

The Evaluation of Multicultural Teaching Concerns among Pre-service Teachers in the South

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Abstract

This descriptive, causal-comparative study of pre-service agriculture education teachers (N = 438) enrolled in universities (n = 31) throughout the south sought to determine a difference in multicultural teaching concern. Variables in the study consisted of pre-service teachers with a with/without a multicultural education requirement, and pre-service teachers with a multicultural education requirement that is taught by an agriculture teacher educator. Results show a negligible effect size in teaching concern between pre-service teachers who have a multicultural education course requirement and pre-service teachers that do not. However, significant differences exist in teaching concern when an agricultural education teacher educator taught the multicultural education course. With the theory of Gay and Kirkland's (2003) theory of cultural critical consciousness and self-reflection, the researchers provided recommendations for teacher educators, practicing teachers, organizations affiliated with agricultural education, and pre-service teachers.

Keywords: cultural consciousness, teacher preparation, teaching concerns, diversity, multicultural education, pre-service teachers

The beginning premise of multicultural education was for ethnic minorities to adopt mainstream values and behaviors of the dominant culture in vocational skills, civic duties, and democratic ideals (Banks, 2008). This later evolved after research revealed students being exposed to only Western-European, middle-class, Christian cultures, values, patterns of thinking and history while other cultures were being ignored (Gibson, 2004). Today's mission of multicultural education encompasses all cultures being important and showcased within the educational system (Banks, 2006). With a foundation in pluralism and diversity, multicultural education is deeply rooted in the principles of democracy, equity, and justice (Banks, 1993; Cruz, 2010; Nieto, 1992, 1995). Based on the reality of the world becoming smaller and more diverse, multicultural education will continue to be an avenue to prepare global and competent citizens (Berry, 2011). However, a lack of multicultural education not only hinders students to cultural diversity, but it also hinders their preparation for being a diverse citizen in the future (Keengwe, 2010). Banks (2006) believed a failure to introduce students to diversity and multiculturalism

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causes a deficiency in students' ability to challenge stereotypes, broaden perspectives, and develop critical thinking skills.

The groundwork for promoting cultural diversity among secondary pre-service student teachers is through multicultural education. Since 1979, the National Council for Accreditation of Teacher Education (NCATE) set standards that require teacher education programs to incorporate multicultural perspectives and cultural diversity (NCATE, 2008). To meet these standards as well as standards set for teacher certification, each state, including Washington DC, showcases a diversity related requirement in some manner (Akiba, Cockrell, Simmons, Han, & Agarwal, 2010). However, of those states, Akiba, et al. (2010) further explained only three required a specific course in multicultural education and cultural diversity for reaching teacher accreditation.

Problems for creating proper multicultural understanding and teaching concerns reside from the lack of meaningful multicultural preparation, isolation of teachers among their own ethnic groups, and the possession of a professional preparation that excludes direct meaningful interaction with different cultures (Cannella & Reiff, 1994; Gibson, 2004). Universities are utilizing various methods to promote multicultural education and develop culturally competent teachers (Akiba, et al., 2010) with a stand-alone course serving as the solution. Sleeter (2001) posits that a single course alone, with objectives in multiculturalism and cultural sensitivity, will not solve for promoting multicultural education among pre-service teachers. However, a single course can result in accomplished objectives, positive awareness, and increased teaching concern when quality instruction and positive relationships between the teacher educator and the pre-service teachers are linked (Chizhik & Chizhik, 2005). When such relationships are established, communication between teacher and students can lead to increased teaching efficacy, student satisfaction, and positive learning climates (Banks, 2008). If positive relationships are not established, pre-service teachers can develop resistance in multicultural subject matter, which lead to a digression in growth (Gay & Kirkland, 2003; Gillespie, Ashbaugh, & DeFiore, 2002; Sleeter, 2001). Other results in poor relationships between teacher educator and pre-service teacher can be misguidance and false efficacy toward multicultural pedagogy (Gay & Kirkland, 2003), thus resulting in a lack of concern in teaching culturally different students.

