

A DESCRIPTIVE STUDY ON THE PREPARATION OF STUDENT TEACHERS  
TO WORK WITH DIVERSE POPULATIONS

Submitted by

Dr. Dexter Wakefield  
Assistant Professor  
[wakephd@siu.edu](mailto:wakephd@siu.edu)

Southern Illinois University Carbondale  
Department of Plant, Soil and Agricultural Systems  
PSAS, MC 4414  
Carbondale, IL 62901-4414  
Phone: (618) 453-6984  
Fax: (618) 536-7734

Dr. B. Allen Talbert  
Associate Professor  
[btalbert@purdue.edu](mailto:btalbert@purdue.edu)  
Purdue University

615 West State Street  
West Lafayette, IN 47907-2053  
Phone: (765) 494-8422

Dr. Seburn Pense  
Assistant Professor  
[sebpense@siu.edu](mailto:sebpense@siu.edu)

Southern Illinois University Carbondale  
PSAS, MC 4414  
Carbondale, IL 62901-4414  
Phone: (618) 453-2467

# A DESCRIPTIVE STUDY ON THE PREPARATION OF STUDENT TEACHERS TO WORK WITH DIVERSE POPULATIONS

## **Abstract**

*If the agricultural education profession is to attract a more diverse audience to pursue agriculture as a viable career path, the secondary teacher education pathway must be reevaluated. The purpose of the study was to describe the degree to which the involved agricultural education programs prepared their students to work with diverse populations. The study also examined attitudes and beliefs of the student teachers regarding diversity. The results of the study suggest that this group of student teachers was not adequately exposed to diversity neither in their student teaching experience nor in their university preparation. To assist the national agricultural education goal of diversity in agriculture, a national study should be conducted to determine if there is a correlation between minority enrollment in agriculture and the race and gender of the teacher educator.*

## Introduction/Conceptual Framework

Diversity among public school students is increasing while at the same time diversity among teachers is not (Banks et al., 2005). Within agricultural education gender diversity is increasing, with female teachers comprising 22% of the total; however, ethnic diversity is not, as Whites comprise 94% of agriculture teachers (Camp, Broyles, & Skelton, 2002). Agricultural education has a stated commitment to diversity (National Council for Agricultural Education, 1989, 1999) while the National FFA Organization has “improve FFA’s performance as a diverse organization” (National FFA Organization, 2005) as one of nine key strategic priority areas for the years 2001-2005. Diversity is also important for teacher education in agricultural education. The National Council for Accreditation of Teacher Education (NCATE) includes diversity as one of the standards it uses to evaluate teacher education units. Teacher education candidates must have experiences “working with diverse higher education and school faculty, diverse candidates, and diverse students in P–12 schools” (NCATE, 2002, p. 10).

In 1991, the Population Diversity Work Group of the American Association for Agricultural Education (AAAE) surveyed university agricultural education departments in the United States (Bowen et al., 1991) to determine what strategies were being used to recruit and retain students from diverse populations. In 1993, the AAAE Population Diversity Work Group published a monograph titled *Enhancing Diversity in Agricultural Education* (Bowen, 1993). The articles included topics on impediments to diversity, model programs for diversity, and faculty mentoring programs. At the 1995 AAAE Population Diversity Work Group meeting in Denver, Colorado the group discussed developing a second monograph on mentoring, recruitment, retention, and placement (L. Whent, personal communication, August 23, 1996). Although a second monograph was never published, Wakefield and Talbert (1999) conducted an exploratory study to develop a baseline regarding diversity preparation for students and faculty in agricultural education. They found that faculty preparation was voluntary, dependent upon the institution and the individual. Two-thirds of teacher education students were required to take a course in diversity, while diversity topics were infused into the agricultural education courses at almost all teacher education programs. The Wakefield and Talbert study; however, explored these issues from the perspective of teacher educators rather than preservice teachers.

