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Are Pictures Worth More Than a 1000 Words or...? Insights from Preferences for Agritourism Destinations

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ABSTRACT

This study assessed whether preferences for agritourism destination features vary as elicited with word statements or pictures. Paired t-tests resulted in significant differences between both assessment methods in all five agricultural features examined. In all cases, pictorial representations received significantly higher scores than word statements which may be associated with the capacity of pictures to stimulate greater cognitive elaboration. These results have practical implications for agritourism destinations because managers and marketers may over-estimate or under-estimate certain destination features depending on the type of method used to collect visitors' preferences.

Keywords: *agritourism, aesthetic appeal, agricultural landscapes, rural destinations.*

INTRODUCTION

Agricultural landscapes are the visible outcomes (e.g., crops, cultural elements) derived from the interaction between agriculture, natural resources, and the environment (OECD, 2001). They include natural, agricultural, and cultural landscape features. The **Natural Features** are composed by their biodiversity (e.g., flora, fauna), habitats (e.g., wetlands, forests), and biophysical elements, including its geology, terrain, soils, climate and hydrology (OECD, 2001; Vanslebrouck & Van Huylenbroeck, 2005). The **Agricultural Features** are defined by the type(s) of land uses (including no-use), such as forestry, agriculture (either growing commodity or specialty crops, trees/shrubs, or raising livestock), and urbanization (OECD, 2001; Vanslebrouck & Van Huylenbroeck, 2005). The **Cultural Features** result from the interaction between human activity and the environment (Vanslebrouck & Van Huylenbroeck, 2005);

common examples are farm buildings and structures (e.g., barns, storage sheds) and farm mechanization (e.g., tractors, windmills).

The visual appearance of agricultural landscapes plays a key role in the decision-making process for visiting rural areas (Vanslebrouck & Van Huylenbroeck, 2005). Rural tourists are more likely to accept well-landscaped farm operations (Tyndall & Colletti, 2007). The degree of wilderness of the landscape, the percentage of plant and vegetation cover, color contrast, and the availability of water resources also influence the visual quality of rural scenes (Arriaza, Cañas-Ortega, Cañas-Madueño, & Ruiz-Aviles, 2004). Furthermore, certain features of agricultural landscapes, such as grasslands and trees incorporated in the farmland, can enhance the aesthetic appeal of rural destinations (Gold & Garrett, 2009; Grala et al., 2010; OECD, 2001; Vanslebrouck & Van Huylenbroeck, 2005). Specifically related to visiting a farm for recreation or education purposes (i.e., agritourism), Barbieri, Gao, and Valdivia (2012) found that current and potential visitors prefer seeing wildlife, water resources, and heritage resources in the agricultural destination. In addition, the incorporation of trees in the farmland (as shelterbelts) can minimize farm odor problems, thus making the farmland more appealing for visitors (Tyndall & Colletti, 2007).

The assessment of landscape features (e.g., land cover types) among the public, especially for agritourism purposes, is very limited (Gao, 2012). Existing studies have used either word statements or pictures to assess preferences for landscape features (Kaltenborn & Bjerke, 2002). Some studies recommend using pictures because images help with recollection and stimulate greater cognitive elaboration (Kaplan, Kaplan & Brown, 1989), while others recommend using pictures to complement word statements (Mackay, 2005). The use of both word statements and pictures to assess tourism destination preferences in terms of landscape attributes posits a methodological question though: Are pictures worth more than a 1000 words?

Study Justification, Purpose and Hypothesis
















Given that certain landscape features shape the decision to visit rural areas (Arriaza et al., 2004; Grala et al., 2010; Tyndall & Colletti, 2007; Vanslebrouck & Van Huylenbroeck, 2005) and to participate in agritourism activities (Barbieri et al., 2012), it is critical to assess preferences among rural visitors. Taking into consideration the use of word statements and/or pictures in the preference assessment of landscape features (Kaltenborn & Bjerke, 2002; Mackay, 2005), it is also critical to examine whether visitors' preferences vary depending on the assessment method used. Recognizing the suitability of both methods to assess landscape preferences for agritourism purpose is timely given the growth of this activity as a means to alleviate farmers' economic distress (Che, Veeck, & Veeck, 2005; Nickerson, Black, & McCool, 2001; McGehee & Kim, 2004; Tew & Barbieri, 2012), and its increasing popularity among Americans as an outdoor recreation option (Cordell, 2008).

Therefore, a study was conducted to explore whether respondents' preferences for agricultural features in agritourism destinations vary as elicited with word statements or pictures. Based on the literature reviewed, two hypotheses were formulated: (1) respondents would rank agricultural features with both methods (word statements, pictures) in the same order; and (2) respondents would provide similar scores to pictures and word statements.

RESEARCH METHODS

Considering the exploratory nature of this study, three non-random panels of residents from Missouri ($n = 250$), Pennsylvania ($n = 250$), and Texas ($n = 250$) were surveyed; the sample size was determined based on economic (i.e., price) and statistical considerations. After taking into account all 50 U.S. states, the mentioned three states were selected because they fit the following criteria: 1) represent different levels of agritourism development; 2) are located in different regions to control for landscape variations; and 3) share comparable agricultural (e.g., land use, farm size distribution) and demographic (e.g., education level; age distribution) characteristics.

