

Knowledge and Perceptions of Agriculture in Tennessee through Fall Agritourism Experiences

A Thesis
Presented for the
Master of Science Degree
The University of Tennessee, Knoxville

Jessica Jarrell Poore
August 2011

Acknowledgements

I want to thank everyone who continued to remind me throughout this process that my research was important. I would like to thank Dr. Bryan Patterson for helping me to realize my potential, encouraging me through this process, and for giving me many opportunities to grow. I would like to thank Carrie Stephens as being my role model and for her constant encouragement during this process and the entire time we have known one another. Also, thank you to Dr. Barbara Thayer-Bacon for helping me find a unique passion for education and for agreeing to be a part of my committee.

Thank you to the agriculture producers and advocates throughout the nation that supply the food, fiber, and fuel our nation needs to survive. Thank you for standing up for American agriculture and reaching out to educate the public. Also, thank you to the venue owners who agreed to participate in this research. Without you this research would not have been possible.

Thank you to my fellow graduate students who have shared this experience with me and continued to keep me optimistic. Also, thank you to my mentor Dr. John Riley for your constant guidance.

Finally, my biggest thanks and love to my husband, family, and extended family that have supported me throughout my education and reminded me that I am capable of achieving all of my dreams. I love you all very much. I could not have done it without you.

Abstract

The purpose of this study was to identify the key educational components of agritourism in Tennessee. The study strived to identify if knowledge of the agricultural industry increased due to agritourism experiences and if perception of the agriculture industry changed due to the experience. Additionally, the research sought to describe visitor demographics and characteristics.

Following a pilot study in 2009, three agritourism venues throughout the state of Tennessee were used to collect surveys to create a pool of respondents and to identify their original knowledge of perceptions of the agriculture industry for the 2010 study. Additional data was gathered through an extensive post survey that gathered demographic information and respondents' knowledge and perception levels based on several five point Likert scale questions. The responses were coded and entered by the primary investigator. The information was analyzed using means, standard deviations, and frequencies.

The study revealed that respondents to agritourism venues do think that they experience are educational. The visitors expected an educational experience. Experiences at agritourism venues tend to increase consumer confidence slightly. Many respondents agree that they learn best through the hands on experience provided through the agritourism venues. Additionally, all respondents agreed that they would recommend the experience to others.

Table of Contents

CHAPTER I.....	1
INTRODUCTION.....	1
Overview	1
Introduction to Agritourism	1
Need for Research	5
Purpose of Research/Limitations	6
Research Objectives.....	7
CHAPTER II	8
REVIEW OF THE LITERATURE	8
Overview	8
Forms of Education and Learning.....	8
Behaviorist Learning Theory	10
Stimulus-Response Learning.....	10
Constructivist Learning Theory	11
Experiential Learning	11
Self-Directed Learning	13
Agritourism.....	14
Summary	18
CHAPTER III.....	19
METHODOLOGY	19
Overview	19
Purpose of the Study	19
Design of the Study.....	19
Venue Selection	20
Pilot Study	20

Population	21
Development of the Instruments.....	22
Farm Venue Descriptions	24
Data Analysis	25
CHAPTER IV:.....	27
EXPERIENTIAL EDUCATION OPPORTUNITIES IN AGRITOURISM.....	27
Overview	27
Abstract	27
Introduction.....	28
Purpose and Objectives	29
Theoretical & Conceptual Framework.....	29
Methodology	32
Findings	35
Conclusions.....	48
Recommendations.....	51
CHAPTER V	53
IMPLICATIONS OF THE RESEARCH.....	53
Overview	53
Conclusions.....	53
Recommendations.....	55
REFERENCES.....	57
APPENDICES	62
Appendix A	63
Letter to Venue Owners.....	63

Appendix B	65
Pilot Study Survey.....	65
Appendix C	67
Pre Survey	67
Appendix D	69
Post Survey Letter.....	69
Appendix E.....	71
Post Survey	71
VITA.....	74

List of Tables

Table 1. Areas where visitors to agritourism venues grew up (n=70)	37
Table 2. Education levels of agritourism venue visitors (n=70)	38
Table 3. Primary reason for visit to venue (n=70)	39
Table 4. Annual visits to agritourism venues (n=70)	40
Table 5. Pre survey results of visitors' original knowledge and perception of agriculture (N=191)	42
Table 6. Post survey knowledge increase results	44
Table 7. Post survey perception change results (n=70)	45
Table 8. Pre and post survey results compared (n=70)	46
Table 9. Responses to open-ended question1 (n=24)	47
Table 10. Responses to open-ended question 2 (n=49)	48

List of Figures

Figure 1: Advertisement Type that First Introduced Visitors to the Venue	40
Figure 2: Model of Experiential Learning at Agritourism Venues	50

Chapter I

Introduction

Overview

Chapter one provides an introduction to this study of experiential education in agritourism through agritourism venue visits in Tennessee. This chapter contains state and national data concerning agritourism and the information and reasoning for the need for the research, the purpose of the study, limitation, and the objectives of the study.

Introduction to Agritourism

The Tennessee Agritourism Initiative Steering Committee defined agritourism as, “an activity, enterprise, or business which combines primary elements and characteristics of Tennessee agriculture and tourism and provides an experience for visitors which stimulates economic activity and impacts both farm and community income” (Bruch and Holland, 2004). According to the United States Department of Agriculture (USDA), 52,000 United States farms were participating in some form of agritourism in 2004 (United States Department of Agriculture, 2004). Additionally, more than half of the farms participating in agritourism were in the South with reasons being an alternative form of farm income and to stimulate the rural economy around them (Brown & Reeder, 2007). While many researchers have studied the economic impact of agritourism on the state of Tennessee, few have evaluated the effectiveness of the educational experience producers provide at their agritourism venues. It is often taken for granted that learning is occurring through agritourism experiences that these farm venues provide.

The National Agriculture Statistics Service (NASS) confirmed that agriculture was

America's most vital industry with imports of agricultural products at nearly 79 billion dollars topped by nearly 109 billion dollars of exports in the 2010 fiscal year (National Agriculture Statistics Service, 2010). It was also an industry that few consumers were knowledgeable about. In the National Academy of Science's report, agricultural literacy was defined as having knowledge and understanding of the food and fiber system (1988). According to the 2007 Census of Agriculture, farms numbers in Tennessee dropped from 87,595 in 2002 to 79,280 in 2007 with a loss of nearly half a million farm acres (NASS, 2007). While mechanization and technology have been beneficial for agriculture and allowed production of more food to happen on less land, more families have also taken the opportunity to move off the farm and specialize in many other occupations. For example, new technology has been beneficial to production agriculture with the amount of available land and a higher need for food production to feed a growing population. However, it has also allowed those others who do not participate in their own food production to lose sight of the knowledge of production agriculture.

So, while beneficial, technology has also served as a catalyst to disconnect many Americans with agricultural production (Blank, 2008). As the nation's population increases, fewer families have direct ties to production agriculture. Therefore, more families are disconnected from production agriculture and the education of the public about the world's most vital industry, agriculture. Agriculture is important to the country socially and economically and for those reasons a basic knowledge of agriculture is vital. Agriculture is a factor in a global market that the world will never escape and Americans cannot afford to lack a basic knowledge of the industry (Flood & Elliott, 1994). While the agriculture industry creates jobs for nearly 15 percent of the United States employment, a little less than 2 percent of Americans are directly related to production agriculture (American Farm Bureau Federation, 2009).

For many years, Americans have been moving away from farms and away from production agriculture. On average the American farmer produces enough food and fiber for 155 people annually (American Farm Bureau, 2009). Even with these statistics, people have taken for granted the impact of agriculture to our economy, environment and world standing (Pope, 1990). While the 1990's may have seen an era of disconnect, the new millennium has been challenged with that same problem in a new way. Hagins (2001) understood this new challenge and described the need for more correct and adequate news and media coverage of topics in agriculture to provide the public with a sense of agriculture literacy that her research showed most lacked. Understanding a growing need for the public to understand agriculture she quoted Law (1990) in her study saying, "Americans know very little about the social and economic impact of agriculture in the United States, and agriculture is too important a subject to be taught only to a relatively small proportion of students enrolled in vocational agriculture. As special interest groups revolving around issues such as animal rights, pesticide usage, soil and water conservation, and other environmental concerns gain more media and public attention, it becomes more important that the general public have some background and understanding of not only what agriculture is all about, but on how it affects each person's life on a daily basis" (p.5). Since agriculture has become an area of controversy in the media, public perceptions of the industry are vital. Special interest groups that are well funded and have celebrity spokespeople often take anti-agriculture stances of many trending topics (Terry & Lawver, 1995). It is for this reason that many organizations and agriculture venue owners are taking steps to ensure a way to educate the public about agriculture.

Due to many special interest groups with an anti agriculture agenda there has been a sudden interest in production agriculture, and a unique opportunity to educate the public has been presented to agricultural producers. With a one sided story of agriculture production presented by

the special interest groups, consumers of agriculture products are likely to be swayed to one point of view. Thus, there arose a need for available information from both points of view concerning the agriculture industry. Agriculture is a consumer driven industry based on the needs and wants of the consumer. Now more than ever, determining the public's perception of agriculture is vital to the success of the industry. Agritourism owners now have the opportunity to become leading educators for agriculture by providing consumers an opportunity to experience a day on the farm. [The Travel Industry Association of America] reported that approximately 73 million people had taken a leisure vacation to a rural destination in the past three years (2001). Therefore, agritourism leaders bridge the gap between producer and consumer and create a new line of communication by bringing families to their farms for a day of fun and education. Agriculture consumers, who are also tourists, have an interest in experiencing rural life and learning. Agritourism venues could fill a void for these types of experience and provide needed educational experiences. There is an increased interest in educational experiences that agritourism can fulfill (Essex, Gilg, Smither, Wilson, & Yarwood, 2005).

In 2009, the United States Department of Agriculture with funding from the 2008 Farm Bill initiated a program labeled, *Know Your Farmer, Know Your Food* (2008). The program stemmed from President Barack Obama's plan to stimulate and strengthen local and regional food sourcing. Not only was the program a source of renewed farm income for producers, it additionally provided an opportunity for producers to share their experiences and knowledge of agriculture with those who are less knowledgeable about the industry. [The National Restaurant Association] found an increased interest in local foods and a connection with food products. Consumers indicated a desire to make a connection with the origination of their food. Locally sourced meats/seafood and with locally grown produce are the top two trends (2011). *Know Your Farmer*,

Know Your Food used information from these findings to develop a stronger platform for connecting rural producers and their consumers. The program stemmed from and is also closely tied to Farms to School programs. Farm to School programs exist in 48 states and help to provide information about agriculture and healthy eating to students in schools by partnering with local farms. The program taught students about how to develop healthy eating habits and where food products originated. The program also encouraged learning visits to the farms so that students could better understand their local food production system (United States Department of Agriculture, 2008).

Need for Research

Prior research shows that agritourism has had a significant impact on the value-added component of farm practices (English, Jensen, Lindborg & Menard, 2006). While agritourism was found to be a vital economic resource, it can additionally be an educational tool. The University of Tennessee Agricultural Extension Service provides a guide for those producers interested in beginning an agritourism venue. The authors conclude that agritourism has been occurring since the 1800's when families began visiting farms. Agritourism provides a learning experience for visitors and that reason often draws producers to become venue owners. The guide also indicated that aims of agritourism are often to increase income and provide education through recreation (Bragg, Bruch, Hankins, McDaniels, Prather, Whinchester & Ziehl, 2005).

According to the USDA, 44 million people agreed that learning where food comes from was important. Additionally, another 41 million people agreed that watching or participating in farm activities was important. The opportunities to fulfill these needs were reasons that contributed to their decision to visit an agritourism venue. Furthermore, research studies also

exhibit findings where visitors to agritourism venues are satisfied with their experience. (National Survey on Recreation and the Environment, 2003).