Woods and Moore (2002) conducted a review of the agricultural education literature regarding diversity for the 10-year period of 1992-2001. They found 59 *Journal of Agricultural Education* articles, *NACTA Journal* articles, National Agricultural Education Research Conference/Meeting papers, and dissertations (through Dissertation Abstracts International) published on diversity. They concluded that the profession regards diversity as beneficial, but that further research is needed to support programmatic efforts. Luft (1996) showed that secondary agricultural teachers can do a better job of promoting cultural diversity in their

programs and recommended that pre-service teacher education students should be required to take courses focusing on teaching in diverse environments. Likewise, Wakefield and Talbert (1999) found that agricultural education programs are not adequately preparing student teachers to work in diverse environments.

### Theoretical Framework

America's classrooms have always been diverse in terms of ethnicity, socio-economic status, gender, and other variables. What has changed in recent years is that teachers and others can no longer ignore these differences, and in fact are being challenged to embrace pluralism and multiculturalism (Greene, 1995). Grant (1978) stated one purpose of education was to prepare individuals to live and work in an ethnically and culturally diverse society. The United States is more diverse than any other nation in the world (Koppelman & Goodhart, 2005). Public school teachers, including agricultural education teachers, must react to this diversity. It is important to understand how the predominantly White teaching force in agricultural education approaches diversity.

Sleeter and Grant (1994) described five theoretical approaches to multicultural education. Assimilation is the first approach. Teachers who follow this approach believe we should all be culturally similar as “Americans” and strive to make all students capable of being productive citizens and fitting into the dominant culture. These teachers ignore differences or actively work to eliminate them. The second approach, human relations, values each student as an individual, works to eliminate stereotypes, and promotes tolerance. Teachers and schools following this approach actively promote the cultural enrichment of all students and the building up of all students’ self-esteem. The ethnic studies approach focuses on an ethnic group such as Jewish

Studies or African American Studies. Preservice students may take courses in these areas, but ethnic studies are typically not seen on the high school level.

The last two approaches, integrated multicultural education and social reconstructionist, focus on changing individuals, society, and the school system. Integrated multicultural education seeks to promote the equality of all through pluralism. The social reconstructionist approach extends the previous approach and aims to teach students how to change society. Alleviating oppression and equalizing power are key outcomes of the social reconstructionist approach.

#### Purpose/Objectives

The purpose of the study was to describe the degree to which the involved agricultural education programs prepared their students to work with diverse populations. The study also examined the perceptions of selected student teachers toward diversity. We theorized that their perceptions would influence the approach to multicultural education (Sleeter & Grant, 1994) they use as teachers. Specific objectives of the study were:

1. Describe demographic data of selected student teachers that may impact their perceptions toward diversity.
2. Describe university preparation in diversity of selected student teachers.
3. Describe the perceptions of selected student teachers about cultural experiences that impact diversity.

#### Methodology

The study was a census using a mailed questionnaire to the 25 student teachers in the 2003-2004 academic year in one Midwestern state from four teaching training institutions. After four follow-ups, 12 responded resulting in a 48% response rate, with at least two respondents

from each institution. The Tailored Design Method (Dillman, 2000; Salant & Dillman, 1994) for enhancing response rate was utilized. The study had Institutional Review Board approval for research conducted on human subjects. The researchers mailed the first questionnaire at the beginning of the semester. Data collection lasted approximately six months and was terminated at that point to reduce the maturation threat to validity.

The survey consisted of a self-administered questionnaire. The questionnaire was modified from the one used in the Wakefield and Talbert (1999) study. Questions were reworded to reflect the change from teacher educators to student teachers as respondents. A 31-question section (Bailey, 1999) was added to capture the perceptions of student teachers regarding cultural experiences and diversity. The cultural experiences section used a 5-point Likert-type scale ranging from strongly disagree to strongly agree. Other sections of the questionnaire asked respondents to provide demographic data and respond to yes/no questions regarding their university preparation in diversity.

Exploratory factor analysis using principal components with varimax rotation was used to determine if the 31 questions could be reduced to constructs. Although the population size was small (N=25), this could provide the first step in measuring constructs that need to be replicated and further tested with larger sample sizes and more diverse populations. Three factors comprising 25 of the questions loaded with eigenvalues greater than 2.0. The constructs are presented in Table 1. Cronbach's alpha for the three constructs were .91 for Teaching, .86 for University Experiences, and .83 for Cultural Comfort.

