

Discovering Global Competencies of Agriculture Education Students through Reflective Journaling¹

L. Sankey Rice², D. Foster³ and M. Miller-Foster⁴
The Pennsylvania State University
University Park, PA



K. Barrick⁵
University of Florida
Gainesville, FL

Abstract

Researchers purport an efficient method to influence student thinking on globalization is to influence their teachers' thinking. Teachers with a global mindset can impact students to think beyond their own community, state and country. A course was offered to Agriculture and Extension Education majors to develop the knowledge, skills and dispositions of global competency. Nineteen students from two land-grant universities traveled to South Korea for 10 days and engaged with Korean school-based agricultural education, Korean professional teacher organizations and Korean student youth organizations as well as cultural experiences. Students were challenged to keep a reflective journal with provided prompts that were analyzed for emergent themes in global competency knowledge, skills and dispositions. Findings from the journal prompt show that context matters to help students grow personally, professionally and globally. Research implications suggest short-term study abroad embedded courses may not have enough impact to develop enduring globally competent skills of participating teacher candidates.

Introduction

According to a recent Longview Foundation report, most teachers in the U.S. begin their teaching careers with little more than superficial knowledge of the world (Longview Foundation, 2008). Although higher education in the United States has focused significant attention to internationalization of curricula, teacher training programs are often among the least internationalized programs on American college and university campuses (Longview Foundation, 2008). Despite the capacity of teacher training programs to provide unique educational opportunities and global experiences, Reimers (2009)

asserts underperformance in preparing students to develop skills that address global challenges and opportunities exists.

A longstanding call from teacher education accreditation associations to infuse global perspectives into teacher education programs remains absent from major reviews of research on teacher education (Cochran-Smith et al., 2008; Cochran-Smith and Zeichner, 2005). Research has identified that good educators appreciate that the world is increasingly interconnected and students require global skills, including knowledge of world geography, complex cultural literacy and world language skills, to understand these interdependencies (Green and Olson, 2008; Johnston and Spalding, 1997; Mansilla and Jackson, 2011). Most educators understand that developing global competency is important and, at the same time, know that this development is not happening in many—probably most—schools (Hicks, 2007; Reimers, 2009). Educators recognize the importance of the growing emphasis on preparing global-minded teachers capable of working with diverse student groups; however, there remains little action towards equipping educators with the know-how to graduate globally competent teachers.

Valuable experiences exist for pre-service teachers who participate in study abroad programs. Che et al., (2009) purport study abroad programs for pre-service teachers help develop international/intercultural knowledge, skills and dispositions to work in diverse learning environments and to encourage critical reflection in teaching practice to enable creation of a more unified and unbiased society. In order for pre-service teachers to obtain the knowledge, skills and attitudes of global competency, active engagement is required in field-based

¹The Pennsylvania State University Institutional Review Board approved the study protocol and all participants provided written informed consent prior to participation in the study.

²PhD Candidate in Department of Agricultural Economics, Sociology and Education; 12 Ferguson Building, University Park, PA 16802; sankey@psu.edu; 814-553-0324

³Assistant Professor, Agriculture Education in Department of Agricultural Economics, Sociology and Education; 211 Ferguson Building, University Park, PA 16802; foster@psu.edu; 814-863-0192

⁴Coordinator for Programs in Latin America; 106 Agricultural Administration Building, University Park, PA 16802; mjm727@psu.edu; 814-867-3831

⁵Professor, Department of Agriculture Education and Communication, 219 Rolfs Hall, PO Box 110540, Gainesville, FL 32611; kbarrick@ufl.edu; 352-273-2587

experiences which leads to deeper understandings than classroom learning alone (Villegas and Lucas, 2002); active engagement with others of different cultures leads to an expanded worldview and makes one a more flexible and compassionate teacher (Willard-Holt, 2001); self-reflection is an important part of professional development (Lee, 2005; Robertson and Webber, 2000). Villegas and Lucas (2002) explained field experiences “offer prospective teachers their only opportunity to build a contextualized understanding of culturally responsive teaching by getting them out of the university classroom and into schools and communities” (p. 137).

