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Attitudes of Michigan Agriscience Teachers

Toward Diversity

presented by

Laikhe Tanyara Jones

has been accepted towards fulfillment
of the requirements for

Master's degree in Agricultural Education

Eddie A. Moore

Major professor

Date 10/16/98

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ATTITUDES OF MICHIGAN AGRISCIENCE TEACHERS

TOWARD DIVERSITY

By

Laikhe Tanyara Jones

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

Department of Agricultural and Extension Education

1998

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ABSTRACT

ATTITUDES OF MICHIGAN AGRISCIENCE TEACHERS
TOWARD DIVERSITY

By

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The researcher's purpose in this study was to determine the extent to which the teaching practices used by Michigan agriscience teachers address diversity in secondary agriscience programs. A further purpose was to determine the attitudes of agriscience teachers toward diversity in Michigan's agriscience programs. The study population included Michigan agricultural education teachers employed during the 1996-97 school year. Data were collected through the use of a mail survey instrument.

The study findings provided information for building a research database on diversity in Michigan agriscience programs. Michigan agriscience teachers placed a high mean value on promoting men and women as having the same capabilities in serving local community organizations and on welcoming an opportunity to work alongside females. Also, diversity training was of interest to these teachers. One-fourth of the teachers defined diversity as "different or a difference in backgrounds, lifestyles, experiences, cultures, sex, race or religion." The majority of students enrolled in Michigan agriscience programs were whites, mostly males. It was concluded that, although some recruiting efforts can be cited, additional efforts can be implemented to include minorities in agricultural education programs.

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ACKNOWLEDGMENTS

I wish to express my sincere gratitude and appreciation to Dr. Eddie Moore, my chairperson, for his patience and guidance. Special thanks also to Dr. Randy Showerman and Dr. Eugene Pernell for serving as members of my graduate review committee.

Thank you, Clifton, for your support and patience throughout the thesis-writing process.

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CHAPTER I

INTRODUCTION

Background

The demographic trends of the United States population are gaining increased attention as we approach the 21st century. Some of the commonly stated predictions include the following: A growing portion of Americans will be people of color (Henry, 1990), more women will enter or return to the workforce (Johnston & Packer, 1987), a growing number of Americans will speak English as a second language, and an increasing number of people who practice religion will not be under the umbrella of Christianity (Goode, 1993; Grogan, 1991).

The demography of school-age children in the United States is steadily changing. Hodgkinson (1985) stated, "By around the year 2000, America will be a nation in which one of every three of us will be non-white. And minorities will cover a broader socioeconomic range than ever before, making simplistic treatment of their needs even less useful" (p. 7). Communities across the nation are beginning to rally together, regardless of cultural differences, to address community development issues. Among the innovative programs established by various states are efforts toward rebuilding black churches destroyed by hate crimes, creating and exerting political influence in economic development, refurbishing old homes in low-income

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neighborhoods, facilitating conflict resolution, and establishing business partnerships for minority entrepreneurs (Civic Practices Network, 1998). One of the major issues community activists face is determining who will represent the community. Studies have indicated that it is easier for communities to establish a common bond on issues such as road building and maintenance than on recreational activities, community and health facilities, financial revenues, and education. Often, local governmental officials view involvement and collaboration of the community at large as unimportant (North Central Regional Center for Rural Development, 1992).

One example of community collaboration is the San Francisco Foundation, which serves poor and low-income children and their families who reside in Oakland, Richmond, and San Francisco, California (Lifelines, 1996). Nearly 300 community board mediators volunteer their time to hear and resolve a wide range of conflicts that are referred to them from the community, police departments, juvenile probation agencies, departments of social services, small claims courts, and other city agencies. These mediators serve as an alternative to citizens who might have landed in court. The program also offers services to comprehensive K-12 schools.

The enrollment of minority students in public elementary and secondary schools in the United States increased from 24% in 1976 to 32.1% in 1990 (Hodgkinson, 1985). Approximately 66% of students in public elementary and secondary schools in the United States are white, 17% are black, 13% are Hispanic, 4% are Asian or Pacific Islander, and 1% are American Indian/Alaskan Native. More than half the students in the nation's central city public schools are black and Hispanic (Building Knowledge for a Nation of Learners, 1997). These population

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trends have led to increases in language diversity that can limit students' access to available educational opportunities. Nearly 4 million elementary and secondary students are unable to speak or understand English (Office of Bilingual Education and Minority Languages, 1995). Thus, cultural diversity in education is prevalent and must be addressed to meet the needs of students from diverse populations (Building Knowledge for a Nation of Learners, 1997).

Hones (1988) described a course he teaches in diversity, entitled "Human Diversity, Power, and Opportunity in Social Institutions," which includes a 10-week service learning project. The students are mostly European Americans from middle-class suburbs and small towns in Michigan. He recommended that a well-structured community service component be an integral part of any introductory coursework in the social foundations of education, including teacher education programs. Hones wrote:

> In university settings such as ours, where the majority of pre-service teachers are European-American and middle-class, service learning in community settings has the potential to challenge preconceptions and build relationships with others in ways that classroom discussions, however critical, cannot. For this reason, a well-structured community service learning component should be a part of any introductory coursework in the social foundations of education. (pp. 18-19)

The influence of cultural diversity is intensifying as the enrollment of minority populations in the United States grows. Researchers have predicted that the educational levels of Americans will rise slowly; however, the gap is widening between the educational level of whites and that of blacks, Hispanics, and Native Americans. This disparity is prevalent in urban and rural disadvantaged communities comprising individuals of all ethnic groups. Individuals of lower

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socioeconomic status will face academic and financial difficulties in participating in postsecondary vocational training and college-level educational programs (Lisack & Shell, 1988).

