Undergraduate Students’ Cultural Proficiency Education in Career and Citizenship Preparation

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

Carla Beth Jagger

Graduate Program in Agricultural and Extension Education

The Ohio State University

2016

Dissertation Committee:

Dr. M. Susie Whittington, Advisor

Dr. Jamie Cano

Dr. Graham Cochran

Dr. Chris Zirkle
Abstract

Society is becoming more diverse, creating a need for cultural proficiency and critical consciousness. Therefore, attention has been given to studying current areas of growth in education and employability in preparation for 21st century, global, living, learning, and working environments. The need for cultural proficiency and critical consciousness is imperative for progressive societies. Both, cultural proficiency and critical consciousness have the ability to strengthen 21st century, global skills in the next generation of citizens. In preparing a 21st century, global, citizenry, understanding one’s own culture and the cultures around him/her is critical. Living, learning, and working environments continue to become more diverse. Consequently, cultural proficiency, in all citizens, is important to create positive and affirming relationships between individuals with differing cultures.

In this series of studies, the researcher used qualitative methodologies to begin describing how understanding one’s own culture, continuous immersion and reflection experiences, and culturally responsive teaching techniques lead to a culturally responsive citizenry. To begin, the researcher sought to describe undergraduate students’ movement along Cross’s Cultural Proficiency Continuum (CPC), using evidence provided through service-learning experiences, weekly journal entries, and in-class written reflection essays associated with a 14-week general education course. By conducting this study, the
researcher was able to identify evidence of participants’ positive movement along Cross’s CPC in a short amount of time. Thus, it was concluded that through purposeful, intensive, engagement activities, students are able to develop cultural proficiency skills that will lead them to culturally responsive citizenship.

In the second study, the researcher sought to describe student perceptions of the immersion model for pre-service teacher preparation currently being utilized as part of the professional pre-service block experience. Pre-service teachers engage in the block experience the semester prior to student teaching in the Agriscience Education degree program at The Ohio State University. In this study, participants completed pre- and post-reflections for each teaching immersion experience, in addition to group and individual interviews. Through the findings, the researcher concluded that the current immersion model currently used increases pre-service teachers’ comfort levels when engaged in each immersion experience. However, more thorough information needs provided to future pre-service teachers in all settings of the immersion model to ease feelings of stress.

Finally, in the third study of the series, the researcher sought to describe pre-service, secondary, public school, agriscience teachers’ perceptions of their preparation to teach diverse underrepresented populations. The study consisted of a self-contained focus group protocol, in which participants identified diversity immersion programming they participated in as students at The Ohio State University. In addition, students provided perceptions related to diverse underrepresented populations and their preparation to work with these populations in the future. The researcher concluded that students did not
perceive themselves to be adequately prepared for working with diverse underrepresented populations. Pre-service agriscience teachers interviewed focused primarily on racial differences when discussing diversity and underrepresented populations. Their responses indicated that more awareness related to these concepts need emphasized in pre-service programs, to prepare teachers for culturally responsive teaching.
Acknowledgments

As most of you who read this document know, writing a dissertation is a grueling, yet rewarding, process. A journey in which, I could not have made, without my extraordinary support system. I am so grateful for the endless support I was shown from countless individuals in all facets of my life, including family, friends, colleagues, and my students.

I will start by thanking my family, who always show their love and support. Without all of you by my side, I doubt I would have had the courage to pursue my goals. Next, I would like to thank Dr. Susie Whittington, who has become part of my family away from home. You have been with me from the beginning to the end of my undergraduate and graduate career. You stuck with me through all the ups and downs. Your guidance and advising has helped shape me into the professional I am today. Also, a special thanks goes to each of my committee members, Dr. Cano, Dr. Cochran, and Dr. Zirkle. I greatly appreciate all of your wisdom, advice, and conversations throughout my graduate career.

Finally, thank you to all my friends, colleagues, and students who have always shown your support. I know if I start naming you I won’t be able to stop. All of you hold a special place in my heart, and I will always be grateful for my relationship with each of you.
Vita

June 2004 ..............................................................Mount Gilead High School

2008 .................................................................B.S. Agricultural and Extension Education,

The Ohio State University

2010 .................................................................M.S. Agricultural and Extension Education,

The Ohio State University

2013 to present ..................................................Graduate Associate, Department of

Agricultural Communication, Education,

and Leadership, The Ohio State University

Publications

nonformal educators’ adoption of techniques that will influence employability of
their future audiences. North American Colleges and Teachers of Agriculture
Journal 53(1), 71-77.

Fields of Study

Major Field: Agricultural and Extension Education
# Table of Contents

Abstract ........................................................................................................................................ ii

Acknowledgments.................................................................................................................. v

Vita........................................................................................................................................ vi

List of Tables ........................................................................................................................ xi

List of Figures ........................................................................................................................ xii

Section 1: Introduction .......................................................................................................... 1

Globalization of Working Environments ........................................................................ 1

Preparing Undergraduate Students for 21st Century, Global, Living, Learning, and Working Environments ................................................................................................................. 2

Encouraging Culturally Responsive Learning Environments Through Pre-Service Teacher Education ........................................................................................................................................ 3

Theoretical Framework ........................................................................................................ 5

Conceptual Framework ........................................................................................................ 8

Constitutive Definitions of Terms ...................................................................................... 11

Operational Definitions of Terms ...................................................................................... 13

Summary of Introduction .................................................................................................. 14

vii
Summary of Article One ........................................................................................................ 14
Summary of Article Two .................................................................................................... 15
Summary of Article Three ................................................................................................ 15
Synthesis of Executive Summary ......................................................................................... 16
Section 2A: Using Cultural Proficiency Education to Impact Students’ 21st Century Skills
........................................................................................................................................... 17
   Introduction .......................................................................................................................... 17
   Theoretical Framework ..................................................................................................... 18
   Purpose and Objectives .................................................................................................... 20
   Research Design .............................................................................................................. 21
   Results .................................................................................................................................. 32
   Conclusions and Discussions ........................................................................................... 43
   Recommendations From This Study ............................................................................... 45
   Recommendations For Future Studies ............................................................................. 45
   Implications ....................................................................................................................... 46
   Summary ............................................................................................................................. 47
   References ........................................................................................................................... 48
Section 2B: Describing Agriscience Pre-service Teachers’ Pre- and Post-Perceptions of
   Their Cultural Immersion Experiences During Teacher Preparation ........................... 51
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>.................................................................</td>
<td>51</td>
</tr>
<tr>
<td>Theoretical Framework</td>
<td>........................................................................</td>
<td>53</td>
</tr>
<tr>
<td>Need for study</td>
<td>........................................................................</td>
<td>54</td>
</tr>
<tr>
<td>Purpose and Objectives</td>
<td>........................................................................</td>
<td>55</td>
</tr>
<tr>
<td>Methodology</td>
<td>........................................................................</td>
<td>56</td>
</tr>
<tr>
<td>Results</td>
<td>........................................................................</td>
<td>64</td>
</tr>
<tr>
<td>Conclusions and Discussions</td>
<td>........................................................................</td>
<td>75</td>
</tr>
<tr>
<td>Recommendations From This Study</td>
<td>........................................................................</td>
<td>77</td>
</tr>
<tr>
<td>Recommendations For Future Research</td>
<td>........................................................................</td>
<td>78</td>
</tr>
<tr>
<td>Implications</td>
<td>........................................................................</td>
<td>79</td>
</tr>
<tr>
<td>Summary</td>
<td>........................................................................</td>
<td>79</td>
</tr>
<tr>
<td>References</td>
<td>........................................................................</td>
<td>81</td>
</tr>
<tr>
<td>Section 2C: Pre-Service Agriscience Teacher Perceptions of Their Preparation to Teach Diverse Underrepresented Populations</td>
<td>........................................................................</td>
<td>84</td>
</tr>
<tr>
<td>Introduction</td>
<td>........................................................................</td>
<td>84</td>
</tr>
<tr>
<td>Theoretical Framework</td>
<td>........................................................................</td>
<td>85</td>
</tr>
<tr>
<td>Purpose and Objectives</td>
<td>........................................................................</td>
<td>87</td>
</tr>
<tr>
<td>Methods</td>
<td>........................................................................</td>
<td>87</td>
</tr>
<tr>
<td>Results</td>
<td>........................................................................</td>
<td>95</td>
</tr>
</tbody>
</table>
List of Tables

Table 1. Participant's Self-Identified Placement on Cross's CPC and Frequency of Evidence

34
List of Figures

Figure 1. A Conceptual Framework for Preparing a Culturally Responsive Citizenry ...... 8
Figure 2. Cross's Cultural Proficiency Continuum .......................................................... 19
Figure 3. A Conceptual Framework for Preparing a Culturally Responsive Citizenry .. 106
Section 1: Introduction

Society is becoming more diverse, creating a need for multicultural education and critical consciousness (Eng, 2013; Ford, Stuart, & Vakil, 2014; Gay, 2010a; Ladson-Billings, 2005; and Sleeter, 2001). Therefore, attention has been given to studying current areas of growth in education and in employability preparation for embracing 21st century, global, living, learning, and working environments. The need for cultural proficiency and for critical consciousness is imperative for progressive societies. Both, cultural proficiency and critical consciousness have the ability to strengthen 21st century, global skills in the next generation of American citizens.

Globalization of Working Environments

Diversity is a growing characteristic of work environments and subsequently, presents inherent challenges (Earley & Ang, 2003; Hopkins & Hopkins, 1998; Livermore, 2010). Hopkins and Hopkins (1998) emphasized the need for diversity leadership education, through which administrators of organizations and companies find strategies for teaching individuals of diverse backgrounds to effectively and respectfully work together. Without diversity leadership education, corporations could find themselves at a disadvantage competitively (Hopkins & Hopkins, 1998). One strategy for creating diversity-friendly work environments, is through work leaders exhibiting behaviors from the ‘simpatico’ leadership paradigm. These behaviors include the abilities
to be sensitive, impartial, mediators, patient, amiable, teachers, involved, communicators, and optimistic (Hopkins & Hopkins, 1998).

Another strategy for creating diversity-friendly living, learning, and working environments includes strengthening one’s cultural intelligence. In global 21st century environments, administrators require the ability to engage with multiple cultural backgrounds (Livermore, 2010). Cultural intelligence can assist in understanding diverse audiences, managing diverse teams, recruiting and developing cross-cultural talent, adapting leadership styles, and demonstrating respect (Livermore, 2010). The foundation for cultural intelligence is Gardner’s theory of multiple intelligences (Earley & Ang, 2003). Cultural intelligence is defined as, “a person’s capability to adapt effectively to new cultural contexts” (Earley & Ang, 2003, p. 59). Cultural intelligence includes cognitive, motivational, and behavioral elements. A cognitive element of cultural intelligence is self-awareness, which is examined as part of cultural proficiency in this study.

Preparing Undergraduate Students for 21st Century, Global, Living, Learning, and Working Environments

Since current undergraduate students are the future leaders and active members of our increasingly diverse society, a growing need exists for teaching cultural proficiency education and critical consciousness at the post-secondary level. To help undergraduate students gain the skills needed to succeed in 21st century, global, work environments, university personnel are expected to improve their knowledge of skills that employers are seeking (Finch, Hamilton, Baldwin, & Zehner, 2013). Finch et al. (2013), highlighted
five categories of employability skills being sought by 21st century employers: soft-skills, problem-solving skills, pre-graduate experience, job-specific functional skills, and academic reputation. Of these, the most prominent skills that also align with cultural proficiency and critical consciousness are soft-skills and problem-solving skills. Competencies included within these skill sets include: written and verbal communication skills, listening skills, professionalism, interpersonal skills, critical thinking skills, creativity, leadership skills, and adaptability (Finch et al., 2013)

In general, current undergraduate students lack the multicultural skills needed to enter the 21st century, global, work environment (Rateau, Kaufman, & Cletzer, 2015). Therefore, postsecondary educators are expected to incorporate into their teaching, effective strategies that will strengthen undergraduate students’ cultural proficiency skills for entering work environments (Rateau et al., 2015).

**Encouraging Culturally Responsive Learning Environments Through Pre-Service Teacher Education**

In a case study conducted by Au and Blake (2003), educators from diverse backgrounds were compared to their mainstream peers. Researchers examined the perspective and experiences of these diverse participants. Au and Blake concluded that there was a need for research related to developing pre-service teaching programs, to prepare teacher candidates to work with diverse students in addressing needs of teacher candidates from diverse backgrounds. Sleeter (2001) conducted an extensive review of literature focused on studies related to teacher preparation in working with multicultural student populations. Through her examination, Sleeter discovered that pre-service
programs typically focused on recruiting candidates of diverse backgrounds, or on
developing candidates’ cultural competency when addressing the cultural gap between
teachers and students.

Nationally, educators are faced with changing demographics of students in public
schools. The National Center for Education Statistics reported that school enrollment by
race/ethnicity in 1991 was 67.4% white. 2011 enrollment reported a decrease in white
student population to 51.7%, while the teacher population was reported as 81.9% white
and 76.3% female. Gay (2010a) also highlighted the cultural gap that is present between
the diversity of teachers and students. Specifically, Gay noted that teachers were not
aware of their own cultural biases and assumptions, which could result in their attitudes
impeding the teaching and learning process. To help prevent impaired learning, Gay
stated that there is a growing need for cultural proficiency education in pre-service
teacher education.

Inequalities can occur in school settings when one culture dominates another
(Savage et al., 2011). In some cases, cultural domination can lead to a lack of learner
engagement. Cultural domination can also lead to behavioral issues on behalf of the
oppressed culture. Unless educators begin to reform their practices, they may be “seen as
contributing to educational inequity” (Savage et al., 2011, p. 184). Culturally responsive
teaching is a theory proposed to move educators beyond the issue of inequity. Through
culturally responsive teaching, educators are able to use the strengths of all students in a
“culturally validating and affirming” manner (Gay, 2010b, p. 29).
Theoretical Framework

Culturally Responsive Teaching (CRT) provides the theoretical framework to guide this study (Gay, 2010b). Gay (2002b) defined CRT as, “using the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively” (p. 106). Culturally responsive teaching requires cultural proficiency and the positive inclusion of cultural resources during the teaching and learning process (Gay, 2013). To truly implement, one must go beyond respecting others’ cultures; one should learn factual information about the groups being served. Cultural aspects in which educators should be aware include, “ethnic groups’ cultural values, traditions, communication, learning styles, contributions, and related patterns” (Gay, 2002b, p. 107). Culturally responsive teaching helps meet the learning needs of a diverse group of students through individually, “focusing on their cultural knowledge, prior experiences, frames of reference, and performance styles” (Ford et al., 2014, p. 57).

Several key components and theories of CRT have contributed to developing the conceptual framework of this study by tying together research inquiries of diversity, cultural proficiency education, and critical consciousness. The first theory described is cultural critical consciousness, which is grounded in Freire’s Critical Consciousness Theory.

Cultural critical consciousness. Developing cultural critical consciousness pushes beyond recognizing diversity; it involves the act of self-reflection, assisting in understanding across cultural groups, and modifying the environment through equity practices (Cooper et al., 2011). Each individual must first understand one’s own culture
and become aware of the cultures around him/her (Gay & Kirkland, 2003). To accomplish effective self-reflection, individuals must engage in tangible experiences, encouraging more “genuine and authentic” learning (Gay & Kirkland, 2003, p. 186). Cultural critical consciousness in education can lead teachers towards the betterment of their teaching skills and their ability to understand individual students (Gay, 2002a). A lack of cultural proficiency in educators may lead to misinterpretation of students, resulting in learning disadvantages (Gay, 2001). To incorporate cultural responsive teaching practices, there is a need “for educators to become critically conscious of their own cultural socialization, and how it affects their attitudes and behaviors toward the cultures of other ethnic groups” (Gay, 2002a, p. 619).

Critical consciousness. Freire’s (1993) concept of critical consciousness grew from his work with adult literacy and oppressed populations. “Pedagogy of the oppressed, which is the pedagogy of people engaged in the fight for their own liberation,” is grounded in the need for “critical intervention of people in reality through the praxis” (Freire, 1993, p. 35). Freire’s concept is created through two stages. The first stage occurs when the oppressed realize their oppression, and set out to transform their situation. Following the transformation, the oppressed become liberated from their oppressors (Freire, 1993). In the world of teaching and learning, the teacher is identified as the oppressor, with the students being the oppressed. In oppressive learning environments, students are less likely to develop a critical consciousness.

Freire (1993) stated that, “knowledge emerges only through invention and re-invention, through the restless, impatient, continuing, hopeful inquiry human beings
pursue in the world, with the world, and with each other” (p. 53). Freire introduces oppressive learning environments as, *banking education*. These environments require students to memorize and recite information the educator chooses to introduce. In contradiction to this approach, Freire describes *problem-posing* education as the alternative methodology, which allows students to develop a critical consciousness through becoming aware of, and questioning the world around them.

When students engage in critical consciousness, their actions help in developing critical thinking skills (Freire, 1993; Lewis & Lee, 2009). By developing critical consciousness in educators, a shift is possible in the “school culture where democratic school relationship structures give voice to marginalized students, families, and teachers” (Bradley-Levine, 2012, p. 751).

Although, critical consciousness was developed by Freire (1993) to assist oppressed individuals, those considered privileged also benefit from the necessary reflection and action (Watts et al., 2011). Critical consciousness calls individuals to critically reflect and act upon one’s environment (Lewis & Lee, 2009). When critical consciousness is in action, an individual has the ability to identify problems and select the best action, through a reflection of the historical and social contexts that caused the problem (Bradley-Levine, 2012). Although critical consciousness is mostly developed through individual reflection, sharing thoughts with others is also needed to help in one’s understanding of opposing views (Bradley-Levine, 2012). By engaging in critical reflection of their situation, individuals transition from being oppressed to being active in their environment. Social identities may shift depending on the context in which
individuals are found. In other words, some identities may cause individuals to be privileged and other identities may cause individuals to be oppressed given certain contexts (Pitner & Sakamoto, 2005). Pitner and Sakamoto (2005) emphasized the importance of social identity in saying, “one important aspect of developing critical consciousness is recognizing that each of our identities has status attributes and gets played-out in our interaction with culturally different others” (p. 686).

A benefit of critical consciousness includes an individual’s ability to be aware of one’s own biases, which could help prevent imposing one’s beliefs on others. Critical consciousness could also reduce stereotypical behaviors. When biases and stereotyping are present, the awareness of diversity is minimized. Critical consciousness is vital to cultural proficiency because it allows individuals to identify their own biases, assumptions, and stereotypes (Pitner & Sakamoto, 2005).

**Conceptual Framework**

![Conceptual Framework](image)

Figure 1. A Conceptual Framework for Preparing a Culturally Responsive Citizenry
As can be seen in A Conceptual Framework for Preparing a Culturally Responsive Citizenry (see Figure 1), understanding one’s own culture is the first component in preparing a culturally proficient citizenry. The continuous cycle of immersion experiences and self-reflection, which assists in developing the student’s critical consciousness, provides the application component of the framework. Student-developed critical consciousness will contribute to pre-service teachers’ ability to utilize culturally responsive teaching. Finally, each component supports creating a culturally responsive citizenry in 21st century, global, living, learning, and working environments.

**Understanding one’s own culture.** Gay (2001) theorizes five essential elements of culturally responsive teaching, of which the first is knowledge base about cultural diversity. In additional articles, Gay (2002a, 2002b, & 2013) further elaborated on the importance of first knowing one’s own culture. Ford et al. (2014) stated that when educators are aware of their own biases, attitudes, and assumptions “they are more likely to seek ways to minimize negative perceptions and be more inclusive in their practices” (p. 58).

The theoretical foundation for this portion of the conceptual framework, in addition to culturally responsive teaching, is based on Cross’s Cultural Proficiency Continuum (CPC) (Cross, Bazron, Dennis & Isaacs, 1989). Cross’s CPC is designed to reflect that a 21st century culturally proficient citizen can demonstrate cultural awareness in their communication and interpersonal skills. Cultural proficiency is defined as a way of being that enables both individuals and organizations to respond effectively to people and cultures who differ from themselves (Marsh, Marsh, & Whittington, 2012). Benefits
of cultural proficiency include: contributes to self-awareness, builds confidence, breaks down barriers, builds trust, opens horizons, develops listening skills, and finds common ground (Marsh et al., 2012).

**Continuous cycle of immersion experiences and self-reflection.** Upon understanding one’s own culture, the next series of processes suggested in the conceptual framework are a continuous cycle of immersion experiences and self-reflection. Based on the critical consciousness theory, this component of the conceptual framework includes necessary components of action and reflection (Freire, 1993). Benefits of critical consciousness include, an individual’s ability to be aware of one’s own biases, which could help prevent imposing one’s beliefs on others. Critical consciousness is theorized to reduce stereotypical behaviors. When biases and stereotyping are present, the awareness of diversity is minimized. Critical consciousness is vital to cultural proficiency education because it allows individuals to identify their own biases, assumptions, and stereotypes (Pitner & Sakamoto, 2005). For the purposes of this study, immersion experiences differ depending on the described audience. For example, in one case, the immersion experience is a service-learning project, followed by a reflection describing how the participant met the course requirements. However, the second audience is a group of pre-service teachers, who are required to complete several teaching immersion experiences, in addition to reflections, as part of the pre-service program.