The NCATE definition for multicultural education entails a focus beyond the scope of race and ethnicity to include gender, religion, class, and exceptionality aspects of culture (Canfield-Davis, Tenuto, Jain, & McMurtry, 2011). NCATE's definition of multicultural education and standards for preparing pre-service teachers for diverse learners serve as quality guidelines in preparing future teachers. Currently, secondary agricultural education teachers are prepared to serve women, learning differences, and socioeconomic diversity (Alston, English, Graham, Wakefield & Farbotko, 2010; Lamm, et al., 2011) but are not well versed in teaching ethnic minorities, gender identification, religious diversity, and special needs populations (Villegas & Lucas, 2002).

The demographics of agricultural education teachers do not connect with the variety of cultures, which limit a more integrated cultural society in the profession. While agricultural science is unique, the inability for educators to teach a diverse group of students serves as a barrier to the academic success of all students (Barrick, 1989; Kelsey, 2006; LaVergne, Jones, Larke, & Elbert, 2012). Vincent, Killingsworth, and Torres (2012) found a significant difference in the levels of concern for teaching students of diverse cultures between agricultural education pre-service teachers and pre-service teachers in core content areas. The issue of multicultural misunderstanding and concern deficiency is not only faced by agricultural education but other professions where experience in multiculturalism and diversity training is necessary within the workforce (Beaver & Hutchins, 2005; Gardner, 2005).

As the world rapidly advances, a demand for an agricultural education system that equips students with the tools and skills they need to succeed in a multicultural environment is necessary (Haygood, Baker, Hogg, & Bullock, 2010). Preparing individuals for such an environment entails sufficient exposure to diverse cultures in terms of general worldviews, day-to-day life activities,

and family differences (Gay, 2000). For secondary agriculture teachers to provide a positive education for all students, they too should be knowledgeable and concerned about diversity (LaVergne, et al., 2008; Vincent, Killingsworth, & Torres, 2010; Warren & Alston, 2007).

Conceptual and Theoretical Framework

The theoretical framework for this study was based on Geneva Gay and Kipchoge Kirkland's (2003) theory of cultural critical consciousness and self-reflection. Gay and Kirkland (2003) developed the concept in order to improve "the educational opportunities and outcomes for students of color" (p. 182). The idea behind cultural critical consciousness and self-reflection is to make learning more relevant for all students (Gay and Kirkland, 2003). The goal of cultural critical consciousness is to help pre-service teachers understand how to interact and teach culturally diverse students (Gay, 2000). Gay and Kirkland (2003) suggests beginning the process by identifying the potential obstacles, which can interfere. There are two types of obstacles teachers face: general and specific.

The first general obstacle pre-service teachers encounter is understanding the process of how to self-reflect holistically. Self-reflection sometimes becomes confused with describing and stating particular issues and beliefs rather than addressing the actual elements of the issue and belief (Stronge, 2002). To help this process, teacher education programs must incorporate the issues of various cultures into the recurring transformation process so the teacher can incorporate the reconstructed beliefs into their teaching practices (Stronge, 2002; Vavrus, 2002). Self-reflection is vital in addressing teaching concerns, specifically regarding issues in diversity. The second obstacle pre-service teachers face is the lack of opportunities for self-reflection (Gay & Kirkland, 2003). This leads to a lack of understanding self and others (Danielewicz, 2001). The last general obstacle Gay and Kirkland (2003) note is the difficulty pre-service teachers' face in realizing the multiple facets to the art of teaching.

Challenging and questioning one's beliefs is particularly crucial because of the relationships among teacher beliefs, expectations, and sense of efficacy for teaching diverse learners (Kyles & Olafson, 2008). Pre-service teachers can sometimes miss opportunities in gaining cultural critical consciousness and self-reflection skills when diverting attention away from a specific diversity issue. This can occur through justifications for the occurrence and redefining personal historical views rather than critically reflecting on it. The second specific obstacle pre-service teachers self-inflict is silence. Rather than engaging in conversation to gain valuable knowledge about other cultures, the pre-service teachers do not participate because of inexperience. The lack of participation leads to suppressing diversity issues in the classroom. Lastly, pre-service teachers do not understand the entire meaning and implications of reflecting on culturally diverse issues. These teachers become naïve in thinking that differences in cultures are no longer an issue which ignores students' cultures entirely (Gay & Kirkland, 2003).