Table 1  
*Factor Analysis of Student Teacher Perceptions Regarding Diversity*

Construct	Statements
Teaching	I would feel comfortable teaching classes of 100% students that are

---

	<p>not of my race.</p> <p>Instructors of color are treated equally to White instructors.</p> <p>I feel I am qualified to teach students of all races.</p> <p>I am comfortable being the only member of my race in a group.</p> <p>Black students feel comfortable being the only student of color in a group.</p> <p>I treat everyone the same regardless of their race.</p> <p>I have had contact with minorities through my FFA experiences.</p> <p>All students are created equally regardless of their race.</p>
University Experiences	<p>Field experience courses have given me the opportunity to teach individuals of other cultures.</p> <p>My instructors throughout the university explain the importance of knowing about other cultures.</p> <p>Black and White students are always treated equally by most teachers.</p> <p>My university has done a good job promoting diversity.</p> <p>I can tell you more about the NFA than just the merging date [with the FFA].</p> <p>I believe the FFA does a good job recruiting minorities.</p> <p>Diversity was a major reason why I chose the university I attended.</p> <p>I would have felt more comfortable if all of my agriculture professors were of a different race.</p> <p>My city/county was very diverse.</p> <p>I have utilized many opportunities to work with individuals unlike myself.</p>
Cultural Comfort	<p>Culturally diverse experiences are important to succeed as a teacher.</p> <p>I consider knowing about other cultures very important to being a good teacher.</p> <p>I feel comfortable going to faculty of another race.</p> <p>My experiences since going to college have led me to become more understanding of racial differences.</p> <p>I feel comfortable talking to individuals from other races.</p> <p>My university should include at least one class on diversity.</p> <p>It is very important to interact with people of all races.</p>

---

Data were analyzed using descriptive statistics. The findings, conclusions, and recommendations of this article apply only to the population of respondents and should not be generalized to other populations.

## Findings

Basic demographics for the respondents are presented in Table 2. All of the student teachers classified themselves as White. Four of the 12 reported their home high school as 100% White and six reported it as 97 to 99% White. One student graduated from a high school that was 20% Hispanic and one graduated from a high school that was 4% African American and 6% Hispanic. Three-fourths of the student teachers were from a rural area with the remaining one-fourth from a suburban area. No student teachers were from an urban area. Almost all of the students had no direct experiences with people from minority groups before attending college.

Table 3 shows the student teachers responses regarding university preparation toward diversity. One-half of the student teachers were required to take a diversity course, one-half had optional diversity courses they could take, and less than one-half had courses that used supplemental texts focusing on cultural differences. Three-fourths of the student teachers reported that diversity topics were infused into their agricultural education courses; however, only one-third reported that their field experiences were in schools with large percentages of students from minority groups. Greater than 90% of the student teachers believed that university supervisors should not be well-versed in diversity. However, one-half did not believe diversity issues should be a major topic in the methods course and one-half did not feel fully prepared for the racial climate in education.

Table 2  
*Demographics of Selected Student Teachers*

Category	Response	n	%
Student Teacher Ethnicity	White	12	100.0
Gender	Male	7	58.3
	Female	5	41.7
Home Community Type	Rural	9	75.0



	Suburban	3	25.0
	Urban	0	0.0
Experiences with minorities prior to college <sup>a</sup>	None	11	91.7
	Casual	2	16.7
	Moderate diversity in hometown	0	0.0
	Very diverse home town	0	0.0
	Only through parents or media	1	8.3
Experiences with minorities in college <sup>a</sup>	No interaction outside of class	0	0.0
	Casual	2	16.7
	Moderate interaction outside of class	8	66.7
	Many interactions outside of class	3	25.0
Experiences with minorities while student teaching	Not diverse (0 minority students)	8	66.7
	Less than 5 students were minority	3	25.0
	Less than 10 students were minority	1	8.3
	Very diverse student population	0	0.0
Student Teaching Community Type	Rural	9	75.0
	Suburban	1	8.3
	Urban	2	16.7

<sup>a</sup> Respondents could mark all that apply.