**Culturally responsive teaching.** In this study of pre-service agriscience teachers, the end goal is for them to model culturally responsive teaching in their classrooms. Gay (2002b) defined culturally responsive teaching as, “using the cultural characteristics,
experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively” (p. 106). Culturally responsive teaching requires cultural proficiency and the positive inclusion of cultural resources during the teaching and learning process (Gay, 2013). To truly implement, one must go beyond respecting others’ cultures; one should learn factual information about the groups being served. Cultural aspects in which educators should be aware include, “ethnic groups’ cultural values, traditions, communication, learning styles, contributions, and related patterns” (Gay, 2002b, p. 107). Culturally responsive teaching helps meet the learning needs of a diverse group of students through individually, “focusing on their cultural knowledge, prior experiences, frames of reference, and performance styles” (Ford et al., 2014, p. 57).

**Culturally responsive citizenry.** The researcher proposed that as teachers begin to use culturally responsive teaching pedagogies in the classroom, students will learn these behaviors, increasing the chance for a more culturally responsive citizenry. As an individual progresses through *A Conceptual Framework for Preparing a Culturally Responsive Citizenry*, they are ultimately developing skills that emphasize Cultural Critical Consciousness.

**Constitutive Definitions of Terms**

*21st Century, Global, Living, Learning, and Working Environments:* spaces where one must demonstrate 21st century skills successfully to respond affirmingly to others surrounding them.
**Cultural Critical Consciousness:** pushes beyond recognizing diversity; it involves the act of self-reflection, assisting in understanding across cultural groups, and modifying the environment through equity practices (Cooper et al., 2011)

**Cultural Proficiency:** a way of being that enables both individuals and organizations to respond effectively to people and cultures that differ from themselves (Marsh et al., 2012)

**Culturally Responsive Citizen:** an individual capable of seeing and understanding cultural backgrounds and can communicate affirmingly in their living, learning, and working environments.

**Culturally Responsive Teaching:** “Using the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively” (Gay, 2002b, p. 106).

**Immersion Experiences:** “a 21st century curriculum of immersion in Agriscience teacher preparation, is one that mixes non-traditional context-setting with traditional, tested teaching approaches like problem-solving, and adds delivery strategies like experiential learning to weave a Modern Philosophy of Immersion for Teacher Preparation” (Whittington, 2014, p. 1).

**In-class Written Reflection Essays:** five-minute, student-developed, in-class thinking prompt, designed as an opportunity for students to provide evidence, in writing, that they are thinking/pondering/contemplating along Cross’s Cultural Proficiency Continuum.

**Service-Learning Experiences:** experiences around the university area or in students’ hometowns, which allowed students to work in close relation to individuals who differ
from themselves. Jacoby (1996) further described service-learning as, a form of experiential education that promotes student learning and development through reflection and reciprocity.

_Underrepresented Populations:_ found through a close examination of the populations that exist in a given group, and then identifying the gaps. Consequently, the definition of underrepresented populations differs based on each individual context/environment. For the purposes of this study, contexts/environments were the population of the student body at The Ohio State University, and the populations of students enrolled in secondary agricultural science programs in public schools in Ohio.

_Weekly Journal Entries:_ weekly two-page, hand-written, self-reflections based upon critical thinking stems generated during the first class session using Kagan Question Dice©. To generate the critical thinking stems, students rolled two die, one containing each word of a critical thinking stem. The results were the first two words for a question that students created themselves to reflect upon as they completed their weekly, journal entry (i.e., “Which will?”, “How would?”, “Why might?”, etc.).

**Operational Definitions of Terms**

_Students’ Prior Experiences:_ any involvement related to the given immersion experience presented to the students, reported as a qualitative summary of student self-reported feedback.

_Students’ Knowledge Level Related to Immersion Experiences:_ student self-reported knowledge of concepts needed to be successful in the given immersion experience presented to the students, reported as a qualitative summary.
Students’ Comfort Level Related to Immersion Experiences: student self-reported level of comfort when engaging in activities related to the given immersion experience presented to the students, reported as a qualitative summary.

Summary of Introduction

In preparing a 21st century, global citizenry, understanding one’s own culture and appreciating the cultures surrounding one’s self are critical. Living, learning, and working environments continue to become more diverse. Consequently, cultural proficiency, in all citizens, is important for creating positive and affirming relationships between individuals with differing cultures. Throughout the remainder of this document, three articles are presented that begin to holistically examine the conceptual framework advocated by the design of the study. The primary population for these articles was pre-service, secondary, public school, agriscience teachers. Thus, culturally responsive teaching became the primary theory embedded in A Conceptual Framework for Preparing a Culturally Responsive Citizenry.

Summary of Article One

The purpose of the first article was to describe undergraduate students’ movement along Cross’s Cultural Proficiency Continuum (CPC), using evidence provided through service-learning experiences, weekly journal entries, and in-class written reflection essays associated with a 14-week general education course. The article highlights the first two components of the conceptual framework by describing participant’s movement along Cross’s CPC; participants’ movement along the CPC is indicative of their understanding of their own cultural foundations. Through a service-learning immersion
program, these participants also engaged in a continuous cycle of immersion experiences and self-reflection (see Figure 1).

Summary of Article Two

The second article focused on a primary population of pre-service, secondary, public school agriscience education teachers. The study was designed to describe the current immersion model of pre-service teacher preparation being utilized as part of the Professional Block experience prior to student teaching within the Agriscience Education Degree Program at The Ohio State University. Throughout the experiences of the Professional Block, students are educated for and immersed into several environments that encourage application of learning at a deeper level than is provided by traditional pre-service degree programs. The second article, therefore, is designed to examine the second portion of the conceptual framework for pre-service teacher education, using multiple immersion experiences, across one semester.

Summary of Article Three

Finally, a third article, using the same population of students as the second article, was written to describe pre-service, secondary, public school, agriscience teacher’s initial thoughts about their preparation to teach diverse underrepresented populations, and acceptance of diversity. Through a focus group interview, the researcher began to identify pre-service agriscience teachers’ perceptions of culturally responsive teaching, which is the third component of the conceptual framework.
Synthesis of Executive Summary

In conclusion, section three is presented as an Executive Summary of all three articles. The content is synthesized using the conceptual framework as the primary focus for visioning toward a culturally responsive citizenry.
Section 2A: Using Cultural Proficiency Education to Impact Students’ 21st Century Skills

Introduction

The National Center for Education Statistics reported that secondary school enrollment by race/ethnicity in 1999 was 65.1% white; 2012 enrollment reported a decrease in white student population to 53.2%, with a projected decrease in white student population to reach 45.5% in the year 2024. Similar trends are occurring in the civilian labor force as well, as reported by the Bureau of Labor Statistics (2015). These trends, in the workforce and in educational settings, indicate that individuals have higher expectations for working with a diverse 21st century, global citizenry.

Current undergraduate students are the future leaders and active members of our increasingly diverse citizenry. Hopkins and Hopkins (1998) emphasized the need for diversity leadership in which leaders of organizations or companies could find strategies for guiding individuals of diverse backgrounds to effectively and respectfully work together. Therefore, a need is rapidly being created for cultural proficiency education at the post-secondary level.

Rateau, Kaufman, and Cletzer (2015), noted that current undergraduate students lacked the necessary skills to enter the workforce, including interpersonal and diversity skills needed for success in 21st century, global, work environments. Therefore, postsecondary educators are expected to focus on effective teaching strategies that will
strengthen undergraduate students’ cultural proficiency skills for entering the work environment (Rateau et al., 2015).

Gay (2002a) discussed the concept of cultural blindness where, “culture simultaneously blinds us. It forms our center in the dynamics of living and interacting with others while leading us to assume that our own ways of being and behaving are the only right way” (p. 617). Through cultural proficiency, individuals can respond positively to individuals who differ from themselves (Cross, Bazron, Dennis & Isaacs, 1989). However, “such knowledge and skills do not occur automatically; they have to be learned, which also means they must be taught” (Gay, 2002a, p. 627). Thus, the study presented, focuses on describing undergraduate students’ journeys toward cultural proficiency.

**Theoretical Framework**

The theoretical framework for this study is grounded in Cross’s Cultural Proficiency Continuum (CPC) (Cross et al., 1989). Cross’s continuum theorizes that citizens can demonstrate cultural proficiency in communication and interpersonal skills. Cultural proficiency is defined as a way of being that enables both individuals and organizations to respond effectively to people and cultures who differ from themselves (Marsh, Marsh, & Whittington, 2012). Benefits of cultural proficiency include: contributes to self-awareness, builds confidence, breaks down barriers, builds trust, opens horizons, develops listening skills, and finds common ground (Marsh et al., 2012).

Cross’s continuum encompasses six stages of cultural proficiency ranging from destructiveness, when one sees a difference in the cultures of others and tries to
extinguish those differences, to proficiency, when one sees the differences between cultures and responds positively and affirmingly. All stages can be seen in Figure 2.

![Diagram showing Cross's Cultural Proficiency Continuum]

Figure 2. Cross's Cultural Proficiency Continuum

Additionally, Friere’s theory on critical consciousness contributes to the theoretical framework for this study. When students engage in critical consciousness, their actions contribute in developing their critical thinking skills (Freire, 1993; Lewis & Lee, 2009). Critical consciousness is theorized to reduce stereotypical behaviors. A benefit of critical consciousness includes, the ability to be aware of one’s own biases, which leads to preventing imposing one’s beliefs on others. When biases and stereotyping are present, the awareness of diversity is minimized. Critical consciousness is vital to cultural proficiency education, because it allows individuals to identify their own biases, assumptions, and stereotypes (Pitner & Sakamoto, 2005).
Although, critical consciousness was developed by Freire (1993) to assist oppressed individuals, those considered privileged are also theorized to benefit from the necessary reflection and action required by the theory (Watts, Diemer, & Voight, 2011). Critical consciousness calls individuals to critically reflect and act upon one’s environment (Lewis & Lee, 2009). When critical consciousness is in action, an individual has the ability to identify problems and select the best action, through a reflection of the historical and social contexts that caused the problem (Bradley-Levine, 2012).

Critical consciousness is mostly developed through individual reflection, however, sharing thoughts with others is also needed to help in one’s understanding of opposing views (Bradley-Levine, 2012). By engaging in critical reflection of one’s situation, individuals transition from being oppressed to being active in one’s environment. Social identities may shift depending on the context in which individuals are found. In other words, some identities may cause individuals to be privileged while other identities may cause individuals to be oppressed given certain contexts (Pitner & Sakamoto, 2005). Pitner and Sakamoto (2005) emphasized the importance of social identity in saying, “one important aspect of developing critical consciousness is recognizing that each of our identities has status attributes and gets played-out in our interaction with culturally different others” (p. 686).

**Purpose and Objectives**

The purpose of this study was to describe undergraduate students’ movement along Cross’s Cultural Proficiency Continuum (CPC), using evidence provided through service-learning experiences, weekly journal entries, and in-class written reflection
essays associated with a 14-week general education course. The researcher used two objectives to guide the study:

1. Describe student movement along Cross’s CPC as evidenced through student-provided written and oral statements related to service-learning.

2. Describe student movement along Cross’s CPC as evidenced through weekly journal entries, and in-class written reflection essays.

**Research Design**

The research design for this exploratory descriptive study was qualitative methodology using the focus group interview method. The researcher received approval by an Ohio State University human subjects review (#2013B0380). The focus group interview method was selected because the researcher sought to answer *how* and *why* questions about a contemporary phenomenon in a real-life context over which the researcher had no control. The focus group interview method was appropriate because, according to Krueger and Casey (2002), “the answers to verbal questions can yield powerful information” (p. 1). In addition, multiple sources of evidence, such as weekly journal entries, in-class written reflection essays, and student-provided written evidence of meeting standards and benchmarks for cultural proficiency (Marsh et al., 2012), were used to trace patterns over a period of time (Yin, 2014).

The researcher approached the basic qualitative research methodology through an interpretivism epistemology using the focus group interview method. The focus group interview method was documented in several studies of college students engaged in cultural proficiency education. For example, Durham-Barnes’s (2015) study of critical
dialogues on race, and Meaney, Bohler, Kopf, Hernandez and Scott’s (2008) exploratory study of cultural competence, both resulted in changes in student curriculum.

**Focus group interview selection.** Ninety students enrolled across two years (43 in 2015; 47 in 2016), in a 14-week, university general education course on cultures and ideas, served as the target population for the study. A focus group interview was selected as the method for collecting the primary data. The goal of the focus group interview was to gain an in-depth understanding of the complexities and nuances of a phenomenon (Stake, 1995). Patton (1990) stated that studying a situation in-depth required the purposeful selection of information-rich scenarios and a purposeful sampling strategy of various techniques. Therefore, random sampling was used to identify an unbiased pool of student participants in the focus groups, and then criterion sampling was used to identify participants that were engaged in as many types of service-learning opportunities and experiences as were represented across the class as a whole. Students tended to be involved in elementary and middle school tutoring programs, food pantries, English as a second language programming, nursing home programming, and youth recreational center activities.

Based on the combination of random and criterion sampling processes, three sets of ten students were randomly drawn. Through this random sampling, the researcher hoped to elicit a moderate focus group of six to ten participants (Morgan, 1988). Therefore, twelve students each year were selected by criterion sampling to represent the variety of service-learning opportunities in which students were participating.
Data collection. A unique strength of the focus group interview design is the use of multiple sources of evidence (Yin, 2014). Transcribed focus group interviews were used as the primary source of data for this study, while weekly journal entries, in-class written reflection essays, and student-provided written evidence of meeting their standards and benchmarks for cultural proficiency were analyzed as secondary sources of data.

Gaining access. Gaining access refers to the researcher’s acquisition of consent to go where one wants, talk to whomever one wants, and obtain the information wanted for the study (Yin, 2014). The researcher followed the procedures outlined by Glesne (1999) to gain access with each participant by guaranteeing confidentiality and anonymity in the invitation email, and during the focus group interviews (see Appendix A). To guarantee confidentiality and anonymity, the researcher had participants use only a course assigned number when submitting work associated to the study. The researcher also assured participants their names would never be connected with their numbers for any reason during the study.

The researcher listened to the concerns and questions presented by the participants regarding the study or procedures and responded accordingly to establish rapport and trust. In addition, the researcher offered participants copies of the final disseminated documents. Finally, the researcher communicated in advance the potential need for further discussion and assistance in the future, including a review of the interview report for the member check.
Focus group interviews. Focus group interviews were conducted the ninth and fifteenth weeks of the semester to understand the inner perspectives of those participating in service-learning opportunities and the ways in which those experiences contributed to students’ movement along Cross’s CPC. According to Patton (1990), “The purpose of interviewing is to find out what is in and on someone else’s mind” (p. 278). The questions were designed and sequenced following recommendations given by Patton. Three researchers, with expertise in qualitative methodologies, reviewed the questions and made suggestions for improvements. The researcher used the suggestions to generate the initial list of interview questions.

As cited in the literature, focus groups were held until the researcher reached the point of saturation. Saturation was reached when negligible amounts of new information were gained from further questioning (Patton, 1990).

Pilot study. As recommended by Glesne (1999), a pilot study was conducted prior to the focus group interviews to learn about the research process, and to modify the questions. Two individuals that were close to the phenomenon being studied agreed to work with the researcher in March 2015 to design questions and to modify the protocol. The researcher explained to each individual, prior to the interview, that their role was to think-through responses to the questions from their perspective, and to provide feedback on how to change the questions and procedures. The feedback received from the pilot study participants was used to modify the questions by making the wording easier to understand and more specific. Order of and number of questions were also modified.
**Focus group interview procedures.** The structure of the focus group interviews was a combination of two structures outlined by Patton (1990); a combined standardized written response question period and an open-ended question period were utilized. The standardized written response questions consisted of a set of predetermined questions that were carefully worded and ordered to take each participant through the same sequence of specific questions (see Appendix B). The strengths of standardized written-response question periods were that the structure minimized interviewer effects on participant answers, and were highly focused, so as to use participant time carefully. The weaknesses of the standardized written-response question period were that there was little flexibility for pursuing issues that were generated after the interview was written, and that the structure constrained the facilitator from using different lines of questioning with individual participants based on their unique service-learning experiences.

The open-ended question period was utilized to provide more flexibility in using probing questions and in determining which aspects of students’ service-learning experiences to explore in greater depth. Using the open-ended question period enabled the researcher to better understand the behaviors, thoughts, and feelings of participants.

The processes used for documenting the information gathered during the focus group interview followed the recommendations made by Patton (1990) and Yin (2014). A digital recorder was used, following consent by the participants. The use of a recorder was beneficial because its use increased the accuracy of the data gathered and also permitted the facilitator to be more attentive. Additionally, the entirety of the interview was transcribed as an additional source and backup of the recorded data.
To minimize bias in the students’ responses, the researcher used external personnel to moderate and transcribe the focus group interview. Two past students of the course served as moderators. Both students had assisted in formalizing the structure and the questions for the focus group. An administrator from the university’s multicultural center took field notes of student responses during the open-ended question portion of the focus group.

To show appreciation to the informants for donating their time to the study, participants were asked to have a pizza dinner following the session. The researcher also offered to share the published documents with participants who requested it.

**Review of documentation.** Documents related to the inquiry play a vital role as secondary data in qualitative research. Documents provide the following data: (1) verifying the correct spellings of names, titles, and organizations mentioned during focus group interviews; (2) providing specific details to corroborate information from other sources; and (3) supplying inferences for further inquiry (Yin, 2014). However, documents are not necessarily accurate, free of bias, or representative of the truth (Yin, 2014). The documents reviewed for this study included weekly journal entries, in-class written reflection essays, and student-provided written evidence of meeting their standards and benchmarks for cultural proficiency.

Students submitted journal entries and participated in in-class written essays on a weekly basis for 14 weeks. The researcher used these assignments as instruments for this study because of the valuable insights each provided into the students’ thought processes as well as unsolicited insights into their cultural perspective. According to Dunlap (2006),
not only can journaling develop students’ metacognitive skills, it can encourage students to practice problem solving and critical thinking by analyzing situations. Journals can be assigned with several different purposes in mind including examining students’ perceptions and course understanding, exploring their multicultural attitudes, developing their professionalism, and contributing to their personal growth (Hubbs & Brand, 2010). Students were given one parameter for their journaling; students had to use the weekly critical thinking stem generated during the first class session by using Kagan Question Dice© where students roll two die, one containing each word of a critical thinking stem. The results were the first two words for a question that students created themselves to reflect upon as they completed their journal entry (Appendix B).

Completion of in-class written reflection essays, created by assigned students in the class, opened every class session. The student randomly assigned for each class session, presented content to the class and then provided an essay prompt in which the students in the class pondered and wrote for five-minutes. The researcher had no control over the content or essay presented each week. Opening reflection items were designed as opportunities for the students to show how they were thinking/pondering/contemplating along the cultural proficiency continuum. Through both of these weekly activities, journal entries and in-class written essays, students engaged in metacognition regarding the role of diversity and inclusion in their living, learning, and working environments (Marsh et al., 2012).

To meet the philosophy and objectives of the course, students engaged in a semester-long service-learning project. Through service-learning around the university
area or in their hometowns, students worked in close relation to individuals who differed from themselves. Jacoby (1996) defined service-learning as a form of experiential education that promotes student learning and development through reflection and reciprocity. Within the course assignments, a reflection design was utilized to assist students in becoming more aware of the cultures around them and how they act, react, and interact with individuals from those cultures (Marsh et al., 2012). Students were to complete at least 30 service-learning hours and to provide 15 written evidences of meeting the standards and benchmarks for cultural proficiency met through their service-learning experience (Marsh et al., 2012). Evidence (i.e., something the student did, or said, or something someone at the service-learning site did or said) was submitted electronically, through the university online course management system, to provide insight into their movement along Cross’s CPC.

**Data management and analysis.** Focus group interview field notes and recordings, having received permission from the participants, were stored in the researcher’s computer files. The electronically-recorded focus group interviews were transcribed, word-for-word. The transcriptions were modified based on comments received during the member check, and the documents were stored in secured computer files.

The initial analysis of the data involved, coding of the participant interview transcripts, reading and coding of weekly journal entries, in-class written reflection essays, and student-provided written evidence of meeting their standards and benchmarks for cultural competency. Data were themed according to Cross’s CPC. Only the students
who participated in the focus group each year, had their weekly journal entries, in-class written reflection essays, and student-provided written evidence of meeting their standards and benchmarks for cultural competency reviewed for analysis.

**Role of the researcher.** The study was conducted from interpretivism epistemology. Interpretivism assumed that realities were socially constructed by participants in the study and that variables were complex and interwoven (Glesne, 1999). Thus, the researcher served as the data collection instrument and meanings were created through the researcher’s interpretation of the participants’ realities (Schwandt, 2000). The data gathered from participants were filtered through the feelings and experiences of the researcher as the data collection instrument to generate the complete data for the study (Patton, 1990). To increase the trustworthiness of the study, the researcher reflexively identified his/her experiences and feelings that may have influenced the study: (1) a personal and educational background in a rural, rather culturally homogeneous, community; (2) an appreciation for multicultural education; (3) a belief in the need for inclusivity of multiple perspectives; (4) familiarity with course objectives from serving as teaching assistant; and (5) a concern for the well-being and social justice of humankind.