Cultural pluralism in education is also reflected in the workplace. One of the most significant changes in the workplace has been the emergence of employees who are members of diverse ethnic, religious, and social groups. According to the United States Department of Labor, women, minorities, and immigrants will account for 80% of the growth in the American labor force between 1990 and the year 2000. By the year 2000, 80% of women between the ages of 25 and 54 will enter the workforce (Van Fossen & Beck, 1991). Johnston and Packer (1987) indicated that five-sixths of new additions to the workforce between 1985 and 2000 will be women, nonwhites, and immigrants from various countries. Currently, women comprise 45% of the workforce; however, 75% of those women are employed in traditionally female-dominated occupations, including clerical, sales, service, and factory jobs. In addition, there is a significant difference in wages between male-dominated and female-dominated occupations (Bowen & Jackson, 1992).

In the United States, people are recognizing that, for society to thrive, diversity must be encouraged rather than suppressed through the "melting pot" theory (Bowen & Jackson, 1992). Diverse groups generally maintain participation in their traditional culture or special interests within the confines of the work setting (Lisack & Shell, 1988). Examples include traditional dress, ethnic foods, cultural values, and economic principles. Recent incidents at Texaco and Mitsubishi have led to discussions about the need to address diversity in the workplace. These

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incidents indicated that some individuals still harbor and express bigotry, hostility, ignorance, and fear when interacting with persons from diverse backgrounds. Giving lip service to or pretending to believe in equality, fairness, and justice for all no longer suffices for angered customers and disgruntled employees. Successful diversity initiatives represent clear acknowledgment of historical, psychodynamic, and economic facts of diverse populations. Organizations such as Avon, American Telephone and Telegraph (AT&T), and the Tennessee Valley Authority (TVA) are making strides in managing diversity through education, recruitment, retention, and training. These organizations are implementing strategies to change the culture of the workplace and move toward being more open, inclusive, and egalitarian. Many companies are recognizing that such a cultural change will make the workplace a better place for everyone (White, 1997).

Avon Products has been recognized as a pioneer in the field of managing diversity. The organization has 8,000 salaried employees in the United States and 23,000 worldwide, in addition to nearly 2 million independent sales representatives. Consequently, international sales markets have experienced rapid returns, whereas the domestic market growth has declined. This market decline can be attributed to the demographic changes in American society, especially relative to the family structure. Avon's traditional door-to-door approach is no longer favorable for traditional customers, who now work outside the home. In 1995, 39 million of the 100 million women in the United States purchased Avon products. Thus, the diversity trends represent a major marketing opportunity if the organization is willing

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to implement marketing strategies to meet the demands of a diverse population of consumers, including working women (White, 1997).

Avon's diversity initiatives emphasize accountability through cultural audits, diversity training, and recruitment strategies. The company has begun to reconceptualize its recruitment strategies, which incorporate needs of diverse customers. Eighty percent of Avon's employees are women; however, downsizing has placed stress on employees, especially on working employees struggling to balance demands of children, home, and career. This loss of productivity has greatly affected the customers and employees. Thus, the company has begun to revamp its culture to include a strengthened emphasis on management accountability. Twenty-six percent of Avon's workforce comprises people of color, of whom 13% are black women. Only two or three Native Americans are in management, based at headquarters. Christina Gold, president of Avon North America, pointed out that acquiring just 3 million more women as Avon customers would result in a hefty $80 billion increase in annual sales (White, 1997).

For a long time, AT&T has had a reputation for assisting in the development of large, active, and vocal resource groups. Black and gay, lesbian, and bisexual organizations became two of the first networks to be recognized in any American company. The "monkey incident"[1] that occurred at AT&T raised concern among many corporate executives within the organization and across the nation. This increased awareness of issues that currently face a nation struggling to resolve

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[1]AT&T published a controversial ad representing cross-continent discounts. All continents except Africa had people displayed; Africa had a monkey displayed.

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racial-equality issues in the 21st century and beyond. This action demonstrated the need for diversity training for employees who found this management action offensive. Companies are beginning to realize that embracing diversity requires more than financial investments. It must also include venturing beyond establishing partnerships with diverse communities, customers, and shareholders (White, 1997).

Cultural pluralism also is prevalent in the food and agriculture industry. In an effort to meet the growing demands of minority populations, Monsanto is beginning to implement initiatives to address diversity issues. Monsanto's Vision of Diversity is measured through four objectives: (a) how we develop and treat our people, (b) where our people come from, (c) how we hold ourselves accountable, and (d) how we build a more diverse community. The company's commitment to diversity is evident through their growing diverse workforce, which consists of 37% women and 18% ethnic/racial minorities. Not only has Monsanto created initiatives to diversify the workforce, but also it has sought to build business partnerships with women and minority businesses, donate money to worthy diverse communities, and make financial investments in community and educational programs (Monsanto, 1997).

Although some governmental, public, and private agencies have started to address diversity issues, others are just beginning to implement diversity initiatives. For example, the U.S. Department of Agriculture (USDA) is one of the last federal agencies to initiate hiring processes that include women and minorities in leadership positions. As a result of several complaints, grievances, and class-action lawsuits, the USDA conducted listening sessions in 11 locations across the country to provide an opportunity for customers and employees to voice their grievances and concerns. The audit of civil rights issues facing the USDA involved the areas of program

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delivery and employment. The findings from the listening sessions indicated a lack of accountability on the part of governmental officials regarding management of diversity (USDA, 1997).