In order to address these barriers, Gay and Kirkland (2003) begin with teacher education programs. The pre-service teachers' ability to converse with students about their inner thoughts, and feel comfortable in doing so, is essential to cultural critical consciousness and self-reflection. These conversations help pre-service teachers develop their own self-reflection process. The pre-service teachers learn how to do this from their teacher educators. When the teacher educators demonstrate cultural critical consciousness and self-reflection, the pre-service teachers observe the theory in action (Gay & Kirkland, 2003).

Early studies describing pre-service teachers' tendencies to 'blame' rather than recognize disparities in achievement are linked to systematic inequities (Haberman & Post, 1992; Sleeter, 1992). Gay and Kirkland (2003) described this strategy as avoidance because it shifts the focus from race, class, or gender to the individual attributes of students. When inequalities are no longer viewed as deficits, pre-service teachers are able to develop affirming attitudes toward students from culturally diverse backgrounds (Villegas & Lucas, 2002). Therefore, it is imperative that

during pre-service teacher training, students begin to understand their own cultural identities, social beliefs, and expectations of students from backgrounds culturally different from their own. Evaluating the concerns of preservice teachers prior to their student teaching experience provides teacher educators with valuable insight in preparing the next generation of teachers (Vincent, Killingsworth, & Torres, 2012).

In order for any professional to be cognizant, or conscious, of how their actions can influence those who are culturally different from themselves, they must first have a desire, or concern, to learn more about such actions. Research within various disciplines of education describes how teachers' concerns connect to effective teaching methodologies. Ladson-Billings (2000) provided an in-depth literature review of numerous institution approaches for obtaining cultural consciousness. Although the techniques were diverse, each was found to be successful because they stimulated the concern levels in the pre-service teacher. Outside the realm of education, medical schools have implemented a wide variety of teaching techniques to increase multicultural concerns, which have led to increased competencies and consciousness (Kumagai & Lypson, 2009).

Following theories from Locke (1988), and Fuller and Brown (1975), Patricia Marshall (1996a) concluded that four areas of multicultural teaching concern must be addressed in order to assess critical consciousness. According to Marshall (1996a), the four areas of concern are: a) concern for the students' familial background and how the family plays a role in the students culture; b) concern for how particular teaching strategies are effective or in-effective regarding the culturally different students' learning; c) concern regarding the actions and perceptions of the teacher effects the learning outcomes of culturally different students; and d) concern toward the effects that a school's rules and decisions have toward the learning environment of culturally different students. Marshall's concerns continue to serve as a foundation for addressing cultural consciousness and competence. Rehm and Allison (2006) discovered that concern levels among family and consumer science pre-service teachers improved when service learning experiences, teaching observations, and teaching practices in multi-diverse schools were increased.

Purpose and Research Questions

The purpose of this descriptive, casual-comparative study is to examine the level of concern among agricultural education pre-service teachers toward teaching students from different cultural backgrounds. The following research questions and hypotheses guided the study:

1. What are the descriptors of Southern Region agricultural education pre-service teachers, in terms of sex, race, home residence, anticipated teaching residence, multicultural major requirement, and multicultural course provided by agricultural education faculty?
2. What are the participants' multicultural teaching concerns (Overall, Familial/Group Knowledge, Strategies and Techniques, Cross-Cultural Competence, and School Bureaucracy)?
3. What are the multicultural teaching concerns (Overall, Familial/Group Knowledge, Strategies and Techniques, Cross-Cultural Competence, and School Bureaucracy) by multicultural education course requirements?

H_{01, 02, 03, 04, 05}: There is no statistically significant difference in the multicultural teaching concerns (Familial/Group Knowledge⁰¹, Strategies and Techniques⁰², Cross-Cultural Competence⁰³, School Bureaucracy⁰⁴, and Overall⁰⁵) between pre-service agriculture teachers who enroll in a multicultural education course taught by faculty in agricultural education and pre-service agriculture teachers that do not.