**Ethical considerations.** Prior to conducting the study, the researcher examined the ethical issues of qualitative research. The ethical considerations reviewed included informed consent, deception, rights to privacy and confidentiality, accuracy, respect for persons, beneficence, justice (Christians, 2000), exploitation, intervening, advocating, friendship, and reciprocity (Glesne, 1999).
The researcher committed to the guidelines outlined by Christians (2000). Thus, informed consent was established by providing full and open information about the study. Participants were also informed, both orally and in writing, that participation or non-participation would have no effect on course outcomes. Students also were made aware that by participating in the study, they were agreeing to having weekly journal entries, in-class written reflection essays, and student-provided written evidence of meeting their standards and benchmarks for cultural competency, saved anonymously for data analysis. The only additional research component that occurred outside of course requirements was the focus group interview. If a student chose not to participate in the study, the student was still completing all course requirements. However, a non-participant’s work was not saved anonymously for further analysis. Participants also knew that they could choose to not respond to a particular question. The researcher avoided deception by being honest with participants about their status and the purpose of the research. The researcher guaranteed privacy and confidentiality to all participants, by tracking all data with course assigned student numbers instead of names, initials, or aliases. A member check was conducted to ensure that participants felt the information they provided was accurately reported.

*Limitations.* Additional limitations of the study included, no-coding instrumentation available and data were self-reported. Since no instrument exists to align comments made by students and Cross’s CPC, the researcher relied on personal experience with the CPC to code data. Also, participants were self-reporting their position on Cross’s CPC, which could result in bias or exaggerated data.
Trustworthiness of the study. Trustworthiness was explained by Lincoln and Guba (1985) as encompassing the conventional components of internal validity, external validity, reliability, and objectivity. Lincoln and Guba proposed that conventional measures of quality were not appropriate for qualitative inquiries, and that the measure of trustworthiness was appropriate. The components of trustworthiness included credibility, transferability, dependability, and confirmability.

Credibility, or the likelihood that credible findings and interpretations were produced, was addressed in the study by using methods outlined by Lincoln and Guba (1985). Triangulation, the use of multiple sources of data collection methods, was guaranteed by utilizing focus group interview transcriptions, and multiple document sources to corroborate findings. Peer debriefings were conducted throughout the duration of the study to probe the researcher’s biases, explore the researcher’s meanings, and clarify the researcher’s interpretations. Peer debriefings were conversations with a peer that provided the researcher with a mode of external reflection to explore aspects of the study that had not been explored. Finally, member checks were conducted with participants in the study to ensure that what was reported accurately represented the information provided. Through the member check process, copies of the interview transcriptions were sent to participants to allow the opportunity to review and make adjustments, before the data were analyzed.

Transferability addressed the question, “How can one determine the degree to which the findings of an inquiry have applicability in other contexts or with other respondents?” (Lincoln & Guba, 1985, p. 218). The current study provided a thick
description allowing other researchers to decide if making a transfer between the current study and future studies is possible. A thick description referred to providing enough evidence of the study to allow readers to determine if transferability of findings is possible.

Dependability and confirmability were established through an analysis of the audit trail maintained by the researcher. Dependability referred to the likelihood of the findings being repeated if the study was replicated with the same participants in the same environments. Confirmability ensured that the findings reflected the characteristics of the participants in the given setting, not the biases, motivations, interests and perspectives of the researcher (Lincoln & Guba, 1985).

A reflexive journal was kept by the researcher, which also established trustworthiness. The reflexive journal contained entries about schedules and logistics of the study, as well as the researcher’s personal reflections upon what insights were gained from the study. Entries were made as needed to discuss methodological decisions and changes in the study (Lincoln & Guba, 1985).

**Results**

Cross’s Cultural Proficiency Continuum (CPC) was used to guide the coding of data associated with each participant (see Figure 2). Statements made by participants on all sources of data were coded under the following categories: destructiveness, incapacity, blindness, pre-competence, competence, and proficiency. However, not all sources of data led to participants making statements associated with Cross’s CPC. As such, the researcher added a general code of personal reflection. Since the personal
reflection code did not provide evidence for the students’ movement along Cross’s CPC, data coded within that category were purposively omitted from the results section. Worth noting is that all statements are worded exactly as the participants wrote them.

Describe student movement along Cross’s Cultural Proficiency Continuum. Over two years, 13 of the 24 students contacted agreed to participate in the focus group interview. When asked to self-identify their position on the CPC at the beginning of the course, and then to identify their position at the time of the focus group, 100% of participants reported movement towards cultural proficiency. Five participants reported moving forward one level on the continuum. Two participants reported moving from competence to proficiency. Another two participants moved from pre-competence to competence, while one participant reported moving from blindness to pre-competence. Another six participants reported moving two levels on the continuum, five of which moved from blindness to competence, while one participant reported moving from incapacity to pre-competence. The final two participants both reported starting at the destructiveness level, with one reporting movement to the pre-competence level, and the other participant reporting movement to the proficiency level. All participant choices can be found in Table 1, along with the frequency in which they made statements related to each category along Cross’s CPC.
Table 1.

Participant's Self-Identified Placement on Cross's CPC and Frequency of Evidence

<table>
<thead>
<tr>
<th>ID</th>
<th>CPC placement at beginning of course</th>
<th>Frequency of evidence recorded across Cross’s CPC</th>
<th>CPC placement at midterm of course</th>
</tr>
</thead>
<tbody>
<tr>
<td>2SP15</td>
<td>Destructive</td>
<td>D: 1, I: 6, B: 1, Pre: 1, C: 1, Pro: 1</td>
<td>Pre-competence</td>
</tr>
<tr>
<td>3SP15</td>
<td>Competence</td>
<td>D: 4, I: 2</td>
<td>Proficiency</td>
</tr>
<tr>
<td>16SP15</td>
<td>Blindness</td>
<td>D: 2, I: 1, B: 2, Pre: 2, C: 2, Pro: 2</td>
<td>Competence</td>
</tr>
<tr>
<td>18SP15</td>
<td>Blindness</td>
<td>D: 2, I: 1, B: 1, Pre: 1, C: 4, Pro: 4</td>
<td>Competence</td>
</tr>
<tr>
<td>21SP15</td>
<td>Destructive</td>
<td>D: 1, I: 1, B: 1, Pre: 1, C: 1, Pro: 1</td>
<td>Proficiency</td>
</tr>
<tr>
<td>26SP15</td>
<td>Blindness</td>
<td>D: 1, I: 7, B: 5, Pre: 7, C: 5, Pro: 5</td>
<td>Competence</td>
</tr>
<tr>
<td>40SP15</td>
<td>Pre-competence</td>
<td>D: 2, I: 1, B: 10, Pre: 10, C: 3, Pro: 3</td>
<td>Competence</td>
</tr>
<tr>
<td>50SP15</td>
<td>Competence</td>
<td>D: 2, I: 2, B: 1, Pre: 2, C: 1, Pro: 2</td>
<td>Proficiency</td>
</tr>
<tr>
<td>1SP16</td>
<td>Blindness</td>
<td>D: 1, I: 9, B: 2, Pre: 9, C: 2, Pro: 2</td>
<td>Competence</td>
</tr>
<tr>
<td>3SP16</td>
<td>Incapacity</td>
<td>D: 1, I: 3, B: 7, Pre: 3, C: 3, Pro: 3</td>
<td>Pre-competence</td>
</tr>
<tr>
<td>19SP16</td>
<td>Blindness</td>
<td>D: 1, I: 2, B: 11, Pre: 11, C: 11, Pro: 11</td>
<td>Pre-competence</td>
</tr>
<tr>
<td>33SP16</td>
<td>Pre-competence</td>
<td>D: 1, I: 9, B: 5, Pre: 9, C: 5, Pro: 5</td>
<td>Competence</td>
</tr>
<tr>
<td>38SP16</td>
<td>Blindness</td>
<td>D: 1, I: 8, B: 8, Pre: 8, C: 8, Pro: 8</td>
<td>Competence</td>
</tr>
</tbody>
</table>

Note. D = destructive; I = incapacity; B = blindness; Pre = pre-competence; C = competence; Pro = proficiency
Evidence provided through written and oral statements related to service-learning. Eight students participated in year one of the focus group, while five students participated in the second year. Of the 13 participants, five were conducting their service-learning in elementary or middle schools. Two participants were placed at a nursing home, while an additional two participants served at a food pantry, and one student was participating at a recreational center for youth. Three participants sought service-learning projects outside of the course’s recommended list; one participant was working with veteran students on campus, another participant was trying to develop his/her own service-learning project, and the other was working with 4-H youth in his/her hometown.

All participants reported personal experiences related to their service-learning projects that contributed to their movement on Cross’s CPC. Several participants discussed the idea of the service-learning experiences providing them an opportunity to be immersed in cultures that they would not have sought on their own. One participant stated that, “the service learning made the class much more effective and definitely catalyzed my movement along the continuum.” Two participants also talked about moments during their service-learning, where they felt they responded inadequately to certain situations with other cultures, but indicated that they had learned from these experiences in ways that helped their movement along Cross’s CPC.

Two sources of evidence related to participants’ service-learning projects were coded using Cross’s CPC, including, the focus group held each year and written evidence of meeting the service-learning standards and benchmarks for the course. Each of these sources will be discussed separately in this section.
Focus group. For the purpose of this study, the focus group results were not analyzed in a typical manner (i.e., by analyzing responses question by question). Instead, the participant responses were coded uniformly throughout the study using Cross’s CPC to evidence the participants’ movement towards cultural proficiency. During the analysis of both written and oral statements from the focus group, participants’ responses ranged from incapacity to proficiency on Cross’s CPC. One statement was made below the pre-competence level. When discussing their feelings, as they get ready for their service-learning, participant 18SP15 indicated that he/she did not feel safe going to and from the site, even though the students and adults with whom he/she was working, made it clear that all were happy to have him/her volunteering. This statement was coded in the incapacity category of seeing differences and making them wrong.

All other statements made by participants during the focus group protocol, were coded under the pre-competence (n=4), competence (n=13), and proficiency (n=11) categories. Examples of these statements included:

1SP16- “Basically they were kind of being offensive to white people, and I have never been in that situation before, and felt very uncomfortable and felt like I should be sorry even though I am not that person that did that to them. I felt like I needed to say sorry them, but I knew that I didn't need to.” (pre-competence)

3SP16- “Being able to see that he was actually understanding even from where he lives.” (pre-competence)

18SP15- “Service learning has simply opened my eyes to a different culture. It has explained some behaviors and the reasons for them.” (competence)
19SP16- “All in all, this experience has opened my eyes to many struggles I did not previously understand and gave me a greater appreciation of the privileges I had.” (competence)

33SP16- “In an attempt to form connections with these students I had to seek what components of our cultures were similar to find subjects to talk about. I also developed a desire to learn about our differences. As a result I began to view the effects of our different cultures. I am developing towards proficiency in standing up for my students.” (proficiency)

**Service-learning standards and benchmarks.** Participants were asked to provide evidence of meeting the course’s service-learning standards and benchmarks by sharing, in writing, something they did or said at their site, or something they witnessed someone else doing or saying while working at their service-learning site. In most cases, students simply stated evidence in a matter of fact manner. However, occasionally students chose to elaborate on their responses. When this occurred, the researcher began to see evidence of the student’s progress along Cross’s CPC. A total of 30 statements were coded using Cross’s CPC, all of which were coded under the competence category. Examples of statements included:

2SP15- "My leader and I met up to answer some questions about the culture of veterans. This allowed our relationship to grow because I had a better understanding."

26SP15- "Almost everyone has a different culture than I do and I see us as friends who get to hang out together. I am able to listen and relate to some of the students."
18SP15- "I have to take into account how privileged I am and not judge these kids."

1SP16- "I had to disregard my cultural assumptions or thoughts when meeting and talking with the residents."

33SP16- "Although different [referring to the service site], and slightly uncomfortable I was able to adapt and be open to these differences."

33SP16- "Learning more about the oppression faced, and battles overcome helped me to better understand the current situation of many African Americans today."

Evidence provided through weekly journal entries and written reflection essays. To assist with the triangulation of data, two additional sources of student work were coded using Cross’s CPC as categories. Each participant completed a weekly journal entry and a written in-class reflection essay. The combined results of these assignments were analyzed by CPC category. To see the frequency in which participants made statements evidencing their movement along Cross’s CPC, see Table 1.

Destructive and incapacity. Five students made statements coded under the incapacity category, that could nearly be coded as destructive. In four of the cases, participants made statements about eliminating stereotypes or languages by having everyone speak or act equally, in essence making everyone the same. Additionally, one statement made by 21SP15 related to ending racism by eliminating race history months, indicating that these months were not beneficial. One statement, made by 1SP16, related to eliminating stereotypes, “The only way stereotypes have dissipated themselves is by that group of people proving to others that they are equal." Participant 19SP16 made a
similar statement regarding the elimination of stereotypes by having a population prove themselves equal. Finally, participants 18SP15 and 3SP16 made statements that everyone should speak the same language; they made these statements with the thought that this would lead to a break-down in cultural barriers. However, each of these statements led the researcher to code them as not responding positively and affirmingly to differences.

**Blindness.** Six participants made statements on their written reflections that were coded under blindness. The majority of these statements were made as the participants reflected on a time when they knew a situation was wrong, but chose not to do or say anything. One example of this came from 16SP15, who said,

"I think back to high school and as we played a rival school in basketball a large portion of our student section dressed as 'white trash.' That's ignorance, and that's not right. I am glad that I did not participate, and I was uncomfortable with it even at that time, but I should have done something."

Additionally, two participants reflected on their personal use of slang or derogatory terms and that they now see and understand that these behaviors could be hurtful to others. One final statement made by participant 50SP15, when referring to ending racism, indicated that we should not talk about racism; essentially act like it does not exist. With each case, these statements suggested that the participants either saw the difference, and chose not to do or say anything, or they acted like the problem was not there, either of which relate back to the blindness category of Cross’s CPC.
**Pre-competence.** Eight statements, from seven of the participants were made that the researcher categorized as *pre-competence.* Examples of statements made by participants coded as *pre-competence* included:

16SP15- “Not ignore the problem of racism, but ignore that skin color and ethnicities may be different.”

18SP15- “I feel it is much more important to stop the victims from allowing themselves to be bullied.”

19SP16- "To me, this boycott seems to be ridiculous as the actors are not judged by their race, but instead on their performance…All in all, yes, the lack of diversity is startling, but race has nothing to do with actors and actresses nominated for an Oscar."

**Competence.** As can be seen in Table 1, when statements were made relating back to Cross’s CPC, they tended to be in the *competence* category. However, 43 of these occurrences were already reported with the participants’ other data sources. Thus, 36 statements were coded as *competent* from their weekly journals and in-class written reflection essays. Several of these comments related back to the same reflections that had been reported in the other categories, such as using derogatory language, race history months, issues of race, and witnessing bullying, or ignorance. Examples of statements made by participants who evidenced cultural *competence* included:

3SP15- "I think having so many different people and races is a good thing. It brings so much to the table, we can learn so much from each other…Everyone should be recognized, but as a good thing, an awareness that everyone is America's history."
26SP15- "I think it is important to acknowledge that racism existed and is a part of American history. But there doesn't need to be a month dedicated to African Americans because they were discriminated against...It is good to point out differences between me and you and be okay with them!"

1SP16- "Using the 'R' word [retard] never hit home to me until I got the chance to work with mentally disabled adults. These people were not stupid by any means in fact they changed my life...Each individual had a special uniqueness to them."

19SP16- "I think understanding other languages will help us understand different cultures because it will eliminate the language barrier with many different people. If we are able to communicate with people who speak a different language than ourselves, we will be able to learn so much more about that person and their culture."

33SP16- "Culturally, we each have our own beliefs, values, and even religions that can determine how we treat our animals. In a culturally proficient mindset we don't have a say how others treat their animals."

In addition to these statements, participants also made statements of support for communities of individuals unlike themselves, which were coded as culturally competent. One example of these statements was made by participant 16SP15, who said,

"When one of them [participant’s parents] have shared a stereotypical opinion that has no proof of being true I usually try to say something to them that they aren't right or what they said wasn't nice- but I wonder if I would do so outside of the comfort of my own home?"
Another area where multiple culturally competent statements were made included reflecting on the course in their weekly journal entries. 19SP16 stated that, “I have learned so much about different people, cultures, and races…this course has shown me the importance of appreciating and understanding everyone around you.” Additionally, 3SP16 said, “This class has helped me listen more to not just my peers, and friends, but to strangers. Society needs to listen more for us to become a successful world.”

**Proficiency.** Several statements made by participants were coded as culturally proficient. To code statements in this category, the researcher sought statements that started to move beyond accepting and understanding differences, as were seen in culturally competent statements. For a statement to be coded as proficient, there had to be some indication that participants not only saw differences, but also welcomed those differences in a positive and affirming manner. For example, 33SP16 said, "Learning another language shows our appreciation and humility in learning about others. We also learn about our own culture." The same participant also stated,

“I think the first step which will make a positive change is awareness, simply realizing what power our non-cognitive actions have, opens the doors to new thinking and ideas. After becoming aware I believe it is the challenge of being uncomfortable which will lead us to growth in cultural proficiency.”

Additionally, 26SP15 stated, “This class has trained me to be non-judgmental towards others and treat everyone the same. I have realized the importance of differences and that differences can be used to better relationships!” Another participant, 21SP15, reflected on standing up for others and how good diversity is by saying,
"I have stood up to adults and peers for bullying people. Everyone has feelings, and you need to be accepting of people’s differences so that there are a wide variety of people out there. No two people are alike; it's good to be diverse in this world and to stand out."

Conclusions and Discussions

**Conclusion one.** All participants moved forward along Cross’s CPC as a result of this 14-week general education course involving cultural proficiency education. Along with the service-learning course component, weekly journal entries and in-class written reflection essays provided valuable insight into each participant’s progression along the CPC. Gay (2002a) stated that cultural proficiency skills must be taught. The researcher concurs that cultural proficiency skills can be taught, but the researcher cannot claim that such skills do not occur automatically as Gay also indicated. This raises two questions: To what extent must these skills be taught? Can similar results occur through observing culturally proficient skills in action?

**Conclusion two.** The service-learning component of the course provided participants with experiences that enhanced their movement along the CPC. Participants were acquiring rich, hands-on experiences through their service-learning projects that would be difficult to simulate in class. The pieces of evidence, from the participants’ benchmarks and standards began to show that they were seeing differences between themselves and the individuals they were serving. It also become clear to the researcher that the participants understood these differences, and were able to build stronger relationships while at their service site. This conclusion aligns with Cross et al. (1989)
who reported, when moving towards culturally proficiency, an individual can respond positively to differing cultures.

**Conclusion three.** A trend across the two years of teaching the 14-week general education course involving cultural proficiency education, is that participants moved forward more than one level on Cross’s CPC. Although these data were self-reported, evidence can be seen and tracked from the participants’ work (see Table 1).

**Conclusion four.** Participants self-reported themselves across all categories except proficiency, when asked where they felt they categorized themselves at the beginning of the course. The researcher tended to find evidence of participants being either at the level they self-reported, or no more than one level from where they began (see Table 1).

**Conclusion five.** At the midterm of the course, participants were reporting themselves in the top three categories of Cross’s CPC, pre-competence, competence, and proficiency. Evidence was weighted heavily in the competence category, which showed the researcher that students moved positively towards cultural proficiency on Cross’s CPC.

**Additional discussion.** The pre-competence category was one of the more difficult areas to describe during coding, but in each case, the researcher saw movement out of blindness, but not a clear depiction that the participant truly understood the issue or difference from many perspectives to make it categorized as a competent statement. Other pre-competence statements, not highlighted in the results section, resembled those that were highlighted. In each case, the researcher saw, in the written work, that the
participant began to notice a difference in his/her own thinking. However, it was perceived that participants were not responding adequately to the issue or difference at hand. Each of the competence statements, along with the ones not highlighted, indicated to the researcher that the participants saw differences between themselves and other individuals, and were willing to accept and understand those differences.

**Recommendations From This Study**

It is the recommendation of the researcher that more cultural proficiency programs be available for students throughout their post-secondary education experiences. The researcher plans to continue utilizing service-learning experiences to provide experiential learning for students to engage with individuals from diverse cultures. The findings will not only assist in better-describing students’ movement along Cross’s CPC, but will also aid in developing the students’ critical thinking and cognitive skills (Fitch, Steinke, & Hudson, 2013; Jacoby, 1996).

While coding, the researcher found that students typically responded with personal reflections that were related to past events, future events, and what if statements, that did not lend well to finding cultural proficiency statements. Consequently, the researcher will examine the course assignment descriptions and expectations to encourage students to tie their responses back to cultural proficiency.

**Recommendations For Future Studies**

Through continued research in cultural proficiency education, additional trends may surface to help create a more concise and beneficial model of reflective and reciprocal practices conducted through the service-learning courses. The researcher
recommends that future research be conducted through longitudinal approaches, to help track students’ retention of their cultural proficiency education upon completion of the 14-week course.