As the workplace becomes more diverse, employers are seeking candidates who possess good communication, interpersonal, and team-building skills. The following are "gateways" to strengthening one's ability to understand and be understood: (a) written, verbal, and nonverbal communication skills; (b) respect for differences; (c) tolerance of ambiguity; (d) flexibility; (e) suspension of assumptions and judgments; (f) willingness to see another person's point of view; and (g) time and practice. Employers as well as employees have a responsibility to ensure that workforce diversity is a source of strength, and not one of conflict or chaos. Therefore, teachers need to prepare students to work in a diverse workforce. Students entering the workforce must possess cultural awareness, sensitivity, and understanding in order to be successful (National Association of Colleges and Employers, 1998).

In February 1996, Chairman Allen wrote to AT&T executives about the company's commitment to affirmative action and diversity in a document that he subsequently sent to all associates. Here is an excerpt from his letter:

> Diversity is rooted in inclusiveness and is a powerful business asset. A workforce that reflects the diversity of its domestic and global customers is more likely to understand and meet the needs of such customers. Diversity also brings fresh thinking and ideas to the decision-making process, fuels innovation and creativity, and enhances the company's competitive edge worldwide. By tapping the talent, skills and experiences of all employees, each of our new companies will be well-prepared to compete and succeed. (White, 1997, p. 44)

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Due to the continued growth of the minority population, teachers across the country probably will practice their professional skills in classrooms populated with students from diverse backgrounds. Thus, teachers should receive the necessary training to exercise diverse teaching practices to meet the needs of these students. The success of the multicultural approach depends largely on teachers' understanding, appreciation, and acceptance of the unique value systems, cultural traditions, and contributions of various minority groups. Therefore, teachers' attitudes and beliefs about diversity will shape their teaching strategies in the classroom setting.

Researchers have identified differences in expectations that teachers hold for students in low-income versus middle-income schools. These differences are reflected in differences in instructional strategies and disciplinary actions (Entwisle & Hayduk, 1982). This makes it imperative that educators prepare agricultural teachers to serve students of diverse populations.

According to 1990 census data, minorities comprised 17.8% of Michigan's population. Considering this population trend, the need to address diversity issues in educational programs is increasing. During the 1995-96 school year, 451,909 students were enrolled in secondary education in Michigan; of that number, 79.65% were white, 15.53% were African American, 2.28 were Hispanic, 1.45% were Asian/ Pacific Islander, and 1.09% were American Indian (Michigan Department of Education, 1995).

The increased diversity of Michigan's population has created a challenge for the university in serving a greater diversity of youths in high school agriscience programs. Several training efforts designed to increase cultural knowledge and

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understanding, as well as examples of successful programs targeting diverse audiences in the state, can be cited. However, there remains a significant need for continued staff development and training on issues related to diversity. Moore (1995) stated, "Agricultural education will have to serve a larger population, including minorities, females, and students with learning disabilities, in order to remain viable" (p. 4).

Michigan high school agriscience teachers are on the front line, serving youths in the state. Knowing the attitudes of these teachers toward diversity is an important preliminary step to developing effective staff development and training on issues related to diversity. Are Michigan agriscience teachers being effectively prepared to serve diverse student populations? To what extent are various teaching practices serving diverse students? Addressing these questions can strengthen efforts to diversify agricultural education programs.

Purpose and Objectives of the Study

The researcher's purpose in this study was to determine the extent to which the teaching practices used by Michigan agriscience teachers address diversity in secondary agriscience programs. A further purpose was to determine the attitudes of agriscience teachers toward diversity in Michigan's agriscience programs.

The specific objectives of the study were to determine:

1. The extent to which various teaching strategies and practices of Michigan agriscience teachers are serving culturally diverse students.

2. The attitudes of agriscience teachers toward diversity in Michigan's agriscience programs.

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3.   The means by which agriscience teachers are being prepared to serve culturally diverse students in their classrooms.

4.   The number of students enrolled in Michigan's secondary, vocational, and agricultural education programs.

Importance of the Study

While conducting the literature review for this study, the researcher observed that resources pertaining to diversity in agricultural education are limited. Thus, the findings, conclusions, and recommendations from this study will aid in developing a research base on diversity. This study was a preliminary step in assessing focus areas, increasing cultural awareness, and implementing successful programs targeting diverse audiences. For agriscience programs to thrive, agriscience teachers need to prepare students to work in a diverse workforce. In essence, this study was important in (a) developing a research base on strengthening efforts to diversify agriscience programs; (b) assessing the extent to which diversity is being addressed in Michigan's agricultural education programs, including FFA; (c) determining the extent to which culturally diverse teaching practices were being carried out in agriscience programs; and (d) determining the attitudes of agriscience teachers toward diversity in agriscience programs.

Definition of Terms

The following terms are defined in the context in which they are used in this dissertation:

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Agricultural education: a high school program that is an integral part of the vocational education program; it includes FFA, supervised agricultural experience program (SAEP), land laboratory, and classroom activities.

Agriscience: the notion of identifying and using concepts of biological, chemical, and physical science in the teaching of agriculture, and using agricultural examples to relate these concepts to the student (National Research Council, 1988).

Annual authorization: the stated occupational area in approved vocational educational programs. This teaching certificate is primarily for those teaching vocationally approved courses in grades 9 through 12.

Career center: a high school with focus areas that include career and technical skills; students generally are bused from their comprehensive high schools to attend these schools for 2 to 3 hours a day.

Comprehensive high school: a high school that provides instruction for students in grades 9 through 12 in the core curriculum and career and technical education.

Comprehensive high school (designated career center): a comprehensive high school designated to provide career and technical programs for students in grades 9 through 12.

Diversity: individual differences in terms of gender, sexual orientation, race/ ethnicity, and values.

FFA: formerly the acronym for Future Farmers of America; the organization now prefers to be referred to simply as FFA.