Methods and Procedures

A descriptive, causal-comparative survey design was used for this study. The researchers used a mail-in, bulk questionnaire to collect the multicultural teaching concerns of southern US pre-service agricultural education teachers toward teaching students who are culturally different from themselves. Participating institutions identified as southern were determined by the by-laws of the Southern Association of Agricultural Scientist, also referred to as SAAS (Gautreau, 2005). The population for this study was pre-service agricultural education teacher from southern U. S. institutions. These states were selected due to U. S. Census (2000) data reporting the largest growth in rural diversity has occurred within the selected region than any other region of the United States. Each pre-service teacher was entering their student teaching semester ($N = 438$). The researchers obtained a list of current southern agricultural education institutions ($N = 45$) from the 2011 SAAS university directory, the American Association for Agricultural Education (AAAE) directory, the National Association of Agricultural Educators (NAAE) and contact with department of education staff from represented states. Fourteen institutions ($n = 14$) did not participate due to a lack of student teachers during the academic school year, leaving students from the remaining schools ($n = 31$) as the sample. Since every institution distributed, collected, and returned all requested questionnaires, resulting in a 100% response rate, non-response error was not a problem.

Identified Directors of Undergraduate Studies as well as student teaching coordinators from each selected institution were contacted regarding the total number of upcoming student teachers. Each contacted director/coordinator provided an exact number and to whom the questionnaire should be sent for distribution. The researchers mailed the exact number of questionnaires, along with an already stamped/addressed envelope to each director/coordinator. In addition, the questionnaire was sent electronically in case an additional copy was needed or to address any disability needs. The director/coordinator, or the identified faculty member, distributed the questionnaire to the selected students. The majority of the students were enrolled in the same course, but the few who were not, were contacted to complete the questionnaire. Although this delayed the date for closing the survey, it also eliminated non-response error. The researchers continued discussion with each institution on a weekly basis until all questionnaires were received.

The researchers utilized the Multicultural Teaching Concerns Survey (MTCS) developed by Marshall (1996a). This questionnaire was composed of 34 Likert-type questions that assessed the concerns teachers have toward teaching multiple cultures that are different than themselves. Four constructs comprised the MTCS and included measures reflecting teaching concerns related to Familial/Group Knowledge (the culture among diverse students' families), Strategies and Techniques (effective teaching methods among different cultures), Cross-Cultural Competencies (teacher's knowledge, skills, and beliefs toward different cultures), and School Bureaucracy (identifying attitudes of intolerance toward diverse cultures within a school). Marshall (1996b) developed the MTCS, with modifications and further developments to Locke's (1988) multicultural awareness model, Gay and Kirkland's (2003) theory of cultural critical consciousness, and Fuller and Brown's (1975) three-stage teaching concern conceptualization: self, tasks, and impact. Lastly, characteristic questions were included in order to assist in understanding the population.

A panel of experts ($n = 6$) with a similar research focus involving statistical and/or multicultural education reviewed the MTCS for face and content validity. To determine the reliability of the MTCS, a pilot test was conducted with pre-service students admitted into teacher education at a university not included in the study ($n = 20$). Reliability estimates were determined using a Cronbach's alpha. The overall reliability estimate for the MTCS was .90. Reliability estimates were also determined for the four concern constructs: .73 for Familial/Group

Knowledge, .82 for Strategies and Techniques, .87 for Cross-cultural Competence, and .70 for School Bureaucracy. The results were acceptable, according to George and Mallery (2003).

Upon approval from the IRB, the researchers proceeded with the survey, utilizing, Dillman, Smyth and Christian's (2009) model for collection. The researchers used Statistical Package for the Social Sciences (SPSS) 19.0 to analyze data from the study.

Descriptive statistics, specifically frequencies, central tendencies, and independent *t*-test were used to analyze the multicultural teaching concern levels. Effect sizes were calculated using Cohen's (1988) *d* coefficients and interpreted by Thalheimer and Cook (2002): negligible effect size ($d < 0.15$), small effect size ($d < 0.40$), medium effect size ($d < 0.75$), large effect size ($d < 1.10$), very large effect size ($d < 1.45$), and huge effect size ($d > 1.45$). To establish a priori for statistical significance, an alpha level of .05 was established.

Considering the participants' demographic data were very similar to enrollment demographics in previous studies (Kantrovich, 2010), the researchers deem the sample were a representative time and place sample of the population (Gall, Borg, & Gall, 1996; Oliver and Hinkle, 1982). Thus, it is reasonable to argue that a well-established cohort of subjects in any given year is likely to be representative of a cohort of similar nature and location in near future years. Inferential analyses were applied to the data in an effort to predict the concern of similar cohort grouping of pre-service teachers within the participating institutions.