In addition, it is recommended that both pre-service and in-service agriscience education teachers become a research population, to describe how their cultural proficiency education is being used in educational environments. Evidence of pre-service teachers’ cultural proficiency education could be translated to their incorporation of culturally responsive teaching techniques to reach diverse underrepresented student populations.

Finally, during the researcher’s preliminary work with this study and through student statements, it became clear that there are multiple organizations within the university system providing cultural proficiency education. Consequently, it is recommended that further research be conducted to identify cultural proficiency programming available to students at the university. It is also recommended that research be conducted to identify which organizations and programs are most prominently used by pre-service agriscience education students.

**Implications**

If continued research is conducted in cultural proficiency education, students’ critical consciousness related to cultural proficiency could be enhanced, leading to further testing and explanation of A Conceptual Framework for Preparing a Culturally Responsive Citizenry. Additionally, if changes are made to course assignments, students
will be encouraged to continue thinking about their progress on the CPC on a weekly basis, which has the potential to enhance their progress towards cultural proficiency. If the studies for future research are conducted, additional evidence related to the conceptual framework will be highlighted in describing how understanding one’s own culture will translate into culturally responsive teaching, and ultimately, to a culturally responsive citizenry.

**Summary**

Trends of globalization in our living, learning, and working environments are emerging, creating a need for cultural proficiency education. The theoretical framework for this study is grounded in Cross’s Cultural Proficiency Continuum (CPC). Through cultural proficiency education, it is believed that individuals and organizations can respond effectively to people and cultures who differ from themselves.

The purpose of this study was to describe undergraduate students’ movement along Cross’s CPC, using evidence provided through service-learning experiences, weekly journal entries, and in-class written reflection essays associated with a 14-week general education course. The study was designed to investigate the first two components of the conceptual framework (Figure 1) of understanding one’s own culture and the continuous cycle of immersion experiences and self-reflection.

By conducting this study, the researcher was able to identify evidence of participants’ positive movement along Cross’s CPC in a short amount of time. Thus, it is learned that through purposeful, intensive, engagement activities, students are able to develop cultural proficiency skills that will lead them to culturally responsive citizenship.
References


Section 2B: Describing Agriscience Pre-service Teachers’ Pre- and Post-Perceptions of Their Cultural Immersion Experiences During Teacher Preparation

Introduction

Nationally, educators are faced with changing demographics of students in public schools. The National Center for Education Statistics reported that school enrollment by race/ethnicity in 1991 was 67.4% white. 2011 enrollment reported a decrease in white student population to 51.7%, while the teacher population was reported as 81.9% white and 76.3% female. Gay (2010a) highlighted the cultural gap that is present between the diversity of teachers and students. Specifically, Gay noted that educators were not aware of their own cultural biases and assumptions, which could result in their attitudes impeding the teaching and learning process. To aid against impaired learning, there is a growing need for cultural proficiency education in pre-service educator preparation (Gay, 2010a). The changing demographics of the student population create a need for cultural immersion in pre-service teacher training (Waddell, 2011). Consequently, cultural immersion is one among many educational immersion experiences needed today to prepare the next generation of classroom teachers to enter 21st century, global learning environments.

In a study examining the perceptions of multicultural proficiency among in-service agriscience teachers, Vincent & Torres (2015) concluded that teachers in diverse settings had a higher perceived multicultural skill than teachers in more homogenous
settings. Could pre-service teachers’ perceived multicultural teaching skills be influenced by immersing them into diverse settings? Vincent and Torres recommended that pre-service teachers incorporate multicultural education throughout their undergraduate careers, because true competency cannot be achieved by one course or experience.

Although, a single course may not completely prepare teachers in cultural proficiency, a single course can create a general awareness of multicultural competence (Vincent, Kirby, Deeds, & Faulkner, 2014). Multicultural immersion experiences throughout pre-service programs are needed to help build educator cultural proficiency (Vincent & Torres, 2015). Through immersion experiences, students may be exposed to diverse educational environments in which there is a need for varying levels of cultural proficiency skills.

Cultural proficiency is defined as a way of being that enables both individuals and organizations to respond effectively to people who differ from themselves (Marsh, Marsh, and Whittington, 2012). Benefits of cultural proficiency include: contributing to self-awareness, building confidence, breaking down barriers, building trust, opening horizons, developing listening skills, and finding common ground (Marsh et al., 2012). Since educators are faced with changing demographics of students in public schools, preparing agriscience education teachers to meet the needs of a changing global environment is critical for their career success. One strategy for teachers to use, when faced with diversity in their learning environments, is to incorporate culturally responsive teaching techniques.
Theoretical Framework

**Culturally responsive teaching.** A theory of, Culturally Responsive Teaching (CRT) provided a foundation for building the theoretical framework to guide this study. Gay (2002b) defined CRT as, “using the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively” (p. 106). Culturally Responsive Teaching requires cultural proficiency and the positive inclusion of cultural resources during the teaching and learning process (Gay, 2013). To truly implement CRT, one must go beyond respecting others cultures; one should learn factual information about the groups being served. Cultural aspects in which educators should be aware include, “ethnic groups’ cultural values, traditions, communication, learning styles, contributions, and related patterns” (Gay, 2002b, p. 107). Culturally Responsive Teaching helps meet the learning needs of a diverse group of students through individually, “focusing on their cultural knowledge, prior experiences, frames of reference, and performance styles” (Ford, Stuart, Vakil, 2014, p. 57).

Gay (2001) theorizes five essential elements of CRT, with the first being, knowledge base about cultural diversity. In additional articles, Gay (2002a, 2002b, & 2013) continued to elaborate on the importance of first knowing one’s own culture. Ford et al. (2014) stated that when educators are aware of their own biases, attitudes, and assumptions, “they are more likely to seek ways to minimize negative perceptions and be more inclusive in their practices” (p. 58).

**Cultural critical consciousness.** Cultural Critical Consciousness (CCC) also contributed to the theoretical framework for this study. Developing CCC pushes beyond
recognizing diversity; it involves the act of self-reflection, assisting in understanding across cultural groups, and modifying the environment through equity practices (Cooper, He, & Levin, 2011). Similar to CRT, each individual must first understand one’s own culture, and then become aware of the cultures around him/her (Gay & Kirkland, 2003). To accomplish effective self-reflection, individuals must engage in tangible experiences, encouraging more “genuine and authentic” learning (Gay & Kirkland, 2003, p. 186). Cultural Critical Consciousness in educators can lead towards the betterment of their teaching skills and ability to understand individual students (Gay, 2002a). A lack of cultural proficiency in educators may lead to misinterpretation of students, resulting in learning disadvantages (Gay, 2001). Thus, before a teacher can incorporate CRT practices, there is a need “for educators to become critically conscious of their own cultural socialization, and how it affects their attitudes and behaviors toward the cultures of other ethnic groups” (Gay, 2002a, p. 619).

Need for study

In a case study conducted by Au and Blake (2003), educators from diverse backgrounds were compared to their mainstream peers. Researchers examined the perspective and experiences of diverse participants. Au and Blake, concluded that there was a need for research related to developing pre-service teaching programs. Specifically, the researchers advocated for preparing teacher candidates to work with diverse students in addressing needs of teacher candidates from diverse backgrounds. Au and Blake took the stance that pre-service teacher programs should combine academic content with purposeful field experiences.
Consequently, preparing public school agriscience education teachers to meet the needs of a changing global environment in the 21st century is critical for their career success. To address the need, the Department of Agricultural Communication, Education, and Leadership at The Ohio State University implemented A Modern Philosophy of Immersion for Teacher Preparation (Whittington, 2014). Merriam-Webster (2015) defined immersion as, “complete involvement in some activity or interest.” Therefore, for the purposes of this study,

a 21st century curriculum of immersion in agriscience teacher preparation, is one that mixes non-traditional context-setting with traditional, tested teaching approaches like problem-solving, and adds delivery strategies like experiential learning to weave a Modern Philosophy of Immersion for Teacher Preparation (Whittington, 2014, p. 1)

According to Waddell (2011), more research needs to be conducted to “examine the impact of cultural immersion experiences on teacher and student learning” (p. 34). Clearly, a need exists for studying pre-service teacher preparation models of immersion.

**Purpose and Objectives**

The purpose of this study was to describe the student perceptions of the immersion model for pre-service teacher preparation currently used in the professional block experience in the Agriscience Education program at The Ohio State University. The study was guided by the following research objectives:

1. Describe the current immersion model used for pre-service agriscience teacher preparation at The Ohio State University.
2. Describe pre-service teachers’ pre-immersion perceptions of their comfort level with each immersion experience in the current immersion model.

3. Describe pre-service teachers’ post-immersion perceptions of their comfort level with each immersion experience in the current immersion model.

4. Describe pre-service teachers’ pre-immersion perceptions of knowledge needed for engaging in each immersion experience in the current immersion model.

5. Describe pre-service teachers’ post-immersion perceptions of knowledge needed for engaging in each immersion experience in the current immersion model.

6. Describe pre-service teachers’ suggested modifications to the current immersion model used for pre-service agriscience teacher preparation at The Ohio State University.

**Methodology**

The research was a descriptive, qualitative case study research design using pre- and post-reflections for each immersion experience as the primary source of data. Other sources of data collection included group interviews and personal interviews. The researcher received approval by The Ohio State University human subjects review board (#2016B0094).

**Population.** The population (N=12) for this study was the 2015 pre-service agriscience teachers, in professional standing, at The Ohio State University. The research design focused on pre-service teachers during classroom and program immersion
experiences. Pre-service agriscience teachers in professional standing, the semester before student teaching, are enrolled in a set of courses referred to as The Pre-service Professional Block (*The Block*). Within *The Block*, students are provided experiences that immerse them in content delivery and classroom management. Through the data collected before, during, and after each experience, the researcher described the pre-service immersion philosophy, and drew conclusions regarding student perceptions of the immersion experiences in meeting the needs of pre-service teachers.

**Data collection.** As an approach to integrating an immersion philosophy in pre-service teacher education, faculty and staff implementing the pre-service agriscience teacher program at The Ohio State University developed several immersion experiences for pre-service teachers. The experiences included opportunities for pre-service teachers to plan, teach, and engage with adult, adolescent, and elementary learners in formal and non-formal learning environments, and to reflect upon their experiences. As an example, one of the immersion experiences developed for pre-service agriscience teachers included teaching diverse student populations in an urban school, which is a non-traditional pre-service agriscience learning environment. Additional immersion experiences included, teaching learners with Individualized Education Plans and 504 Plans in a non-school environment, teaching in traditional rural learning environments, teaching agricultural literacy in an affluent suburban elementary school environment, and teaching in non-formal adult learning environments.

**Gaining access.** Gaining access refers to the researcher’s acquisition of consent to go where one wants, talk to whomever one wants, and obtain the information wanted for
the study (Yin, 2014). The researcher followed the procedures outlined by Glesne (1999) to gain access with each participant by guaranteeing confidentiality and anonymity prior to data collection. The population of pre-service teachers was asked to sign a consent form [Appendix A] to indicate their willingness to participate in the study. To guarantee confidentiality and anonymity, the researcher had participants use only a course assigned number when submitting work associated to the study. The researcher also assured participants that their names would never be connected with their numbers for any reason during the study.

All data, for the pre-service teachers, were collected across a 14-week semester. With permission from participants, data were stored, for up to ten years, for use in future longitudinal studies related to pre-service teacher preparation. The researcher listened to the concerns and questions presented by the participants regarding the study or procedures and responded accordingly to establish rapport and trust. In addition, the researcher offered participants copies of the final disseminated documents. Finally, the researcher communicated, in advance, the potential need for further discussion and assistance in the future, including a review of the interview report for the member check.

**Pilot study.** As recommended by Glesne (1999), a pilot study was conducted prior to the participant interviews to learn about the research process, and to modify the questions. Similar data were collected with the 2014 group of pre-service Agriscience teachers. The feedback received from the pilot study participants was used to modify the questions by making the wording easier to understand and more specific. The order of and number of questions were also modified.
**Instrumentation.** Three instruments were used to collect data related to the research objectives. These instruments included pre- and post- reflection protocols, group interview protocols, and personal interview protocols. All instruments provided opportunity for an in-depth examination of the pre-service teacher immersion experiences, and to explore the preparedness of pre-service agriscience education students to enter diverse educational settings. These multiple sources of data collection were imperative to a case study design (Creswell, 2013).

**Pre- and post- reflection protocols.** Throughout the semester, data were collected from five immersion experiences, which occurred after related material was presented in lecture. At the beginning of the semester, students were asked to complete a pre-reflection [Appendix C] related to their current comfort level, and their background knowledge of the context/content that was about to be experienced during the implementation of the immersion philosophy. In addition, while still at the site of the immersion experience, students completed a short, written, post-reflection at the conclusion of each experience [Appendix C]. To describe their comfort level, pre-service teachers were given the options of, none at all, slightly, moderately, very, and extremely. In addition to circling one of those choices, students were asked to share the types of previous experiences they had with the immersion setting. The information was used in describing their comfort level. Students were also asked to identify prior knowledge they possessed when working in similar environments as the immersion experience, and to describe additional knowledge they still needed for each immersion experience.
**Group interview protocols.** Three group interviews were conducted throughout the semester where students were asked questions related to the most recent immersion experiences they had completed. One-third of the students were asked to attend one of three lunches with *The Block* faculty. Across the semester all students attended one lunch, in order to gain student insights related to their overall professional pre-service agriscience education immersion experiences. Each of these interviews lasted for approximately 90 minutes. Students were first asked to individually reflect on their experiences, by completing a personal written reflection with guided questions [Appendix C]. Once students completed their personal reflections, each of the guided questions were asked aloud by a graduate student serving as the group interview proctor. The process allowed for instructors of *The Block* courses to ask additional questions to assist with understanding the students’ experiences and how *The Block* could be improved for future pre-service agriscience teachers.

**Personal interviews.** Students also completed an end-of-the-semester personal interview, which asked them to reflect on the entire semester as well as the final project for one of the professional block courses [Appendix C]. The final project consisted of the students teaching a full lesson at their cooperating schools and having their cooperating educators complete an evaluation of their teaching. Once this assignment was complete, each student individually scheduled an hour interview with the primary researcher and instructor for the assignment.

**Data management and analysis.** All data were securely locked in a cabinet until the conclusion of the semester, and were not examined until the following semester. This
helped to ensure the analysis process had no effect on the course outcomes for the participants. Recordings of the group and personal interviews, having received permission from the participants, were stored in the researcher’s computer files. The electronically-recorded interviews were transcribed, word-for-word. The transcriptions were modified based on comments received during the member check, and the documents were stored in the researcher’s secured computer files.

The initial analysis of the data involved coding of the participant interview transcripts, and reading and coding of the pre- and post- reflections. Themes that emerged were coded accordingly.

**Role of the researcher.** The study was conducted from interpretivism epistemology. Interpretivism assumed that realities were socially constructed by participants in the study and that variables were complex and interwoven (Glesne, 1999). Thus, the researcher served as the data collection instrument and meanings were created through the researcher’s interpretation of the participants’ realities (Schwandt, 2000). The data gathered from participants were filtered through the feelings and experiences of the researcher as the data collection instrument to generate the complete data for the study (Patton, 1990). To increase the trustworthiness of the study, the researcher reflexively identified his/her experiences and feelings that may have influenced the study: (1) a personal and educational background in a rural, rather culturally homogeneous, community; (2) an appreciation for cultural immersion; (3) a belief in the need for inclusivity of multiple perspectives; and (4) familiarity with the courses and agriscience education program while serving as an instructor and teaching assistant.
**Ethical considerations.** Prior to conducting the study, the researcher examined the ethical issues of qualitative research. The ethical considerations reviewed included informed consent, deception, rights to privacy and confidentiality, accuracy, respect for persons, beneficence, justice (Christians, 2000), exploitation, intervening, advocating, friendship, and reciprocity (Glesne, 1999).

The researcher committed to the guidelines outlined by Christians (2000). Thus, informed consent was established by providing full and open information about the study. Participants were also informed, both orally and in writing, that their participation or non-participation would have no effect on course outcomes. Students were also made aware that by participating in the study, they were agreeing to have their reflections and interviews saved anonymously for data analysis. Participants also knew that they could choose to not respond to a particular question. The researcher avoided deception by being honest with participants about their status and the purpose of the research. The researcher guaranteed privacy and confidentiality to all participants, by tracking all data with course assigned student numbers instead of names, initials, or aliases. A member check was conducted to ensure that participants felt the information they provided was accurately reported.

**Limitations.** A limitation of the study included over-use of reflections for data collection. The researcher could not control the number of additional reflections that participants were asked to complete during regularly scheduled coursework associated with the professional block.
Trustworthiness of the study. Trustworthiness was explained by Lincoln and Guba (1985) as encompassing the conventional components of internal validity, external validity, reliability, and objectivity. Lincoln and Guba proposed that conventional measures of quality were not appropriate for qualitative inquiries, and that the measure of trustworthiness was appropriate. The components of trustworthiness included credibility, transferability, dependability, and confirmability.

Credibility, or the likelihood that credible findings and interpretations were produced, was addressed in the study by using methods outlined by Lincoln and Guba (1985). Triangulation, the use of multiple sources of data collection methods, was guaranteed by utilizing the pre- and post- reflections, and multiple document sources to corroborate findings. Peer debriefings were conducted throughout the duration of the study to probe the researcher’s biases, explore the researcher’s meanings, and clarify the researcher’s interpretations. Peer debriefings were conversations with a peer that provided the researcher with a mode of external reflection to explore aspects of the study that had not been explored. Finally, member checks were conducted with participants in the study to ensure that what was reported accurately represented the information provided. Through the member check process, copies of the interview transcriptions were sent to participants to allow the opportunity to review and make adjustments, before the data were analyzed.

Transferability addressed the question, “How can one determine the degree to which the findings of an inquiry have applicability in other contexts or with other respondents?” (Lincoln & Guba, 1985, p. 218). The current study provided a thick
description allowing other researchers to decide if making a transfer between the current study and future studies is possible. A thick description referred to providing enough evidence of the study to allow readers to determine if transferability of findings is possible.

Dependability and confirmability were established through an analysis of the audit trail maintained by the researcher. Dependability referred to the likelihood of the findings being repeated if the study was replicated with the same participants in the same environments. Confirmability ensured that the findings reflected the characteristics of the participants in the given setting, not the biases, motivations, interests and perspectives of the researcher (Lincoln & Guba, 1985).

A reflexive journal was kept by the researcher, which also established trustworthiness. The reflexive journal contained entries about schedules and logistics of the study, as well as the researcher’s personal reflections upon what insights were gained from the study. Entries were made as needed to discuss methodological decisions and changes in the study (Lincoln & Guba, 1985).

Results

The results for each objective of the study were reported for five immersion experiences including: teaching in a non-formal environment, teaching students with Individualized Education Plans and 504 Plans, incorporating science standards into the agriscience curriculum, traveling with students on overnight educational experiences, and working with diverse learners. Prior to each immersion, pre-service teachers were provided classroom instruction through the teaching methodology course relating to
successful teaching techniques for the described settings. Pre-service teachers were also provided context, and expectations for the immersion experience during the preparation time prior to the experience. Each immersion experience is described briefly, followed by an analysis of the results from the pre- and post-reflections, group interviews, and personal interviews.

Worth noting, in addition to these five reported immersion experiences, three other immersion experiences took place with these students during The Block. These experiences included managing a state contest, managing a laboratory environment, and incorporating agricultural literacy into agriscience education programs. Data were not reported for these experiences, because either a teaching component was not attached to the immersion experiences, or data were missing.

**Teaching in a non-formal environment.** The pre-service teacher program at The Ohio State University has a standing partnership with the OSU annual three-day farm show, the Farm Science Review (FSR), which typically takes place the third week in September. Each year during the farm show, the pre-service teachers travel to the Farm Science Review Gwynne Conservation Area to teach patrons, ranging in age and agricultural background, about natural resources topics. Prior to the farm show, the pre-service teachers are placed into one of five groups. Each day, pre-service teachers present a 15-minute lesson, on their assigned topic area, which included, aquatic ecology, soil and land use, forestry, wildlife, and a current issue topic (i.e., invasive species). These topics were selected because they are the contest areas for the state and national Envirothon competition in which high school science and agriscience programs study and

65
compete each year. The pre-service teachers prepared their lessons prior to the first day of FSR, and then taught the same topic all three days, since the audience members were different each day.

In addition to these 15-minute lessons, the pre-service teachers spent 30-minutes in a soil evaluation pit with soil scientists assisting in teaching high school students’ soil and land evaluation techniques. The pre-service teachers also spent one-hour each day as educational tour guides on tractor/wagons that circulated throughout the Gwynne Conservation Area, presenting facts related to the conservation practices used on the 60-acre site.

**Pre-service teachers’ comfort level.** In non-formal teaching environments, pre-service teachers reported comfort levels ranging from *slightly* to *extremely* during the pre-reflection. The majority (n=5) of the pre-service teachers reported being *very* comfortable teaching in non-formal environments. When asked about their prior experience in the given setting, the most prominent theme was prior work experience, followed by county and state fair experience. Other experiences mentioned once were volunteer work, early field experiences, fundraisers, and no experience.