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Minorities: Persons whose racial/ethnic background is African American/non-Hispanic, Chicano/Mexican American, Hispanic, American Indian or Alaskan Native, or Asian (Pacific Islander/Asian American).

National FFA organization: a national organization for high school students that is an integral part of the secondary agricultural education program; it emphasizes leadership development through program activities, contests, and leadership positions.

Nontraditional students: students who traditionally have been the minority enrollment populations in agriscience programs.

Occupational areas of Michigan's agriscience program: these program areas include agricultural mechanics and agricultural production, agriscience and natural resources education, marketing education/marketing and distribution, radio and TV, cosmetology, plastics, occupational home economics, public safety/law enforcement, construction trades, mechanics and repairers, precision production trades, health, and business.

Permanent (continuing) certificate with vocational endorsements: a teaching certificate awarded to applicants who have taught for 3 years according to their provisional certificate and vocational endorsement.

Secondary provisional certificate with vocational endorsements: certification awarded to teachers who have completed a vocational teacher education program approved by the state board of education.

Temporary vocational authorization: certification (valid for 6 years) awarded to teachers who have a bachelor's degree and at least 2 years of experience in the

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Assumptions

In conducting this study, the researcher made the following basic assumptions:

1. The Michigan agriscience teachers were candid and honest in giving their responses.

2. Michigan agriscience teachers had a general knowledge of what diversity entailed.

3. The questionnaire was completed by the respondent for whom it was intended.

4. All of the teachers included in the study were teaching in agricultural education programs in Michigan during the 1996-97 school year.

Limitations of the Study

This study had the following limitations:

1. The study was limited to the opinions of agriscience teachers in Michigan.

2. The focus of this study was agriscience teachers who were employed during the 1996-97 school year.

3. The study was limited to the following topics of interest: the meaning of diversity, culturally diverse teaching practices, beliefs about and attitudes toward diversity, program enrollment information, and demographic data.

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4. The study was limited to an examination of culturally diverse teaching practices inclusive of minorities, females, disabled students, and students of different sexual orientations.

5. The researcher did not address issues pertaining to special-needs students or other program components.

Overview

The background of the study; purpose, objectives, and importance of the research; definitions of key terms; and assumptions and limitations of the study were presented in this chapter. The review of literature in Chapter II is focused on the following topics: attitudes of agriscience teachers and students toward diversifying agricultural education programs, beliefs and attitudes of agriculturists about diversity, educational equity in the United States, the implications of diversity for teachers' roles, and diversity in agricultural education. The methodology used in carrying out the study is described in Chapter III. The results of the data analyses conducted for the study are presented in Chapter IV. Chapter V contains a summary of the study, conclusions drawn from the study findings, recommendations, and the researcher's reflections.

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CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter contains a review of literature related to the topics of interest in this study. Included are attitudes of agriscience teachers and students toward diversifying agricultural education programs, beliefs and attitudes of agriculturists about diversity, an overview of educational equity in the United States, the implications of diversity for teachers' roles, and diversity in agricultural education.

Attitudes of Agriscience Teachers and Students Toward Diversifying Agricultural Education Programs

The present study of the attitudes of Michigan agriscience teachers toward diversity was based on the research of Vernon Luft (1996), a professor at the University of Nevada. Thus, it is important to present the findings of Luft's study to see how they compare with those from this research.

Luft found that the majority of students in Nevada's secondary agricultural education programs, including FFA, were white. He also determined that the agricultural education teachers did not actively recruit minority students for their programs. The research findings indicated that 14.3% of the agricultural education teachers received no formal education in diversity. According to Luft, secondary

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agricultural education teachers should make an effort to recruit minorities to participate in agriculture classes and FFA program activities. He also recommended that (a) agriculture teachers be given additional inservice training to effectively serve diverse populations, (b) teacher education programs be revised to include cultural diversity training, and (c) his research be repeated in a follow-up study.

In Luft's study, teaching practices most frequently carried out by secondary agricultural education teachers in Nevada were those common to most classrooms, regardless of cultural diversity. Teaching practices least frequently used were those specifically addressing cultural diversity. More than one-half (57.1%) of the population had taken a university class in multicultural education. Only 14.3% of the agricultural educators in the study had had no formal preparation in multicultural education.

Beliefs and Attitudes of Agriculturists About Diversity

In a study of attitudes toward diversity among agriculturists in the Connecticut Cooperative Extension Service, Ingram (1996) found that respondents' attitudes toward equality of the genders were generally very positive. In general, educators were comfortable around people who were different from themselves. However, one in five was uncomfortable around people who had a physical disability. The majority of educators in this study preferred cultural diversity and pluralism to assimilation. However, one in four believed that having many different cultural groups in American society causes a number of problems. A majority of respondents indicated positive

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attitudes toward multiple languages. However, more than one-third of them were comfortable with their ability to speak only English.

The majority of respondents in Ingram's (1996) study did not agree that people who live in rural communities have more desirable characteristics than those who live in other types of communities. In addition, these educators' attitudes toward the need for diversity training tended to be very positive. Mean scores ranged from moderately high to high. The highest score related to a need for diversity training. A large majority of respondents also believed that cultural diversity should be an important aspect of 4-H/youth development programs.

