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agriCULTURE: An agricultural approach to international perspectives

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agriCULTURE: An agricultural approach to international perspectives

by

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TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION	Page 3
CHAPTER 2: LITERATURE REVIEW	Page 6
CHAPTER 3: METHODS	Page 9
CHAPTER 4: PRODUCT	Page 10
CHAPTER 5: REFLECTIONS	Page 11
REFERENCES	Page 14

Chapter 1: Introduction

Education has always been an integral part of forming our society. It is often teachers that challenge students to think critically about how they view themselves and the world (Bond, 2003). In addition to content standards, educators now have an increasing pressure to raise global leaders in our society. Assisting students to understand the complexities of multicultural interactions and open their minds to different traditions and lifestyles has become a new challenge. The integration of technology in education has opened a door into globalization that has been unavailable in the past. Continual innovation in technology has allowed students to interact with other people and cultures from around the world in a way that was not possible even ten years ago (Higgins, Wolf, & Torres, 2013). Although there is more content availability, students often need someone to push them to think critically about their perspectives. The best way for students to develop knowledge about multicultural diversity is to build it based on their own experiences (Bruening & Carey, 2003).

Bringing experiential global encounters to the classroom can be an immense challenge for educators who often lack cultural competence and/ or international experience (Tubbs, 2015). In Iowa, where 92.2% of people are white, there often are minimal cultural influences from other community members, particularly in rural settings (United States Census Bureau, 2018). The ability to provide students with an understanding of other cultures is essential. Although studying abroad has become popular in post-secondary institutions, only .001% of secondary students study abroad (Asia Society, 2020). When students are able to personally interact with other cultures, not only does it break down barriers, it also encourages new innovations (Higgins, Wolf, & Torres, 2013). This leaves secondary teachers with the task of creating an environment where they can increase diversity through their content area.

Agricultural educators are in a unique position when it comes to approaching globalization and multicultural diversity in the classroom. Agriculture is rich with diversity as food and fibers are produced in all corners of the world. It is the perfect environment to share cultural diversity and investigate other ways of life while investigating food and fiber production; however, the tools to implement an international agricultural curriculum are often lacking. This curriculum will assist in filling the void of international agricultural perspectives resources for use in secondary agriculture education.

Purpose & Objectives

The purpose of this curriculum is to provide secondary teachers with a resource to bring multicultural diversity into the classroom through the exploration of agriculture around the globe. The general objectives are to:

- 1) Increase cultural competency among secondary students.
- 2) Introduce students to agricultural products from around the world.
- 3) Challenge students' current perspectives on global cultures.
- 4) Develop appreciation for global cultures.

Need

Agricultural curriculum with a global focus is in high demand currently. As agriculture programs see more popularity in events with a global focus, such as the World Food Prize Youth Institute, teachers are excited to have access to readily useable, understandable, and interactive curriculum. Lessons about international agriculture can be found; however, they are often scattered and must be obtained through multiple sources such as National Agriculture in the Classroom, University Cooperative Extension programs, NAAE Communities of Practice, and

other trustworthy organizations. A curriculum that allows students to interact with agriculture from around the world and includes additional resources from reliable sources is in great need.

Chapter 2: Literature Review

“Agricultural education has a responsibility to prepare globally aware students for employment in the workforce” (Hurst, Roberts, & Harder, 2015, p. 189). Historical research in the area of globalization in the classroom reiterates how important the integration of international perspectives is to the successful development of students, the future leaders of our nation (Bond, 2003). In 1994, Ibeziom and McCracken were exploring factors which challenged the internationalization of curriculum in secondary agriculture education and the need for global perspectives through agriculture education has only increased since that time. This increase is due not only to the increase of minority groups in agricultural organizations, such as the National FFA Organization, it also is due to the increasingly globalized economy (Luft, 1996). Cultural competency has never been in more demand throughout the world and it starts in the classroom.

Studies show that secondary teachers have a major influence on their student’s perspective and outlook (Foster, Sankey Rice, Foster, & Barrick, 2014). Many secondary agricultural teachers have positive beliefs towards international agriculture; however, most of them have very minimal personal experience (Hurst et. al. 2015). Ajzen (1991) points out that beliefs impact behavior and therefore is very important to the successful implementation of international agricultural curriculum in the secondary classroom (Ibeziom and McCracken, 1994). However, in an area which strongly encourages experiential learning, it can be seen that many agriculture teachers do not have personal experiences to base their cultural knowledge. According to a study by Hurst, Roberts, and Harder (2015), very few agriculture teachers have traveled internationally with most gaining knowledge through other means such as watching programming or attending short workshops. This trend is not surprising as teachers generally have minimal extra time and money to spend on such experiences, but does bring a concern

forward of how teachers are expected to have content knowledge in order to facilitate learning. Hurst et al. (2015) also points out that many teacher education programs have been behind in the push to internationalize classrooms and produces educators who are often ill prepared to incorporate cultural topics into their curriculum. Although the interest in and belief of the importance of global agriculture is present in teachers, many simply lack the means to provide a meaningful international curriculum for their students.