After the immersion experience was completed, 11 of the pre-service teachers completed the post-reflection. One student reported having a *moderate* comfort level working in non-formal environments. The other 10 students were split evenly between *very* and *extremely* comfortable when teaching in non-formal environments.

**Additional knowledge needed.** Prior to the experience, the area of knowledge mentioned the most was, knowledge of the subject matter, while knowing the potential
audience members was the second most reported area of knowledge needed. Knowing the setting and how to hold audience members’ attention were each mentioned once. During the post-reflection, pre-service teachers reported that they would like more background information on the Envirothon competition. The ability to shadow an educator in a non-formal setting was also mentioned twice. Finally, one pre-service teacher requested more information on what was expected in the 15-minute lesson.

**Modifications to the immersion experience.** The most prominent modification mentioned by the pre-service teachers, referred to the audience size. A few of the pre-service teachers mentioned they would like to have a larger audience size. One modification mentioned was to have schools sign-up for the workshops in advance. In addition, it was mentioned to include a discussion, during the preparation time, on what has and has not worked in the past related to the content taught.

**Teaching students with Individualized Education Plans and 504 Plans.** During the second week in October, the pre-service teachers traveled to Ohio FFA Camp Muskingum to spend four days with high school juniors and seniors from an Ohio Career Technical school, who were all on an Individualized Education Plan (IEP) or on a 504 Plan. Students on an IEP are students identified with a disability, who receive specially designed instruction; students on 504 Plans benefit from accommodations to support their learning and help them to be more successful in the educational setting.

During this immersion experience, the pre-service teachers participated in team-building activities, and ate meals with the high school students. They also prepared and taught lessons on career readiness skills to the high school students. Pre-service teachers
were split into six groups. Each group prepared and taught a 20-minute lesson covering a
different career readiness skill. During the instruction time, the high school students
rotated through three of the prepared lessons, spending an hour total. The pre-service
teachers were also provided a one-hour question and answer session with one of the high
school instructors related to understanding IEP and 504 Plans.

*Pre-service teachers’ comfort level.* Prior to the immersion experience, pre-
service teachers’ comfort level was reported on all five of the scale descriptors (*none at all, slightly, moderately, very,* and *extremely*). The majority (*n=6*) of the pre-service
teachers reported having a *moderate* comfort level. The other six pre-service teachers
were split above and below the *moderately* descriptor; three identifying with a *none at all*
or *slight* comfort level and three identifying as either *very* or *extremely* comfortable. The
most prominent area of previous experience mentioned by pre-service teachers, was
working with either their peers or family members who were on an IEP. In addition, two
theme areas were mentioned three times, including, time spent at their cooperating
schools the first two-weeks of the semester, and no experience at all.

During the post-reflection, the majority (*n=6*) of pre-service teachers reported
being *very* comfortable working with students on IEP and 504 Plans. An additional three
of the pre-service teachers reported being *extremely* comfortable, while two reported
being *moderately* comfortable.

*Additional knowledge needed.* Prior to the experience, the most prominent theme
when asked about knowledge needed, was information about the high school students’
individualized instruction and accommodations. More information about teaching
methodologies was mentioned, as well as managing the learning environment, which was mentioned twice.

After the immersion experience, several themes of additional knowledge needed emerged. The prominent themes included knowing more about the range of IEP and 504 Plans, and knowing how to make appropriate accommodations for the learners. In addition, pre-service teachers also mentioned needing knowledge in working with a mixed group of learners (i.e., learners both with and without IEP and 504 Plans), knowing the differences between behavioral and cognitive IEP and 504 Plans, as well as how to adjust instruction or how to react when students say no or act out.

*Modifications to the immersion experience.* The most suggested modification was to know the types of IEP and 504 Plans represented by the high school students prior to arriving at camp. Also, a prominent theme that emerged was pre-service teachers asking for more time with the high school students. In addition to these themes, other modifications mentioned were, having more opportunities to prepare lessons prior to the experience, and spreading out the teaching groups during the lesson delivery (several groups had been teaching in the same rooms).

*Incorporating science standards into the agriscience curriculum.* As part of the immersion model, pre-service teachers spend one morning shadowing a science teacher in an affluent Columbus suburban high school. This location allows the pre-service agriscience teachers to observe cultures and diverse underrepresented populations in a teaching environment they are not as familiar to observing. During the experience, pre-service teachers are paired with another classmate, and are placed in one science
classroom. The pre-service teachers are expected to observe the teaching style as well as the science standards and principles being taught during the lesson(s). After their observation time is completed, the pre-service teachers reflect on the science standards presented in the classroom they observed and will then be required to incorporate the science standards into a 30-minute agriscience lesson. The agriscience lesson is then presented to their peers during a teaching methods laboratory session. This immersion experience is part of the professional block, to emphasize the need for building partnerships with science teachers, so that science standards can be presented to high school agriscience students in a context they may better understand.

**Pre-service teachers’ comfort level.** Prior to the experience, pre-service teachers’ comfort levels ranged from *slightly* to *very*, with five pre-service teachers reporting being *moderately* comfortable, four being *slightly* comfortable, and three being *very* comfortable. No previous experience was repeated more than twice, resulting in several experiences being reported. These experiences included: supervising animal dissections, practice at their cooperating student teaching sites, 4-H advising, working with a Science, Technology, Engineering, and Mathematical (STEM) school, helping develop a horticulture and agronomy curriculum, supervising a soil science laboratory, and experiencing the content as a student.

After the immersion experience, pre-service teachers’ comfort levels ranged from *slightly* to *extremely*. The majority (n=8) selected *very* comfortable, with two selecting *moderately* comfortable, while *slightly* and *extremely* comfortable were each selected once.
**Additional knowledge needed.** During the pre-reflection, content knowledge was the most prominent theme of knowledge needed to successfully engage in the immersion experience. Two other themes equally emerged after content knowledge, including, teaching methodologies, and knowledge of how to effectively tie science standards to agriscience concepts. After the experience, pre-service teachers reflected that knowing how to find science standards, and having more information related to the assignment expectations would both be helpful.

**Modifications to the immersion experience.** Pre-service teachers suggested a few modifications to the science standards immersion experience. These modifications included, learning about more science lab examples (i.e., visiting the university research center), moving the designated teaching laboratory day, so it does not fall right after the National FFA Convention immersion experience, and defining what type of science equipment is expected to be used in the 30-minute agriscience lesson taught.

**Traveling with students on overnight education experiences.** Pre-service teachers were asked to coordinate and make arrangements with their student teaching cooperating school sites, to travel to National FFA Convention as a co-advisor/chaperone. Pre-service teachers and their cooperating educators were made aware of this requirement during spring semester, as soon as the student teaching placement was confirmed. During this immersion experience, pre-service teachers are expected to assume any supervising role that the cooperating educator assigned, as well as to observe and gather information related to coordinating and executing overnight educational experiences with high school students.
**Pre-service teachers’ comfort level.** Prior to the experience, pre-service teachers’ comfort levels ranged from *slightly* to *extremely* comfortable, with both *slightly* and *very* comfortable each having four selections, and *moderately* and *extremely* comfortable each having two selections. After the experience, comfort levels ranged from *moderately* to *extremely* comfortable, with the majority (n=7) of the pre-service teachers reporting being *very* comfortable. During the pre-reflection, 11 of the 12 students mentioned having experience chaperoning and/or planning overnight educational experiences, while the other student reported having no experience.

**Additional knowledge needed.** When asked what information would be helpful to build their comfort level prior to the immersion experience, the most prominent theme to emerge was, knowing the trip details (these would need to be provided to them by the cooperating teacher). Other themes that were mentioned no more than once or twice were handling discipline issues, how to effectively chaperone students, and liability limitations with minors.

After the immersion experience, the most prominent themes related to knowledge needed were, information related to the planning of the trip, and having more experiences chaperoning overnight educational experiences. Additionally, understanding policies and procedures, was another theme, including knowing medical care policies for students, school policies, and student management procedures.

**Modifications to the immersion experience.** The most prominent modification that emerged was related to better communication between all parties on expectations and obligations. This theme was followed by the request to hear experiences from in-service
teachers and how they handle situations with students as they arise during field trip experiences. Additionally, one pre-service teacher mentioned the use of a purposeful reflection assignment or required journaling during the overnight educational experience.

**Working with diverse learners.** Three weeks prior to the diversity immersion experience, pre-service teachers were randomly paired and assigned to work with one of five mentor teachers from the Metropolitan Nashville Public Schools (MNPS). MNPS enrolled more than 82,000 students during the 2013-2014 school year, ranking them the 42<sup>nd</sup> largest school district in the country (MNPS, 2015). Students at MNPS represent more than 120 different countries and speak nearly as many languages (MNPS, 2015). The MNPS are divided into Academies, career and technical education modeled programs. The Academy design is based on small learning communities characterized by specialized curriculum provided by a theme (Mosley & Flatt, 2014). Throughout Nashville, students have access to 16 career cluster programs of study through the Academies (Mosley & Flatt, 2014). Nine Metro high school academies in the Nashville system have received the national model designation from the National Career Academy Coalition; two high school academies have achieved model status, two academies received model academy designation, and two high schools have nationally-certified academies (MNPS, 2015). Thus, the researcher for this study identified MNPS as an ideal learning environment for a cultural immersion experience in 21<sup>st</sup> century, global, classrooms.

A two-day agenda allowed the pre-service teachers to tour and observe each of the chosen programs in which they would be teaching, as well as to provide each group
of pre-service teachers the opportunity to teach a 45-minute lesson to two of the mentor teacher’s classes. The mentor teachers chose a general lesson topic for the pre-service teachers to teach to their classes on day two of the immersion experience. General lesson topics included: leadership, agricultural careers, and 21st century skills. Pre-service teachers were given their assigned lesson topics and tentative daily teaching schedule one week prior to the immersion experience. The pre-service teachers were encouraged to begin the lesson planning process upon receiving their lesson topic.

**Pre-service teachers’ comfort level.** Prior to the experience, self-reported comfort levels ranged from *none at all* to *extremely* comfortable. *Moderately* and *very* comfortable were each selected four times, *extremely* comfortable was selected twice, and both *none at all* and *slightly* comfortable were selected once. Having experiences from school settings was the most prominently reported theme of pre-service teachers’ previous experience. Additionally, three students indicated previous work experience that strengthened their comfort level, while one indicated a diverse background, personally, when describing the comfort level.

During the post-reflection, comfort levels ranged from *slightly* to *extremely*. The majority (n=5) of the pre-service teachers selected *very* comfortable, three selected *moderately* comfortable, while *slightly* and *extremely* comfortable were each selected once.

**Additional knowledge needed.** During the pre-reflection, the most prominent area of knowledge needed was, knowing the MNPS students’ backgrounds. An additional
theme that emerged was effective teaching methodology for inclusion of all students. One pre-service teacher also mentioned knowing laws that protect diverse students.

After the experience, additional knowledge needed for engaging in the immersion experience included, knowing MNPS students’ backgrounds and behavioral issues. Knowing the class size and room size was mentioned. Finally, having prior discussions regarding working with students whose first language is not English was indicated as useful information.

**Modifications to the immersion experience.** Spending more time with the mentor teachers was the most prominent modification reported. There were also multiple requests for the ability to communicate with the mentor teacher directly prior to the experience. Additionally, the following modifications were each mentioned once: conducting the immersion experience at a school closer to campus, rotating between the schools to see more diversity, and putting more time between the teaching and re-teaching of the lesson.

**Conclusions and Discussions**

**Conclusion one.** The researcher concluded the immersion experience model increased pre-service teachers’ comfort levels when engaging in each setting. When reflecting on their comfort level after the immersion experience, pre-service teachers occasionally mentioned that their comfort level shifted depending on the agriscience content associated with the immersion experience. Although specific questions related to the study were not asked regarding comfort level with agriculture content knowledge, the
researcher observed and heard the pre-service teachers indicate a need for more agriculture content to help them feel more comfortable in the future.

Pre-service teachers also mentioned an overwhelming feeling prior to some of the immersion experiences, however, once they were engaged in the setting, they mentioned those feelings dissipated. The researcher observed that the pre-service teachers outwardly expressed their levels of stress, overwhelmed feelings, and nervousness throughout the immersion model. Though comfort level is not a full indicator of competency, this conclusion corresponds with Vincent and Torres (2015), and Vincent et al. (2014), claiming that competency cannot be achieved by one course/experience, but one course can create a general awareness.

**Conclusion two.** The researcher concluded, across all immersion experiences in the model, pre-service teachers indicated a need for additional knowledge. The trend for additional knowledge was seen with both the pre- and post-reflection for each immersion setting in the model. As the researcher analyzed the prominent types of additional knowledge needed, as indicated by the pre-service teachers, the researcher noticed that prior to the experience, knowledge needed pertained to knowing the subject matter or the audience. After the experience, pre-service teachers tended to want additional knowledge relating to logistics (i.e., information about the Envirothon contest, trip details, expectations, and planning process).

**Conclusion three.** Finally, the researcher concluded that pre-service teachers want the immersion model to include more time and more information. Whether it was time, information, audience, or communication modifications, in all cases, the pre-service
teachers were suggesting the immersion model be modified to include more time and more information for future professional blocks of pre-service teachers.

The researcher found it interesting that the two times that pre-service teachers requested more time was in immersion settings, that were already the longest number of days spent in the immersion experiences. The immersion experience at Ohio FFA Camp Muskingum and the experience at the Nashville Academy Schools both involved approximately four days. These were the only experiences other than National FFA Convention that involved multiple days and nights of being fully immersed in the setting. However, the pre-service teachers still requested to have more time, in particular, with the teachers and the students. During the personal interview protocol, the pre-service teachers were asked what the most valuable immersion model experience was for them. Both teaching students with IEP and 504 Plans at Ohio FFA Camp Muskingum and working with diverse learners at the Nashville Academy Schools were indicated by the pre-service teachers as being the most valuable components of the immersion model.

**Recommendations From This Study**

The researcher recommends that the results of this study be shared with future groups of pre-service teachers prior to engaging in the immersion model. Knowing previous professional block students’ thoughts and feelings about the immersion experiences, could benefit future pre-service teachers as they are working through the model.

The researcher also recommends that the faculty members associated with the immersion model closely evaluate the information given to the pre-service teachers at all
phases of the immersion model (i.e., before, during, and after the immersion experience). For example, participants in the study requested more details related to expectations prior to several of the immersion experiences. Related to this recommendation, the researcher suggests that faculty slow the pace of information delivery, to help prevent overloading that can detract from deep engagement with the content.

Finally, it is recommended that each immersion experience be evaluated to determine how each one can add value for meeting the objectives needed by pre-service teachers. Since the two longest immersion experiences were identified by the majority of the pre-service teachers as the most valuable, it is recommended to evaluate those two experiences more in-depth, to identify how those experiences could be used in framing the other experiences.

Recommendations For Future Research

Similar to Au and Blake (2003), and Waddell (2011), the researcher advocates for more research examining cultural immersion experiences of pre-service teachers. It is recommended that the pre-service teachers, whom served as the population for this study, continue to be studied as a research population to further examine perceptions of the immersion model once they begin teaching in secondary agriscience classrooms. With previous groups of pre-service teachers with whom the researcher has worked, it was observed that once they entered the classroom, they tended to have a changed appreciation of A Modern Philosophy of Immersion for Preparing Pre-service Teachers. Additionally, it is recommended that purposeful reflections be created for each immersion experience to specifically examine the pre-service teachers’ cultural critical
consciousness, and movement toward incorporation of culturally responsive teaching techniques and strategies.

**Implications**

If the results of the study are shared with future Professional Block students, it may ease unnecessary feelings of frustrations and stress. Knowing that previous Professional Block students experienced similar feelings, but once they were engaged in the setting, the feelings tended to dissipate, can add comfort to the students. Through a thorough evaluation of the immersion model, future pre-service teachers will benefit more from each experience, improving their preparation to enter 21st century, global, learning environments. By following the population of pre-service teachers’ from the study into their first years of education, more in-depth perceptions related to the effectiveness of the immersion model can be attained and analyzed. Finally, if the pre-service teachers’ cultural critical consciousness is more thoroughly studied, researchers could begin to examine impacts that cultural critical consciousness has on culturally responsive teaching techniques.

**Summary**

Changing demographics of student populations nationally is creating a need for cultural immersion in pre-service teacher preparation (Waddell, 2011). Consequently, cultural immersion is one among many educational immersion experiences needed today to prepare the next generation of classroom teachers to enter 21st century, global, learning environments. Through a descriptive, qualitative case study research design, the researcher sought to describe the student perceptions of the immersion model for pre-
service teacher preparation currently used in the Professional Block experience in the Agriscience Education program at The Ohio State University.

Through the findings, the researcher concluded that the immersion model currently used increases pre-service teachers’ comfort levels when engaged in each immersion experience. However, more thorough information needs provided to future pre-service teachers in all settings of the immersion model to ease feelings of stress. Additionally, it is recommended that a thorough evaluation be conducted, of all of the immersion experiences, to modify them for increasing the benefits of each in preparing pre-service educators to enter 21\textsuperscript{st} century, global, learning environments.
References


82


Section 2C: Pre-Service Agriscience Teacher Perceptions of Their Preparation to Teach Diverse Underrepresented Populations

Introduction

With the globalization of classrooms, teachers may be facing greater expectations and challenges relative to understanding and embracing diverse underrepresented cultures in their learning environments. According to Davis and Jayaratne (2015), in order to meet the needs of current, 21st century classroom populations, four years of pre-service teacher education may not be enough. As the classroom continues to become more diverse, innovative teaching methods are needed for preparing educators to meet the needs of learners, and to recruit underrepresented populations into agriscience education programs (Davis & Jayaratne, 2015). Sleeter (2001) highlighted several challenges facing pre-service teacher candidates related to diverse underrepresented populations including: a lack of cross-cultural background and knowledge, naivety and stereotypic beliefs of diverse learners, and a lack of awareness and understanding of discrimination. According to Gay (2010a), bias attitudes, on the part of both the student and educator, interfere with the teaching and learning process.

Boyd, et al. (2006) discussed the “overwhelming tone for conformity” as part of the education system, and postulated that educators who support and fail to question the dominant views of society, result in marginalizing contributions from underrepresented populations in the classroom (p. 330). Therefore, Boyd et al. argued that pre-service
teachers need to be educated in creating “humane classrooms where students and teachers learn to use language and literacy in critical and empowering ways” (Boyd, et al., 2006, p. 331).

Key factors in preparing pre-service teachers for teaching diverse underrepresented populations include: becoming advocates and fostering a willingness to cross boundaries for social justice, understanding that students bring personal experiences and knowledge to the classroom that will influence classroom practices, and modeling culturally responsive teaching.

Theoretical Framework

Culturally responsive teaching. A theory of Culturally Responsive Teaching (CRT) provided a foundation for building the theoretical framework to guide the study. Gay (2002b) defined CRT as, “using the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively” (p. 106). Culturally Responsive Teaching requires cultural proficiency and the positive inclusion of cultural resources during the teaching and learning process (Gay, 2013). To truly implement CRT, one must go beyond respecting others cultures; one should learn factual information about the groups being served. Cultural aspects in which educators should be aware include, “ethnic groups’ cultural values, traditions, communication, learning styles, contributions, and related patterns” (Gay, 2002b, p. 107). Culturally Responsive Teaching helps meet the learning needs of a diverse group of students through individually, “focusing on their cultural knowledge, prior experiences, frames of reference, and performance styles” (Ford, Stuart, & Vakil, 2014, p. 57).
Gay (2001) theorizes five essential elements of CRT, with the first being, knowledge base about cultural diversity. In additional articles, Gay (2002a, 2002b, & 2013) continued to elaborate on the importance of first knowing one’s own culture. Ford et al. (2014) stated that when educators are aware of their own biases, attitudes, and assumptions, “they are more likely to seek ways to minimize negative perceptions and be more inclusive in their practices” (p. 58).

**Cultural critical consciousness.** Cultural Critical Consciousness (CCC) also contributed to the theoretical framework for this study. Developing CCC pushes beyond recognizing diversity; it involves the act of self-reflection, assisting in understanding across cultural groups, and modifying the environment through equity practices (Cooper, He, & Levin, 2011). As in CRT, each individual must first understand one’s own culture, and then become aware of the cultures around him/her (Gay & Kirkland, 2003). To accomplish effective self-reflection, individuals must engage in tangible experiences, encouraging more “genuine and authentic” learning (Gay & Kirkland, 2003, p. 186). Cultural Critical Consciousness in educators can lead towards the betterment of their teaching skills and ability to understand individual students (Gay, 2002a). A lack of cultural proficiency in educators may lead to misinterpretation of students, resulting in learning disadvantages (Gay, 2001). Thus, before a teacher can incorporate CRT practices, there is a need “for educators to become critically conscious of their own cultural socialization, and how it affects their attitudes and behaviors toward the cultures of other ethnic groups” (Gay, 2002a, p. 619).
Purpose and Objectives

The purpose of this study was to describe pre-service, secondary, public school, agriscience teachers’ perceptions of their preparation to teach diverse underrepresented populations. The study was guided by the following research objectives:

1. To describe the types of cultural immersion programs undergraduate students in Agriscience Education are attending at The Ohio State University.