Table 3  
*University Preparation toward Diversity*

Category	Response	n	%
Required course	Yes	6	50
	No	6	50
Optional/elective course	Yes	6	50
	No	6	50
Supplemental texts used focus on cultural differences	Yes	5	42
	No	7	58
Diversity topics are infused into agricultural education courses	Yes	9	75
	No	3	25
Early field experiences at schools with large percentages of minority students	Yes	4	34
	No	8	66

University supervisors should be well versed in diversity	Yes	1	8
	No	11	92
Diversity issues should be a major topic in the methods course	Yes	6	50
	No	6	50
The university fully prepared me for the racial climate in education	Yes	6	50
	No	6	50

Table 4 shows the perceptions of the student teachers regarding diversity. The constructs of Teaching and Cultural Comfort had means of 3.90 and 4.15, while the construct of University Experiences had a mean of 2.95. At least one student (mean = 1.60) disagreed that University Experiences were positive regarding diversity.

Table 4  
*Perceptions of Selected Student Teachers Regarding Diversity and Cultural Experiences*

Construct	N	Mean	Range
Teaching	12	3.90	2.38 – 5.00
University Experiences	12	2.95	1.60 – 4.30
Cultural Comfort	12	4.15	3.00 – 5.00

### Conclusions, Implications, and Recommendations

The conclusions, implications, and recommendations for the study are presented in this section. Because the population was limited to student teachers in one state and the response rate was less than 50%, these only apply to the population represented by the respondents. This study can provide baseline data for comparison by future studies. Although the generalizability is limited, the study has value to the profession as it provides one snapshot of student teachers' perceptions regarding diversity. Based on the results presented, the researchers concluded that

agricultural education teacher preparation has a role in increasing multicultural cognition among the students preparing to teach in this diverse society.

Student teachers in this study were leaving their teacher preparation programs experiencing limited interactions with others from diverse groups. Demographically, they were predominantly White, male, and from rural communities. They had virtually no experiences with minorities prior to college, but did have moderate interactions with minorities outside of college classes. However, only one student teacher taught more than five students from a minority group. If teachers are expected to teach using the higher multicultural education approaches (Sleeter & Grant, 1994), then their teacher preparation program including student teaching must provide more experiences in diverse settings, and not rest on the paradigm that these school systems will always be mono-cultural.

The university preparation regarding diversity for these student teachers was less than complete. Not all of the student teachers had formal coursework in diversity nor were supplemental texts focused on cultural differences used in their courses. Within agricultural education, diversity seems to be infused into courses, yet the student teachers were divided on whether diversity should be a major topic in a methods course and whether they were fully prepared regarding racial diversity. Few of these student teachers reported that students receive early field experiences with large populations of minority students.

These student teachers perceived cultural comfort to be important to teaching. They also perceived they are qualified to teach diverse groups of students when they become teachers and yet had little to no experience with diversity. They were unsure whether their university experiences were positive in regards to diversity even though the majority of them stated their university prepared them well for diversity.

One implication from this study is that more work needs to be done to provide agricultural education preservice students with experiences in diverse schools. However, we do not know whether diversity is a priority or the universities themselves have little diversity and are located in communities with little diversity. If preservice students are not working with secondary students from diverse groups within the agricultural education classrooms, then maybe some field experiences need to be in classrooms that are diverse. Are distance education experiences valuable and comparable to face-to-face experiences? Should preservice agricultural education students spend some time in elementary classrooms that have diversity? Are there other methods of obtaining diversity experiences that should be explored?

These students perceived themselves to be qualified to teach diverse students. Are they really prepared or does their lack of diversity experiences cloud their perceptions? The problems of enrolling African Americans in agriculture is further complicated because agriculture teachers, most of whom are White males, are not properly prepared to educate students with multicultural backgrounds (Jones & Black, 1995). A follow-up study after these student teachers become agricultural educators may help answer this question, and may assist in developing some benchmarks for future perceptions on the decline of African Americans in agriculture.