Overview of Educational Equity in the United States

Fennema and Ayer (1984) suggested that the concept of free public education for all citizens was denoted in the Old Delude Satan Law of 1647. Since World War II, various groups have been redefining what this belief means. For example, in Brown v. Board of Education of Topeka (1954), the court declared that the separate-but-equal policy in the educational system was unequal. This prominent case posed the question of equity or equality for all. Some educators designed compensatory education to remedy failure in school for children with deficiencies. In the 1960s, some educators sought to increase the intelligence and school achievement scores of poor children. However, the general consensus has been that compensatory education programs have failed to increase minority children's intelligence scores (Fennema & Ayer, 1984). Baratz and Baratz (1970) argued that "this clearly indicates that critical intervention must be done, but on the

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The William Penn School made the first attempt to develop a multicultural studies program. It established the first black studies program as "a means of compensating for inadequacies of understanding, lack of identity and poor self-image, sheer ignorance, the holding of myths and prejudices, feelings of superiority and hostility so that a degree of understanding and humility would lead to mutual respect" (Pollack, 1972, p. 10).

Fennema and Ayer (1984) identified four models for achieving educational equity: (a) the assimilationist model, (b) the deficit model, (c) the pluralistic model, and (d) the social justice model. The pluralistic model assumes that children entering school have important differences, such as culture and gender, and that these disparities are best served by different educational experiences. The pluralist model has a dialectical relationship to the assimilationist model and is viewed as a threat to the assimilationist-minded dominators (Fennema & Ayer, 1984). Ellis (1976) stated that there has been a shift from the biological explanation to the emphasis on childhood socialization and learned cultural differences.

> There is historical evidence that schools in America have fostered assimilation rather than pluralism, and the pluralism has been allowed only when it presented no clear threat to the power of dominant groups. Thus, parochial ethical schools flourished in the 1800s but declined with the Americanization and deethnicization of religion in this century. (Dinnerstein & Reimers, 1975, p. 145)

One example is separate schooling for females, which stressed homemaking skills. Such training supposedly posed no threat to the dominant social order (Fennema &

Ayer, 1984). For some religious minorities, the solution has been independence from the rest of society. For example, the Amish have a completely separate school system wherein students are taught the Amish traditional religious value system (Keim, 1975).

Fennema and Ayer (1984) wrote:

When a cultural explanation is applied to minority group concerns, it then requires that those in the majority acknowledge relevant differences in educational goals and create a pluralistic framework in which minority group rights to live differently are upheld. This problem forms the core of the debate on political and educational pluralism in America. (p. 9)

The pluralist model emphasizes the right of dominated groups to have a perspective that is not completely muted by the perspective of the dominant culture.

In the public school system, the most notable pluralistic models are multicultural education and bilingual-bicultural education (Fennema & Ayer, 1984). Gibson (1976) stated that many programs that appear to be pluralistic are based on assumptions of majority-group dominance and that educational pluralism is the only model that has as a goal the increased power of minority groups. She identified five main approaches in these programs: (a) education of the culturally different, (b) education about cultural differences or cultural understanding, (c) education for cultural pluralism, (d) bicultural education, and (e) multicultural education as the normal human experience.

Nixon (1985) indicated that a full understanding of our own multicultural society today depends on our willingness to confront the imperialist experience, which included conquest, subjugation, settlement, annexation, exploitation, and slavery. During the early 1970s, the emphasis in what is now generally referred to

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as multicultural education was unequivocally on the black child. Nixon stated that a mere checklist of questions can do little to achieve educational reform; it tells nothing about the relationship that exists among elements of school life.

Implications of Diversity for Teachers' Roles

As the minority population continues to grow, teachers throughout the country will need to use their professional skills in classrooms populated with students from diverse backgrounds. Thus, teachers need to receive training that enables them to exercise diverse teaching practices to meet the needs of these students. Sheppard (1983) pointed out that vocational teachers need training in multicultural education because diversity is an integral part of America's pluralistic society. Diversity should be regarded, not as a weakness but as a contribution of ethnic and cultural groups to the national culture while maintaining their distinct identity. The success of the multicultural approach depends largely on teachers' understanding of and appreciation for the unique value systems, cultural traditions, and contributions of various minority groups. Therefore, teachers' attitudes and beliefs about diversity will shape the teaching strategies they use in the classroom setting.

Whent (1994) stated, "Agricultural educators need to make greater strides toward people of diverse populations and move forward to accept the changes and challenges of the future" (p. 11). Consequently, the agricultural education profession must prepare more teachers who can deliver contemporary instruction for increasing numbers of rural nonfarm, suburban, and urban students.

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Teachers also need training in multicultural education because they will probably practice their professional skills in classrooms populated with students from diverse backgrounds (Sheppard, 1983). The first step in removing embedded biases is to become aware of one's own biases. Evans (1991) stressed that, in working with a diverse population of students, "your attitude towards culturally different students is the first issue you must address, because it will be reflected in your instruction" (p. 22). Erickson (1983) examined teachers' verbal and nonverbal behaviors in the classroom setting to assess differences based on those teachers' gender and race. The researcher observed that "white teachers directed more verbal praise and criticism and nonverbal praise toward males and more nonverbal criticism toward black males" (p. 183).

Teachers can start by privately asking their students about the cultural climate in their classes, an important approach to helping diverse students not to feel threatened by discussing their true feelings in detail. These students do not want to be conspicuous, singled out, or separate from the rest of the class. It is difficult enough being a minority or a woman; thus, students should not be made to feel embarrassed or insulted (Whent, 1994).

Diversity in Agricultural Education

Since 1928, the FFA (formerly Future Farmers of America) has been an important high school student organization that supports vocational education programs in the United States. The New Farmers of America (NFA), founded in Virginia in 1927, was the national student organization for black boys until 1965.