Visitors to agritourism venues value the educational experience. The problem, however, is that limited studies could be located where the educational experience was analyzed. Several questions on multiple surveys alluded to measuring an educational experience, but none sought the concept as a main objective. For example, in a survey for *Visitors to Tennessee Agri-Tourism Attractions* visitor demographics were analyzed. Visitors were asked several questions concerning the amount of money spent at the farm and in the surrounding area during the visit. Additionally, they were questioned about which amenities were significant in their choice to visit an agritourism venue. While most of the questions have an economic focus, at least one survey question did pertain to education and visitor preference for learning as part of their experience. People agreed that learning about how products are grown or made was significant in their reasoning to visit an agritourism venue. (English, Jensen, Lindborg & Menard, 2006). With little to no research focused solely on the educational value of agritourism experiences, how can agritourism venue owners be certain that goals of providing education through their venues are met? Therefore, this study examines visitors' knowledge and perception of agriculture before and after visiting one of three agritourism venues in Tennessee.

Purpose of Research/Limitations

The purpose of this study was to identify the key educational components of agritourism in Tennessee. For the purpose of this research, it is assumed that agritourism venue operators in Tennessee try to provide educational experiences through their agritourism operations.

Limitations of the study were the small number of farms that agreed to participate in the

distribution of surveys and the small number of responses due to the demanding nature of the businesses in the fall. Additionally, the agritourism venue owners cannot determine the exact number of adults (over 18) visitors to their farm each fall excluding duplication. The surveys were only collected for the fall agritourism type operations that are popular in Tennessee and may be different than spring or summer months. Each division of the state (east, middle and west) provided one farm for research and only visitors 18 and older were surveyed.

Research Objectives

The specific objectives addressed in this research are:

1. To describe visitor demographic and characteristics;
2. To interpret visitors' original perception and knowledge of Tennessee's agriculture industry prior to their experience at the agritourism venue;
3. To determine if knowledge of the agricultural industry increased due to the agritourism experience; and
4. To determine if perception of the agricultural industry changed due to the agritourism experience.

Chapter II

Review of the Literature

Overview

Chapter two contains a review of literature related to the philosophy of education and learning as well as agritourism. The chapter looks in depth at types of education and learning styles that align with agritourism venues. Constructivist, behaviorist, experiential, self-directed, and stimulus-response learning styles are specifically defined and explored in addition to agritourism industry assessments by various states.

Forms of Education and Learning

Walter and Marks (1981) classified learning into five types of experiences: education, training, professional development, personal growth and therapy. Education was referred to as the gathering and decoding of new information which included a cognitive skill set. Education itself was broken down into two basic categories: formal and informal (Merriam, Caffarella, & Baumgartner, 2007). Informal education was also referred to by Brennan (1997) and others as non-formal education. Formal education, often viewed as the institutionalized structure type education, was described as learning that occurs in our classrooms and often contains forms of formal assessment like exams and grades. Informal education can occur any place, with or without a certified instructor, and is much harder to specifically identify since there are rarely formal assessment tools. Brennan (1997) suggested that informal/non-formal education can be broken down into three subcategories that complement, supplement or are alternative to the formal education process.

Broudy (1961) suggested that education is tied directly to learning. He noted that not all education is planned or systematic and oppositely many parts of an individual's education are planned and purposeful. Distinguishing between the words learning and education was a struggle for most. Before breaking down the categories of education, he suggested that to understand the categories the reader consider education as, "the sum of all of his leanings" (p.6). Additionally, Broudy broke the types of education into three main categories formal, informal and milieu. Formal education included learning with an intended structure, an expected outcome, and aim to inform and share information is priority. Informal education provides limited structure in the presentation or curriculum plan and learning is expected to occur. Rather than learning through instruction and text, students learn through activities. Milieu education is described as the learning a person participated in by being exposed to the situation, lifestyle, or culture. This type of education seems to provide things people learn, "almost automatically" (p.7). Broudy suggested that learning during life is unavoidable and that some learning happened as a result of the pursuit of learning, but many happen unconsciously. Similar to Broudy's milieu education was indigenous learning which is learning through cultural experience and by being a part of the culture one is exposed to (Merriam, Caffarella, & Baumgartner, 2007).

Learning new information or practices increased the pool of knowledge of individuals. Many tools have been used to assess whether learning has occurred after an educational activity. Merriam, Caffarella and Baumgartner (2007) stated that to define learning as simply a change in behavior is not enough. Learning can be defined as, "a process that brings together cognitive, emotional, and environmental influences and experiences for acquiring, enhancing, or making changes in one's knowledge, skills, values, and work views" (p. 277). Additionally, the writers suggested that lifelong learning was a significant part of the culture of education established in the

United States. Many adult learners are inspired to continue learning based on changes in their lives or questions that arise from a question their prior knowledge base cannot answer.

Behaviorist Learning Theory

While many theorists categorize learning into one theory or another, learning for the sake of this research is a blend of many traditional learning theories. Merriam, Caffarella, and Baumgartner (2007) suggested that behaviorist learning theory as a change in behavior and education that seeks to produce a change. Much adult learning and educational study has been based on behaviorist theory. Behaviorist learning theory centered on reaching the objective of a changeable behavior that occurs as a result of learning. Learning is very reliant on the environment the potential learner is exposed to, not just the learner's ability. Additionally, the concepts of how closely together the stimulus encouraging the change in behavior occurs to the response and continued reinforcement (Merriam, Caffarella, & Baumgartner, 2007).

Stimulus-Response Learning

An additional theory with significance to learning and behavior is the stimulus-response theory. Stimulus-response learning is significantly tied to behaviorist learning theory. Gagne (1977) theorized that stimulus-response learning will be met with a conditioned, learned response. The two key characteristics of stimulus-response learning are: 1) there must be a single drawn connection between the distinguished stimulus and the response and 2) the stimulus and response must be linked together in learning. Stimulus-response learning is rarely found in a pure, singular form because additional external affects are hard to block for the sake of evaluating the single stimulus-response. Gagne included that several conditions must exist in order for

stimulus-response learning to occur. For example, reinforcement and repetition are key conditions of stimulus-response learning. Furthermore, a shorter the time between the stimulus and response and any following reinforcement is considered ideal and repetition may be necessary for the learner.

For the sake of this research, the visit to the agritourism venue is considered a stimulus if a response occurs in the behavior of the visitors' consumer behavior. Visitors are asked about consumer behaviors prior to the on farm experience and then asked the same question about the consumer behaviors on the post survey. If a change has occurred, the researcher can conclude that a stimulus-response learning experience has occurred based on the change in behavior.

Constructivist Learning Theory

Merriam, Caffarella, and Baumgartner (2007) suggested that the constructivist learning theory is more focused on the cognitive functions of the brain rather than the stimulus of the environment. The researchers suggested that the learner must encounter the learning experience and then use their own individual thought to make sense of the challenge to their thoughts and construct their own knowledge; therefore, growing their cognitive ability (Merriam, Caffarella, Baumgartner, 2007). Furthermore, the constructivist learning approach challenges the learner to develop a meaning from experience and to construct new knowledge through reflection that ties prior knowledge and experience to the newly developed information and thought.

Experiential Learning

A blend of the concepts of behaviorist learning theory and constructivist learning theory can be defined as the expectation from experiential learning as a means of education. John Dewey

expressed his thoughts on the value of education and experience in his writings concerning his philosophy of education. Dewey (1938) felt experience played a vital role in learning. For Dewey, experience was crucial for the learner to be interested in learning and for the learned information to be applicable to real world practice. Too often in education, theory and experience were presented as two separate items occurring on two separate occasions. The two, as Dewey explained it, should coincide. Dewey suggested that thinking leads to learning and that initially experience is directly related to thinking. Experience then leads to new information gain and thought development.

Dewey (1938) emphasized the significance of change that was facing the philosophy of education of the past and the coming philosophy of education that would be the future. Dewey (1938) stated that if the newer philosophy stands to be successful that it is critical for, “an intimate and necessary relation between the processes of actual experience and education” (p.7). A more formal approach to education could be better complimented with a prior, direct experience by the learner. Dewey often noted the significance of the instructor as to bringing the outside world into the classroom for the student. Helping the student make a connection to something applicable was critical for the student to understand the significance of the educational experience. Being directly involved with activities would help learners to have thoughts about the processes and provoke questions and a quest for additional knowledge. Exposing potential learners to authentic situations would tie hand-in-hand with learning about the given topic. Dewey’s work outlined that experience was considered to be a provider of education, as long as experience was of educational value. Experience itself is not enough of a teacher because, “everything depends upon the quality of the experience which is had” (p.16).

Walter and Marks (1981) described experiential learning as, “a sequence of events with one or more identified learning objectives, requiring active involvement by participants at one or

more points in the sequence” (p.1). Most would simply define it as learning by doing. The four characteristics of experiential learning are involvement, relevance, responsibility, and flexibility (Walter & Marks, 1981). Involvement is the crucial core component of experiential learning. The learner must actively participate in the experience in order to consider the effects and potential growth. Relevance is significant to the success of learning because participants must consider the activity of importance to their personal or professional life or career. Responsibility is important because adult learners choose to be a part of the educational process and hold themselves accountable for learning. Flexibility is vital for experiential learning as most learning is informal and must be flexible to meet the needs of its learners in the given environment. In order for agritourism to be successful in creating a change in knowledge or perception, it must meet the needs of the clientele by providing relevant information in a flexible manner. Additionally, new knowledge must be tied to previous knowledge and experience through reflection in order to be of the most benefit to the learner (Merriam, Caffarella, & Baumgartner 2007). Therefore, education must be looked at as a learning process and both experience and reflection must be present for learning to occur. Merriam, Caffarella, and Baumgartner suggested that knowing and building knowledge is derived from actually doing the task at hand or having the initial experience and “that knowing is intertwined with doing” (p.164). While the significance of experience has been theorized, educators often struggle with the best method to use experience in conveying information to increase knowledge.

Self-Directed Learning

Belief in the thought that learning would be more enjoyable when it could be related to a person’s development and choice was of huge significance to Dewey (1938). The emphasis of the

learner's choice to learn in the progressive style of education is known as self-directed learning. Self-directed learning was the style of learning in which the learner was self-motivated to begin the learning process (Merriam, Caffarella, & Baumgartner, 2007). Merriam, Caffarella, & Baumgartner (2007) suggested that self-direction occurs naturally in adults' lives and instinctively was why self-directed learning was a part of adult life. In self-directed learning the learners, "take the primary initiative for planning, carrying out, and evaluating their own learning experiences" (p.110). It is important to note that these self-directed learning experiences can occur based on formal or informal educational opportunities. Merriam, Caffarella, and Baumgartner thought that adult learners accumulate knowledge through experiences in their life which make a pool of knowledge for the adult to use throughout their life. Additionally, this leads to more self-directed learning opportunities. Self-directed learning experiences, as defined by Merriam, Caffarella, and Baumgartner (2007) were linear or interactive in design.

Agritourism

In 2003, the agritourism initiative was started in Tennessee by a federal grant from the United States Department of Agriculture. The initiative was to jump start agritourism in the state for rural and economic development (Center for Profitable Agriculture, 2003). However, the future could hold major educational value for visitors to agritourism venues. As a stage in the initiative, The Center for Profitable Agriculture in Tennessee conducted an inventory of agritourism venue owners in the state in which owners indicated, "the ultimate goal of an agritourism enterprise is often to increase farm income by providing education and/or recreation to consumers" (p.1). Respondents agreed that marketing and advertising of their venues to be key to their success as a business. The results also indicated success for venues that had more than one

attraction to draw visitors to their farms. Nearly 63 percent of respondents indicated that within the next three years they planned to expand their business but would need several things to occur, primarily they needed funding and more research about the education and outreach of their programs (Bruch & Holland, 2004).