Table 1
Word Statements and Pictorial Representations of the Agricultural Landscape
Features Included in the Survey Instrument

Word Statements	Pictorial Representations		
Intensive one-crop farm (e.g., corn farm)			
Variety of specialty crops (e.g., vineyards)			
Grassland and pastures (e.g., grasses, hay)			
Farm animals (e.g., cattle, horses, goat)			
Planted trees or shrubs (e.g., pecan, berries)			

A web-based instrument addressing the study purpose was developed. The instrument collected information on past agritourism participation, perceptions of the visual appearance of agricultural landscapes, and socio-demographic characteristics of respondents. Preferences for 15 natural, agricultural, and cultural features were assessed; these features are commonly found in agritourism destinations, and visitors are more likely to encounter them when visiting farms for recreation. This manuscript only reports preferences for five agricultural features most likely found in agritourism destinations: farm animals; planted trees or shrubs; variety of specialty crops; grassland and pastures, and intensive one-crop (monocropping) farmlands.

Preferences for agricultural features were queried through word statements and a series of pictorial representations using five-point Likert scales anchored in “Dislike Very Much” (1) to “Like Very Much” (5). Word statements were first presented in one screen, along with other natural and cultural features of agritourism destinations. Then, five series of three pictures each were shown to provide a visual representation of each agricultural landscape feature; each series of images was shown in a separate screen. Table 1 depicts the word statements and series of pictures used to operationalize the five agricultural landscape features in the survey. Data were collected in August 2011. Statistical analyses included descriptives and paired *t*-tests ($p < 0.05$).

RESULTS AND DISCUSSION

Most respondents were females (71%) and in their mid-forties ($M = 47$ years). Over a third had at least a college degree (34%), a household income of at least \$50,000 (35%), and resided in an urban area with at least 50,000 residents (37.9%). About two-thirds of respondents (65%) had engaged in agritourism activities at least once in their life; 22% have done so more than five times in the last five years.

Table 2
A Comparison of Word-Based and Pictorial Scales to Assess Preferences of Agricultural Features for Agritourism Participation

Landscape Features	Word Scale		Picture Series		Statistics	
	Rank	Mean ¹	Rank	Mean ¹	<i>t</i> -test	<i>p</i> -value
Farm animals (e.g., cattle, horses, goat)	1	4.1	1	4.3	-9.429	< .001
Planted trees or shrubs (e.g., pecan, berries)	2	4.0	3	4.1	-4.015	< .001
Variety of specialty crops (e.g., vineyards)	3	3.9	2	4.2	-10.150	< .001
Grassland and pastures (e.g., grasses, hay)	4	3.7	4	3.7	-2.118	.034
Intensive one-crop farm (e.g., corn farm)	5	3.4	5	3.6	-6.429	< .001

^a Measured on a five-point scale ranging from 1 (Dislike Very Much) to 5 (Like Very Much).

“Farm animals” appeared as the most preferred agricultural landscape feature among the word statements ($M = 4.1$) and picture series ($M = 4.3$) as shown in Table 2. The second and third preferred agricultural features differed between methods used. “Planted trees or shrubs” was ranked second among word statements ($M = 4.0$) and third among the pictures series ($M = 4.2$); conversely, “Variety of specialty crops” ranked third among word statements ($M = 3.9$) and

second among the pictures series ($M = 4.1$). The remaining ranks were similar between both methods. Although still over the neutral point, respondents least preferred visiting “Grassland” (Ranked 4th; $M_{word} = 3.7$; $M_{pic} = 3.7$) and “Intensive one-crop” farms (Ranked 5th; $M_{word} = 3.4$; $M_{pic} = 3.6$). Therefore, the first hypothesis was partially rejected given that ranks varied whether elicited with word statements or pictures.

Different rankings between word statements and pictures have important marketing implications for agritourism farms because pictures are heavily used for building and communicating the image of tourism destinations (Mackay, 2005). Images are usually chosen to highlight singular attributes of a destination that visitors may desire or want to recall. Thus, the ranking discrepancy suggests that images presented by a destination may not be representative of the most desired attributes, or vice-versa.

Paired *t*-tests resulted in significant differences between both assessment methods in all five agricultural features examined ($p < .05$). In all cases, pictorial representations received significantly higher scores than word statements, which may be associated with the capacity of pictures to stimulate a greater cognitive elaboration (Mackay, 2005). Therefore, the second hypothesis was also rejected, as pictorial representations obtained higher scores than word statements. These results have practical implications for destinations because managers and marketers may over-estimate or under-estimate certain destination features depending on the type of method used to collect visitors’ preferences.

CONCLUSION

This study examined whether current and potential visitors’ preferences for agricultural landscape features commonly available in agritourism destinations vary as elicited with word statements or pictorial representations. Results showed different preferences for agricultural features, both in ranking order and level of fondness, when prompted with both methods. These results are critical for agritourism destination marketing because some landscape features shape the decision to visit agritourism farms (Barbieri et al., 2012). Given the greater preferences obtained when features were elicited through pictures, it is advisable that images are used for agritourism marketing purposes. This suggestion is timely and pertinent given the greater marketing mix and social media methods currently used to advertise agritourism operations (Tew & Barbieri, 2012). Different order rankings between methods suggest that a diversity of assessment methods (e.g., pictures, word statements) should be used when assessing visitors’ preferences, especially due to the managerial implications they could carry for tourism providers. Taking into consideration the utility of this study for agritourism practitioners along with its exploratory nature, it is advisable that the study is replicated using a random sample of agritourists.

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