Results and Findings

The purpose of research objective one was to describe agricultural education pre-service teachers, from the southern region of the United States in terms of selected characteristics (sex, race, home residence, anticipated teaching residence, multicultural major requirement, and multicultural course provided by agricultural education faculty). Female agriculture pre-service teachers ($n = 249$; 56.85%) outnumbered the male agriculture pre-service teachers ($n = 189$; 43.15%). The majority of the pre-service teachers were predominately White ($n = 407$; 92.92%) followed by Hispanic/Latino ($n = 10$; 2.28%), Bi-racial ($n = 11$; 2.51%), African American ($n = 8$; 1.83%), and American Indian ($n = 2$; 0.46%). The majority ($n = 323$; 73.75%) considered their home residence in a rural setting followed by suburban ($n = 93$; 21.23%) and urban ($n = 22$; 5.02%). Over half of the pre-service teachers ($n = 244$; 54.71%) desire to teach in a rural setting followed by rural and suburban ($n = 81$; 18.49%), suburban ($n = 73$; 16.67%), rural, suburban, and urban ($n = 18$; 4.11%), urban ($n = 17$; 3.88%), and urban and suburban ($n = 5$; 1.14%). Of the study's population ($N = 438$), approximately two-thirds of the pre-service teachers ($n = 298$; 68.04%) were required by their major to enroll in a multicultural training course compared to the other pre-service teachers ($n = 140$; 31.96%) who were not required by their major to enroll in a multicultural training course. Of the pre-service teachers only 19.86% ($n = 87$) received the multicultural training by an agricultural education faculty member; whereas, the majority ($n = 351$; 80.14%) were taught outside of the agricultural education program. Table 1 provides the outlined selected characteristic details of the agriculture pre-service teachers included in the study.

Research objective two sought to describe the multicultural teaching concerns (Overall, Familial/Group Knowledge, Strategies and Techniques, Cross-Cultural Competence, and School Bureaucracy). The concern with the highest mean score was Cross-Cultural Competence ($M = 3.86$; $SD = 0.59$) followed by Strategies and Techniques ($M = 3.78$; $SD = 0.60$), Familial/Group Knowledge ($M = 3.59$; $SD = 0.69$), and School Bureaucracy ($M = 3.26$; $SD = 0.83$). The overall concern received a mean score of 3.64 ($SD = 0.55$).

Table 1

Descriptive Characteristics of Agriculture Pre-service Teachers (N = 438)

Characteristic	<i>f</i>	%
Sex		
Male	189	43.15
Female	249	56.85
Race		
Caucasian	407	92.92
African American	8	1.83
Hispanic/Latino	10	2.28
American Indian	2	0.46
Bi-racial	11	2.51
Home Residence		
Rural	323	73.75
Suburban	93	21.23
Urban	22	5.02
Desired Teaching Residence		
Rural	244	55.71
Suburban	73	16.67
Urban	17	3.88
Rural & Suburban	81	18.49
Urban & Suburban	5	1.14
Rural, Suburban, & Urban	18	4.11
Multicultural Major Requirement		
Yes	298	68.04
No	140	31.96
Multicultural Course Provided by Ag Ed Faculty		
Yes	87	19.86
No	351	80.14

Table 2

Overall, Familial/Group Knowledge; Strategies and Techniques; Cross-Cultural Competence; and School Bureaucracy Mean Scores (N = 438)

Teaching Concern Variables	<i>M</i> ^a	<i>SD</i>	Range
Cross-Cultural Competence	3.86	0.59	1.67 - 5.00
Strategies and Techniques	3.78	0.60	1.79 - 5.00
Familial/Group Knowledge	3.59	0.69	1.00 - 5.00
School Bureaucracy	3.26	0.83	1.10 - 5.00
Overall	3.64	0.55	1.71 - 5.00

^aScale based on: 1 = Extremely Unimportant Concern to 5 = Extremely Important Concern