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That year, the NFA and FFA merged to form one organization, which is now known as FFA. After the integration of these two organizations, blacks' participation in the organization, as well as their ownership of farms, decreased significantly (Bowen, 1987). In 1960, 51,205 black students in 1,039 schools belonged to the NFA organization (NFA, 1960). Some researchers have argued that the decline in blacks' participation can be attributed to the fact that there are fewer black farmers, negative perceptions linked to slavery, and a more mechanized agriculture. Others have argued that once black vocational agriculture teachers retired or left the profession, they were replaced by white teachers who did not actively recruit students of diverse populations to pursue careers in agriculture. Larke and Barr (1987) indicated that participation in agriculture by some cultures is affected by stereotypes associated with being a field hand. Hispanics traditionally have participated in farm labor in California and the southwestern states; thus, many Hispanic youths possess negative perceptions about agriculture (Reed & Flores, 1987). These negative perceptions are prevalent in minority populations even though fewer than 2% of modern agriculture-related occupations involve on-farm activities (Larke & Barr, 1987).

In 1991-92, the national FFA membership comprised 88.15% European Americans, 5.32% Hispanic Americans, 4.52% African Americans, 0.99% Native Americans, and 0.46% Asian Americans (National FFA Foundation, 1993). Females constituted one-fourth of the 417,000 FFA members in 1992-93, according to Bernie Staller, the FFA's Chief Operating Officer (cited in Bowen, 1994). Bowen indicated that, even with the enrollment and FFA membership increases of the past few years,

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the profession serves only about 600,000 of America's 42 million public school students. Consequently, the profession must prepare more teachers who can deliver contemporary instruction for increasing numbers of rural nonfarm, suburban, and urban students.

"Should we not be exposing more students to the experience, practice, and knowledge gained rather than wanting to be recognized as the best coach?" Forney (1985) asked. In regard to the role of diversity in agricultural education, Moore (1994) stated:

> Considering changes in demographics, industry needs, and general societal needs, supporting diversity in agricultural education should be a high priority. The focus of diversity should be on people, programs, and the institutions/ systems that are responsible for various programs in the states. (p. 4)

Osbourne and Witt (1985) offered the following suggestions to teachers to ensure that they keep FFA contests in perspective:

1.   Be familiar with all FFA programs and activities and encourage student participation, where possible.

2.   Promote and publicize the vocational agriculture program and various FFA activities.

3.   Encourage participation in those contests that are relevant to the instructional program.

4.   Remember who is the participant.

5.   Involve as many students as possible in each appropriate contest.

6.   Help redesign contests so that they are better aligned with real-life situations.

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7.   Help students develop healthy attitudes toward competition.

8.   Remember that students learn best what they experience through their own activities.

Harris and Sweet (1981) identified several benefits that students, including those with special needs, can gain from participating in youth groups. These benefits are (a) vocational understanding, (b) leadership development, (c) civic consciousness, (d) social intelligence, (e) self-confidence building, (f) home improvement, (g) positive use of free time, (h) scholarship, (i) spirit of competition, (j) respect for work, (k) understanding of employer-employee relations, (l) employability skills, (m) sense of independence and accomplishment, and (n) opportunity to plan and carry out an idea.

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CHAPTER III

DESIGN AND METHODOLOGY

Introduction

The researcher's purpose in this study was to determine the extent to which the teaching practices used by Michigan agriscience teachers address diversity in secondary agriscience programs. A further purpose was to determine the attitudes of agriscience teachers toward diversity in Michigan's agriscience programs. The design of the study was descriptive survey research.

In this chapter, methods used in collecting and analyzing the data are described. The independent and dependent variables are discussed, and the study population is described. The instrument used in collecting the data is discussed. Finally, the data-collection and data-analysis procedures are presented.

Independent and Dependent Variables

The independent variables in this study included selected demographic characteristics of Michigan agriscience teachers. These characteristics were age, gender, years of teaching experience, number of years in current teaching position, school type, percentage of day spent teaching agriscience and natural resources, kind of teacher, highest degree completed, current certification, types and number of diversity sessions attended, and interest in diversity training. The dependent

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The Study Population

The target population for this study was secondary agriscience teachers in Michigan during the 1996-97 school year. The researcher used the <u>1996-96 Michigan Agriscience Teachers Directory</u> (Michigan Department of Agricultural and Extension Education, 1996) to determine that there were 139 teachers teaching secondary agricultural classes. Only agricultural education teachers listed in the above-mentioned directory were included. Because the total population was surveyed, no sample selection was necessary.

Instrumentation

Development of the Instrument

The instrument used in this study was developed from similar instruments used by Ingram and Luft in their 1996 studies. The instrument consisted of five parts.

In Part I of the survey questionnaire, respondents expressed the meaning of diversity in their own words.

In Part II, agriscience teachers indicated the frequency with which they carried out each of the practices mentioned, using a 5-point Likert scale ranging from 0 (never) to 4 (always). For this section, the researcher replicated and revised questions from a study conducted by Vernon Luft (1996) of the University of Nevada. Luft developed the original survey instrument using Banks's (1994) work and the

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Iowa Multicultural Education Program Evaluation Checklist (Anderson & Barta, 1984) as models.

Part III of the questionnaire contained 42 statements relative to beliefs about and attitudes toward diversity and comfort with differences. This part of the instrument was taken from Ingram's (1996) study for the Connecticut Cooperative Extension Service. Respondents indicated their agreement or disagreement with the statements concerning diversity using a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Responses were analyzed collectively using the following categories to group the responses: (a) sexual equality, (b) comfort with difference, (c) assimilation versus cultural pluralism, (d) multilingualism versus English only, (e) rural versus other communities, and (f) need for diversity.

Part IV of the instrument contained six items relative to school enrollment, agriscience and FFA enrollment, diversity training of teachers, and interest in diversity training.