Brown and Reeder (2007) suggested several reasons a venue owner may pursue agritourism as a supplement to their farm career. Agritourism and farm-based recreational activities are suggested as any type of outdoor recreation, educational experiences, and entertainment focused activities, overnight stays, and any on farm retail experience (Brown & Reeder, 2007). Brown and Reeder (2007) suggested that there are five reasons to pursue agritourism including: increase income, diversify income opportunities, more complete use of farm assets, benefit the community through economic stimulation, and build a sense of community and belonging through pride in the venue. Additionally, they listed several drawbacks of operating a venue: liability to the venue owner, a loss of privacy, and a strong emphasis on entertainment which alluded to losing focus of education of production agriculture concepts. The study agreed that little to no research focused on the educational value of agritourism finding in fact that most research concerned guides of how to begin an operation and economic reports. Many studies also focused on the need of entrepreneur type skills for a venue owner to be successful. In addition, Brown and Reeder (2007) noted several significant items from the research such as personality type, a product people desire, and community support as imperative for success of the venue.

Hodur, Leistritz, and Tweeten (2008) discussed the search for alternative enterprises which led producers in North Dakota to pursue agritourism opportunities. Adding new products and diversification becomes one of the ways producers can stay in business. Producers use agritourism to create a survival plan. The plan often included diversifying their enterprise to become less

dependent on one source of income. Even though it was noted that the Great Plain and Midwest have not traditionally been vacation destinations, agritourism has helped to increase interest in those areas. Respondents agreed that the demand for their type of business had increased three percent. Producers also agreed that expansion plans were in their future pending government and local support. Trends for tourism find that people are looking for education experiences, close to home where they can have an authentic experience (Gartner, 2005). This supported the idea that agritourism will continue to grow based on the desire to travel given the financial and research support for the industry continued.

Debord, McClellan, and Ryan (2006) examined agritourism in Pennsylvania. Approximately 15 percent of those surveyed said their primary reason for maintaining an agritourism venue was to promote and sustain their farm heritage. To ensure the goal was achieved Pennsylvania farmers strived to educate visitors who participate in the agritourism activities through on farm activities that were broken down by farm/retail dining, agri-tainment, agri-lodging and agri-education. However, as each farm activity area was described there were actually education activities and promotions throughout each section whether in a formal or non formal approach. The agri-education portion focused on activities such as school tours, farm-related museums, garden/nursery tours, winery/brewery tours, agricultural exhibits/tours and crop identification programs (Debord, McClellan, & Ryan, 2006).

A similar study in Tennessee aimed to collect market data concerning agritourism venues. The survey collected data relevant to consumer preferences, demographics, and to assess how and why visitors come to agritourism venues. Respondents provided answers to survey questions about why they visited agritourism venues and listed education and learning about farm production as important (English, Jensen, Lindborg, & Menard, 2006). Approximately 40 percent of those

surveyed said that learning about how products are grown or made was extremely important in their preferences for services or amenities. In addition, 100 percent of those surveyed agreed that they enjoyed their on-farm experience. Moreover, repeat customers accounted for 47 percent of those surveyed (2006). Additionally an emerging trend mentioned was that organized school groups for field trips continued to be a significant group who visited agritourism venues prominently (2006).

Growth was another trend in agritourism as people began to take interest in the rural vacation type experience. In a published presentation by Bruch for the Illinois Specialty Crop and Agritourism Conference (2007), she confirmed that 60 percent of agritourism venues in the state of Tennessee planned for expansion in the future. Of the emerging trends listed by the 464 visitors, *learning about how products are grown or made* was in the top five. Bruch (2007) showcased unique, successful venue activities, such as hosting principal meetings and teacher in-service days for local teachers in conjunction with Tennessee Farm Bureau's Agriculture in the Classroom program. Additionally, many venues scheduled spring tours for schools in order to provide an educational experience and to help students learn what happens on farm during different seasons.

Terry & Lawver (1995) indicated that researchers were concerned about the knowledge of agriculture of collegiate students. Students were undecided about issues concerning animal welfare, farming, and ranching practices. Overall, results of the study showed that students felt their food was safe to eat. They also indicated that agriculture played a positive role in the economy and concerning the environment. One of the main conclusions indicated that the two main demographic characteristics that accounted for the most difference between perceptions were gender and hometown. Those feeling more favorable toward agriculture and its related practices tended to be from a farm or ranch or the country but not a farm or ranch. The differences focused

on more favorable feelings toward agriculture and its related practices from those who consider themselves to be from a farm or ranch or the country but not a farm or ranch. Additionally, concerning gender, men felt more favorable about agriculture and related practices than females.

Summary

Experiences can provide educational opportunities for self-directed learners. These learners take the initiative to learn about a subject area in which they are interested. Pending whether the experience is of value to the potential learner, learning may occur. This learning can be seen in the response by the potential learner in means of behavior and their construction of new knowledge based on the meaningful experience.

Agritourism is a growing opportunity for many farm owners to increase income and connection with the public around them. These opportunities can also provide educational opportunities for those participants if the experiences fit the needed profile for experiential education described in the review of literature. If the experience is found meaningful by the potential learner and there is a construction of new knowledge and change in behavior, then learning has occurred. Much research supports the idea that there is a need for an assessment of the knowledge of the public concerning agriculture. The prior research shows that many are unfamiliar with agriculture practices and do not know their own opinions.

The review of literature showed that there is little research to support the idea that experiential learning is occurring for adults at the agritourism venues. However, many researchers have implied that learning is occurring during the venue experiences.

Chapter III

Methodology

Overview

In this chapter, the methods and procedures of this study are outlined. Chapter three contains the purpose of the study, venue selection, descriptions of the farm venues used, and the study design. The chapter also includes information about the design of the instruments and how data was collected and analyzed.

Purpose of the Study

The purpose of this study was to identify the key educational components of agritourism in Tennessee. The study aimed to identify ways in which visitors to agritourism venues learn best and if an educational experience increased their knowledge or changed their perception of agriculture.

Design of the Study

This study asked visitors to agritourism venues to respond to a pre and post survey. A pilot study in the fall of 2009 preceded the research collected in 2010. Prior to any data collection approval was received from the University of Tennessee Institutional Review Board for both the 2009 pilot study and 2010 study. This quantitative data was used to analyze whether an educational experience occurred at the chosen venues for the respondents. The data was analyzed using mean comparisons and frequency comparisons.

Venue Selection

Information concerning the research for this study was collected through visitors to agritourism venues. An agritourism specialist at the Tennessee Department of Agriculture was contacted in order to gain contact information for agritourism venue operators across the state. The specialist provided eleven farms in which she had the best working relationship with and would be likely farms to participate. Eleven venues were contacted by letter (Appendix A) in September of 2010 about having visitors complete surveys related to their experiences on the farm. The businesses who agreed were provided with a summary of their visitors' responses. Originally five of the eleven farms agreed to participate. Visitor surveys were distributed to five venues and collected from three. Two venues opted out of collection due to scheduling and increased business during the peak season. Each of the three venues that collected surveys consider fall to be their peak season. The venues incorporated fall agritourism activities such as corn mazes, pumpkin patches, on-farm retail and tours.

Pilot Study

A pilot study was conducted and assessed in 2009. Pilot study data was collected through survey drop boxes during a two week period of the peak season in 2009 at venue 2. Responses, n=36 were coded and analyzed by the primary investigator for relevance concerning the continuance of the study in 2010. Reliability and validity of the survey instrument was an important consideration for the researcher to make in determining the overall selection of the instrument and the overall credibility of the study. Reliability was significant in the survey research because as defined by Ary, Jacobs, and Sorensen (2010) as, "the degree of consistency with which it measures whatever it is measuring" (p.236). Internal reliability for the pilot study

was determined using a Cronbach alpha test. This test was used due to the nature of the survey. The Cronbach alpha reliability test worked well with survey research that has questions that can be answered with a range or Likert scale. A reliability of .70 is considered as moderately reliable (Ary, Jacobs, & Sorensen, 2010). The reliability of the pilot survey was .911. Validity is considered to be the most significant item of consideration concerning research. Validity is defined as the ability of an instrument to measure what it aims to measure (Ary, Jacobs, & Sorensen, 2010). The survey (Appendix B) was evaluated by an expert panel of faculty from the University of Tennessee to ensure face and content validity.

The pilot study contained two sections. The first section aimed to collect demographic data on the front of the survey below the instructions and the visitors' primary reason for visitation to the venue. Information such as age, where participants grew up, and education level were included. Additionally, respondents were asked in the section where they first learned of the venue and whether they would recommend the experience to others. Section two of the survey, found on the back, contained six Likert scale questions ranging 1-5 in strength from *strongly disagree* being a one and *strongly agree* being a 5 were asked. Several of these questions were mimicked on both the pre and post survey distributed in 2010.

Population

For this study, the target population was adult visitors to the agritourism venues during the survey period. The accessible population was the adult visitors to the three agritourism venues that chose to participate in the distribution and collection of surveys. Each venue was asked to provide the number of adult visitors during the month of October. Based upon findings from the pilot study, error was minimized based on information brought to the attention of the researcher during

the analysis of the pilot study. Venue owners were asked to encourage only respondents 18 and older to participate in the survey. Surveys were only available for half of the fall season at the venues. This is taken in consideration when determining the accessible population. Considering the rate of repeat visitors (approximately 1/3) and the ratio of children to adults (approximately 3:1) observed by the venue owners a target population of adult visitors for each venue are as follows: Farm 1 – 300, Farm 2 – 1800 and Farm 3 – 450. The actual sample size for post surveys was N=191, the amount of pre surveys collected. Post survey results saw n=70 responses. There was a response rate of approximately 37 percent which falls slightly short of the suggested response rate by Ary, Jacobs, and Sorensen (2010) of 40 to 75 percent for mailed questionnaires. A similar study reported in *Agritourism in Pennsylvania* (2006) recorded a 28% response rate for their survey research.

Development of the Instruments

The researcher developed a pre and post survey instrument for visitors to agritourism venues with approval of an expert panel, consisting of three faculty member to determine face and content validity. The pre survey (Appendix C) consisted of two sections. The first section contained questions to generate a database of contact information for post survey contact. Additionally, a question regarding future contact option was asked. Respondents could choose a mail or email option and provide the needed address for the option chosen. Approximately 70 percent of pre survey respondents indicated they prefer to be contacted by mailing address and the other 30 percent chose email.

Section two contained five Likert Scale statements aimed at collecting visitors' opinions of their perception and knowledge of the agricultural industry prior to their experience on the farm.

The instrument used a five point Likert Scale with choices of *Strongly Disagree*= 1, *Disagree*= 2, *Not Sure*= 3, *Agree* = 4 and *Strongly Agree* =5. Pre surveys were collected during a three week period in October considered to be the peak period for the venues selected. After the final collection date N=191 pre surveys were collected through survey drop boxes at the venue locations. The surveys were collected by the primary investigator.

The post survey was mailed to respondents with an appropriate cover letter containing information and instructions and a stamped return envelope (Appendices D and E) during the first week of February 2011. Additionally, those initial respondents that chose email as a primary contact were emailed a version of the survey and cover letter. Instructions concerning filling out the survey also contained information about a fifty dollar drawing based on the idea that incentives would increase overall participation (Blair & Czaja, 2005). One participant was chosen at random of those completing both the pre and post survey to receive the prize of a fifty dollar visa gift card. The drawing was February 24, 2011 and the winner was mailed the incentive prize. Second and third responses were mailed and collected in March 2011. Email respondents were hoped to have higher response rates based (Ary, Jacobs, Sorensen, 2010) and were contacted with additional copies of the cover letter and survey until participation ceased. However, the opposite was true and the response rate for those email respondents was low. Post surveys n= 70 were collected through mail-in or email response until the end of March 2011.