Objective three sought to describe the multicultural teaching concerns (Familial/Group Knowledge, Strategies and Techniques, Cross-Cultural Competence, School Bureaucracy and Overall) by multicultural education course requirements. In the concern construct area of Familial/Group Knowledge concern, pre-service teachers with a multicultural education course requirement reported a mean score of 3.60 (*SD* = 0.67) while those without a course requirement received a mean score of 3.56 (*SD* = 0.73). The Strategies and Techniques concern yielded a

mean score of 3.75 ($SD = 0.58$) for students with a multicultural education course requirement and a mean score of 3.82 ($SD = 0.63$) for students who did not have a course requirement. For the construct of Cross-Cultural Competence, students with a multicultural education course requirement had a mean score of 3.90 ($SD = 0.58$), while students without the requirement had a mean score of 3.88 ($SD = 0.61$). The construct area of School Bureaucracy concern yielded a mean score of 3.30 ($SD = 0.80$) for pre-service teachers with a multicultural education course requirement and a mean score of 3.21 ($SD = 0.87$) for no course requirement. In teaching multicultural students, pre-service teachers without a multicultural education requirement are overall more concerned ($M = 3.65$; $SD = 0.60$) than male pre-service teachers that do receive a requirement ($M = 3.63$; $SD = 0.52$). See table 3. Considering no significant difference was found in any of the construct areas, effect sizes were not reported.

Table 3

Two-Tailed Independent *t*-test on Level of Teaching Concern by Multicultural Education Course Requirement ($N = 438$)

Variables	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>
Overall				
Course Requirement	298	3.63	0.52	0.30
No Course Requirement	140	3.65	0.60	
Familial/Group Knowledge				
Course Requirement	298	3.60	0.67	0.34
No Course Requirement	140	3.56	0.73	
Strategies and Techniques				
Course Requirement	298	3.75	0.58	0.96
No Course Requirement	140	3.82	0.63	
Cross-Cultural Competence				
Course Requirement	298	3.90	0.58	0.41
No Course Requirement	140	3.88	0.61	
School Bureaucracy				
Course Requirement	298	3.30	0.80	0.72
No Course Requirement	140	3.21	0.87	

* $p \leq .05$

Hypotheses 01, 02, 03, 04, and 05 predicts no statistically significant difference in multicultural teaching concerns (Familial/Group Knowledge⁰¹, Strategies and Techniques⁰², Cross-Cultural Competence⁰³, School Bureaucracy⁰⁴, and Overall⁰⁵) between pre-service teachers who enroll in a multicultural education course taught by faculty in agricultural education and pre-service teachers that do not. A two-tailed, independent *t*-test was used to test the hypotheses. Pre-service teachers who enrolled in a multicultural education course taught by agricultural education faculty members ($M = 3.98$; $SD = .44$) responded higher than pre-service teachers that do not ($M = 3.70$; $SD = .61$) in the construct concern area of Strategies and Techniques (see Table 4). The difference was significant ($p \leq .05$) with a medium effect size ($d = 0.41$). Equal variance was not assumed, yielding a significant *t*-value of 2.30.

As noted in the concern construct, Cross-Cultural Competence, pre-service agriculture teachers enrolled in a multicultural education course taught by faculty in agricultural education received a mean score of 4.06 ($SD = 0.47$) which is significantly higher than their colleagues who did not ($M = 3.32$; $SD = 0.61$). The difference had a large effect size ($d = 1.28$), therefore, for the construct area of Cross Cultural Competence, equal variance was assumed with a significant *t*-value of 4.30 ($p \leq .05$).

In teaching multicultural students, pre-service agriculture teachers who enroll in a multicultural education course taught by an agricultural education faculty member are overall more concerned ($M = 3.96$; $SD = 0.45$) than pre-service teachers that do not ($M = 3.37$; $SD = 0.57$) (see Table 4). An independent sample (two-tailed) t – test revealed a large effect size ($d = 1.14$) in overall multicultural teaching concern levels. Equal variance was assumed, resulting in a significant t -value ($t = 3.49$; $p \leq .05$).