Part V sought demographic information concerning respondents' age, gender, years of teaching experience, number of years in current teaching position, school type, percentage of day spent teaching agriscience and natural resources, kind of teacher, highest degree completed, current certification, types and number of diversity sessions attended, and interest in diversity training.

Validity and Reliability

According to Oppenheim (1969), a panel of experts should be selected to agree on the content validity of the statements in a questionnaire. He stated that

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content validity, based on experts' judgment, is essential. Thus, a panel of experts from the Department of Agricultural and Extension Education at Michigan State University (MSU) was used to establish the content validity of the instrument used in this study (see Appendix A). Based on the comments and suggestions made by the panel of experts, the researcher modified or reworded some statements for clarity.

The original instrument was validated by a panel of experts consisting of university English as a Second Language and multicultural education faculty. The instrument was pilot tested by sending it to seven secondary agriculture teachers in Montana and six in Idaho. The researcher revised the instrument based on feedback from the pilot tests and reviews. To further test the survey for internal reliability, the researcher pilot tested it with graduate students in Agricultural and Extension Education at MSU, as well as selected agricultural education professors. The researcher entered the resulting data into the computer and analyzed them using the Statistical Package for the Social Sciences (SPSS/Advanced Macintosh Version) to calculate Cronbach's reliability coefficient. Survey questions with a reliability coefficient greater than or equal to .886 were included in the final instrument.

Next, researchers from the Department of Agricultural and Extension Education at MSU edited and revised the survey. Those researchers deemed it necessary to edit certain questions that might be unclear to the respondents. The final draft of the survey instrument contained 86 questions divided into five sections:

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Meaning of Diversity, Teaching Practices, Beliefs and Attitudes Toward Diversity,

Program Information, and Demographic Information (see Appendix B).

Ary, Jacobs, and Razavieh (1990) stated:

> The Likert-type scale is one of the most widely and successfully used techniques to measure attitudes. A Likert scale assesses attitudes toward a topic by asking respondents to indicate whether they strongly agree, agree, are undecided, disagree, [or] strongly disagree with each of a series of statements about the topic. (p. 195)

Human Subjects Approval

Before collecting the data, the researcher sent a copy of the survey instrument, a statement of purpose, and a description of the research methods to the MSU Committee on Research Involving Human Subjects (UCRIHS) for approval. Such approval was necessary because the study involved human subjects (agriscience teachers). UCRIHS granted approval to conduct the study (see Appendix C).

Data Collection

The researcher mailed a cover letter, a copy of the instrument, and a self-addressed, stamped return envelope to all 139 Michigan agriscience teachers on February 3, 1997. The cover letter explained the purpose of the study, ensured confidentiality, and requested participation in the study (see Appendix D). The cover letter also gave directions for completing and returning the questionnaire and stated that participation in the study was strictly voluntary. Each survey instrument contained a code number at the bottom of the first page for follow-up purposes only. Participants were not asked to place their names on the questionnaire.

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Results

Respondents were asked to return the completed questionnaire to the researcher in the Department of Agricultural and Extension Education at MSU. Upon receiving each completed questionnaire, the researcher cut off the code number and discarded the return envelope. Three weeks after the initial mailing, on February 19, 1997, a second mailing was sent to nonrespondents. After this mailing, the response rate was 33%. The researcher then sent a postcard reminder, a second cover letter, and another questionnaire to the remaining nonrespondents 2 weeks later, on March 25, 1997 (see Appendix D). As a result of this mailing, the response rate was increased to 42%. Because the response rate was low, the researcher deemed it necessary to conduct a telephone survey. The final response rate in the study was 63%, or 88 respondents of the 139 agriscience teachers in Michigan.

Data-Analysis Procedures

The researcher coded the data collected from the questionnaires for processing and analysis, using the computer facilities in the Department of Agricultural and Extension Education at MSU to analyze the data. All data were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics, including frequencies, percentages, means, and standard deviations of item responses, were calculated. Cronbach's alpha for individual scales ranged from a low of .88 to a high of .90.

Results of the data analyses are reported in Chapter IV.

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CHAPTER IV

RESULTS OF THE DATA ANALYSIS

Introduction

The researcher's purpose in this study was to determine the extent to which the teaching practices used by Michigan agriscience teachers address diversity in secondary agriscience programs. A further purpose was to determine the attitudes of agriscience teachers toward diversity in Michigan's agriscience programs. The study population included Michigan agricultural education teachers during the 1996-97 school year. Specific objectives of the study were to determine:

1.   The extent to which various teaching strategies and practices of Michigan agriscience teachers are serving culturally diverse students.

2.   The attitudes of agriscience teachers toward diversity in Michigan's agriscience programs.

3.   The means by which agriscience teachers are being prepared to serve culturally diverse students in their classrooms.

4.   The number of students enrolled in Michigan's secondary, vocational, and agricultural education programs.

In this chapter, the results are reported in sections corresponding to the parts of the questionnaire: (a) demographic characteristics of the respondents, (b) the

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In this chapter, the results are reported in sections corresponding to the parts of the questionnaire: (a) demographic characteristics of the respondents, (b) the meaning of diversity, (c) teaching practices, (d) beliefs and attitudes toward diversity, and (e) program information.

Demographic Characteristics of the Respondents

The demographic characteristics included in the study were gender, age, years of teaching experience, number of years in current teaching position, school type, percentage of day spent teaching agriscience and natural resources, kind of teacher, highest degree completed, current certification, types and number of diversity sessions attended, and interest in diversity training. The results regarding each of these characteristics are presented in the following pages.

Gender

The distribution of respondents by gender is shown in Table 1. The majority of the respondents (65 or 74%) were males. Twenty-one (24%) of the respondents were females. Two (2%) participants did not answer this question.