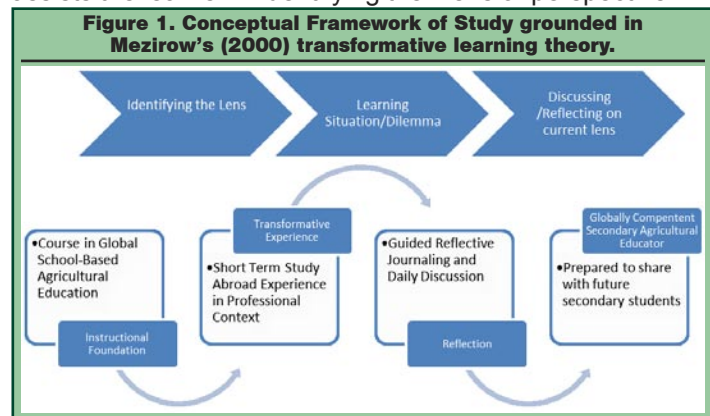
Theoretical Foundation

Mezirow’s theory of transformative learning (2000) provided the theoretical framework for this research study. Transformative learning is the process of critically reflecting upon previous assumptions or understanding in order to determine whether one still holds them to be true or challenges their claims (Mezirow and Associates, 2000). King (2009) contends that Mezirow’s transformative learning theory provides an explanation of the adult learners’ experiences of fundamental change in their perspective or frame of reference as they engage in educational or academic work. Learning is seen as an experience of critical questioning of beliefs and assumptions as the adult learner examines the framework from which he/she has been viewing the world. Key to the process of transformative learning is to recognize narrow frames-of-reference through a disorientating experience thus problematizing current attitudes, values and beliefs (Mezirow, 1981).

Reflective journaling plays a major role in the transformative learning process (Grabov, 1997). Transformative learning allows students to change their orientation by critically reflecting on their beliefs and consciously making and implementing strategies that bring about improved ways of redefining their beliefs. Reflective journaling is a useful tool in facilitating the critical reflection underpinning transformative learning.

Conceptual Framework

As depicted in Figure 1, the transformative learning process in adult education involves a sequence of events. There should be an instructional foundation that assists the learner in identifying their lens or perspective



on the situation. This is followed by the transformative learning life experience that includes guided reflection and discussion to challenge their current lens and gain understanding on the possible changes to that perspective (Mezirow, 2000).

Purpose and Objectives

A transformative learning experience was provided to nineteen agriculture education pre-service teacher candidates through a short embedded course with an international experience component that consisted of traveling to South Korea to explore school-based agriculture education. The purpose of the qualitative study was to identify if teacher candidates expressed global competencies developed within the context of agricultural education in a foreign nation that has school-based agricultural education and university agricultural teacher preparation programs. The qualitative case study would offer an in depth analysis of the knowledge, attitudes and skills towards global competency acquired by pre-service agriculture educators. In this study, the researchers examined the specific transformative effect of an embedded course and international experience on the knowledge, skills and attitudes of students through reflective journaling.

Materials and Methods

To investigate the research questions, this research study utilized a case study qualitative approach. Enrollment in the Global School-Based Agricultural Education: Explorations of Korea class was the single bounded case. Data was collected through reflective journal responses and analyzed through a content analysis.

Site and Participant Selection

Seoul, South Korea was selected as the focus of the course because the post-secondary preparation process of their secondary agricultural educators mirrors that of the American post-secondary education system in agriculture education pre-service preparation. It was also selected because of having already existing connections within South Korea to make entrance a more fluid process. Trust had already been established between the principle researchers and the faculty members of the agriculture education preparation program.

Students were required to complete and submit an application to enroll in the course. Upon submission of the application, each student was interviewed. The interview was to present course rigor, expectations, time commitment and financial responsibility. Students were then selected on the basis of the application and interview process as well as grade point average. All students had to hold a 3.0 GPA on a scale of 4.0. Using this process, the nineteen were selected.

Data Collection

The population for the study was nineteen college students from two land grant institutions. The students from both universities were enrolled in the Global

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School-Based Agricultural Education: Explorations of Korea class. The class was co-taught by the two faculty members, one from each participating institution. The class convened one night a week for two hours. The two institutions interacted with one another during the class session via Skype® and Adobe Connect® technology. Upon completion of the class, students traveled to Seoul, South Korea for 10 days and engaged in interactions with Korean school-based agricultural education, Korean professional teacher organizations and Korean student youth organizations as well as experienced a variety of cultural experiences. The class met throughout the spring semester to introduce students to Korea and guide them in acquiring the characteristics of a global-minded agricultural education teacher. The students kept a journal throughout the on-campus instruction and abroad journey. The students journaled in response to prompts provided by the researchers. The journal entries were analyzed for emergent themes, to identify if students graduating from the two land grant institutions were developing the necessary skills to graduate globally competent. There was a total of 20 journal prompts provided to students to complete and all nineteen students responded to each journal prompt (Tables 1 and Table 2).

