

Rooted in Agriculture, Not Politics

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Introduction

Due to changing weather and changing agricultural markets, the midwestern United States agricultural landscape demonstrated a lack of resilience (Prokopy et al., 2020). This lack of resilience is clearly shown when there are major disruptions in agricultural markets such as trade wars, pandemics, and major weather events. A few possible solutions to the lack in resiliency are diversifying agricultural markets and sustainable agricultural practices (Diverse Corn Belt, n.d.). According to the United States Department of Agriculture (n.d.), sustainable agriculture can be summarized as a system that is integrated of production practices that will satisfy human needs over a long period of time, improve environmental quality, use resources efficiently, sustain economic viability, and improve the quality of life for farmers. To promote sustainable agricultural practices, school-based agricultural education teachers are in prime positions to assist with the diffusion of sustainable agriculture (Williams & Wise, 1997). But do SBAE teachers' beliefs and attitudes towards sustainable agriculture influence how it is taught in their classroom? According to Ajzen's (1991) Theory of Planned Behavior, attitudes toward behavior, subjective norms, and perceived behavioral control predict the intention of an individual to perform a specific behavior. Gerber et al. (2010) states that group affiliations, such as political parties, "powerfully affect attitudes and behavior" (p. 720).

This study aligns with the AAAE research values of "Advancing Public Knowledge of AFNR systems" and "Enhancing Environmental Health" (AAAE, 2023) as researching SBAE teachers' beliefs, attitudes, and political leanings may influence what is taught in their classrooms as well as how concepts of sustainable agriculture are taught in their classrooms. The purpose of this descriptive survey study was to determine whether political leanings influence agricultural beliefs and ecological attitudes. The research question used in this study was: Does political leanings of SBAE teachers in Indiana, Illinois, and Iowa influence their agricultural beliefs and ecological attitudes?

Theoretical Framework

Ajzen's (1991) Theory of Planned Behavior was used to guide this study. The Theory of Planned Behavior describes that three determinants (attitudes toward behavior, subjective norms, and perceived behavioral control) predict an individual's intention to perform a specific behavior. The intention to perform the behavior can be influenced by a single determinant or a combination of the three. For the purpose of this study, the researchers focused heavily on the attitudes toward the behavior as Ajzen (1991) states that "in some applications it may be found that only attitudes have a significant impact on intentions" (p. 188-189).

Methodology

This study used a survey design that administered a questionnaire to SBAE teachers in Indiana, Illinois, and Iowa, states that are part of the Corn Belt, a major agricultural production area that can affect the economy globally (Climate Hubs USDA, n.d.). Dillman's Tailored Design (Dillman et al., 2009) was used to maximize the response rate. Questionnaires were sent through email listservs for each state. The questionnaire included two reliable scales, the New Ecological Paradigm (NEP) scale (Dunlap et al., 2000) and the Alternative vs. Conventional Agricultural Paradigm (ACAP) scale (Beus & Dunlap, 1990). The NEP scale is known to measure ecological

attitudes of participants (Dunlap et al., 2000) while the ACAP scale is known to measure agricultural beliefs (Beus & Dunlap, 1990). A modified ACAP scale created by Muma et al. (2010) was used to determine agricultural beliefs of SBAE teachers as the scale was created for that specific population. The instrument included 5-point Likert-type scales to measure attitudes and beliefs. The instrument included a question that participants could answer if they were comfortable that asked with a sliding scale of their political leanings as Democrat (Liberal) to Republican (Conservative). The instrument also collected demographic information such as years of teaching agriculture, age, and school classification. The questionnaire had 173 but after the data was cleaned by the researchers, it was determined that there were 149 usable responses.

Qualtrics was used to create and administer the questionnaire, and data was downloaded into an excel sheet where the researchers then coded the data. Data was analyzed using *Statistical Package for Social Sciences* to determine the significance between the variables. Even numbered statements for the NEP scale were reversed coded as those statements were more anthropocentric than proenvironmental. Pearson correlations were run to determine correlations between the NEP scale and political leanings and the ACAP scale and political leanings.

Results/Findings

Almost half (49.7%) of the participants (n=149) have taught agriculture for fifteen or more years and 14.1% have taught agriculture for five years or less. 40.9% of SBAE teachers in this study are between the ages of 20-29 with 17.4% of the participants being over fifty years old. To no surprise to the researchers, 82.1% of the SBAE teachers classified their school as rural schools with 6.9% classifying their schools as urban.

SBAE teachers in Indiana, Illinois, and Iowa held more of a proenvironmental attitude and held more alternative agricultural beliefs, which include sustainable agriculture. Political leaning was measured using a sliding scale and the final mean of political leaning was 63.21, meaning that participants held a slightly republican/conservative leaning.

Both the NEP and ACAP scales were not statistically significant with political leanings. There is a weak positive correlation ($r=0.127$) between the NEP scale and political leaning. The ACAP scale and political leaning had an even weaker, positive correlation ($r=0.022$). Neither correlation was statistically significant. Based on the data, agricultural beliefs and ecological attitudes do not influence political leanings and vice versa.

Implications/Recommendations

Further research is needed to determine SBAE teachers' perceptions of sustainable agriculture as there is little known about the attitudes and beliefs of SBAE teachers. To the researchers' knowledge, there are no studies on perceptions of sustainable agriculture with SBAE teachers in Indiana, Illinois, and Iowa. Describing SBAE teachers' attitudes and beliefs towards sustainable agriculture will allow curriculum developers to create curriculum about sustainable agriculture. If there is interest in sustainable agriculture, there are opportunities to develop sustainable agriculture professional developments that provide knowledge and teaching practices on sustainable agriculture. The researchers recommend that more studies be conducted to determine why political leaning does not influence agricultural beliefs and ecological attitudes. As stated by Gerber et al. (2010), attitudes and beliefs are highly influenced by affiliations, hence an opportunity to explore this phenomenon further.

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