

**An Analysis of the Beliefs in Virginia Governor's School for Agriculture Participants
Towards International Agriculture Concepts**

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Introduction

To succeed in agriculture, one must identify the relationships of various systems, governments, cultures, and societies in which their agricultural system functions (Akpan & Martin, 1996). This means teaching students to be able to think globally and be able to consider different cultural perspectives to help them succeed in today's world (Crawford & Kirby, 2008).

The Virginia Governor's School for Agriculture (VGSA) is a month-long, on-campus program for rising high school juniors and seniors. There has been a programmatic focus on broadening the students' perspectives of agriculture to include international contexts. Radhakrishna et al. (2003) discuss the use of agriculture to teach complex international concepts that can better prepare students to enter the global economy. We draw from the conceptual framework for global awareness and understanding of international agriculture as established by Radhakrishna et al. (2003) in this study. It is important to note that this framework has not been used with the VGSA program before this year. Since the leadership of VGSA plans the content of the program, the Radhakrishna et al. (2003) framework can help leadership tailor the program to the participants of VGSA. Looking to the future, students will need to be able to navigate a globally connected world with increasingly complex and interdisciplinary problems. The leadership of VGSA felt that it was imperative to understand students' attitudes, beliefs, understanding, and instruction of international agricultural concepts.

Purpose and Objectives

The purpose of this evaluative study was to help VGSA leadership better understand the beliefs towards international agricultural concepts among the participants of the 2024 VGSA program. Understanding these beliefs can help leadership adjust the program to better suit participants' interests and knowledge of international agriculture concepts. This study is part of a larger study that also evaluates attitudes towards international agricultural concepts and understanding of geography in international agricultural concepts. The following objectives guided our study:

1. Assess and discuss which belief statements regarding international agriculture concepts participants agreed with the most.
2. Assess and discuss which belief statements regarding international agriculture concepts participants agreed with the least.

Methodology

This study used the student population of the 2024 VGSA program, which consisted of a total of 100 students ($n = 100$). The survey was sent to each student online before the beginning of the program, and asked them to describe their attitude, beliefs, understanding, and instruction of international agricultural concepts. The survey was distributed before the start of VGSA to avoid bias that the program might create. Out of 100 students, 99 completed the survey while one chose to abstain.

The instrument we used from Conner et al. (2017) was influenced by Radhakrishna et al. 's (2003) framework after its adaptation of Elliot and Yanek (2002). Our instrument consisted of 45 survey items that covered four constructs: attitudes (14 items, $\alpha=.83$), understanding (6 items, α

=.78), attitudes toward instruction (13 items, $\alpha = .86$), and beliefs (13 items, $\alpha = .78$). These questions used a five-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). The demographic data of the participants was pulled from the program's registration information.

Results and Conclusions

Objective 1: For the 2024 VGSA program, a high majority of students gave positive feedback on statements regarding beliefs in international agricultural concepts. When presented with the statement that *agriculture involves more than farming*, a total of 97.98% ($n = 97$) of participants agreed or strongly agreed. This statement also has the highest percentage of strongly agreed (66.67%; $n = 66$), with the next highest strongly agreed statement being that *guest speakers who are knowledgeable regarding international events would help me learn more about world agriculture* at 49.49%.

Objective 2: Something of interest was the method students used to learn about world agriculture news. A total of 88.89% ($n = 88$) of participants agreed or strongly agreed with the statement that *I can learn about world agriculture from attending events such as fairs or trade shows*. The number that agreed or strongly agreed decreased as the platform changed to selected television programs (81.82%; $n = 81$) and selected radio programs (65.66%; $n = 65$). Radio programs had the lowest rate of agreement out of any other statements regarding participants' beliefs towards international agriculture concepts.

Additionally, the survey also asked participants about their attitudes and understanding toward instruction. What is most notable about their beliefs is that this construct had the most variability in results compared to other constructs in the survey. This might be due to the out-of-date statements in this construct. The Conner et al. (2017) instrument used in our study is at least seven years old. Since 2017, our world has faced many global challenges, and part of the results has been a change in how people, specifically teens, acquire news. This is further discussed in the recommendations section.

Recommendations

We recommend reassessing current modes of communication used by high school-aged students and revising the survey to include more relevant forms of information gathering. Only 65.66% ($n = 66$) of students agreed or strongly agreed that *I can learn about world agriculture from listening to selected radio programs*. According to a study conducted by Reger (2023), only 22% of teens said they got their weekly news from news podcasts or radio news programs. On the other hand, an astounding number of teens identified local TV (46%), National TV (42%), and Google or Yahoo (40%) as their primary sources for world news (Reger, 2023). Anderson et. al (2023) showed that seven out of 10 teens visit YouTube daily and nearly six out of 10 teens visit TikTok daily. To reach younger populations, news sources should reconsider where they focus their efforts, focusing more on digital screens and less on radio and paper sources.

In the broader context of the study, we recommend a continued effort to further incorporate agriculture into education for students to better understand complex international problems. This survey provides VGSA leadership information that can improve the program to encourage participants' ongoing curiosity and awe of international agriculture concepts.

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