Bond (2003) outlines an effective teaching environment for intercultural learning in order to produce deep learning. Experiential learning is strongly suggested as it allows the students to interact with each other and the content, thus forming their own knowledge and experience. Doolittle & Camp (1991) legitimize this statement with the constructivism ideal that knowledge is a result of a person interacting with their environment. It theorizes that learners construct their own knowledge through interacting with and drawing meaning from the experiences, necessitating student interaction with the material (Doolittle & Camp, 1999). In addition, behaviorism outlines that learning is formed as students perform a behavior, thus learning by doing is essential. By using this approach, students are able to interact with the content, thus forming knowledge according to constructivism. It helps them develop problem solving skills and encourages higher order thinking skills, all in a collaborative environment. This approach mimics Dewey's theories about experiential learning and is really just a condensed version of Kolb's experiential learning model in which students receive a concrete experience, reflective observation, abstract conceptualization, and active experimentation (Baker & Robinson, 2012). When the process is completed, it should result in students that have meaningfully interacted with the course materials. More interaction leads to increased understanding and better application. The best way to facilitate transfer is to have the students practice what they are

learning in the setting that it will be used in. Therefore, it is essential the situation in which the learning is to occur mimics the real-world setting where the skills will be learned so it can be readily applied as the students enter the work force, higher education, etc. (Zuo, Josephson, & Scheitrum, 2019).

Chapter 3: Methods & Procedures

The focus of this curriculum was to provide teachers with a resource that uses agriculture as a launching point to talk about culture diversity. Food is not only a basic need all humans share, it is also a reflection of culture. The journey to write this curriculum began with a comprehensive search of currently available and easily accessible secondary international agriculture curriculum. It was soon discovered that in order to find comprehensive resources, many reputable sources must be searched. Most international agriculture focused curriculum is based on exploring and solving global issues with little to no focus on cultural perspectives. Therefore, the search was narrowed to agricultural curriculum that focused on cultural lessons.

These lessons were then collected and documented from several organizations such as National Agriculture in the Classroom, NAAE Communities of Practice, University Extension Programs, and other reputable sources. After assessing the currently available resources, the building of curriculum began. Cross cultural understanding resources such as Building Bridges by the Peace Corps greatly impacted the development of this curriculum. Agricultural spotlight crops were chosen based on food staples and international experience. Suitable interactive lessons were chosen to be inexpensive, but allow students to gain some cultural understanding. The final curriculum is designed for teacher or student access and is based on group interaction and agricultural production exploration. A web-based approach to delivering the curriculum was chosen for ease of access to agriculture teachers and students, availability for updates, and information portrayal.

Chapter 4: The Product

Refer to the web-based product: <https://sites.google.com/view/culture-through-agriculture/home>

This site is designed for instructor or students to use; however, many of the activities work best in a group setting. There are six major topics in this curriculum:

- 1) Around the World
- 2) Culture
- 3) Staple Foods
- 4) Food Spotlights
- 5) Final Project
- 6) Additional Resources

This curriculum is designed for lessons to be done in a stand-alone fashion or as a unit.

The Around the World and Culture sections introduce the ideas of international agriculture and culture to the classroom. They are each designed to be taught in a 40-minute class period. Staple Foods and Food Spotlights focus on how agricultural production ties to culture and may vary in the amount of time spent on each product. The Food Spotlights currently include rice, sugar cane, coffee, cheese, potato, and prosciutto. Each spotlight contains a brief overview of production, a country spotlight, and a culture related activity. The final project gives a chance for students to explore a meal and culture of their choosing. Finally, the additional resources section contains resources for teachers who want to include more international agriculture concepts in their lessons.

Chapter 5: Final Reflection

The creation of this curriculum has been one of the most enjoyable and challenging projects of my educational career. It is the culmination of two of my passions: agriculture and international travel and cultures. One of the driving factors behind my desire to create this interactive curriculum was my own experience in the secondary classroom. I found a general ignorance about other people groups and cultures, which sometimes led to a willful misunderstanding. I needed to bring diversity into the classroom, but in a way that was useful and interactive. Using agriculture as a means to give students a glimpse into other cultures is a perfect way to help build global connections.

This project challenged me personally as I represented other cultures and agricultural commodities. I had to constantly reassess how I was representing material to be sure it was thorough, brief, and an accurate representation. Choosing the food spotlight activities also proved to be a challenge. The best method for students and teachers to build knowledge about other cultures is to visit and be involved in those culture; however, for a number of reasons such as safety, expense, time, etc. this simply is not possible. Therefore, the activities were an inexpensive but interactive means of allowing students to be involved in the culture. If I were to do anything different, I would attempt to partner with local agriculture study abroad departments for input and content. The country spotlights are currently limited to my own experiences and working with others who have traveled would open up an opportunity for other commodities to join the spotlights.