The more extensive post survey instrument contained three sections. The first section aimed at collect of information concerning primary reason for the visit; numbers of visits to agritourism venues; where they learned of the venue; if visitors would recommend it to others; and demographic questions such as age, where respondents grew up, education level and ethnicity. In section two, 10 Likert Scale questions were asked to determine how strongly participants agreed or

disagreed with questions concerning their perception and knowledge of agriculture after their visit to the venue. Several questions aimed to determine whether respondents' thoughts and consumer behaviors concerning agriculture had changed. Section three featured three open-ended questions such as how respondents felt they learn best, what aspects of the visit were educational if any, and the main ideas learned from the experience.

Farm Venue Descriptions

Farm one was in middle Tennessee and focused on education. This farm operated a corn maze, pumpkin patch, classroom areas in the barn with desks, camp fire pits along their river, concessions and a play area for children. The farm did not host a haunted maze in the fall because the maze was for educational purposes only. This location also offers spring specific field trips for local elementary schools. During a visit to farm one, a birthday party was held during which children played on the farm's play equipment which was constructed of farm building materials. As visitors, students were encouraged to look through barns with farm chaperones and parents and select pumpkins for purchase. Students were taught how to make butter and learned about other farm products.

The second venue was a farm in east Tennessee which yielded the largest attendance. This farm venue focused on fall fun with a corn maze, pumpkin patch and shop with many items for purchase. Their educational focus can be seen through educational tours for classes and their many agriculture facts that are posted around the farm. This farm hosts a haunted corn maze during the week leading up to Halloween which is a very popular event. Additionally, they offer greenhouse plants in the summer and have a working dairy. They have also hosted a variety of activities from weddings to birthdays. During a visit to farm two, many adults, high school age students and

younger children were picking out pumpkins, working on agriculture related art projects, purchasing tickets to walk through the corn maze and roasting s'mores and hotdogs on a campfire. Many individuals came solely for the purchase of products while I was there such as jams, pumpkins and other fall decorations. Many visitors stopped and read the farm facts which were posted around the pumpkins and other fall items.

The third venue was a farm in west Tennessee. On that farm, the family ran a beef and cotton production business. They focused on education and hosted many tours throughout the fall in addition to special weekend events such as, *Cowboy Day* where visitors dress as cowboys and visit the farm for events. They offer a petting zoo, from farm-to-market demonstration for children and chances to tour the cotton and corn fields. During a visit to the farm, several third grade classes were visiting. Bus loads of children filed into groups and participated in a variety of farm activities. Each group rotated through the activities and had a picnic lunch on the premises. One rotation enjoyed a petting zoo type scenario with a farmer and then learned about the importance of washing our hands and avoiding germs. Another rotation visited booths and learned about agriculture products in Tennessee and what they make as an end product and how they are marketed on a very basic level. A third group participated in playing in a corn bin, similar to a sand box, sliding, hopping old tractor tires that were made into an obstacle course and racing rubber dunks using a hand water pump.

Data Analysis

Analyses of means and frequencies were used as part of this study. Both pre and post visitor surveys were summarized and presented. Responses were coded, entered and analyzed using SPSS software by the primary investigator. The data were analyzed using descriptive

statistics. Frequencies and percents were used to describe categorical data variables such as the primary reason for the visit, how many annual visits, age, advertising, education level and the area where the respondent grew up. Data from the second section of the pre and post surveys, using the Likert Scale questions was reported using means and standard deviations.

Chapter IV:

Experiential Education Opportunities in Agritourism

Overview

Chapter IV is a paper prepared for submission to the *Journal of North American Colleges and Teachers of Agriculture*. It contains an introduction to the study, a review of literature, methods, results, conclusions, and recommendations for further study in addition to an abstract and references.

Abstract

The purpose of this study was to identify the key educational components of agritourism in Tennessee. The study strived to identify if knowledge of the agricultural industry increased due to agritourism experiences and if perception of the agriculture industry changed due to the experience. Additionally, the research sought to describe visitor demographics and characteristics.

Following a pilot study in 2009, three agritourism venues throughout the state of Tennessee were used to collect surveys to create a pool of respondents and to identify their original knowledge of perceptions of the agriculture industry for the 2010 study. Additional data was gathered through an extensive post survey that gathered demographic information and respondents' knowledge and perception levels based on several five point Likert scale questions. The responses were coded and entered by the primary investigator. The information was analyzed using means, standard deviations, and frequencies.

The study revealed that respondents to agritourism venues do think that they experience are educational. The visitors expected an educational experience. Experiences at agritourism venues tend to increase consumer confidence slightly. Many respondents agree that they learn best through the hands on experience provided through the agritourism venues. Additionally, all respondents agreed that they would recommend the experience to others.

Introduction

For many years Americans have been moving away from farms and away from production agriculture. Mechanization allowed for specialization in every industry in American culture and society. The agriculture industry is no different. The industrial era provided many opportunities for people to find careers off of farms. On average the American farmers produces enough food and fiber for 155 people in America and abroad annually (American Farm Bureau, 2009). For years, Americans were happy pursuing careers away from the farm and taking for granted agriculture production and its significance to the country. Now, many special interest groups surrounding animal rights, environmental and water issues, and organic production challenge the agricultural knowledge of American consumers. Many agriculturists are reaching out to consumers to provide knowledge in many ways. One way that agriculture advocates can reach consumers and potentially provide an educational experience is through agritourism.

Agritourism is defined as, “an activity, enterprise or business which combines primary elements and characteristics of Tennessee agriculture and tourism and provides an experience for visitors which stimulates economics activity and impacts both farm and community income” (Bruch & Holland, 2004). Nearly 52,000 farms in the United States were participating in

agritourism in 2004 (Brown & Reeder, 2007). Additionally, The Travel Industry Association of America reported that recent studies show more than 73 million people have taken a leisure vacation to a rural destination in the past three years (2001). It has been show that agritourism can be vital economically for rural communities; it can also be an educational tool.

Purpose and Objectives

The purpose of this study was to identify key educational components of agritourism in Tennessee. The objectives of the research were:

1. To describe visitor demographic and characteristics;
2. To interpret visitors' original perception and knowledge of Tennessee's agriculture industry prior to their experience at the agritourism venue;
3. To determine if knowledge of the agricultural industry increased due to the agritourism experience; and
4. To determine if perception of the agricultural industry changed due to the agritourism experience.

Theoretical & Conceptual Framework

A study of college students by Terry and Lawver (1995) asked several questions concerning college students' perceptions of the agriculture industry. They found that students generally were undecided on how they felt concerning agricultural issues like animal welfare, farming, and ranching practices. Overall, the study showed students had a general appreciation and basic knowledge of agriculture with findings that affirmed that students felt that their food was

safe to eat. However, answers across the board showed more positive responses and higher self perceived knowledge levels of agriculture from students within the college of agriculture. Two major demographic differences that showed reoccurring themes for differences were gender and hometown. The differences focused on more favorable feelings toward agriculture and its related practices from those who consider themselves to be from a farm or ranch or the country but not a farm or ranch. Additionally, concerning gender, men felt more favorable about agriculture and related practices than females.

With the beginning of the Tennessee Agritourism Initiative, there was no doubt that agritourism venues in Tennessee could provide educational opportunities in the future. As indicated by Bruch and Holland, indicated that the ultimate goal of agritourism enterprises in Tennessee was, “to increase farm income by providing educational and/or recreation to consumers” (2004, p.1).

Education is tied directly to learning (Broudy, 1961). Defining education and learning separately but with a connection is often a struggle. Broudy suggests that education be viewed as, “the sum of all of his learnings” (p.6) and breaks down education into three categories: formal, informal and milieu (1961). Formal education is defined as a learning experience that has an intended structure and an expected outcome. Informal education intends for learning to occur, but there is no particular or planned structure or curriculum. Students often use activities instead of instruction or text. Finally, the type of education that Broudy describes as milieu is what a person learns by being exposed to a situation, lifestyle or culture.

Learning can be defined as, “a process that brings together cognitive, emotional, and environmental influences and experiences for acquiring, enhancing, or making changes in one’s knowledge, skills, values and work views” (Merriam, Caffarella, & Baumgartner, 2007, p.277).

Experiential learning then is learning through having a direct experience. Additionally, behaviorist learning theories suggest that learning changes a behavior and produces a change in the learners' actions. The constructivist learning theory suggests that learning occurs when the potential learner can develop a meaning and construct new thoughts and knowledge from an experience (Merriam, Caffarella, & Baumgartner, 2007). However, Dewey (1938) reminds us that experience itself is not enough and that learning and experience must be connected, and the experience has to be of educational quality. Experience is what can change a learner's behavior and allow for construction of new knowledge. Thus experience, if of value, can lead to learning.

Self-directed learning as defined by Merriam, Caffarella, and Baumgartner, (2007) is the learning style in which the learner is self-motivated in the learning process. The trio suggests that self-directed learning happens frequently and naturally in adults' lives. The choice to visit agritourism venues made by adults is the first step in the learning process that is described as self-directed.

Experiences can provide educational opportunities for self-directed learners. These learners take the initiative to learn about a subject area in which they are interested. Pending whether the experience is of value to the potential learner, learning may occur. This learning can be seen in the response by the potential learner in means of behavior and their construction of new knowledge based on the meaningful experience.

Agritourism is a growing opportunity for many farm owners to increase income and connection with the public around them. These opportunities can also provide educational opportunities for those participants if the experiences fit the needed profile for experiential education. If the experience is found meaningful by the potential learner and there is a construction of new knowledge and change in behavior, then learning has occurred. Much research supports the

idea that there is a need for an assessment of the knowledge of the public concerning agriculture. There is little research to support the idea that experiential learning is occurring for adults at the agritourism venues. However, many researchers have implied that learning is occurring during the venue experiences.

Methodology

Information concerning the research for this study was collected through visitors to three agritourism venues throughout the state of Tennessee during fall 2010. Fall is considered the peak season for the type agritourism venue assessed. The venues chosen were provided through an agritourism specialist at the Tennessee Department of Agriculture. Eleven farms were contacted. Five originally accepted the opportunity to hand out pre surveys on their farm. However, two farms found that their seasons were too busy and opted out of participation.

A pilot study was conducted and assessed in 2009. Internal reliability for the pilot study was determined using a Cronbach alpha test. This test was used due to the nature of the survey. The Cronbach alpha reliability test worked well with survey research that has questions that can be answered with a range or Likert scale. A reliability of .70 is considered as moderately reliable (Ary, Jacobs, & Sorensen, 2010). The reliability of the pilot survey was .911. Validity is considered to be the most significant item of consideration concerning research. Validity is defined as the ability of an instrument to measure what it aims to measure (Ary, Jacobs, & Sorensen, 2010). The survey (Appendix C) was evaluated by an expert panel to ensure face and content validity. The pilot study was collected through survey drop boxes during a two week period in October. Responses were coded and analyzed by the primary investigator for relevance concerning the continuance and expansion of the study in 2010.

One farm in each region of the state was used. Farms were coded numerically one, two, and three. All three farms featured wagon rides, corn mazes, pumpkin patches and items for purchase. All farms were open to the public and also hosted field trips with educational focuses. Each farm varied slightly in their approach and take with the various activities. Though there were similarities there were several differences. The main difference was the commodity focus. Since commodities vary across the state, several learning experiences and activities also varied.

The target population was adult visitors to agritourism venues during the survey period. Each venue owner was asked to provide the estimated number of adult visitors during the month of October. Repeat visitors were encouraged to fill out a survey at only one visit. Taking into consideration the suggested rate of repeat visitors provided by venue owners and the ratio of children to adults the venue owners suggested the accessible population numbers to be as follows: farm 1 - 300, farm 2 - 1800, and farm 3 - 450.

The researcher developed a pre and post survey instrument for visitors to agritourism venues with approval of an expert panel, consisting of three faculty member to determine face and content validity. The pre survey consisted of two sections. The first section contained questions to generate a database of contact information for post survey contact. Additionally, a question regarding future contact option was asked. Respondents could choose a mail or email option and provide the needed address for the option chosen. Approximately 70 percent of pre survey respondents indicated they prefer to be contacted by mailing address and the other 30 percent chose email.