2. To describe pre-service teachers’ knowledge of diverse underrepresented populations in secondary, public school agriscience education learning environments.

3. To describe the ways in which pre-service secondary, public school agriscience teachers plan to recruit diverse underrepresented populations into their learning environments.

4. To describe how the pre-service agriscience teacher education program at The Ohio State University meets the needs of pre-service teachers in preparing them to work with diverse underrepresented populations.

Methods

The research was a descriptive, qualitative research design that utilized a self-contained focus group (Morgan, 1988). The researcher received approval by The Ohio State University human subjects review board (#2016B0094). The focus group interview method was selected because the researcher sought to answer how and why questions about a contemporary phenomenon in a real-life context over which the researcher had no control. The focus group interview method was appropriate because, according to
Krueger and Casey (2002), “the answers to verbal questions can yield powerful information” (p. 1). The researcher approached the basic qualitative research methodology through an interpretivism epistemology using the focus group interview method. The population for this study was pre-service teachers (N=12) enrolled in the Agriscience Education (ASE) degree program at The Ohio State University.

**Data Collection.** Focus group interviews were held during week eight of 13 weeks of student teaching. Focus group interviews were held to understand the perceptions of the pre-service teachers related to diverse underrepresented populations, and acceptance of diversity in their cooperating school classrooms. According to Patton (1990), “The purpose of interviewing is to find out what is in and on someone else’s mind” (p. 278). The questions were designed and sequenced following recommendations given by Patton. Three researchers, with expertise in qualitative methodologies, reviewed the questions and made suggestions for improvements. The researcher used the suggestions to generate the initial list of interview questions.

As cited in the literature, participants were interviewed until the researcher reached the point of saturation. Saturation was reached when negligible amounts of new information were gained from further interviews (Patton, 1990).

**Pilot study.** As recommended by Glesne (1999), a pilot study was conducted prior to the participant interviews to learn about the research process, and to modify the questions. One individual close to the phenomenon being studied agreed to work with the researcher in September 2014 to design questions and to modify the protocol. The researcher explained to the individual, prior to the interview, that their role was to think-
through responses to the questions from their perspective, and to provide feedback on how to change the questions and procedures. The initial set of questions was piloted using the pre-service teachers (N= 10) in professional standing, October 2014. The feedback received from the pilot study participants was used to modify the questions by making the wording easier to understand and more specific. The order of and number of questions were also modified.

**Gaining access.** Gaining access refers to the researcher’s acquisition of consent to go where one wants, talk to whomever one wants, and obtain the information wanted for the study (Yin, 2014). The researcher followed the procedures outlined by Glesne (1999) to gain access with each participant by guaranteeing confidentiality and anonymity in person prior to the focus group date, and during the focus group interviews (see Appendix A). To guarantee confidentiality and anonymity, the researcher had participants use only a course assigned number when submitting work associated to the study. The researcher also assured participants their names would never be connected with their numbers for any reason during the study.

The researcher listened to the concerns and questions presented by the participants regarding the study or procedures and responded accordingly to establish rapport and trust. In addition, the researcher offered participants copies of the final disseminated documents. Finally, the researcher communicated in advance the potential need for further discussion and assistance in the future, including a review of the interview report for the member check.
Focus group interview procedures. The structure of the focus group interviews was a combination of two structures outlined by Patton (1990); a combined standardized written response question period and an open-ended question period were utilized. The standardized written response questions consisted of a set of predetermined questions that were carefully worded and ordered to take each participant through the same sequence of specific questions (see Appendix D). The strengths of standardized open-ended question periods were that the structure minimized interviewer effects on participant answers, and were highly focused, so as to use participant time carefully. The weaknesses of the standardized open-ended question period were that there was little flexibility for pursuing issues that were generated after the interview was written, and that the structure constrained the facilitator from using different lines of questioning with individual participants based on their unique perceptions of underrepresented populations and diversity in the classroom.

The open-ended question period was utilized to provide more flexibility in using probing questions and in determining which aspects of students’ perceptions to explore in greater depth. Using the written question period enabled the researcher to better understand the behaviors, thoughts, and feelings of participants.

The processes used for documenting the information gathered during the focus group interview followed the recommendations made by Patton (1990) and Yin (2014). A digital recorder was used, following consent by the participants. The use of a recorder was beneficial because its use increased the accuracy of the data gathered and also
permitted the facilitator to be more attentive. Additionally, the entirety of the interview was transcribed as an additional source and backup of the recorded data.

To minimize bias in the students’ responses, the researcher used external personnel to moderate and transcribe the focus group interview. A graduate student familiar with focus group protocols, served as moderator, and a student worker took field notes of student responses during the oral question portion of the focus group.

To show appreciation to the informants for donating their time to the study, participants were provided lunch following the session. The researcher also offered to share the published documents with participants who requested it.

**Data management and analysis.** With permission from the participants, the focus group field notes and recordings were stored in the researcher’s computer files. The electronically-recorded focus group interviews were transcribed, word-for-word. The transcriptions were modified based on comments received during the member check, and the documents were stored in secured computer files.

The initial analysis of the data involved, coding of the participant interview transcripts, as well as reading and coding of the participant’s written responses. Themes that emerged were coded accordingly.

**Role of the researcher.** The study was conducted from interpretivism epistemology. Interpretivism assumed that realities were socially constructed by participants in the study and that variables were complex and interwoven (Glesne, 1999). Thus, the researcher served as the data collection instrument and meanings were created through the researcher’s interpretation of the participants’ realities (Schwandt, 2000).
data gathered from participants were filtered through the feelings and experiences of the researcher as the data collection instrument to generate the complete data for the study (Patton, 1990). To increase the trustworthiness of the study, the researcher reflexively identified his/her experiences and feelings that may have influenced the study: (1) a personal and educational background in a rural, rather culturally homogeneous, community; (2) an appreciation for multicultural education; (3) a belief in the need for inclusivity of multiple perspectives; and (4) a concern for the well-being and social justice of humankind.

**Ethical considerations.** Prior to conducting the study, the researcher examined the ethical issues of qualitative research. The ethical considerations reviewed included informed consent, deception, rights to privacy and confidentiality, accuracy, respect for persons, beneficence, justice (Christians, 2000), exploitation, intervening, advocating, friendship, and reciprocity (Glesne, 1999).

The researcher committed to the guidelines outlined by Christians (2000). Thus, informed consent was established by providing full and open information about the study. Participants were also informed, both orally and in writing, that their participation or non-participation would have no effect on course outcomes. Participants also knew that they could choose to not respond to a particular question. The researcher avoided deception by being honest with participants about their status and the purpose of the research. The researcher guaranteed privacy and confidentiality to all participants, by tracking all data with course assigned student numbers instead of names, initials, or aliases. A member
check was conducted to ensure that participants felt the information they provided was accurately reported.

**Limitations.** Although external personal were used to moderate the focus group to reduce bias, the researcher noted that gaps in data collection might occur since these external personal were not familiar with purpose and objectives of the study. To reduce potential gaps in data, the external personal were provided follow-up questions to help moderate the discussion.

**Trustworthiness of the study.** Trustworthiness was explained by Lincoln and Guba (1985) as encompassing the conventional components of internal validity, external validity, reliability, and objectivity. Lincoln and Guba proposed that conventional measures of quality were not appropriate for qualitative inquiries, and that the measure of trustworthiness was appropriate. The components of trustworthiness included credibility, transferability, dependability, and confirmability.

Credibility, or the likelihood that credible findings and interpretations were produced, was addressed in the study by using methods outlined by Lincoln and Guba (1985). Triangulation, the use of multiple sources of data collection methods, was guaranteed by utilizing focus group interview transcriptions, and multiple document sources to corroborate findings. Peer debriefings were conducted throughout the duration of the study to probe the researcher’s biases, explore the researcher’s meanings, and clarify the researcher’s interpretations. Peer debriefings were conversations with a peer that provided the researcher with a mode of external reflection to explore aspects of the study that had not been explored. Finally, member checks were conducted with
participants in the study to ensure that what was reported accurately represented the information provided. Through the member check process, copies of the interview transcriptions were sent to participants to allow the opportunity to review and make adjustments, before the data were analyzed.

Transferability addressed the question, “How can one determine the degree to which the findings of an inquiry have applicability in other contexts or with other respondents?” (Lincoln & Guba, 1985, p. 218). The current study provided a thick description allowing other researchers to decide if making a transfer between the current study and future studies is possible. A thick description referred to providing enough evidence of the study to allow readers to determine if transferability of findings is possible.

Dependability and confirmability were established through an analysis of the audit trail maintained by the researcher. Dependability referred to the likelihood of the findings being repeated if the study was replicated with the same participants in the same environments. Confirmability ensured that the findings reflected the characteristics of the participants in the given setting, not the biases, motivations, interests and perspectives of the researcher (Lincoln & Guba, 1985).

A reflexive journal was kept by the researcher, which also established trustworthiness. The reflexive journal contained entries about schedules and logistics of the study, as well as the researcher’s personal reflections upon what insights were gained from the study. Entries were made as needed to discuss methodological decisions and changes in the study (Lincoln & Guba, 1985).
Results

Through the self-contained focus group protocol, the researcher gathered data related to each of the research objectives. Because a self-contained group was utilized, and because the researcher felt participants’ identities could still be determined, in some cases, even with aliases’, no identifying markers were used in the results section. All quoted comments, regardless of the participant source, are described as being stated by a participant.

Describe the types of cultural immersion programs undergraduate students in Agriscience Education are attending at The Ohio State University. Participants were first asked what cultural immersion programming opportunities are available at The Ohio State University that relate to diversity and underrepresented populations. Participants’ answers were categorized into six themes. In order of frequency mentioned, these included: student organizations, Greek life, study abroad experiences, campus cultural events (i.e., cultural exhibits, food fairs, and programs), university offices and centers (i.e., Multicultural Center, and Office of Diversity and Inclusion), and coursework.

Participants were also asked, specifically, what cultural immersion programs they had attended at The Ohio State University that related to diversity. Again, six themes emerged from their answers. In order of frequency mentioned, these themes included: coursework, campus cultural events, Greek life, study abroad, student organizations, and resident life (i.e., Resident Assistant). In addition to this question, participants were asked
how they found out about these opportunities. Five themes emerged including: becoming more knowledgeable, required, sounded interesting, networking, and showing support.

Describe pre-service teachers’ knowledge of diverse underrepresented populations. Participants were asked to define both diversity and underrepresented populations, in their own words, before the focus group oral questions began. When defining diversity, all participants used the words different, differing, differences, or various in their definition. The word different was usually tied to words such as, characteristics, appearances, race, religion, gender, socioeconomic status, ethnicity, language, education level, and culture. Definitions for underrepresented varied between participants. Common themes of wording that emerged related to: minority groups of individuals who lack a voice within the majority group, or a group of people not proportionally present during a given scenario, and lastly, minority groups not represented at all.

Later in the focus group protocol, participants were asked what types of diversity they were seeing at their cooperating schools. The most prominent theme was very little diversity; most participants only spoke of race as diversity, indicating that the schools in which they were working are predominately Caucasian, with a few African-American or Hispanic students represented in the school population. A few participants also added socioeconomic status, with race. Other areas of diversity mentioned once were sexual orientation, religion, and education.

A similar question was asked regarding underrepresented populations, by asking participants to identify those underrepresented populations at their cooperating schools.
Through the participants’ answers, six populations were identified with the most frequently mentioned being *differing racial populations*. Other than race being identified, *socioeconomic status* was mentioned twice, which was the second highest frequency. In addition, *gender, education, sexual orientation, and geographic area* (i.e., rural, and non-rural) were all mentioned once. The researcher identified two participants who were not accurately able to determine the underrepresented populations. Their statements regarding underrepresented populations at their cooperating schools were, “the students who are trying to fit into groups because they want friends and don’t know where to go” and “I feel like it's a well mixed and even group of people with differing races, learning needs, and genders.”

**Describe the ways in which pre-service teachers plan to recruit diverse underrepresented populations in their learning environments.** During the focus group protocol, participants were asked how they felt they could recruit *diverse* populations of students into their future agriscience education programs. The most prominent response from participants included, making the program appealing to individuals from all backgrounds and not focusing on recruiting any one type of student. Participants also mentioned current stereotypes about Agriscience programs that might deter individuals from joining, and that they might have to work at breaking down those stereotypes. One of the participants also mentioned that one-on-one conversations might have to take place to learn why individuals are not joining the program. The participant added that, “you wouldn’t want to make assumptions or just look at numbers, you might have to dig a little bit deeper to find out what the cause [why students are not joining the program] may be.”
Participants were asked a similar question specific to recruiting *underrepresented* populations into their future Agriscience programs. In response to this question, participants mentioned that the same premise used for recruiting diverse populations applied to recruiting underrepresented populations as well. Participants also mentioned that they would need to find a way to highlight how the Agriscience program can be beneficial to all students so that everyone can find their fit.

**Describe how the pre-service program meets the needs of pre-service teachers in preparing them to work with diverse underrepresented populations.**

Participants were asked how they felt the pre-service program has or has not prepared them to work with diverse underrepresented populations. Of the participants who choose to respond to this question, the most frequent response was that the pre-service program did not prepare them enough for working with diverse and underrepresented populations. In elaborating on these thoughts, participants generally stated that they wish they would have been shown more agriscience programs in Ohio linked to discussions regarding diversity and underrepresented populations. One participant stated, “I think going to Nashville really pushed the diversity of languages and cultural backgrounds. But in agriscience programs we are dealing with, we see a lot of socioeconomic background differences and sexual orientation, and that was not really highlighted.”

Another student added the suggestion of creating a mentorship program where pre-service teachers shadow teachers in Ohio from rural, urban, and possible career technical schools so they could get a better feel for how those teachers handled diversity in the classroom. The same participant felt pre-service teachers in ASE did too much
teaching to one another as peers, and did not get enough experience watching experts in the field. Two other participants shared these sentiments that pre-service teachers in ASE peer taught too much. One of these participants added, “I think there needs to be more of a balance in Block as a whole. Until that is reached, I do not think that we can truly answer these questions with confidence in our first year of teaching.”

**Conclusions and Discussions**

**Conclusion one.** A trend that emerged from participants’ knowledge of cultural immersion programming at The Ohio State University, was that the sources of programming were the same as the programming in which students actually participated. Although coursework was the least used source of programming, it was the most discussed way in which students were participating in cultural immersion programming. The researcher concluded that because cultural immersion coursework was required, it became the most discussed source of participation in cultural programming, and consequently emerged as one of the top two themes for how students discovered programs.

**Conclusion two.** Pre-service teachers tended to see diversity and underrepresentation as relating predominately to race. During responses to definitions and identification of diverse and underrepresented populations, participants focused on racial differences. The researcher concluded that participants were not examining diversity in its broadest sense. Sleeter (2001) found similar themes related to lack of cultural proficiency in pre-service teachers.
**Conclusion three.** It was further concluded that pre-service teachers might not know how to identify underrepresented populations. When asked to identify or recruit underrepresented populations, participants made general statements related to making the Agriscience program appealing to all audiences. No comments were made indicating how participants would identify who the underrepresented populations were in their communities.

**Conclusion four.** The researcher also concluded that pre-service teachers did not feel prepared to recruit into and work with diverse underrepresented populations in their learning environments. Although comments were made related to preparation, none of the comments indicated the pre-service program prepared them for teaching diverse underrepresented populations in a secondary, public school, agriscience education program.

**Recommendations From This Study**

It is recommended that diverse underrepresented populations be discussed more purposefully throughout the pre-service Agriscience Education immersion experiences at The Ohio State University. The discussions need to be tied back to the cultural proficiency course concept of understanding that there is always my perspective, your perspective, and the missing perspective (Marsh, Marsh, Whittington, 2012), in all learning environments.

It is also recommended that a purposeful activity be created for pre-service teachers to have conversations with their cooperating educators about shifts in diverse underrepresented populations within their schools. Along with these conversations, it is
further recommended that pre-service teachers conduct an analysis of a school’s student population, and compare the school population to the population of students enrolled in the agriscience education program.

**Recommendations For Future Studies**

Given the conclusions of the study, it is recommended that a more in-depth analysis of pre-service agriscience teachers’ knowledge of diverse underrepresented populations be conducted. The proctor of the focus group did not ask for comments from individuals who might have had different thoughts related to the pre-service teachers’ overall preparation to teach diverse underrepresented populations. It is recommended that a written question related to preparation to teach diverse underrepresented populations be added to the research to gain insights from all pre-service teachers.

To identify effective culturally responsive teaching techniques, diverse underrepresented students need to become the population of a study to gain their insights. This future study could be used to describe the impact of culturally responsive teaching techniques when working with diverse underrepresented populations.

In addition, the researcher recommended that pre-service teachers be followed longitudinally in their beginning years of teaching to describe their behaviors in encouraging, teaching, and recruiting diverse underrepresented populations into their agriscience education programs. The described behaviors should be tracked to identify culturally responsive teaching techniques being used, and the impact those techniques have on creating a culturally responsive citizenry in 21st century, global, living, learning, and working environments.
Implications

If purposeful activities are created for encouraging conversations related to diverse underrepresented populations, in the broadest sense of the definition, students will become more familiar and more comfortable with applying cultural responsive teaching concepts in their agriscience education programs. Researchers have identified society as being more diverse (Eng, 2013; Ford, Stuart, & Vakil, 2014; Gay, 2010a; Ladson-Billings, 2005; and Sleeter, 2001). If educators become more aware of and confident in applying culturally responsive teaching techniques, those behaviors will begin to be emulated by their students, helping to create a culturally responsive citizenry.

Summary

Pre-service Agriscience programs are not doing enough to prepare teachers to working with diverse underrepresented populations, which aligns with the findings of Davis & Jayaratne (2015), and Sleeter (2001). In describing pre-service, secondary, public school, agriscience teachers’ perceptions about their preparation to teach diverse underrepresented populations, more must be done.

Through a self-contained focus group of pre-service Agriscience educators, the researcher concluded that students did not perceive themselves to be adequately prepared for working with diverse underrepresented populations. Pre-service agriscience teachers interviewed, focused primarily on racial differences when discussing diversity and underrepresented populations, indicating, that more awareness related to these concepts needs emphasized in pre-service programs, to prepare teachers for culturally responsive teaching.
References


Section 3: Executive Summary

Introduction

Society is becoming more diverse, creating a need for cultural proficiency education and critical consciousness (Eng, 2013; Ford, Stuart, & Vakil, 2014; Gay, 2010a; Ladson-Billings, 2005; and Sleeter, 2001). Therefore, attention has been given to studying current areas of growth in education and employability in preparation for 21st century, global, living, learning, and working environments. The need for cultural proficiency and critical consciousness is imperative for progressive societies. Both, cultural proficiency and critical consciousness have the ability to strengthen 21st century, global skills in the next generation of American citizens.

Conceptual Framework

As can be seen in A Conceptual Framework for Preparing a Culturally Responsive Citizenry (see Figure 3), understanding one’s own culture is the first component in preparing a culturally proficient citizenry. In the framework, adopted from the theories of Culturally Responsive Teaching (Gay, 2010b) and Critical Consciousness (Freire, 1993), the continuous cycle of immersion experiences and self-reflection, which assist in developing critical consciousness, provide the necessary application for developing a culturally responsive citizenry. The concept of immersion that is proposed by the framework, when introduced into education environments, means that student-developed critical consciousness will contribute to pre-service teachers’ ability to utilize
culturally responsive teaching. Finally, each component of A Conceptual Framework for Preparing a Culturally Responsive Citizenry, supports creating a culturally proficient citizenry in 21st century, global, living, learning, and working environments.

Figure 3. A Conceptual Framework for Preparing a Culturally Responsive Citizenry

In preparing a 21st century, global citizenry, understanding one’s own culture and acknowledging the cultures around one’s self is critical. Living, learning, and working environments continue to become more globally and culturally diverse. Consequently, cultural proficiency, in all citizens, is important for creating positive and affirming relationships between individuals with differing cultures. This Executive Summary presents three articles that begin to holistically examine the conceptual framework advocated by this study. The primary population the study captured by these articles was pre-service, secondary, public school agriscience education teachers. Given the primary population for this study, culturally responsive teaching became a focused component for a conceptual framework for developing a culturally responsive citizenry. Thus, the three articles, Using Cultural Proficiency Education to Impact Students’ 21st Century Skills,
Describing Agriscience Pre-service Teachers’ Pre- and Post-Perceptions of their Cultural Immersion Experiences during Teacher Preparation, and Pre-service Agriscience Teacher Perceptions on their Preparation to Teach Underrepresented and Diverse Populations, are synthesized in this Executive Summary.