Table 4

Two-Tailed Independent t -test on Level of Teaching Concern by an Agricultural Education Faculty Taught Multicultural Education Course ($N = 438$)

Variables	<i>N</i>	<i>M</i>	<i>SD</i>	<i>T</i>	Cohen's <i>d</i>	<i>p</i>
Familial/Group Knowledge ⁰¹						
Ag Ed	87	3.68	0.65	1.35		0.18
No Ag Ed	351	3.56	0.70			
Strategies and Techniques ⁰²					Medium	
Ag Ed	87	3.92	0.44	2.30	0.41	0.02*
No Ag Ed	351	3.70	0.61			
Cross-Cultural Competence ⁰³					Large	
Ag Ed	87	4.06	0.47	4.30	1.28	0.01*
No Ag Ed	351	3.32	0.61			
School Bureaucracy ⁰⁴						
Ag Ed	87	3.39	0.76	1.61		0.11
No Ag Ed	351	3.22	0.84			
Overall ⁰⁵					Large	
Ag Ed	87	3.99	0.40	3.32	.81	0.03*
No Ag Ed	351	3.59	0.57			

* $p \leq .05$

Significant differences were found in the independent t -test on the construct areas of Strategies and Techniques, Cross-Cultural Competence, and the overall multicultural teaching concern. Null hypotheses 02, 03, and 05 was rejected in favor of the alternative hypotheses, which state differences do exist in the constructs of concern between pre-service teachers who enroll in a multicultural education course taught by faculty in agricultural education and pre-service teachers that are not. For the constructs of Familial/Group Knowledge and School Bureaucracy concerns, a significant difference was not found ($p \leq .05$). Although pre-service agriculture teachers enrolled in a multicultural education course taught by agricultural education faculty received a higher mean score in each of the constructs, null hypotheses 01 and 04 failed to reject.

Conclusions, Implications, and Recommendations

This study is feedback provided by pre-service teachers, a semester prior to student teaching at universities throughout the south, as defined by SAAS. Of the pre-service teacher participants, the majority were female, Caucasians, and claimed a rural home residence. This reflects Kantrovich's (2010) supply and demand study for agricultural education. In addition, the majority of the students desire to teach in a school that is located in a rural area of the United States. The majority of pre-service teachers reported that a multicultural education course is required in their academic major. Although the majority of the pre-service agriculture teachers are

required to enroll in a multicultural education course, less than one out of every five receive the instruction from a faculty member in agricultural education.

Overall, the pre-service teachers reported a higher level of concern toward their cross-cultural competence and their strategies and techniques. Marshall (1996a) defines cross-cultural competence as the awareness, knowledge, and skill to work, manage, and educate students who are culturally different from the teacher. Since the participants completed the questionnaire a semester prior to student teaching, it implies that skills, strategies, and techniques to overall teaching concerns were being addressed. Whether the courses themselves addressed multicultural teaching concerns is a question for future research.

Identifying teacher concerns in the areas of multicultural education is necessary for the growth of teacher training (Banks, 2005). According to the findings, a difference in the multicultural teaching concern does not occur with a single multicultural education course requirement. In fact, results showed a minimal difference between pre-service agriculture teachers who are required to take a multicultural education course for teacher certification and those students who did not. Zollers, Ramanathan, and Yu (1999) believed that multicultural education is necessary in all teacher preparatory courses and teacher educators of specific disciplines should provide methods of connecting the principals of multicultural education into their venue. It is recommended that agriculture teacher educators seek and incorporate methods in pre-service teacher coursework that increases the level of multicultural teaching concerns. In addition, the researchers suggest that agriculture teacher educators collaborate with instructors of multicultural education and create techniques that connect the content to agricultural education. Professional Development within the southern region of AAEA that addresses techniques for coursework integration of multicultural education could encourage cultural consciousness among pre-service teachers.

The findings from objective three imply that the mandatory course requirement is not connecting relevancy to the pre-service teachers, which leads to disconnect from the importance (Gibson, 2004). In relation to the theory, cultural critical consciousness occurs through self-reflection. The researchers understand that this study does not imply that reflection is not being utilized; however, Gay and Kirkland (2003) posits that pre-service teachers' reflections are stating particular issues and beliefs rather than addressing the actual elements of the issue. Therefore, it is recommended that teacher educators of multicultural courses prepare pre-service teachers to reflect in a manner that encourages cultural critical consciousness and addresses general and specific obstacles.