Section two contained five Likert Scale statements aimed at collecting visitors' opinions of their perception and knowledge of the agricultural industry prior to their experience on the farm. The instrument used a five point Likert Scale with choices of *Strongly Disagree*= 1, *Disagree*= 2,

Not Sure= 3, *Agree* = 4 and *Strongly Agree* =5. Pre surveys were collected during a three week period in October, 2009 considered to be the peak period for the venues selected. After the final collection date N=191 pre surveys were collected through survey drop boxes at the venue locations. The surveys were collected by the primary investigator.

The post surveys were mailed in February with instructions about completing the survey and further information about a fifty dollar gift card incentive paid for by the primary investigator. The incentive was offered to increase overall participation for the post survey response (Blair & Czaja, 2005). The drawing was February 24, 2011. The winner was mailed the incentive prize. Non response was an issue addressed by the researcher. While response rate is not the only determining factor in research it is significant to proving a sample representative of the population (Ary, Jacobs, & Sorensen, 2010). To combat non-response, a second and third round of letter and surveys were mailed to pre survey individuals who did not return the first post survey. These were mailed in March, 2011. Three mailings were mailed based on questionnaire type and budget for the project (Ary, Jacobs, & Sorensen, 2010). Those individuals preferring email response were contacted with an email version of the letter and survey during the same time in February. Responses were collected and non-response individuals were contacted every two weeks until responses no longer occurred. To further understand the non response population Ary, Jacobs, and Sorensen (2010) suggested comparing respondents to the population, comparing early to late respondents, and interviewing a sample of non respondents. Frequencies of categorical data and means of Likert scale questions were compared between the early and late respondents and no significant differences were found. Additionally demographic information from respondents was compared to demographic information included in the research by English, Jensen, Lindborg, & Menard and found to have similarities in both areas of education level and age.

Post surveys were coded prior to being mailed so that pre and post survey responses could be compared and analyzed. The more extensive post survey instrument contained three sections. The first section aimed at collect of information concerning primary reason for the visit, numbers of visits to agritourism venues, where they learned of the venue, if visitors would recommend it to others and demographic questions such as age, where respondents grew up, education level and ethnicity. In section two, 10 Likert Scale questions were asked to determine how strongly participants agreed or disagreed with questions concerning their perception and knowledge of agriculture after their visit to the venue. Several questions aimed to determine whether respondents' thoughts and consumer behaviors concerning agriculture had changed. Section three featured three open-ended questions such as how respondents felt they learn best, what aspects of the visit were educational if any, and the main ideas learned from the experience.

Post survey collection ended in March 2011 with n=70 responses. Ary, Jacobs, and Sorensen (2010) reported that a response rate of 40 to 75 percent for mailed questionnaires was desired. The response rate for post surveys was 37 percent which falls below the desired rate but is ten percent higher than a survey with a similar target population reported in *Agritourism in Pennsylvania* which recorded a 28 percent response rate for their research (2006).

Both pre and post visitor surveys were summarized. Responses were coded, entered and analyzed by the primary investigator using SPSS software. Frequencies and percents were used to describe categorical data variables such as the primary reason for visit, how many annual visits, age, advertising, education level, and where the respondent grew up.

Findings

This study utilized three agritourism venues in the state of Tennessee. Adult visitors to

agritourism venues were asked to complete surveys to help the researcher to describe visitor demographics and characteristics.

Objective one was to describe visitor demographics and characteristics several questions were asked on the post survey. Age was not categorized. The ages of those surveyed ranged from 24 to 82. The average age for visitors surveyed at the agritourism venues was 45.07 with a standard deviation of 14.256. Ethnicity was asked open-ended as to not require respondents to feel forced to categorize themselves. Approximately 95 percent of respondents consider themselves white or Caucasian. Other listed ethnicities were African-American and American Indian with two and one responses each.

Of the respondents 40 percent said that the area where they grew up would be considered a rural, farm type area. Additionally an approximate 21 percent indicated that they grew up in a rural area but not on a farm. As shown in Table 1, a trend emerged that the largest percentage of respondents grew up in rural areas some on farms and some in a rural area but not on a farm. The option of a town with a description of less than 25,000 had a response rate of 15.7 percent. Furthermore, a small city was considered less than 50,000 and a large city greater than 50,000. Each response received 20 percent and 2.9 percent respectably.

Table 1. Areas where visitors to agritourism venues grew up (n=70)

Area	Number of Responses	%
Rural/Farm	28	40
Rural/Non Farm	15	21
Town < 25,000	11	15.70
Small City < 50,000	14	20
Large City> 50,000	2	2.90

Respondents were asked to circle their choice for their highest level of education. Again trends emerged with the largest percentage of respondents having at least some college experience, a college degree or had further pursued education beyond a degree. The largest percent was represented by the group of college graduates indicated by 36.2 percent of the responses. The percentages of response for each category can be seen in Table 2. The latter three combined for a total percentage of 82.5 percent. Additionally, percentages of each category for educational level are given in Table 2. No respondents indicated that they had only attended elementary or middle school and lacked some high school participation. And only a small percent of 5.8 indicated that they had received only some high school education.

Table 2. Education levels of agritourism venue visitors (n=70)

Education Level	Number of Responses	%
Elementary/Middle School	0	0
Some High School	4	5.80
High School Graduate	8	11.60
Some College	17	24.60
College Graduate	25	36.20
Post-graduate	15	21.70

As shown in Table 3, the most common visits to the three agritourism venues were made as a part of an organized field trip or with a group. Approximately 68.6 percent of the respondents agreed that a group or organized field trip was the primary reason they visited the farm. During a visit to each of the agritourism venues, there was an organized group or field trip. Additionally, people visited the farm frequently for special events and to participate in the corn mazes that were offered. Of the 70 respondents, 17.1 percent agreed that special events drew them to agritourism venues and 11.4 percent visited for the corn mazes. As seen in Table 3, additional options were available for choice by the respondents. Venue owners agreed that the corn maze was the most popular draw of their activities. However, most of their visitors did come as groups and often participated in multiple activities at the venue.

Table 3. Primary reason for visit to venue (n=70)

Reason	Number of Responses	%
Organized Field Trip/Group	48	68.60
Special Event	12	17.10
Purchase Goods	1	.10
Corn Maze	8	11.40
Other	1	.10

If the amounts of annual visits are examined across the accessible population, about 77 percent of respondents indicated that in the last year they had visited an agritourism venue one to three times. Furthermore, 10 percent of the participants considered themselves to be first time visitors to an agritourism venue. Table 4 displays the results by percentage and frequency of response for each category for the given question. Visitors were not asked to distinguish between repeat visits to the venue where they filled out the survey or another agritourism venue. Survey respondents were asked to estimate the number of visits they make to agritourism or similar venues annually.

Table 4. Annual visits to agritourism venues (n=70)

Number of Visits	Number of Responses	%
None	7	10
1 to 3	54	77.10
4 to 6	4	5.70
7 to 10	1	1.40
More than 10	4	5.70

Agritourism venue visitors were asked to indicate how they first heard about the opportunity to visit the venue. Similarly, of the 70 respondents of the post survey 43 indicated that *other* than the given options was the way they first heard of the agritourism venue. The other answers provided and chosen were as indicated in Figure 1.

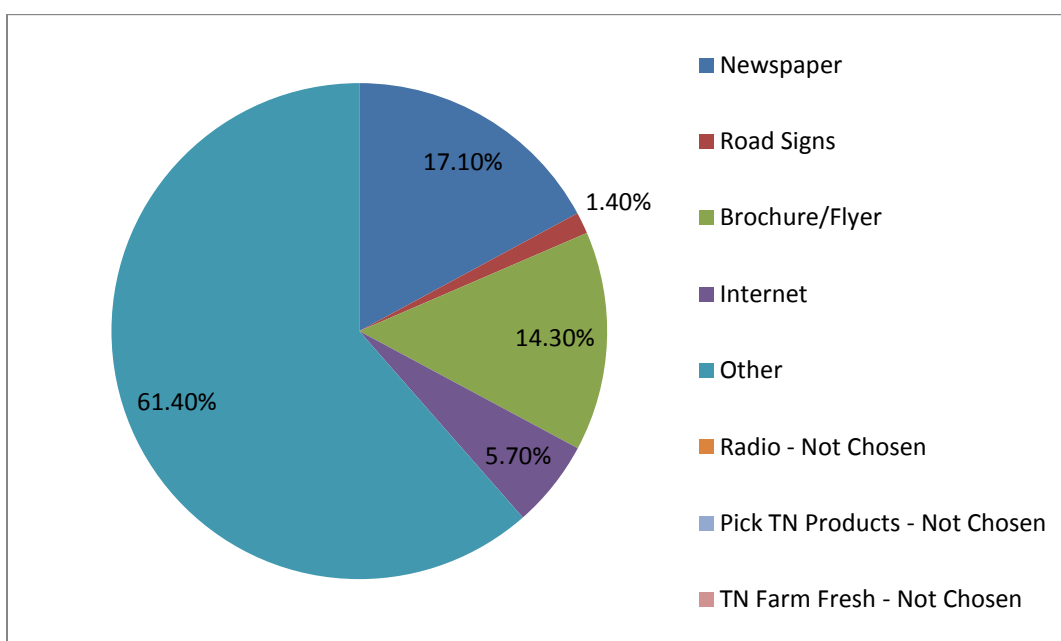


Figure 1: Advertisement Type that First Introduced Visitors to the Venue

To achieve objective two adult visitors to agritourism venues were asked to complete surveys to

help the researcher to interpret visitors' original perceptions and knowledge of Tennessee's agriculture industry prior to their experience at the agritourism venue. The pre survey responses n=191 are analyzed in the following paragraphs. Information from the pre survey can be seen in Table 5.

Respondents to the pre survey were originally asked to indicate how much they agreed with five statements. Respondents were asked to identify how much they agreed with this statement, "I have a basic knowledgeable about the agricultural industry in the United States." Results show that a mean of 3.51 with a standard deviation of 1.015. The second statement, "I believe that a majority of the farms in the United States are still family owned and operated," was asked because American Farm Bureau's *Food and Farm Facts* (2009) indicates this as a major misconception of farms in the United States with 98 percent of farms actually being owned and operated by families. Survey respondents indicated responses that received a mean of 3.27 and a standard deviation of 1.032. An additional question formed from the idea that consumers like to be connected to their food's production source. "When I shop, I am willing to pay a higher price for foods labeled, "locally grown," "organic," "free range," and/or "all natural" " received a mean of 3.84 with a standard deviation of .940. Similarly, those surveyed were asked to determine how much they agreed with a statement concerning safety of their food from the grocery store. The question received a mean of 3.20 and a standard deviation of .913. For the purpose of deciding whether or not visitors to agritourism venues expect an educational experience, they were asked to indicate how much they agree with this statement, "I believe farm visits (like this one) are educational". Respondents indicated responses that totaled a mean of 4.64 and a standard deviation of .59.

Table 5. Pre survey results of visitors' original knowledge and perception of agriculture (N=191)

Statements	M	SD
I have a basic knowledge about the agriculture industry in the United States	3.51	1.02
I believe that a majority of the farms in the United States are still family owned and operated.	3.27	1.03
When I shop, I am willing to pay a higher price for foods labeled, “locally grown,” “organic,” “free range,” and/or “all natural”.	3.84	.94
I have confidence that the food I buy in the grocery store is safe to eat.	3.20	.91
I believe farm visits (like this one) are educational.	4.64	.59

Note. Likert scale: 1=Strongly disagree, 2=Disagree, 3=Not sure, 4=Agree, 5=Strongly Agree

To accomplish objective three, adult visitors to agritourism venues were asked to complete surveys to help the researcher to determine if knowledge of the agriculture industry was increased due to the agritourism experience. Results were assessed based on the responses to certain questions on the post survey. This section focuses on the six statements from section two of the post survey where respondents were asked to select a response that corresponded with how much they agreed or disagreed with each statement. The statements dealt with a change in knowledge due to the agritourism visit. The six statements along with their means and standard deviations can be viewed in Table 6.