**A Summary of Three Articles Designed to Study A Conceptual Framework for Preparing a Culturally Proficient Citizenry**

**Summary of Using Cultural Proficiency Education to Impact Students’ 21st Century Skills.** The purpose of the first article was to describe undergraduate students’ movement along Cross’s Cultural Proficiency Continuum (CPC), using evidence provided through service-learning experiences, weekly journal entries, and in-class written reflection essays associated with a 14-week general education course. The article highlights the first two components of A Conceptual Framework for Preparing a Culturally Responsive Citizenry, by describing participants’ movement along Cross’s CPC, which indicated their understanding of their own culture. Through a service-learning program, participants experienced a continuous cycle of immersion and reflection (see Figure 3). The researcher used two objectives to guide the study:

1. Describe student movement along Cross’s CPC as evidenced through student-provided written and oral statements related to service-learning.

2. Describe student movement along Cross’s CPC as evidenced through weekly journal entries, and in-class written reflections

**Population.** Students enrolled in a 14-week, university general education course on cultures and ideas, served as the target population for the study. Over two semesters,
using stratified random sampling, 24 students were selected to participate in the study, of which 13 agreed and became participants.

**Methodology.** The research design for the exploratory descriptive study was qualitative methodology using focus group interview protocol. Transcribed focus group interviews were used as the primary source of data, while weekly journal entries, in-class written reflection essays, and student-provided written evidence of meeting their standards and benchmarks for cultural proficiency were analyzed as secondary sources of data. All were used to help describe the students’ movement along Cross’s CPC, to help identify their understanding of their own culture and the cultures around them.

**Conclusions and discussions.** All participants moved forward along the CPC as a result of the 14-week general education course involving cultural proficiency education. Along with the service-learning course component, weekly journal entries and in-class written reflection essays provided valuable insight into each participant’s progression along the cultural proficiency continuum.

The service-learning component of the course provided students with experiences that enhanced their movement along the CPC. Participants were acquiring rich, hands-on experiences through their service-learning projects that could not have been simulated in class. The pieces of evidence, from the students’ benchmarks and standards, began to show that participants were seeing differences between themselves and the individuals they were serving. It also became clear to the researcher that the participants understood these differences, and were able to build stronger relationships while at their service site.
A trend across the two years of teaching the 14-week general education course involving cultural proficiency education, was that participants moved forward more than one level on Cross’s continuum. Participants self-reported themselves across all categories except proficiency, when asked where they felt they were self-categorized at the beginning of the course. At the midterm of the course, participants were reporting themselves in the top three categories of Cross’s CPC, *pre-competence, competence, and proficiency*. Evidence was weighted heavily in the *competence* category, which showed the researcher positive movement towards cultural proficiency on Cross’s CPC.

*Recommendations from this study.* It was recommended that more cultural proficiency programs be available for students throughout their post-secondary education experiences. The researcher will continue utilizing service-learning experiences to provide experiential learning for students to engage with individuals from diverse cultures. The findings will not only assist in better-describing students’ movement along the CPC, but also aid in developing the students’ critical thinking and cognitive skills (Fitch, Steinke, & Hudson, 2013; Jacoby, 1996).

The researcher found that students typically responded, in their journals and essays, with personal reflections related to past events, future events, and what if statements that did not lend well to addressing cultural proficiency statements. Consequently, the researcher will examine the course assignment descriptions and expectations to encourage students to tie their responses back to cultural proficiency education and its subsequent introspection into one’s own culture.
**Recommendations for future studies.** Through continued research in cultural proficiency education, additional trends may surface to help create a more concise and beneficial model of reflective and reciprocal practices conducted through the service-learning courses. The researcher recommends that future research be conducted through longitudinal approaches, to help track students’ retention of their cultural proficiency education upon completion of the 14-week course.

In addition, it is recommended that both pre-service and in-service teachers become a research population, to describe how their cultural proficiency education is being used in educational environments. Evidence of pre-service teachers’ cultural proficiency education could be translated to their incorporation of culturally responsive teaching techniques to reach diverse and underrepresented student populations.

Finally, during the researcher’s preliminary work with this study and through student statements, it became clear that there are multiple organizations within the university system providing cultural proficiency education. Consequently, it is recommended that further research be conducted to identify cultural proficiency programming available to students at the university. It is also recommended that research be conducted to identify which organizations and programs are most prominently used by pre-service agriscience education students.

**Implications.** If continued research is conducted in cultural proficiency education, students’ critical consciousness related to cultural proficiency could be enhanced, leading to further testing and explanation of A Conceptual Framework for Preparing a Culturally Responsive Citizenry. Additionally, if changes are made to course assignments, students
will be encouraged to continue thinking about their progress on the CPC on a weekly basis, which has the potential to enhance their progress towards cultural proficiency.

If the studies for future research are conducted, additional evidence related to the conceptual framework will be highlighted in describing how understanding one’s own culture will translate into culturally responsive teaching, and ultimately, to a culturally responsive citizenry.

Summary of Describing Agriscience Pre-service Teachers’ Pre- and Post-Perceptions of Their Cultural Immersion Experiences During Teacher Preparation. The purpose of the second article was to describe the student perceptions of the immersion model for pre-service teacher preparation currently used in the professional block experience in the Agriscience Education program at The Ohio State University. Throughout the experiences of the Professional Block, students are educated for and immersed in several experiences that break away from a traditional pre-service degree program. Therefore, the second article was designed to examine the second portion of the conceptual framework over the course of one semester of pre-service teacher education and multiple immersion experiences. The study was guided by the following research objectives:

1. Describe the current immersion model used for pre-service agriscience teacher preparation at The Ohio State University.

2. Describe pre-service teachers’ pre-immersion perceptions of their comfort level with each immersion experience in the current immersion model.
3. Describe pre-service teachers’ post-immersion perceptions of their comfort level with each immersion experience in the current immersion model.

4. Describe pre-service teachers’ pre-immersion perceptions of knowledge needed for engaging in each immersion experience in the current immersion model.

5. Describe pre-service teachers’ post-immersion perceptions of knowledge needed for engaging in each immersion experience in the current immersion model.

6. Describe pre-service teachers’ suggested modifications to the current immersion model used for pre-service agriscience teacher preparation at The Ohio State University.

Population. The population for this study was pre-service teachers (N= 12) enrolled in the Agriscience Education (ASE) degree program at The Ohio State University.

Methodology. The research was a descriptive, qualitative case study research design, using pre- and post-reflections for each immersion experience as the primary source of data. Other sources of data collection included group interviews and personal interviews. All instruments provided opportunity for an in-depth examination of the pre-service teacher immersion experiences, and to explore the preparedness of pre-service education students to enter diverse educational settings.

Conclusions and discussions. The researcher concluded that the immersion experience model increased pre-service teachers’ comfort levels when engaging in each
setting. When reflecting on their comfort level after the immersion experience, pre-service teachers occasionally mentioned that their comfort level shifted depending on the agriscience content associated with the immersion experience. Although specific questions related to the study were not asked regarding comfort level with agriculture content knowledge, the researcher observed and heard the pre-service teachers indicate a need for more agriculture content to help them feel more comfortable in the future. Pre-service teachers also mentioned an overwhelming feeling prior to some of the immersion experiences, however, once they were engaged in the setting, they mentioned those feelings dissipated. The researcher observed that the pre-service teachers outwardly expressed their levels of stress, overwhelmed feelings, and nervousness throughout the immersion model.

The researcher concluded, across all immersion experiences in the model, pre-service teachers indicated a need for additional knowledge. The trend for additional knowledge was seen with both the pre- and post-reflection for each immersion setting in the model. As the researcher analyzed the prominent types of additional knowledge needed, as indicated by the pre-service teachers, the researcher noticed that prior to the experience, knowledge needed pertained to knowing the subject matter or the audience. After the experience, pre-service teachers tended to want additional knowledge relating to logistics (i.e., information about the Envirothon contest, trip details, expectations, and planning process).

Finally, the researcher concluded that pre-service teachers want the immersion model to include more time and more information. Whether it was time, information,
audience, or communication modifications, in all cases, the pre-service teachers were suggesting the immersion model be modified to include more time and more information for future professional blocks of pre-service teachers.

**Recommendations from this study.** The researcher recommends that the results of this study be shared with future groups of pre-service teachers prior to engaging in the immersion model. Knowing previous professional block students’ thoughts and feelings about the immersion experiences, could benefit future pre-service teachers as they are working through the model.

The researcher also recommends that faculty members, associated with the immersion model, closely evaluate the information given to the pre-service teachers at all phases of the immersion model. Related to this recommendation, the researcher suggests that faculty slow the pace of information delivery, to help prevent overloading that can detract from deep engagement with the content.

Finally, it is recommended that each immersion experience be evaluated to determine how each one can add value for meeting the objectives needed by pre-service teachers. Since the two longest immersion experiences were identified by the majority of the pre-service teachers as the most valuable, it is recommended to evaluate those two experiences more in-depth, to identify how those experiences could be used in framing the other experiences.

**Recommendations for future research.** It is recommended that the pre-service teachers, whom served as the population for this study, continue to be studied as a research population to further examine perceptions of the immersion model once they
begin teaching in secondary agriscience classrooms. With previous groups of pre-service teachers with whom the researcher has worked, it was observed that once they entered the classroom, they tended to have a changed appreciation of A Modern Philosophy of Immersion for Preparing Pre-service Teachers. Additionally, it is recommended that purposeful reflections be created for each immersion experience to specifically examine the pre-service teachers’ cultural critical consciousness, and movement toward incorporation of culturally responsive teaching techniques and strategies.

**Implications.** If the results of the study are shared with future Professional Block students, it may ease unnecessary feelings of frustrations and stress. Knowing that previous Professional Block students experienced similar feelings, but once they were engaged in the setting, the feelings tended to dissipate, can add comfort to the students. Through a thorough evaluation of the immersion model, future pre-service teachers will benefit more from each experience, improving their preparation to enter 21st century, global, learning environments. By following the population of pre-service teachers’ from the study into their first years of education, more in-depth perceptions related to the effectiveness of the immersion model can be attained and analyzed. Finally, if the pre-service teachers’ cultural critical consciousness is more thoroughly studied, researchers could begin to examine impacts that cultural critical consciousness has on culturally responsive teaching techniques.

**Summary of Pre-Service Agriscience Teacher Perceptions on Their Preparation to Teach Underrepresented and Diverse Populations.** The purpose of the third article was to describe pre-service, secondary, public school, agriscience teachers’
perceptions of their preparation to teach diverse underrepresented populations. Through a focus group protocol, the researcher began to identify perceptions that pre-service agriscience teachers had on culturally responsive teaching, which is the third component of A Conceptual Framework for Preparing Culturally Responsive Citizenry. The study was guided by the following research objectives:

1. To describe the types of cultural immersion programs undergraduate students in Agriscience Education are attending at The Ohio State University.

2. To describe pre-service teachers’ knowledge of diverse underrepresented populations in secondary, public school agriscience education learning environments.

3. To describe the ways in which pre-service secondary, public school agriscience teachers plan to recruit diverse underrepresented populations into their learning environments.

4. To describe how the pre-service agriscience teacher education program at The Ohio State University meets the needs of pre-service teachers in preparing them to work with diverse underrepresented populations.

**Population.** The population for this study was pre-service teachers (N= 12) enrolled in the Agriscience Education (ASE) degree program at The Ohio State University.

**Methodology.** The research design for this exploratory descriptive study was qualitative methodology using a self-contained focus group interview protocol. Transcribed focus group interviews were used as the primary source of data, while the
participants’ written answers were used as a secondary source of data. All responses were analyzed for emerging themes related to the research study objectives.

**Conclusions and discussions.** A trend that emerged from participants’ knowledge of cultural immersion programming at The Ohio State University, was that the sources of programming were the same as the programming in which students actually participated. Although coursework was the least used source of programming, it was the most discussed way in which students were participating in cultural immersion programming. The researcher concluded that because cultural immersion coursework was required, it became the most discussed source of participation in cultural programming, and consequently emerged as one of the top two themes for how students discovered programs.

Pre-service teachers tended to see diversity and underrepresentation as relating predominately to race. During responses to definitions and identification of diverse and underrepresented populations, participants focused on racial differences. The researcher concluded that participants were not examining diversity in its broadest sense. It was further concluded that pre-service teachers might not know how to identify underrepresented populations. When asked to identify or recruit underrepresented populations, participants made general statements related to making the Agriscience program appealing to all audiences. No comments were made indicating how participants would identify who the underrepresented populations were in their communities.

The researcher also concluded that pre-service teachers did not feel prepared to recruit into and work with diverse underrepresented populations in their learning
environments. Although comments were made related to preparation, none of the comments indicated the pre-service program prepared them for teaching diverse underrepresented populations in a secondary, public school, agriscience education program.

**Recommendations from this study.** It is recommended that diverse underrepresented populations be discussed more purposefully throughout the pre-service Agriscience Education immersion experiences at The Ohio State University. The discussions need to be tied back to the cultural proficiency course concept of understanding that there is always *my perspective, your perspective, and the missing perspective* (Marsh, Marsh, & Whittington, 2012), in all learning environments.

It is also recommended that a purposeful activity be created for pre-service teachers to have conversations with their cooperating educators about shifts in diverse underrepresented populations within their schools. Along with these conversations, it is further recommended that pre-service teachers conduct an analysis of a school’s student population, and compare the school population to the population of students enrolled in the agriscience education program.

**Recommendations for future studies.** Given the conclusions of the study, it is recommended that a more in-depth analysis of pre-service agriscience teachers’ knowledge of diverse underrepresented populations be conducted. The proctor of the focus group did not ask for comments from individuals who might have had different thoughts related to the pre-service teachers’ overall preparation to teach diverse underrepresented populations. It is recommended that a written question related to
preparation to teach diverse underrepresented populations be added to the research to gain insights from all pre-service teachers.

To identify effective culturally responsive teaching techniques, diverse underrepresented students need to become the population of a study to gain their insights. This future study could be used to describe the impact of culturally responsive teaching techniques when working with diverse underrepresented populations.

In addition, the researcher recommended that pre-service teachers be followed longitudinally in their beginning years of teaching to describe their behaviors in encouraging, teaching, and recruiting diverse underrepresented populations into their agriscience education programs. The described behaviors should be tracked to identify culturally responsive teaching techniques being used, and the impact those techniques have on creating a culturally responsive citizenry in 21st century, global, living, learning, and working environments.

**Implications.** If purposeful activities are created for encouraging conversations related to diverse underrepresented populations, in the broadest sense of the definition, students will become more familiar and more comfortable with applying cultural responsive teaching concepts in their agriscience education programs. Researchers have identified society as being more diverse (Eng, 2013; Ford et al., 2014; Gay, 2010a; Ladson-Billings, 2005; and Sleeter, 2001). If educators become more aware of and confident in applying culturally responsive teaching techniques, those behaviors will begin to be emulated by their students, helping to create a culturally responsive citizenry.
Toward a Culturally Responsive Citizenry

As can be seen in A Conceptual Framework for Preparing a Culturally Responsive Citizenry (see Figure 3), understanding one’s own culture is the first component in preparing a culturally proficient citizenry. The continuous cycle of immersion experiences and self-reflection, which assists in developing critical consciousness, provides the application component of the framework. Critical consciousness will contribute to one’s ability to utilize culturally responsive teaching, all in an effort to create a culturally responsive citizenry in 21st century, global, living, learning, and working environments.

Understanding one’s own culture. Gay (2001) theorized five essential elements of culturally responsive teaching, of which the first is a knowledge base about cultural diversity. In additional articles, Gay (2002a, 2002b, & 2013) further elaborated on the importance of first knowing one’s own culture. Ford et al. (2014) stated that when educators are aware of their own biases, attitudes, and assumptions “they are more likely to seek ways to minimize negative perceptions and be more inclusive in their practices” (p. 58).

In this study, it was concluded that through cultural proficiency coursework, provided to undergraduate students over 14-weeks of instruction, students were able to increase their cultural proficiency skills. Cultural proficiency is defined as a way of being that enables both individuals and organizations to respond effectively to people and cultures who differ from themselves (Marsh et al., 2012). However, as recommended, if the studies for future research related to cultural proficiency education and critical
consciousness are conducted, additional evidence related to the conceptual framework will be highlighted in describing how understanding one’s own culture will translate into culturally responsive teaching, and ultimately, into a culturally responsive citizenry.

**Continuous cycle of immersion experiences and self-reflection.** Upon understanding one’s own culture, the next series of processes proposed in the conceptual framework are a continuous cycle of immersion experiences and self-reflection. Based on the critical consciousness theory, this component of the conceptual framework includes necessary components of action and reflection (Freire, 1993). Critical consciousness is vital to cultural proficiency education because it allows individuals to identify their own biases, assumptions, and stereotypes (Pitner & Sakamoto, 2005). For the purposes of this study, immersion experiences differed depending on the described audience.

For example, in one case, the immersion experience was a service-learning project, followed by a reflection describing how the participant met the course requirements. In this immersion and reflection cycle, it was clear that the service-learning component of the course provided students with experiences that enhanced their movement along the CPC. Participants in this case were showing signs of critical consciousness by seeing differences between themselves and the individuals they were serving. It also became clear to the researcher that the students understood these differences, and were able to build stronger relationships with the diverse audiences while at their service sites.

However, the second audience was a group of pre-service teachers, who were required to complete several teaching immersion experiences as part of the pre-service
teacher preparation program. In this case, the reflection opportunities focused on the pre-service teachers’ perceptions of the immersion model currently being utilized for pre-service teacher preparation, which was not designed to lead to an understanding of the pre-service teachers’ critical consciousness. Thus, it was recommended that purposeful reflections be created for each immersion experience to specifically examine the pre-service teachers’ cultural critical consciousness, and their subsequent movement toward incorporating culturally responsive teaching techniques and strategies. If the pre-service teachers’ cultural critical consciousness is more thoroughly studied, researchers will begin to examine the impacts that cultural critical consciousness has on the adoption of culturally responsive teaching techniques.

**Culturally responsive teaching.** Gay (2002b) defined culturally responsive teaching as, “using the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively” (p. 106). Culturally responsive teaching requires cultural competency and the positive inclusion of cultural resources during the teaching and learning process (Gay, 2013). To truly implement, one must go beyond respecting others cultures; one should learn factual information about the groups being served. Cultural aspects in which educators should be aware include, “ethnic groups’ cultural values, traditions, communication, learning styles, contributions, and related patterns” (Gay, 2002b, p. 107).

However in this study, it was concluded that through the immersion and reflection cycle, pre-service teachers were not examining diversity in its broadest sense. It was further concluded that pre-service teachers might not know how to identify
underrepresented populations. When asked to identify or recruit underrepresented populations, participants made general statements related to making the Agriscience program appealing to all audiences. No comments were made indicating how participants would identify who the underrepresented populations were in their communities.

The researcher also concluded that pre-service teachers did not feel prepared to recruit into and work with diverse underrepresented populations in their learning environments. Although comments were made related to preparation, none of the comments indicated that the pre-service program prepared them for teaching diverse underrepresented populations in a secondary, public school, agriscience education program. Thus, it was recommended that diverse underrepresented populations be discussed more purposefully throughout the pre-service Agriscience Education immersion experiences at The Ohio State University. The discussions need to be tied back to the cultural proficiency course concept of understanding that there is always my perspective, your perspective, and the missing perspective, in all learning environments.

Culturally responsive citizenry. The researcher proposed that as teachers begin using culturally responsive teaching pedagogies, students will learn these behaviors, increasing the chance for a more culturally responsive citizenry in 21st century, global, living, learning, and working environments. Since this component of A Conceptual Framework for Preparing a Culturally Responsive Citizenry needs further examination, the researcher recommended that pre-service teachers be followed longitudinally in their beginning years of teaching, to describe their behaviors in encouraging, teaching, and recruiting diverse underrepresented populations into their agriscience education
programs. Additionally the researcher indicated that the described behaviors should be tracked for identifying the culturally responsive teaching techniques being used. Finally, the ultimate desired outcome of the proposed conceptual framework is describing the impact of using culturally responsive teaching techniques in creating a culturally responsive citizenry for 21st century, global, living, learning, and working environments.
References


c3QtbglZQ%3d%3d#AN=67126399&db=ehh


Appendix A: Participant Consent Forms
The Ohio State University Consent to Participate in Research

Study Title: Using Cultural Proficiency Education to Impact Students’ 21st Century Skills

Researcher: Carla Jagger and Dr. Susie Whittington

Sponsor: NA

This is a consent form for research participation. It contains important information about this study and what to expect if you decide to participate.

Your participation is voluntary.

Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate. If you decide to participate, you will be asked to sign this form and will receive a copy of the form.

Purpose:
You are being asked to participate in this research study because the researcher would like to describe undergraduate students’ movement along Cross’s Cultural Proficiency Continuum (CPC), using evidence provided through service-learning experiences, weekly journal entries, and in-class written reflection essays associated with a 14-week general education course.

Procedures/Tasks:
During the course of the semester, you will be asked to provide feedback in the form of service-learning experiences, weekly journal entries, in-class written reflection essays, and focus group protocols conducted during the 14-week course you are currently enrolled (COMLDR 3535).

Statement of Risks and Benefits:
Confidentiality is difficult to guarantee, and we understand that stresses of course work and service-learning workload may influence your willingness to complete data instruments. To help ensure confidentiality, numbers will be used on all student documents, none of which will be evaluated until after grades have been posted. If you feel uncomfortable answering a question you can simply pass with no penalty. Please be aware you might not see any direct benefits from this study, but know that your responses could help improve the education of future students.