The researchers determined that a single mandatory course in multicultural education does not affect the overall multicultural teaching concerns of secondary agriculture teacher, unless taught by an agriculture teacher educator. A significant difference exists among students who are enrolled in a course taught by an agriculture teacher educator and one that is not in the construct areas of Strategies & Techniques, Cross-Cultural Competence, and the overall multicultural teaching concern. Sue and Sue (2008) explained that Cross-Cultural Competence occurs after reflection on the awareness of self-biases increased multicultural knowledge, and development of skill performance in teaching a multicultural audience. In this essence, pre-service teachers enrolled in a multicultural education course taught by an agriculture teacher educator were further in their development of cultural critical consciousness than their colleagues were. The researchers acknowledge that resources could hinder the creation of such a course and, therefore, recommend that multicultural education be infused throughout the teacher preparatory courses (Sleeter, 2001).

For the creation of a multicultural education course or for content infusion, agriculture teacher educators are encouraged to expand their base knowledge in multiculturalism prior to the implementation of such creation. Such preparation may occur with collaboration of agricultural education faculty from other institutions that are proficient in such content area. Furthermore, the participating agricultural education programs in this study whom are providing a multicultural

education course should consider expanding their course for distance learners. A recommendation of such could serve beneficial to programs limited in resources for the creation of a multicultural education course.

The researchers found the construct areas of Strategies and Techniques and Cross Cultural Competence to be significant. The Strategies and Techniques construct exemplifies Gay and Kirkland's (2003) Cultural Critical Consciousness Theory. It also suggests that when agricultural educators teach the multicultural education course, the pre-service teachers are practicing teaching for culturally diverse students. Therefore, it is recommended that pre-service teachers seek to gain an understanding of strategies and techniques for students from diverse backgrounds. The Cross Cultural Competence construct supports Cruz's (2010) finding that concern leads to an understanding of knowledge and the complex dynamics of education. It is recommended that agricultural educators seek methods to increase the pre-service teachers' Cross Cultural Competence. By utilizing the work of Ladson-Billings (2000) and Banks (2008), teacher educators can find techniques for enhancing cultural consciousness within the teacher education program.

The construct areas of Familial/Group Knowledge and School Bureaucracy were not determined to be significant. With the participants lacking a course of practical application, also known as student teaching, research supports that a multicultural education course will not change a pre-service teachers concern level about school bureaucracy and familial/group dynamics (Marshall, 1996b; Fuller & Brown, 1975). Therefore, it is recommended that agricultural education pre-service teachers receive early exposure to identifying how the bureaucracy of schools may cater to dominant cultures. In addition, pre-service teachers need exposure/immersion in families and/or groups that represent a minority culture. This recommendation can be obtained through current field experience courses in agricultural education teacher preparatory programs.

The purpose of pre-service teachers obtaining an understanding in multicultural education expands beyond the scope of urban and suburban [agricultural] education and into every school in rural America (Banks, 2006; Berry, 2011). For agricultural education to adequately prepare pre-service teachers that will stimulate concern, it is recommended that teacher educators associated with SAAS develop a special interest group (SIG) devoted to developing a culturally competent profession. In addition, future supply and demand studies, similar to that of Kantrovich (2010) should not be limited to the scope of race and sex, but also include gender, ethnicity, religion, and social cultures. Such research assists the agricultural educators to recruit, service, and research beyond the scope of a homogenous profession (Alston, et al., 2010) and into one that exemplifies cultural critical consciousness (Gay & Kirkland, 2003).

Recommendations for Future Research

The researchers realize that this study is limited to the scope of agriculture pre-service teachers who attended a teacher preparatory program in the South. Therefore, further studies in the capacity of this one is necessary in order to understand the level of concern agricultural educators and stakeholders have toward cultures that represent the minority. If concerns exist, change can occur with the individual, the professional, the community, and society (Sue & Sue, 2008). Research on the area of multicultural teaching concern should exist among practicing secondary agriculture educators, agriculture teacher educators, and pre-service agriculture teachers in the North Central and Western regions. In addition, an examination of all agricultural education teacher preparatory course syllabi, curriculum, and assignments would benefit the profession in identifying areas of best practices.

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