Data Analysis

The main form of data analysis was content analysis. Content analysis is a technique that enables researchers to study human behavior in an indirect way, through an analysis of their communications (Fraenkel and Wallen, 2009). Content analysis as a

Table 1. Journal prompts provided during class sessions prior to travel.

| Class Session | Journal Prompt |
|---------------|--|
| 1 | What made you choose to study abroad? What people influenced you in making the decision? How? |
| 2 | What do you hope to gain from this short term study abroad experience (including the class and the trip to South Korea)? How are you expecting to grow personally from this experience? |
| 3 | What are some personal qualities or values you hope might change as a result of this experience? How do you see those qualities and values contributing to your development as an agricultural educator? |
| 4 | What would a "successful" study abroad experience to South Korea look like? What would an "unsuccessful" study abroad experience to South Korea look like? What will measure your success? How will you measure your success? |
| 5 | Traveling abroad to South Korea means that you will get to know new people, speak a new language, be far away from family and friends and so on. How do you think factors like these will affect you? How do you see yourself coping with these circumstances? |
| 6 | What are your expectations and what are your pre-conceived notions about South Korea's academic program? What do you hope to learn, and how do you envision the instructors and learning environments? |
| 7 | In what ways do you think you will be different than other pre-service teachers who did not have an overseas experience? What aspects of your international experience do you think other teacher education students could learn from? |
| 8 | How will you utilize the experience to strengthen your teaching and educational advancement? |
| 9 | What challenges do you anticipate while embarking on your international immersion experience in South Korea? |
| 10 | How do you see your time in South Korea impacting the lives of those you interact with while in South Korea? |

research method is a systematic and objective means of describing and quantifying phenomena and is known as a method of analyzing documents (Downe-Wamboldt 1992; Krippendorff 1980; Sandelowski 1995).

A conventional qualitative content analysis approach was used while moving backwards and forwards, a constant comparative strategy, between the journal responses. Researchers identified the presence of words and concepts that represent emergent themes within the reflective journal responses. Uncovering the regularities or patterns among categories is a process called thematic analysis (Shank, 2006). The uncovered patterns often create a network of themes. It is in this network showing the meaningful relations among constructs (presumed qualities, traits, abilities, etc.) that the theory emerges.

Ethical Concerns and IRB Compliance

Students participating in the embedded course and study abroad trip were approached to obtain an

Table 2. Journal prompts provided during travels abroad.

| Day of Travel | Journal Prompt |
|---------------|---|
| 1 | Describe the scene that greeted you upon arrival in the airport and recount the behavior you observed. What bewildered, delighted, interested, amused, or frightened you? Why? |
| 2 | Describe how your expectations and pre-conceived notions of South Korea are being met or not. How have your first impressions of the country and its people changed since your arrival? |
| 3 | What aspects of the country or culture of South Korea do you understand better? For example, did your experience increase your understanding of the South Korea's people, values, culture, economy, politics, society and/or environment? If yes, how? If no, why not? |
| 4 | Describe a situation(s) where you were required to develop tolerance, flexibility, and a positive attitude in order to adapt to the situation. What did you learn from the experience? Examples of situations may include changes in housing, diet, conversational style with others, customary practices, transportation, etc. |
| 5 | Describe a situation(s) where you believe your values were questioned. How did you handle the situation? Were you able to discuss differences while accepting the position of others? Examples may include criticisms about U.S. individualism and materialism, questions on U.S. political issues, complaints about U.S. habits and norms, stereotypes about U.S. behavior, etc. |
| 6 | Explain a scenario in which you were required to demonstrate resourcefulness, creativity or problem solving skills, or people skills. What life-long lessons, if any, did you learn? Examples may include getting lost, solving a particular problem, communicating in a foreign language, etc. |
| 7 | Systems of education and forms of teaching vary from country to country. What have you discovered about the system of education in South Korea compared to the system of education you experience in the U.S.? Are your pre-conceived notions hindering your progress or aiding you in navigating new academic rules? |
| 8 | Have your relationships with individuals or your understanding of the culture become more complicated as your stay lengthens? How long do you think it takes to begin to understand and be part of the complexities of your host culture? |
| 9 | It is not unusual for students to claim that studying abroad changed their lives. Do you believe your life is different because of studying abroad? How? Do you want to continue traveling internationally? Work in another country? Write any comments below that you want to share that have not been addressed in the questions above. |
| 10 | What was your favorite experience when you were abroad? Which experience had the most impact on you personally? What was the biggest difference in culture that you experienced while abroad? What surprised you the most about your time abroad? What did you appreciate the most from your abroad experience? |

implied consent in an informational email. Students had the opportunity to read the study information and offer their consent. Forms were collected the first day of class. This study presented minimal risk to participants. Loss of confidentiality was the main risk associated with participation in this research. However, loss of confidentiality in this study was minimized by assigning participants a PIN so that their name or other identifying details were not associated with their data.