As the findings indicated, those surveyed felt strongly concerning their knowledge of the importance of agriculture to the Tennessee economy with a response of 4.80. Additionally, respondents felt that they had a basic knowledge of the nation's agriculture industry and what happens on farms as indicated with a mean of 4.17. Visitors still seemed uncertain about whether or not farms were family owned in the United States and whether or not their visit to their agritourism venue had increased their consumer confidence at the grocery store when determining if the food purchase there was safe to eat with both statements scoring 3.63 and 3.47 respectively.

Table 6. Post survey knowledge increase results

Statements	M	SD
I believe agriculture to be important to our Tennessee economy.	4.80	.40
I have a basic knowledge of our nation's agriculture industry and what happens on farms.	4.17	.64
My knowledge of agriculture has increased as a result of my visit to [Farm Name].	3.90	.92
I believe that a majority of the farms in the United States are still family owned and operated.	3.63	1.02
When I shop, I am willing to pay a higher price for foods labeled, "locally grown," "organic," "free range," and/or "all natural".	4.03	.98
As a result of my visit to [Farm Name], I am confident that the food I buy in the grocery store is safe to eat.	3.47	.81

Note. Likert scale: 1=Strongly disagree, 2=Disagree, 3=Not sure, 4=Agree, 5=Strongly Agree

Adult visitors to agritourism venues were asked to complete surveys to help the researcher to determine if perception of the agriculture industry had changed due to the agritourism experience. Results were assessed based on the responses to certain questions on the post survey. This section focuses on the five statements from section two of the post survey where respondents were asked to select a response that corresponded with how much they agreed or disagreed with

each statement. The statements dealt with a change in perception due to the agritourism visit. The five statements along with their means and standard deviations can be viewed in Table 7.

Overall, perception questions scored more highly with respondents. Participants agreed that they believed that farm visits were educational and that as a result of their visit to the agritourism venue they now viewed agriculture as an important part of their life. Additionally, participants agreed that the purpose for the visit was fulfilled and that their view of agriculture is now more positive post agritourism experience.

Table 7. Post survey perception change results (n=70)

Statements	M	SD
My farm visit fulfilled my purpose for the visit.	4.5	.78
After my visit to [Farm Name], I now view agriculture as an important part of my life.	4.31	.63
I have a more positive view of agriculture due to my visit to [Farm Name].	4.17	.75
I believe that farm visits are educational.	4.76	.52
My perception of agriculture is more positive after my visit to [Farm Name].	4.21	.64

Note. Likert scale: 1=Strongly disagree, 2=Disagree, 3=Not sure, 4=Agree, 5=Strongly Agree

Additionally, respondents were asked to specify whether or not they would recommend the

experience to others. Of the 70 respondents, all 70 chose, “yes” in response to the question of whether or not to they would recommend the experience to others.

A comparison of means and standard deviations of the five statements from the pre survey that were also included in the post survey can be seen in Table 8. The mean of each of the statements increased positively and all but one standard deviation lowered. The most significant difference can be seen in the statement, “I have a basic knowledge of our nation’s agricultural industry and what happens on farms.” The original pre survey mean was 3.51 and increased to 4.17 on the post survey results (Table 8).

Table 8. Pre and post survey results compared (n=70)

Statements	Pre Survey		Post Survey	
	M	SD	M	SD
I have a basic knowledge of our nation’s agricultural industry and what happens on farms.	3.51	1.02	4.17	.64
I believe that a majority of farms in the United States are still family owned and operated.	3.27	1.03	3.63	1.02
When I shop, I am willing to pay a higher price for foods labeled, “locally grown,” “organic,” “free range,” and/or “all natural”.	3.84	.94	4.03	.98
I have confidence that they food I buy in the grocery store is safe to eat.	3.20	.91	3.47	.81
I believe that farm visits are educational.	4.64	.59	4.76	.52

Note. Likert scale: 1=Strongly disagree, 2=Disagree, 3=Not sure, 4=Agree, 5=Strongly Agree

In section three of the post survey several open-ended questions were asked to gain an insight to visitors' opinions of education and learning at the agritourism venue. Respondents were asked about which aspects of the farm visit made the greatest impact on the answers they chose to provide for this survey, how they felt they learned new material best, and they were asked to describe any significant learning that occurred during the visit. Many respondents chose to answer the first two open-ended questions shown in Table 9 and Table 10 and many reiterated their original answers on the third question. Table 9 shows responses to question one about which aspect of the farm visit had the greatest impact on the answers provided on the survey.

Table 9. Responses to open-ended question1 (n=24)

Responses	Number of Responses
Want to support local business	3
Great explanations	3
Recycling	1
Hands on demonstrations	5
Seeing all the work it takes to run a farm	6
Educational and informative	6

Many respondents felt that the hands-on experience was the most significant part of what contributed to their learning. In addition, many felt that was the way in which they learned best (Table 10), as well as visually and by reading new information. Most open-ended responses for the second question of section three were geared toward the experiences provided on the farm for hands-on. Several respondents indicated that they visually like to

Table 10. Responses to open-ended question 2 (n=49)

Responses	Number of Responses
Hands-on	26
Visual	12
Reading	11

Conclusions

The pre and post survey responses generated much information that lead to the conclusions drawn from this research. The demographic information was not found to be anything unusual based on previous research findings for demographic data.

For objective one, visitor demographics were discovered and found to be similar to those demographics found by other researchers in the area of agritourism. Agritourism seems to continue to appeal to this same clientele. Most visitors, while expecting an educational experience, attend agritourism type attractions for the leisure experience. The larger percent of visitors to agritourism venues do tend to come from rural areas. However, they still indicated that they believe the farm visits are educational, showing that even those adults from rural areas feel like there is something to learn about agriculture that can be provided for them at the venue. While many visitors indicated that their primary visit was because of organized trip or group participation the learning can still be considered self-directed because they themselves could have been the person to schedule the visit and had a choice whether or not to participate in the experience once at the farm.

Objective two sought to determine the visitors' original knowledge of perception of agriculture. Even prior to the experience visitors expect that the visit will be educational. Visitors

were originally unsure of their knowledge or feelings concerning the agriculture industry. The factor that seemed to determine whether or not a respondent felt learning had occurred depended on the value of the experience to the individual respondent.

Findings of objective three help to conclude that visitors felt that an educational experience had taken place because there was a positive increase to the mean of every question that was repeated from the pre to post survey. Agritourism venues can be an educational tool for agriculture. These farm venues can be of educational value for the public. Visitors indicated that not only did they believe the venues were educational, but they also believed that the way agritourism venues educated was the way that they most often learned best. Agritourism venues can best educate their visitors through experiential learning that is tied to some previous knowledge the visit has in that area. Giving visitors hands-on experiences allows them to gain new knowledge. This new knowledge allowed them to change their consumer behaviors allowing them to feel more confident in the food they buy and made them feel more willing to pay for specifically labeled foods.

Objective four findings provided information for conclusions are the change in the perception of agriculture. The questions associate with change in perception received the highest means. Whether or not the visit was viewed as educational did not seem to affect the satisfaction of the visitor. All visitors would recommend the experience to others but not all visitors agreed that learning occurred for them at the venue. The visitors perceived their agritourism venue visit as positive and as a catalyst to positive perception change toward the agriculture industry.

As an implication to this research a model (Figure 2) was developed for future researchers to use when determining whether learning has occurred at the agritourism venue.

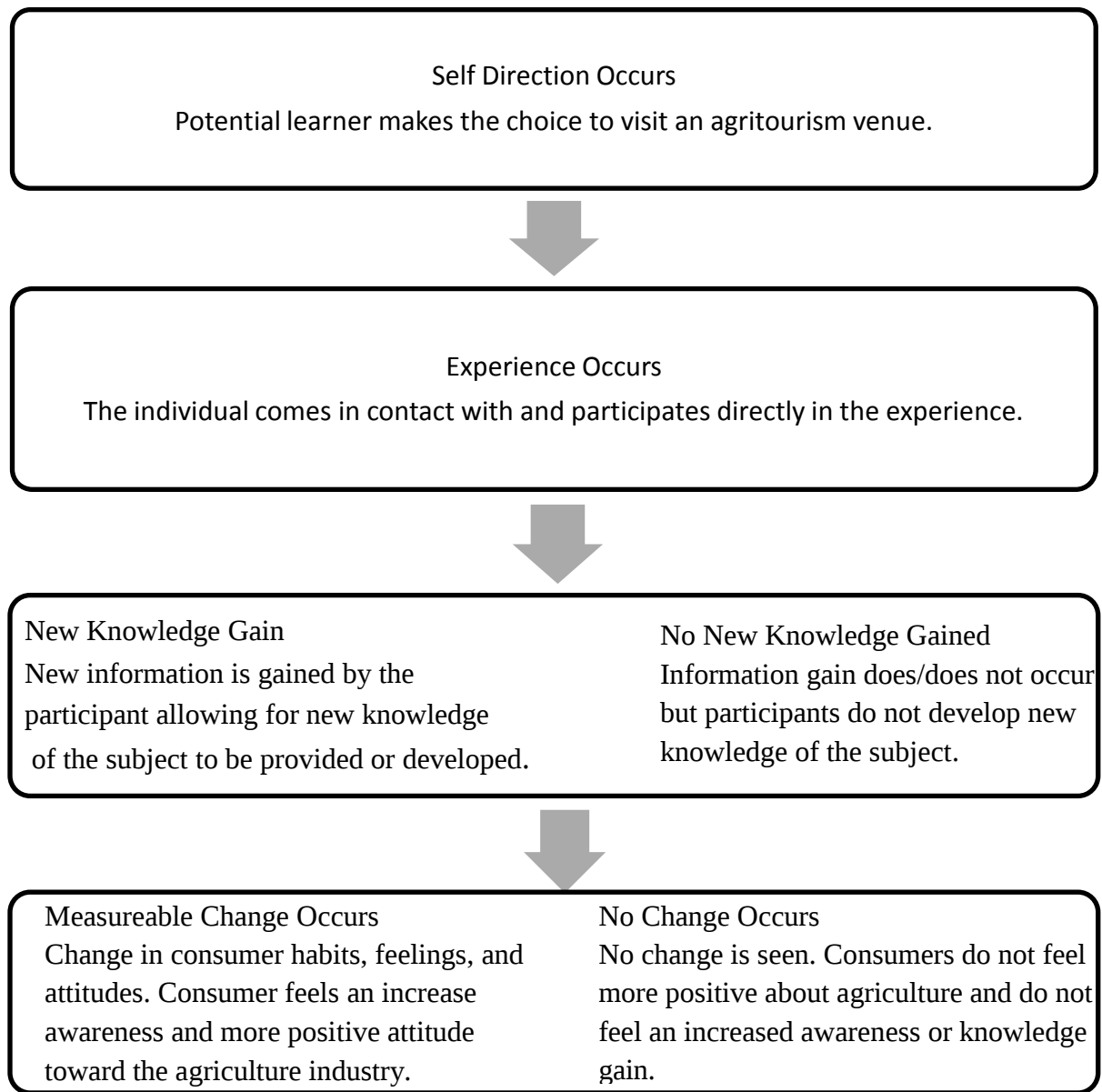


Figure 2: Model of Experiential Learning at Agritourism Venues

This model was developed for the use of future researchers to aid in their mission of determining whether adult learning has occurred post agritourism venue experience. The model suggested that the learning experience begins with the learner's choice to visit the agritourism venue. The self-directed learning began the experience for the adult learner as suggested by Merriam, Caffarella, and Baumgartner (2007). Second, the actual learning experience occurred

at the farm venue. Then, the participant does or does not gain knowledge based on the value of the experience to each individual learner. Based on Dewey's suggestion that experience alone is not enough of an educator, the experience must be of value to the learner (1938). The learner may gain new information, but may not cognitively develop new knowledge that surrounds that information gain. Finally, a change occurred or did not occur based on whether or not new knowledge gain occurred and cause a desire to change the behavior of the potential learner. If the venue experience provided a needed stimulus for the potential learner than a response would follow, perhaps a change in the consumer behavior (Gagne, 1917). For this survey, potential learners were asked whether their consumer behaviors had changed in their opinion based on their farm experiences.