During the development of agriCULTURE, the curriculum was shared with a group of teachers and those with international agriculture knowledge for feedback. This group included agriculture teachers, general education teachers, and industry experts. They provided

constructive criticism about design, navigation, accessibility, and lesson content and format. This feedback was a major influence on the final product.

This project did reveal the lack of current research related to international agriculture concepts taught within the secondary classroom. Although we often talk about how important it is to take a global view in the agriculture industry, there is minimal research that provides data on what international agriculture topics are incorporated into agricultural curriculum and the frequency of implementation. More research of this variety is available at the post-secondary level but is majorly lacking at the secondary level.

As international agriculture is an area of growing interest to agriculture programs across the state, I look forward to sharing this resource with teachers to assist with the facilitation of international agriculture lessons in hope that it will allow students to experience and appreciate cultures from around the world.

As I reflect on my entire graduate school experience, I realize it cemented what once was a theoretical foundation. Before teaching, all of my philosophy and theories were simply based on theoretical lessons and ideas; however, gaining experience teaching in the classroom allowed me to truly test those theories. This graduate program forced me into a time to reflection and development. I had to combine my experience and the theories to make knowledge. As I rewrote my teaching philosophy, I could not write with empty words because it was the basis of what I lived each day in the classroom.

I also benefited immensely from the elective courses I took in community development and extension. They pushed me to look at how our agriculture program and FFA chapter is searching for needs and interacting with our communities. Overall, this graduate program has helped me become a better educator and community leader. It was the perfect mix of agriculture,

community development, and educational theories and practices. I look forward to continually applying the concepts I learned and to continue researching successful practices in agricultural education.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Asia Society. (2020). *Infographics*. Mapping the Nation. Retrieved from <https://asiasociety.org/mapping-nation/infographics>
- Baker, M. A. & Robinson, J. S. (2012). Aligning Kolb's experiential learning theory with a comprehensive agricultural education model. *Journal of Agricultural Education*, 53 (4), 1-16. doi: 10.5032/jae.2012.04001
- Bond, S. (2003). *Engaging educators: bringing the world into the classroom. guidelines for practice*. Canadian Bureau for International Education.
- Bruening, T. H. & Carey, H. (2003). Authentic higher education international learning opportunities. *Association for International Agricultural and Extension Education*. Retrieved from <https://www.aiaee.org/index.php/proceedings/125-2003-raleigh-north-carolina/1227-authentic-higher-education-international-learning-opportunities>
- Doolittle, P. E., & Camp, W. G. (1999). Constructivism: the career and technical education perspective. *Journal of Vocational and Technical Education*, 16(1). doi:10.21061/jcte.v16i1.706
- Foster, D. D., Sankey Rice, L. L., Foster, M. J., & Barrick, R. K. (2014). Preparing agricultural educators for the world: describing global competency in agricultural teacher candidates. *Journal of Agricultural Education*, 55(1), 51-65. doi: 10.5032/jae.2014.01051
- Higgins, L., Wolf, M., & Torres, A. (2013). Opening the doors to a global classroom: An international social media collaboration. *NACTA Journal*, 57(3a), 40-44. Retrieved from www.jstor.org/stable/nactajournal.57.3a.40

- Hurst, S. D., Roberts, T. G., & Harder, A. (2015). Beliefs and attitudes of secondary agriculture teachers about global agriculture issues. *Journal of Agricultural Education, 56*(1), 188-202. doi: 10.5032/jae.2015.01188
- Ibezim, D. O., & McCracken, J. D. (1994) Factors associated with internationalization of secondary level agricultural education programs. *Journal of Agricultural Education, 35*(3), 44-49. doi 10.5032/jae.1994.03044
- Luft, V. D. (1996). Extent to which cultural diversity is addressed in secondary agricultural education. *Journal of Agricultural Education, 37*(3), 67-75. doi: 10.5032/jae.1996.03067
- Tubbs, J. A. (2015). The role of culture in agricultural education: a synthesis of research. *Theses and Dissertations--Community & Leadership Development, 18*. Retrieved from https://uknowledge.uky.edu/cld_etds/18
- United States Census Bureau. (2018). ACS demographic and housing estimates. Retrieved from https://data.census.gov/cedsci/table?q=iowa%20%20demographics&g=0400000US19&tid=ACSCP1Y2018.CP05&cid=DP05_0001E&vintage=2018
- Zuo, N., Josephson, A., & Scheitrum, D. (2019). Engaging students in global agriculture: Three authentic-learning classroom interventions. *North American Colleges and Teachers of Agriculture, 63*(1a), 99-107.