Verification and Validity Concerns

In content analysis the researcher should try to have some sort of validation study built into the design. In qualitative research, validation takes the form of triangulation. Triangulation lends credibility to the findings by incorporating multiple sources of data, methods, investigators, or theories (Erlandson et al., 1993). In this study, a pretest/posttest survey was administered to the students at the beginning of the class, at the end of the class sessions and then again upon arrival back into the United States at the end of the study abroad trip. This survey was used to determine the students' perceptions regarding global competency and citizenship. Direct observation was another form of data collection to triangulate the findings.

A foreseeable limitation in the methods of conducting the content analysis of the reflective journal entries was to enhance the utility of the analysis. Two fatal flaws that destroy the utility of a content analysis are faulty definitions of categories and non-mutually exclusive and exhaustive categories.

Results and Discussion

The research objective of this qualitative study was to identify the global competence growth found in the journal responses of students participating in a three-credit academic course of ten weekly sessions and an embedded ten day travel experience to Seoul, South Korea through content analysis. A significant finding from the qualitative study was the knowledge, skills and dispositions that evidenced global competence growth were found exclusively in the journal responses captured by the students during the actual trip to South Korea. The results were discovered through in-depth analysis for rich description expressing the students' transformed knowledge, skills and attitudes. The findings feature the voice of the students by using the words *they* chose in their writing and by citing sentences and paragraphs.

For development in knowledge, students' expressed increased awareness of South Korea agriculture, culture and the impact of historical events on a country. Students felt being in South Korea reinforced and brought more meaning to the factual information covered prior to the trip in the classroom. Students found being exposed to the South Korean culture and interacting with Korean students allowed them to develop language skills and identify social and cultural factors.

"Prior to this experience, I had a very provincial perception of Agricultural education. Travelling to Suwan

and Yeosu agricultural schools, we have witnessed an entirely different scope of agricultural education. The magnitude of greenhouses, acres of land in production and student competencies is mind blowing."

Under the global competency construct of skills, students indicated that because of the opportunity to be immersed into the South Korean culture, they were able to gain very specific abilities. Students realized the immediate need to apply their skills to understand and interact with the Seoul students. Students expressed the need to be active listeners, cope with language barriers and develop effective presentation methods.

"The biggest skill I'm learning is how to communicate with individuals who have English as a second language or no English at all. I knew some key methods, but I got to see what worked and really didn't work."

The short term embedded course study abroad experience allowed students to develop global attitudes. Students expressed their newfound appreciation for different cultures, ongoing willingness to accept new perspectives and self-improvement. Going to a country that promotes school-based agriculture education and follows a similar post-secondary teacher preparation program regime, allowed students to become more aware and gain acceptance of cultural differences and cultural ambiguity.

"Being a global citizen, to me, means I have an open mind to all cultures and immerse myself to their customs. To use their ideas and skills in situation where they are needed."

"I am more prepared to inform and prioritize global issues with my future students."

Conclusions and Implications

The findings identified by the researchers suggest there was an increase in global competencies, however, it is unclear at this time if the students developed to a point of a paradigm shift and their thinking modified as a result of the new experiences. To label a student globally competent, the students must engage not only themselves, but others as well in the experience, reflect on what is happening to them and strive to integrate these new perspectives into their frame of reference. It is not until this occurs are they transforming into a globally competent graduate. Future research could follow the participating students as they become secondary agricultural science teachers to identify if and how they bring global issues into their classroom instruction.

Summary

Transforming curriculum to meet the demands of our global economy to produce globally competent teachers requires a commitment to internationalization at the department, college and/or institutional levels of higher education. The responsibility for expanding the international dimensions of agriculture teacher education preparation rests almost solely on faculty shoulders. Faculty must be internationally experienced

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and teaching courses with international content. Studies show that teacher educators recognize that their own participation in study abroad programs translates into professional development opportunities for globalizing teacher education curricula and becoming more global minded (Garii, 2009).

Future research should be conducted to investigate how pre-service agriculture education students who have participated in international study programs have experienced a paradigm shift. Future research could identify how that shift fostered and formed their educational philosophy and classroom instruction.

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