Recommendations

Based on the results of this study, recommendations can be made for additional state and/or nationwide studies for the educational implications of agritourism. Additional recommendations can be made for structured education curriculum and educational support for agritourism venues throughout the state. This research was aimed to lay a foundation for others to continue research concerning the education value of agritourism and how it can best be used as a tool to educate the public about agriculture.

As Tennessee agriculture producers begin to focus on ways to diversify their income and educate the public using agritourism, Tennessee Extension can use current assets to support these current and potential venue owners. State Extension Specialist can provide trainings, resources and educational assistance for current and potential venue owners in conjunction with several current efforts of the Tennessee Department of Agriculture. Additionally, state Extension personnel should develop curriculum, activities, and a set of agricultural facts that are up-to-date

for venue owners to utilize during visits.

Further study is needed to determine whether or not education is occurring at other venues in the state during other seasons and whether education occurs at agritourism venues in other states. Further research should focus on the type of education that takes place during the other seasons and at other state venues. Future research should include additional questions about preferred learning styles of adults that attend agritourism venues.

Many visitors to agritourism venues are younger than the surveyed age for this study. Further study could look at those visitors to agritourism venues under the age of 18 and their knowledge and perceptions of agriculture based on their farm visit.

Chapter V

Implications of the Research

Overview

The pre and post survey responses generated much information that lead to the conclusions drawn about this research. The demographic information was not found to be anything unusual based on previous research findings for demographic data. Chapter five includes conclusions drawn about the research and recommendations for further research in Tennessee and the United States and further support for agritourism in Tennessee.

Conclusions

The pre and post survey responses generated much information that lead to the conclusions drawn from this research. The demographic information was not found to be anything unusual based on previous research findings for demographic data.

For objective one, visitor demographics were discovered and found to be similar to those demographics found by other researchers in the area of agritourism. Agritourism seems to continue to appeal to this same clientele. Most visitors, while expecting an educational experience, attend agritourism type attractions for the leisure experience. The larger percent of visitors to agritourism venues do tend to come from rural areas. However, they still indicated that they believe the farm visits are educational, showing that even those adults from rural areas feel like there is something to learn about agriculture that can be provided for them at the venue. While many visitors indicated that their primary visit was because of organized trip or group participation the learning can still be considered self-directed because they themselves could have been the person to schedule the visit and had a choice whether or not to participate in the experience once at

the farm.

Objective two sought to determine the visitors' original knowledge of perception of agriculture. Even prior to the experience visitors expect that the visit will be educational. Visitors were originally unsure of their knowledge or feelings concerning the agriculture industry. The factor that seemed to determine whether or not a respondent felt learning had occurred depended on the value of the experience to the individual respondent.

Findings of objective three help to conclude that visitors felt that an educational experience had taken place because there was a positive increase to the mean of every question that was repeated from the pre to post survey. Agritourism venues can be an educational tool for agriculture. These farm venues can be of educational value for the public. Visitors indicated that not only did they believe the venues were educational, but they also believed that the way agritourism venues educated was the way that they most often learned best. Agritourism venues can best educate their visitors through experiential learning that is tied to some previous knowledge the visit has in that area. Giving visitors hands-on experiences allows them to gain new knowledge. This new knowledge allowed them to change their consumer behaviors allowing them to feel more confident in the food they buy and made them feel more willing to pay for specifically labeled foods.

Objective four findings provided information for conclusions are the change in the perception of agriculture. The questions associate with change in perception received the highest means. Whether or not the visit was viewed as educational did not seem to affect the satisfaction of the visitor. All visitors would recommend the experience to others but not all visitors agreed that learning occurred for them at the venue. The visitors perceived their agritourism venue visit as positive and as a catalyst to positive perception change toward the agriculture industry.

As an implication to this research a model ([refer to Figure 2](#)) was developed for future researchers to use when determining whether learning has occurred at the agritourism venue. This model was developed for the use of future researchers to aid in their mission of determining whether adult learning has occurred post agritourism venue experience. The model suggested that the learning experience begins with the learner's choice to visit the agritourism venue. The self-directed learning began the experience for the adult learner as suggested by Merriam, Caffarella, and Baumgartner (2007). Second, the actual learning experience occurred at the farm venue. Then, the participant does or does not gain knowledge based on the value of the experience to each individual learner. Based on Dewey's suggestion that experience alone is not enough of an educator, the experience must be of value to the learner (1938). The learner may gain new information, but may not cognitively develop new knowledge that surrounds that information gain. Finally, a change occurred or did not occur based on whether or not new knowledge gain occurred and cause a desire to change the behavior of the potential learner. If the venue experience provided a needed stimulus for the potential learner than a response would follow, perhaps a change in the consumer behavior (Gagne, 1917). For this survey, potential learners were asked whether their consumer behaviors had changed in their opinion based on their farm experiences.

Recommendations

Based on the results of this study, recommendations can be made for additional state and/or nationwide studies for the educational implications of agritourism. Additional recommendations can be made for structured education curriculum and educational support for agritourism venues throughout the state. This research was aimed to lay a foundation for others to continue research concerning the education value of agritourism and how it can best be used as a tool to educate the

public about agriculture.

As Tennessee agriculture producers begin to focus on ways to diversify their income and educate the public using agritourism, Tennessee Extension can use current assets to support these current and potential venue owners. State Extension Specialist can provide trainings, resources and educational assistance for current and potential venue owners in conjunction with several current efforts of the Tennessee Department of Agriculture. Additionally, state Extension personnel should develop curriculum, activities, and a set of agricultural facts that are up-to-date for venue owners to utilize during visits.

Further study is needed to determine whether or not education is occurring at other venues in the state during other seasons and whether education occurs at agritourism venues in other states. Further research should focus on the type of education that takes place during the other seasons and at other state venues. Future research should include additional questions about preferred learning styles of adults that attend agritourism venues.

Many visitors to agritourism venues are younger than the surveyed age for this study. Further study could look at those visitors to agritourism venues under the age of 18 and their knowledge and perceptions of agriculture based on their farm visit.

References

- American Farm Bureau Federation. (2009). *Food and farm facts*.
- Archambault, R.D. (1966). *Dewey on education*. New York: Random House Inc.
- Ary, D., Jacobs, L. C., & Sorensen, C. (2010). *Introduction to Research Education*. Belmont, CA: Wadsworth Cengage Learning.
- Blair, J. & Czaja, R. (2005). *Designing surveys: A guide to decision and procedures*, 2nd ed. Thousand Oaks, CA: Sage Publishing, Inc.
- Blank, S. C., (2008). *The economics of American agriculture: Evolution and global development*. Armonk, NY: M.E. Sharpe, Inc.
- Bragg, R., Bruch, M., Hankins, C., McDaniels, P., Prather, T., Winchester, R., & Ziehl, A. (2005). *Agritourism in focus – A guide for Tennessee farmers*. Retrieved from <http://www.utextension.utk.edu/publications/pbfiles/PB1754>
- Brennan, B. (1997). Reconceptualizing non-formal education. *International Journal of Lifelong Education*, 16(3), 185-200.
- Broudy, H. (1961). *Building a philosophy of education*, 2nd ed. Englewood Cliffs, NJ: Prentice-Hall.
- Brown, D. & Reeder, R. (2007). *Farm-based recreation: A statistical profile*. Retrieved from the United State Department of Agriculture Economic Research Department website: <http://www.ers.usda.gov/Publications/ERR53/>
- Bruch, M. (2007, January). Agritourism INNOVATION in Tennessee. Presented at the Illinois Specialty Crop and Agritourism Conference, Springfield, Illinois. Retrieved from <http://cpa.utk.edu/level2/agri-tourism/training.htm>

- Bruch, M., Dawson, G., English, B., Jensen, K., & Menard, J. (2005). *Agritourism in Tennessee: Current status and future growth, 2003 – 2004*. Retrieved from <http://web.utk.edu/~aimag/pubs/agritour.pdf>
- Bruch, M., & Holland, R. (2004). *A snapshot of Tennessee agritourism: Results from the 2003 enterprise inventory*. Retrieved from http://www.utextension.utk.edu/publications/pbfiles/PB1754_ch4.pdf
- Debord, K., McClellan, K., & Ryan, S. (2006). *Agritourism in Pennsylvania: An industry assessment*. Retrieved from The Center for Rural Pennsylvania website: <http://www.rural.palegislature.us/agritourism2006.pdf>
- Dewey, J. (1916). *Democracy in education*. New York: The MacMillan Company.
- Dewey, J. (1938). *Experience and education*. New York: The MacMillan Company.
- English, B., Jensen, K., Lindborg, C., & Menard, J. (2006). *Visitors to Tennessee agri-tourism attractions*. Retrieved from the University of Tennessee, Agriculture Economics departmental website: <http://web.utk.edu/~aimag/pubs/research%20report%20visitors%20surveys3.pdf>
- Essex, S. J., Gilg, A.W., Smither, J., Wilson, R., & Yarwood, R. B. (2005). *Rural change and sustainability: Agriculture, the environment and communities*. Cambridge, MA: CABI Publishing.
- Flood, R. A. & Elliot, J. (1994). Agricultural awareness in Arizona. *Proceedings of the national agricultural education research meeting*, 21, 103-109.
- Gagne, R. M. (1917). *The conditions of learning*. Austin, TX: Rinehart and Winston.
- Gartner, W. C. (2005). A perspective on rural tourism development. *The Journal of Regional Analysis & Policy* 35(1), 33-42.

- Hagins, S. A. (2001). *Associated press wire service coverage of agricultural issues: A content analysis* (Master's thesis). Retrieved from <http://etd.lib.ttu.edu/theses/available/etd-07312008-31295018497809/unrestricted/31295018497809.pdf>
- Hodur, N., Leistritz, L., & Tweeten, K. (2008). Growing rural tourism opportunities. *Journal of Extension*, 46(2).
- Merriam, S. B., Caffarella, R. S., & Baumgartner, L. (2007). *Learning in adulthood: A comprehensive guide*. San Francisco, CA: Jossey- Bass.
- National Research Council, Agricultural Education in Secondary Schools Committee (1998). Report on Understanding Agriculture – New Directions for Education. Retrieved from http://www.nap.edu/openbook.php?record_id=766
- National Restaurant Association. (2011). *Chef Survey: What's hot in 2011*. Retrieved from http://www.restaurant.org/pdfs/research/whats_hot_2011.pdf
- Pope, J. (1990). Agricultural literacy: A basic American need. *The Agricultural Education Magazine*, 62 (9), 8, 23.
- Tennessee agri-tourism initiative: turning small farms into big opportunities. (2003, May). University of Tennessee, Center for Profitable Agriculture. Retrieved from <http://cpa.utk.edu/level2/agri-tourism/training.htm>
- Terry, R., JR. & Lawver, D. E. (1995). University students' perceptions of issues related to agriculture. *Journal of Agricultural Education*, 36 (4) 64-71.
- Travel Industry Association of America. (2001). *Rural Tourism: Small Towns and Villages Appeal to U.S. Travelers*. Retrieved from <http://www.ustravel.org/news/press-kit/travel-facts-and-statistics>

- U.S. Department of Agriculture (2008). *Know your farmer, know your food*. Retrieved from <http://www.usda.gov/wps/portal/usda/knownyourfarmer?navid=KNOWYOURFARMER>
- U.S. Department of Agriculture, Economic Research Department. (2007). *Farm-based recreation: A statistical profile*. Retrieved from http://www.ers.usda.gov/publications/err53/err53_reportsummary.pdf
- U.S. Department of Agriculture, Forest Service. (2003). *National survey on recreation and the environment*. Retrieved from <http://www.srs.fs.fed.us/trends>
- U.S. Department of Agriculture, National Agriculture Statistics Service. (2007). *Census of agriculture* (Publication No. AC-07-A-51). Retrieved from http://www.agcensus.usda.gov/Publications/2007/Full_Report/usv1.pdf
- U.S. Department of Agriculture, National Agriculture Statistics Service. (2010).
- Walter, G. A., & Marks, S. E. (1981) *Experiential learning and change*. Canada: John Wiley & Sons, Inc.