An initial conclusion is that these students are operating within the assimilation approach to multicultural education (Sleeter & Grant, 1994). Their construct scores for teaching and cultural comfort imply that these student teachers are comfortable teaching diverse students, but may not have the attitudes and skills to teach on an integrated multicultural education or social reconstructionist level. Their limited diversity experiences in college may shield them from the knowledge that oppression and unequal power distribution are problems in today's society.

From this study, the researchers have found that the constructs and underlying questions need to be expanded to better measure the theoretical approaches to multicultural education.

## References

- Bailey, J. J. (1999). *Enhancing diversity in the classrooms*. Unpublished university research. Athens: University of Georgia.
- Banks, J. A., Cookson, P., Gay, G., Hawley, W. D., Irvine, J. J., Nieto, S., Schofield, J. W., & Stephan, W. G. (2005). Education and diversity. *Social Education*, 69(1), 36-40.
- Bowen, B. E. (Ed.). (1993). *Enhancing diversity in agricultural education*. University Park, PA: Pennsylvania State University, Department of Agricultural and Extension Education, Population Diversity Work Group of the American Association for Agricultural Education.
- Bowen, B. E., Gonzalez, M., Norland, E., Schumacher, L. G., Vaughn, P., & Whent, L. (1991, December). *Recruitment, retention, and career enhancement strategies utilized with underrepresented groups*. Committee report prepared for the American Association for Agricultural Education.
- Camp, W. G., Broyles, T., & Skelton, N. S. (2002). *A national study of the supply and demand for teachers of agricultural education in 1999-2001*. Blacksburg, VA: Virginia Tech.
- Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method (2nd ed.)*. New York: Wiley.
- Grant, C. A. (1978). Education that IS multicultural-isn't that what we mean? *Journal of Teacher Education* 29(5), pp. 45-48.
- Greene, M. (1995). *Releasing the imagination: Essays on education, the arts, and social change*. San Francisco: Jossey-Bass.
- Jones, K.H., & Black, R. S. (1995). Teacher preparation for diversity: A national study of certification requirements. *Journal of Vocational and Technical Education*, 12(1), 42-51.
- Koppelman, K. L., & Goodhart, R. L. (2005). *Understanding human differences: Multicultural education for a diverse America*. Boston: Pearson Education.
- Luft, V. D. (1996). Extent to which cultural diversity is addressed in secondary agricultural education. *Journal of Agricultural Education*, 37(3), 67-75.
- National Council for Accreditation of Teacher Education. (2002). *Professional standards for the accreditation of schools, colleges, and departments of education (2002 ed.)*. Washington, DC: Author.

- National Council for Agricultural Education. (1999). *A new era in agriculture: Reinventing agricultural education for the year 2020*. Alexandria, VA: Author.
- National Council for Agricultural Education. (1989). *The strategic plan for agricultural education: A national mobilization plan for revolutionary change in agricultural education*. Washington, DC: National Summit on Agricultural Education.
- National FFA Organization. (n.d.). *State FFA officer key information resource*. Retrieved June 30, 2005, from, [http://www.ffa.org/statestaff/so/documents/so\\_stateffaofficerkeyinformationresource.pdf](http://www.ffa.org/statestaff/so/documents/so_stateffaofficerkeyinformationresource.pdf)
- Salant, P., & Dillman, D. A. (1994). *How to conduct your own survey*. New York: Wiley.
- Sleeter, C. E., & Grant, C. A. (1994). *Making choices for multicultural education: Five approaches to race, class, and gender (2nd ed.)*. New York: Maxwell Macmillan.
- Wakefield, D., & Talbert, B. A. (1999). A descriptive study on university agricultural education programs in preparing faculty and students to work with diverse populations. *Proceedings of the 26th National Agricultural Education Research Conference*, Orlando, Florida, pp. 458-472.
- Woods, M. D., & Moore, E. A. (2002). Diversity in agricultural education: A synthesis of research. *Proceedings of the 29th National Agricultural Education Research Conference*, Las Vegas, NV.