (Frick, Birkenholz, Gardner, & Machtmes, 1995) before they experienced any lessons or hands-on activities. After their experiences, students revealed they began to view agriculture in a positive light and more in-depth. Students indicated they were now aware of the history of agriculture and processes related to food production. The focus group also revealed their level of satisfaction and enjoyment of being taught agricultural lessons; furthermore, student responses indicated how basic science concepts they had already been taught are related to agriculture (Blair, 2009). By using hands-on experiences, the students expressed this approach led to increased retention of content and how their experiences helped them appreciate everything that agriculture encompassed (Northern Illinois University, 2011).

Recommendations

The findings from this study can be used to encourage future research to target populations that traditionally do not receive any type of formal agricultural education as well as assessing agricultural literacy. This study targeted a private school because in [State], private schools are open to modifications in the curriculum to allow agriculturally centered teachings/lessons. When possible, appropriate hands-on activities should accompany these lessons to foster a more intimate connection with the material.

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