Appendices

Appendix A
Letter to Venue Owners

THE UNIVERSITY of TENNESSEE
 INSTITUTE of AGRICULTURE
 COLLEGE of AGRICULTURAL SCIENCES & NATURAL RESOURCES

Agricultural Leadership, Education and Communications

September 15, 2010

Dear Agritourism Venue Operator,

It's that time of year again, and fall is just around the corner! I know that you are certainly busy preparing to share our nation's most important industry with all of your visitors. Telling our story has become increasingly important with the issues facing agriculture today. Your involvement in agritourism provides a unique opportunity to share agriculture with a public who is now at least three generations removed from the family farm.

It is this unique opportunity that brings me to contact you with this letter. My name is Jessica Jarrell Poore. I am a graduate student at the University of Tennessee working in the Agricultural Leadership, Education and Communications department (which also houses Extension majors). I received your contact information via suggestion due to your involvement with Pick Tennessee Products and/or the Tennessee Farm Fresh program. Leaders in these programs suggested your venue for fall research data collection that will contribute to my spring thesis. I hope that you will consider this opportunity.

In the fall of 2009 I began my research with this topic and completed a pilot study with Myer's Corn Maze and Pumpkin Patch in Greene County, Tennessee. After initial findings, I decided I would like to take the study statewide in the fall of 2010. With data from this study I hope to show that visitors to agritourism venues in Tennessee not only have a great time but also learn about agriculture. This shows that agritourism venue operators are leaders in the field of education and know the value of an on-farm experience. As producers you can continually provide that enriching experience to visitors in order to increase their knowledge and correct their misconceptions.

If you agree to be a part of this study, I will deliver surveys and a collection box to your farm location within the next weeks. You may do as little as nothing and allow visitors to fill out the survey as they please or you may suggest it to them pre experience on your farm. The initial survey will collect contact information from visitors so to allow me a chance to send a post experience survey. I would like to visit your farm once during the fall season to view your venue and encourage survey participation. Once the data has been collected and analyzed I would be more than happy to share findings from your farm with you as a form of my appreciation for your participation in this research study.

If you are willing to participate, please contact me via phone or email once you have reached your decision. I will follow up with you in the coming week if I have yet to hear from you. Thank you in advance for decision and anticipated participation.

Sincerely,
 Jessica Jarrell Poore
 University of Tennessee
 Agricultural Leadership, Education and Communications
 (423) 620-9080, jjarrel1@utk.edu

Appendix B
Pilot Study Survey

This survey is being conducted by researchers at the University of Tennessee to evaluate how visits to farms (agritourism) affect views of agriculture. Your response is very important to us. If you are 18 or older, we ask that you please take 3-5 minutes to complete the questions on the front and back of this card. Submission of this completed card serves as your permission to participate in this study. Your participation is completely voluntary. Individual responses will be confidential, only aggregated responses will be reported. Once complete, the results of the survey will be posted at www.alec.utk.edu.

- 1) What was the primary reason for your visit today? Please circle your answer.
 Organized fieldtrip/group Special Event Purchase Goods Corn Maze
- 2) How many agritourism visits have you made during the past 12 months? Please circle your answer.
 None 1-3 4-6 7-10 More than 10
- 3) Please indicate your age_____
- 4) Which of the following best describes where your grew up or are growing up? Please circle your answer.
 Rural Farm Rural non-farm Town (<25,000) Small City (<50,000) Large City (> 50,000)
- 5) Please indicate your highest level of education: Please check your answer.
 Elementary/Middle School High School College Graduate
 Some High School Some College Post Graduate
- 6) Where did you first learn about Myer's Pumpkin Patch and Corn Maze? Please check your answer.
 Radio Ad Brochure/Flyer Pick Tennessee Products Internet
 Newspaper Ad Road Signs Tennessee Farm Fresh Other
- 7) Would you recommend this experience to others? Please circle your answer. Yes No
- 8) Prior to my experience on this farm, I viewed agriculture as an important part of my life.
 Strongly Disagree Disagree No Opinion Agree Strongly Agree
- 9) Prior to my experience on this farm, I believed agriculture to be important to our East Tennessee economy.
 Strongly Disagree Disagree No Opinion Agree Strongly Agree
- 10) I have a basic knowledge of our nation's agriculture industry and what happens on farms.
 Strongly Disagree Disagree No Opinion Agree Strongly Agree
- 11) I have a more positive view of agriculture due to my visit to Myer's farm.
 Strongly Disagree Disagree No Opinion Agree Strongly Agree
- 12) My knowledge of agriculture has increased as a result of this visit.
 Strongly Disagree Disagree No Opinion Agree Strongly Agree
- 13) I feel that farm visits (agritourism) are educational.
 Strongly Disagree Disagree No Opinion Agree Strongly Agree

Thank you for your participation in this survey.

Please leave your responses in the box marked "UT SURVEY".

Appendix C
Pre Survey

Name: _____

Mailing Address or Email (please indicate which you prefer for contact purposes by checking the box):

☐ Address: _____ City: _____ State: _____ Zip: _____

☐ Email Address: _____

Please circle the answer that best describes to what extent you agree with each question.

I am knowledgeable about the agricultural industry in the United States.

Strongly Disagree Disagree Not sure Agree Strongly Agree
1 2 3 4 5

I believe that a majority of the farms in the United States are still family owned and operated.

Strongly Disagree Disagree Not sure Agree Strongly Agree

When I shop, I am willing to pay a higher price for foods labeled, “locally grown,” “organic,” “free range,” and/or “all natural”.

Strongly Disagree Disagree Not sure Agree Strongly Agree

I have confidence that the food I buy in the grocery store is safe to eat.

Strongly Disagree Disagree Not sure Agree Strongly Agree

I believe farm visits (like this one) are educational.

Strongly Disagree Disagree Not sure Agree Strongly Agree

This survey is being conducted by researchers at the University of Tennessee to evaluate how visits to farms (agritourism) affect views of agriculture. Your response is very important to us. If you are 18 or older, we ask that you please take 1-2 minutes to complete the questions on this card and place the card in the box marked “UT SURVEY”. Upon receipt of your completed survey, we will either mail or email you a slightly longer survey about your experience during this visit.

Completion of both surveys will enter you to win a \$50.00 gift card. Your participation is completely voluntary and your responses will be strictly confidential.

Thank you for your participation.



Appendix D
Post Survey Letter

THE UNIVERSITY of TENNESSEE
INSTITUTE of AGRICULTURE
COLLEGE of AGRICULTURAL SCIENCES & NATURAL RESOURCES

Agricultural Leadership, Education and Communications

January 3, 2011

Dear Survey Participant,

Thank you so much for taking the time to participate in our survey prior to your experience at either Myer's Pumpkin Patch and Corn Maze, Ring Farm or Donnell Century Farm in the Fall of 2010. As promised this is the follow-up post survey which will allow us to further collect needed information from you about your experiences there. Both surveys are part of graduate research concerning knowledge and perception of agritourism venues in Tennessee. We are truly grateful for your prompt participation in the final step of this research process.

Answers to survey questions will be coded. So responses will be anonymous. Upon completion of both surveys names will be entered for a drawing. The winner of the \$50 gift card will be chosen randomly from the group of participants. Please make sure to include your name and address on the detachable card at the bottom of the survey. We will attach it so that answers cannot be connected to you in any way but we will still have your information for the drawing. Your name and address will be placed in a box and the winner will be drawn on February 4, 2011 at the University of Tennessee ALEC departmental office. Please include your name and address when replying to this email. A summary of the results will be made available at www.alec.utk.edu.

Again, thank you for your participation in this research study. For any further information or questions please contact Jessica Jarrell Poore at jjarrel1@utk.edu or (423) 620-9080.

Appendix E

Post Survey

Please highlight or indicate the response in the way easiest for you that best describes your answer to each of the following questions.

1. What was the primary reason for your visit to the agritourism farm?

Organized field trip/group Special Event Purchase Goods Corn Maze Other

2. How many visits to farms have you made during the past 12 months?

None 1-3 4-6 7-10 More than 10

3. Please indicate your age _____

4. What is your ethnicity? _____

5. Which of the following best describes the area where you grew up?

Rural Farm Rural non-farm Town (<25,000) Small City (<50,000) Large City (> 50,000)

6. Please indicate the highest level of education that you have attained.

Elementary/Middle School Some High School High School Graduate Some College
College Graduate Post-graduate

7. Where did you first learn about the farm you visited?

Newspaper Ad Radio Ad Pick Tennessee Products Tennessee Farm Fresh Road Signs
Brochure/Flyer Internet Other

8. Would you recommend this experience to others who are interested in learning more about agriculture and farms?

Yes No

Please highlight or indicate the response in the way easiest for you that best describes the extent to which you agree or disagree with the following statements.

9. My farm visit fulfilled my purpose for the visit.

Strongly Disagree Disagree Not Sure Agree Strongly Agree

10. After my visit to the agritourism farm, I now view agriculture as an important part of my life.

Strongly Disagree Disagree Not Sure Agree Strongly Agree

11. I believe agriculture to be important to our Tennessee economy.

Strongly Disagree Disagree Not Sure Agree Strongly Agree

12. I have a basic knowledge of our nation's agricultural industry and what happens on farms.

Strongly Disagree Disagree Not Sure Agree Strongly Agree

13. I have a more positive view of agriculture due to my visit to the farm.

Strongly Disagree Disagree Not Sure Agree Strongly Agree

14. My knowledge of agriculture has increased as a result of my visit to the agritourism farm.

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
-------------------	----------	----------	-------	----------------

15. I believe that farm visits are educational.

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
-------------------	----------	----------	-------	----------------

16. I believe that a majority of the farms in the United States are still family owned and operated.

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
-------------------	----------	----------	-------	----------------

17. When I shop, I am willing to pay a higher price for foods labeled, "locally grown," "organic," "free range," and/or "all natural".

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
-------------------	----------	----------	-------	----------------

18. As a result of my visit to the farm, I am more confident that the food I buy in the grocery store is safe to eat.

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
-------------------	----------	----------	-------	----------------

19. My perception of agriculture is more positive after my visit to the farm.

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
-------------------	----------	----------	-------	----------------

20. What aspect of your visit to the farm had the greatest effect on you and the answers you gave to the questions on this survey?

21. When learning new material, how do you learn and obtain information best?

22. Please describe any significant learning that occurred during your farm visit.

Vita

Jessica Jarrell Poore was born to Barry and Patricia Jarrell in Greeneville, Tennessee on December 6, 1986. She is the granddaughter of June Jarrell and the late Billy Charles Jarrell and Faye Lawson and the late Jessie Parker. She grew up on a farm in Greene County, Tennessee with her younger sister Baylee Jarrell. She graduated with valedictorian honors from West Greene High School in May of 2005. She continued her education at the University of Tennessee, where she earned a Bachelor of Science degree in Agricultural Economics in May of 2009. In 2010 she married Chris Poore of Greeneville, Tennessee. Following completion of her Master's degree, she received a lecture position within the department of Agricultural Leadership, Education, and Communications at the University of Tennessee. In the future, Jessica plans to pursue a Doctoral degree from the University of Tennessee.