Duration:
Feedback will be collected at various points before, during, and/or after regularly scheduled course sessions. Time needed to complete each form of feedback will vary anywhere from 10 minutes to one hour.
You may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you, and you will not lose any benefits to which you are otherwise entitled. Your decision will not affect your future relationship with The Ohio State University.

Confidentiality:
Efforts will be made to keep your study-related information confidential. For all material turned in you will use your class assigned number instead of your name. However, there may be circumstances where this information must be released. For example, personal information regarding your participation in this study may be disclosed if required by state law. Also, your records may be reviewed by the following groups (as applicable to the research):

- Office for Human Research Protections or other federal, state, or international regulatory agencies;
- The Ohio State University Institutional Review Board or Office of Responsible Research Practices;
- The sponsor, if any, or agency (including the Food and Drug Administration for FDA-regulated research) supporting the study.

Standard Internet Statement:
We will work to make sure that no one sees your survey responses without approval. But, because we are using the Internet, there is a chance that someone could access your online responses without permission. In some cases, this information could be used to identify you.

Participant Rights:
You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled. If you are a student or employee at Ohio State, your decision will not affect your grades or employment status.

If you choose to participate in the study, you may discontinue participation at any time without penalty or loss of benefits. By signing this form, you do not give up any personal legal rights you may have as a participant in this study.

An Institutional Review Board responsible for human subjects research at The Ohio State University reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

Focus Group Statement:
While we ask other group participants to keep the discussion in the group confidential, we cannot guarantee this. Please keep this in mind when choosing what to share in the group setting.

With your consent focus groups, personal and group interviews, as well as other oral forms of data collection will be recorded to help back up the written observations and
transcriptions. These recordings will be stored securely on a locked computer and will only be used for purposes related to this study.

**Contacts and Questions:**
For questions, concerns, or complaints about the study, or you feel you have been harmed as a result of study participation, you may contact Carla Jagger (jagger.16@osu.edu).

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.

**Signing the consent form**
I have read (or someone has read to me) this form and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study.

I am not giving up any legal rights by signing this form. I will be given a copy of this form.

<table>
<thead>
<tr>
<th>Printed name of subject</th>
<th>Signature of subject</th>
<th>AM/PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Date and time</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Printed name of person authorized to consent for subject (when applicable)</th>
<th>Signature of person authorized to consent for subject (when applicable)</th>
<th>AM/PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Date and time</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relationship to the subject</th>
<th>AM/PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Date and time</td>
</tr>
</tbody>
</table>

**Investigator/Research Staff**
I have explained the research to the participant or his/her representative before requesting the signature(s) above. There are no blanks in this document. A copy of this form has been given to the participant or his/her representative.

<table>
<thead>
<tr>
<th>Printed name of person obtaining consent</th>
<th>Signature of person obtaining consent</th>
<th>AM/PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Date and time</td>
</tr>
</tbody>
</table>
The Ohio State University Consent to Participate in Research

**Study Title:** Describing the Current Status of Pre-Service Educator Preparation in AgriScience at The Ohio State University

**Researcher:** Carla Jagger and Dr. Susie Whittington

**Sponsor:** NA

This is a consent form for research participation. It contains important information about this study and what to expect if you decide to participate.

Your participation is voluntary.

Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate. If you decide to participate, you will be asked to sign this form and will receive a copy of the form.

**Purpose:**
You are being asked to participate in this research study because the researcher would like to elicit your feedback regarding the current status of the pre-service AgriScience educator program. The purpose of this study is to examine and describe the current immersion model of pre-service educator preparation being utilized as part of the Professional Block experience prior to student teaching within the AgriScience Education Degree Program.

**Procedures/Tasks:**
During the course of the semester to will be asked to provide feedback in the form of surveys, reflections, and/or focus groups related to the immersion experiences conducted during the Professional Block.

**Statement of Risks and Benefits:**
Confidently is difficult to guarantee, and we understand that stresses of course work and teaching workload may influence your willingness to complete data instruments. To help ensure confidentiality, numbers will be used on all student documents, none of which will be evaluated until after grades have been posted. Additionally, in-service teachers will be only be identified with initials or an alias. If you feel uncomfortable answering a question you can simply pass with no penalty. Please be aware you might not see any direct benefits from this study, but know that your responses could help improve the training of future educators.

**Duration:**
Feedback will be collected at various points before, during, and/or after the immersion experiences held during the Professional Block (Fall Semester prior to Student Teaching).
Time needed to complete each form of feedback will vary anywhere from 10 minutes to one hour.
You may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you, and you will not lose any benefits to which you are otherwise entitled. Your decision will not affect your future relationship with The Ohio State University.

Confidentiality:
Efforts will be made to keep your study-related information confidential. For all material turned in you will use your class assigned number instead of your name. However, there may be circumstances where this information must be released. For example, personal information regarding your participation in this study may be disclosed if required by state law. Also, your records may be reviewed by the following groups (as applicable to the research):
- Office for Human Research Protections or other federal, state, or international regulatory agencies;
- The Ohio State University Institutional Review Board or Office of Responsible Research Practices;
- The sponsor, if any, or agency (including the Food and Drug Administration for FDA-regulated research) supporting the study.

Standard Internet Statement:
We will work to make sure that no one sees your survey responses without approval. But, because we are using the Internet, there is a chance that someone could access your online responses without permission. In some cases, this information could be used to identify you.

Participant Rights:
You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled. If you are a student or employee at Ohio State, your decision will not affect your grades or employment status.

If you choose to participate in the study, you may discontinue participation at any time without penalty or loss of benefits. By signing this form, you do not give up any personal legal rights you may have as a participant in this study.

An Institutional Review Board responsible for human subjects research at The Ohio State University reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

Focus Group Statement:
While we ask other group participants to keep the discussion in the group confidential, we cannot guarantee this. Please keep this in mind when choosing what to share in the group setting.
With your consent focus groups, personal and group interviews, as well as other oral forms of data collection will be recorded to help back up the written observations and transcriptions. These recordings will be stored securely on a locked computer and will only be used for purposes related to this study.

**Contacts and Questions:**
For questions, concerns, or complaints about the study, or you feel you have been harmed as a result of study participation, you may contact **Carla Jagger (jagger.16@osu.edu)**.

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.

**Signing the consent form**
I have read (or someone has read to me) this form and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study.

I am not giving up any legal rights by signing this form. I will be given a copy of this form.

<table>
<thead>
<tr>
<th>Printed name of subject</th>
<th>Signature of subject</th>
<th>AM/PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Date and time</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Printed name of person authorized to consent for subject (when applicable)</th>
<th>Signature of person authorized to consent for subject (when applicable)</th>
<th>AM/PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Date and time</td>
</tr>
</tbody>
</table>

**Investigator/Research Staff**
I have explained the research to the participant or his/her representative before requesting the signature(s) above. There are no blanks in this document. A copy of this form has been given to the participant or his/her representative.

<table>
<thead>
<tr>
<th>Printed name of person obtaining consent</th>
<th>Signature of person obtaining consent</th>
<th>AM/PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Date and time</td>
</tr>
</tbody>
</table>
Appendix B: Section 2A Instrumentation
3535 Focus Group Prompts

Process for Focus Group:

- Welcome students and thank them for participating in the focus group
- Introduce the purpose and objectives of the focus group, *Carla will also be using this for a reflection piece to the Service-Learning component of the course for her dissertation research*
- Participation in the focus group is strictly voluntary and will not have any impact on your grade for the course
- Present students with the Written Response sheet and give them at about 10 minutes to complete those questions
- Transition into the Verbal portion of the focus group, ask follow-up questions as needed to get full responses from participants
- Thank students for participating in the Focus Group and ask if they will be willing to come back for another Focus Group at the end of the semester to get their final reflections of their service projects and experiences

Purpose of the Focus Group:

To describe the service learning experiences and the ways in which these experiences are contributing to students’ movement on the cultural proficiency continuum.

Objectives of the Focus Group:

1. To describe the service learning experience
2. To describe students’ movement on the cultural proficiency continuum
3. To describe service leaning experiences that have contributed to movement on the cultural proficiency continuum
Verbal Focus Group Question Prompts:

1. Describe the environment and culture of your site.
2. What has your service-learning site taught you about yourself?
3. How could locating and setting up your site be made smoother for you?
4. How useful do you feel when you are at your site?
5. Describe your feelings as you prepare to leave for your service-learning site.
6. Describe an experience at your service-learning site that was unexpected or surprising.

Follow-up Questions if time allows:

1. What sense of accomplishment have you experienced so far?
2. What are the sources of weariness and cynicism involved with your service project and service in general?
3. How do you work through these feelings? What strategies do you or should you employ to combat cynicism and burnout?
3535 Focus Group Written Responses

Student Number:__________  Service Site:____________________

Numbers of visits made:_____

Please provide a written response to each of the questions below:

**Destructive:** See the difference, try to eliminate it

**Incapacity:** See the difference, make it wrong

**Blindness:** See the difference, act like you do not

**Pre-Competence:** See the difference, respond inadequately

**Competence:** See the difference, understand the difference that difference makes

**Proficiency:** See the difference, respond positively and affirmingly

1. Identify your position on the continuum at the beginning of the semester (indicate with a ★ above) and identify your position currently (indicate with a ✓ above). Describe how your service learning experience has contributed to movement or lack of movement on the continuum.

See back for additional question
2. Give an example of a specific time or experience you had at your site where you feel like you impacted someone or where someone has impacted you.
1. Reflecting on your experiences with this course, please identify your position currently on the cultural proficiency continuum (indicate with a ✓ above). Describe the events that have impacted your movement or lack of movement along the continuum.
2. How do you feel your experiences with this course would have been impacted if you were not required to complete service-learning hours?

3. Describe your overall feelings regarding your service-learning experiences.
4. Please draft a letter to your service-site, below you can find several question prompts to help you write this letter.
   a. To what extent did you accomplish your objectives? (i.e. describe what you did learn; what you understand; what new or increased competencies you developed; what new ideas, new issues, and/or new groups of people you were exposed to; what new ideas you developed; etc.)
   b. To what extent did you not accomplish your objectives? (i.e., describe the specific objective(s) you did not achieve and explain why; what would you do differently if you had to do it all again; etc.)
   c. Describe your most significant service accomplishment
   d. Provide a summary of the benefits from your service to yourself, to whom you serviced, and/or to the community.
### Weekly Journal Prompts 2016

**COMLDR 3535- Cultural Proficiency**

<table>
<thead>
<tr>
<th>Date Due</th>
<th>Page #</th>
<th>Critical Thinking Stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/21</td>
<td>9</td>
<td>Which will?</td>
</tr>
<tr>
<td>1/28</td>
<td>45</td>
<td>What is?</td>
</tr>
<tr>
<td>2/4</td>
<td>65</td>
<td>What can?</td>
</tr>
<tr>
<td>2/11</td>
<td>87</td>
<td>Why would?</td>
</tr>
<tr>
<td>2/18</td>
<td>107</td>
<td>What might?</td>
</tr>
<tr>
<td>2/25</td>
<td>121</td>
<td>Who will?</td>
</tr>
<tr>
<td>3/3</td>
<td>147</td>
<td>Why is?</td>
</tr>
<tr>
<td>3/10</td>
<td>169</td>
<td>Where might?</td>
</tr>
<tr>
<td>3/24</td>
<td>191</td>
<td>How will?</td>
</tr>
<tr>
<td>3/31</td>
<td>205</td>
<td>Who can?</td>
</tr>
<tr>
<td>4/14</td>
<td>231</td>
<td>When did?</td>
</tr>
<tr>
<td>4/21</td>
<td>249</td>
<td>Which would?</td>
</tr>
</tbody>
</table>
Appendix C: Section 2B Instrumentation
Reflection of Current Experience

Throughout the course of this semester you will be engaged in several immersion experiences. This reflection is to help us gage your current comfort level and level of experience working in each of these environments. Please answer each question to the best of your ability.

Directions: Each immersion experience is indicated with an italicized header, followed by three questions, one likert scale and two open-ended. Answer each question with your previous experiences in mind for each setting.

**Working in Non-Formal environments with varying audiences**

How comfortable do you feel when engaged in the described experience? Circle one:

<table>
<thead>
<tr>
<th>Not at All</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Very</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

What previous experience do you have with the described setting?

What would you consider your strengths when engaged in the described setting?

What additional information/background could you use to feel more comfortable in the described setting?
**Working with learners who have Special Needs (IEP’s/504 Plans/Gifted Students)**

How comfortable do you feel when engaged in the described experience?  **Circle one:**

<table>
<thead>
<tr>
<th>Not at All</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Very</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

What previous experience do you have with the described setting?

What would you consider your strengths when engaged in the described setting?

What additional information/background could you use to feel more comfortable in the described setting?

---

**Traveling and supervising students on overnight trips**

How comfortable do you feel when engaged in the described experience?  **Circle one:**

<table>
<thead>
<tr>
<th>Not at All</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Very</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

What previous experience do you have with the described setting?

What would you consider your strengths when engaged in the described setting?

What additional information/background could you use to feel more comfortable in the described setting?
**Incorporating Science content/concepts in Agriscience courses**

How comfortable do you feel when engaged in the described experience?  Circle one:

<table>
<thead>
<tr>
<th>Not at All</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Very</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

What previous experience do you have with the described setting?

What would you consider your strengths when engaged in the described setting?

What additional information/background could you use to feel more comfortable in the described setting?

---

**Working with students from diverse backgrounds and differing social identities**

How comfortable do you feel when engaged in the described experience?  Circle one:

<table>
<thead>
<tr>
<th>Not at All</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Very</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

What previous experience do you have with the described setting?

What would you consider your strengths when engaged in the described setting?

What additional information/background could you use to feel more comfortable in the described setting?
Post Experience Reflection

Directions: Throughout the course of this semester you will be engaged in several immersion experiences. The immersion experience you are reflecting on is indicated with an italicized header. This reflection is to help us gauge your comfort level and level of experience when working in each of these environments. Please answer each question openly and honestly.

**Immersion Title Identified for Each Experience From the Pre-Reflection**

Please, indicate your level of comfort when engaged in the described experience. Circle one:

<table>
<thead>
<tr>
<th>Not at All</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Very</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Describe your expressed level of comfort and what additional knowledge do you feel could improve your confidence in the described setting?

Describe any additional experience you feel could improve your confidence in the described setting?
Reflect on your preparation for the experience, what additional knowledge could have increased your level of comfort in the described setting?

How did the described setting impact your content delivery skills?
How did your preparation for the described setting impact your ability to identify content knowledge resources?

As you reflect on the immersion experience, what new knowledge did you gain at the conclusion that you did not have before?
Block Lunch #1 (Group Interview)

For each of the following experiences reflect and provide the two best things and one item that could be improved about the experience.

In-service week and start of school with cooperating educator:
  First positive:

  Second positive:

  Item that could improve:

Farm Science Review Experience:
  First positive:

  Second positive:

  Item that could improve:

FFA Camp experience:
  First positive:

  Second positive:

  Item that could improve:

What is your definition of a learning community, and how is/is not the block concept contributing to developing your definition?

Overall my experience in the block has been:
Block Lunch #2 (Group Interview)
For each of the following experiences reflect and provide the two best things and one item that could be improved about the experience.

Ag Mech CDE
   First positive:

   Second positive:

   Item that could improve:

Dublin Coffman science classroom experience:
   First positive:

   Second positive:

   Item that could improve:

National FFA Convention:
   First positive:

   Second positive:

   Item that could improve:

What is your definition of a learning community, and how is/is not the block concept contributing to developing your definition?

Overall my experience in the block has been
Block Lunch #3 (Group Interview)

For each of the following experiences reflect and provide the two best things and one item that could be improved about the experience.

Fort Hayes, Brookside elementary school Agriculture Literacy teaching
First positive:

Second positive:

Item that could improve:

Delaware Career Center Visit
First positive:

Second positive:

Item that could improve:

Nashville- Cultural Immersion Experience
First positive:

Second positive:

Item that could improve:

What is your definition of a learning community, and how is/is not the block concept contributing to developing your definition?

Overall my experience in the block has been:
ASE 5230: Exit Interview Guided Questions

Discuss areas of improvement regarding Daily Planning:

Questions pertaining to Final Teaching Lab done at the Cooperating School:

• How did your instruction engage students? How do you know? (edTPA Task 2)

• How did your instruction promote and elicit student thinking? How do you know? (edTPA Task 2)

• What changes would you make to better support student learning? Support with evidence from the lesson. (edTPA Task 2)

• Based on your analysis of the students' performance during the lesson, describe the next steps for developing the concepts of this lesson. (edTPA Task 3)
Questions pertaining to the Immersion Model conducted for Block:

• What activities/experiences related to the Block do you think have been the most valuable in preparing you to teach in an Agricultural Education Program? Why?

• What additional experiences/training do you feel would have been beneficial for preparing you to teach in an Agricultural Education Program? Why?

• What experiences would you have liked more time to engage in? Why/elaborate

• Describe why less time should be spent on any of the activities/experiences related to the Block. Specifically which ones and why?
Appendix D: Section 2C Instrumentation
Pre-service Cultural Competency Focus Group Prompts

Process for Focus Group:

*Opening statements and definition of terms completed by Dr. Whittington*

- Welcome students and thank them for participating in the focus group
- Participation in the focus group is strictly voluntary and will not have any impact on your grade for any course
- Introduce the purpose and objectives of the focus group, found below

Purpose of the Focus Group:
To describe the types of cultural immersion programs/events/classes undergraduate students in Agriscience Education are attending at The Ohio State University and how applications of that learning could impact their 21st century, global, Agriscience classrooms.

Objectives of the Focus Group:
1. To describe the types of cultural immersion programs/events/classes undergraduate students in Agriscience Education are attending at The Ohio State University
2. To describe the ways in which preservice educators plan to address and support diverse and underrepresented populations in their learning environments
3. To describe how the preservice program is or is not meeting the needs of the preservice educators to work with diverse and underrepresented populations

Pass out Written Response sheets to each participant and ask them to provide definitions for ‘diversity’ and ‘underrepresented populations’ at the top of the page

- Ask participants if anyone is willing to share their definition for ‘diversity’… allow time to share
  - Also ask participants to share their definition for ‘underrepresented populations’…all time to share

Continued on next page…
Follow-up with research studies definition of diversity: The concept of diversity encompasses acceptance and respect. It means understanding that each individual is unique, and recognizing our individual differences. These can be along the dimensions of race, ethnicity, gender, sexual orientation, socio-economic status, age, physical abilities, non-visible disabilities, religious beliefs, political beliefs, or other ideologies. It is exploration of these differences in a safe, positive, and nurturing environment.

- And the research studies definition of underrepresented populations: Underrepresented populations can be found by a close examination of the populations that exists in a given group, and then identifying the gaps that currently exist. Consequently, the definition of underrepresented populations differs based on each individual context/environment.

Dr. Whittington will leave the room and the proctor will take over
- After the definitions are established give participants another 10-15 minutes to complete the rest of the written questions
- Transition into the Verbal portion of the focus group, ask follow-up questions as needed to get full responses from participants
- After final questions have been asked, thank students for participating in the focus group and let them know they are dismissed

Verbal Focus Group Question Prompts:

If there doesn’t seem to be enough time for all questions, the priority questions are in italics, and participants do not need to share their written answers orally simply have them look at their answers and let them know the next line of questioning is related to what they wrote

Start by asking student to share about the the programs/events/classes they mentioned in the first few written questions (this could be anything from questions 1-4 from the written response sheet)

1. How have these diversity programs/events/classes, you discussed/wrote about, helped prepare you to serve diverse and/or underrepresented groups?

Continued on next page…
Have students share their written responses to question 5: ‘What types of diversity are you noticing in your cooperating schools?’

2. In what ways do you feel you can support these diverse populations?

3. *As student teachers how are you serving diverse populations in the classrooms?*

4. *How do you perceive you could recruit diverse populations of students in your future Agriscience programs?*

Have students share their written responses to question 6: ‘Who are the underrepresented populations at your cooperating school?’

5. What additional underrepresented populations have you noticed as part of the Ohio’s Agriscience programs?
   a. What specific populations come to mind?

6. *How do you perceive you could recruit underrepresented populations of students in your future Agriscience programs?*

7. *In what ways do you feel these underrepresented populations could be supported in an Agriscience program?*
   a. How can classroom instruction be used to support these populations?

Ending question make sure you leave time for:

8. *Describe how you feel the preservice program has or has not prepared you in supporting both diverse and underrepresented populations.*
Pre-service Educator Focus Group Written Prompts

Please provide your own definition for the following terms:

Diversity-

Underrepresented Populations-

STOP DO NOT PROCEED UNTIL INSTRUCTED

1. What opportunities are available at Ohio State University that relate to diversity/underrepresented populations?

2. How did you find out about these opportunities?
3. What programs/events/classes related to diversity have you attended at Ohio State University?

4. Why did you choose to attend these programs / events / classes?

5. What types of diversity are you noticing in your cooperating schools?

6. Who are the underrepresented populations at your cooperating school?