Table 1: Distribution of respondents by gender ($\underline{N}$ = 88).

Gender	Number	Percent
Male	65	74
Female	21	24
No response	2	2
Total	88	100

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Age

The respondents ranged in age from 22 to 65 years; the average age was 43.4 years. As shown in Table 2, the largest percentage of agriscience teachers in this study (35.1%) was between the ages of 40 and 48. Another 27.3% of the respondents were 49 to 57 years old, 18% were 31 to 39 years old, 11.3% were 22 to 30 years old, and only 3.3% were 58 to 65 years old.

Table 2: Distribution of respondents by age (N = 88).

Age	Number	Percent
22-30 years	10	11.3
31-39 years	16	18.0
40-48 years	31	35.1
49-57 years	24	27.3
58-65 years	3	3.3
No response	4	4.5
Total	88	100.0

Years of Teaching Experience

The distribution of respondents by years of experience teaching agriscience and natural resources is shown in Table 3. The majority of respondents (47 or 53.4%) had taught agriscience for 16 years or more. In addition, 13 (14.8%) had been teaching 7 to 9 years, 10 (11.4%) had 10 to 12 years of teaching experience, 7 (8%) had taught 1 to 3 years, 6 (6.8%) had been teaching 4 to 6 years, and 2 (2.3%) had been teaching for less than 1 year.

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Table 3: Distribution of respondents by years of experience teaching agriscience and natural resources (N = 88).

Years of Experience	Number	Percent
Less than 1 year	2	2.3
1-3 years	7	8.0
4-6 years	6	6.8
7-9 years	13	14.8
10-12 years	10	11.4
16 years or more	47	53.4
No response	3	3.4
Total	88	100.0

Number of Years in Current Teaching Position

The distribution of respondents by years in their current teaching position is presented in Table 4. The majority of respondents (38 or 43.2%) had been in their current teaching positions for 16 years or more. As shown in Table 4, 13 (14.8%) of the respondents had been in their current teaching positions for 1 to 3 years, 9 (10.2%) for 7 to 9 years, 8 (9.1%) for 10 to 12 years, 7 (8%) for 4 to 6 years, 5 (5.7%) for 13 to 15 years, and 5 (5.7) for less than 1 year.

School Type

The distribution of respondents by school type is shown in Table 5. Of the 88 respondents in the study, 51 (58%) were from comprehensive high schools; 24 (27.3%) taught in career centers. Six respondents (6.8%) taught in comprehensive high schools (designated career centers), and 3 (3.4%) taught in other types of

schools.

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Table 4: Distribution of respondents by the number of years in current teaching position (N = 88).

Years in Current Position	Number	Percent
Less than 1 year	5	5.7
1-3 years	13	14.8
4-6 years	7	8.0
7-9 years	9	10.2
10-12 years	8	9.1
13-15 years	5	5.7
16 years or more	38	43.2
No response	3	3.4
Total	88	100.0

Table 5: Distribution of respondents by type of school (N = 88).

Type of School	Number	Percent
Comprehensive high school	51	58.0
Career center	24	27.3
Comprehensive high school (designated career center)	6	6.8
Other[a]	3	3.4
No response	4	4.5
Total	88	100.0

[a]Includes career center by ourselves, middle school, and agricultural instruction.

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Percentage of Day Spent Teaching Agriscience and Natural Resources

Data regarding the percentage of the day the respondents spent teaching agriscience and natural resources are presented in Table 6. Almost one-half of the respondents (38 or 43.1%) said they spent 101% to 117% of the day teaching agriscience and natural resources. Another 15 respondents (17%) spent 61% to 80% of the day teaching agriscience and natural resources, and 11 (12.5%) spent 41% to 60% of the day teaching those subjects.

Table 6: Distribution of respondents by percentage of the day they spent teaching agriscience and natural resources (N = 88).

Percentage of Day	Number	Percent
0-20%	8	9.0
21-40%	7	7.9
41-60%	11	12.5
61-80%	15	17.0
81-100	3	3.3
101-117%	38	43.1
No response	6	6.8
Total	88	100.0

Kind of Teacher

The distribution of respondents by kind of agriculture teacher is shown in Table 7. As shown in the table, 62 (70.5%) of the respondents were agriscience teachers, 8 (9.1%) were horticulture instructors, 7 (7.9%) taught in two areas, 3

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(3.4%) taught agricultural mechanics or other classes, and 2 (2.3%) were production agriculture instructors.

Table 7: Distribution of respondents by kind of teacher (N = 88).

Kind of Teacher	Number	Percent
Agriscience instructor	62	70.5
Horticulture instructor	8	9.1
Instructor with two areas	7	7.9
Agricultural mechanics instructor	3	3.4
Other (specify)	3	3.4
Production agriculture instructor	2	2.3
No response	3	3.4
Total	88	100.0

Highest Degree Completed

The distribution of respondents by degree completed is shown in Table 8. As shown in the table, 47 (53.4%) of the respondents had earned master's degrees, 31 (35.2%) had graduated with bachelor's degrees, 5 (5.7%) had received specialization certification, and 1 (1.1%) had earned a Ph.D. degree.

Current Certification

The distribution of respondents according to their current certification is shown in Table 9. The majority of respondents (42 or 47.7%) currently held a permanent (continuing) certificate, and 20 (22.7%) possessed a secondary provisional certificate with vocational endorsements. Fourteen (15.9%) held two

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certificates. Few respondents (6 or 6.3%) had temporary vocational authorization, and only 3 (3.4%) of them had full vocational authorization.

Table 8: Distribution of respondents by highest degree completed (N = 88).

Highest Degree Completed	Number	Percent
Bachelor's	31	35.2
Master's	47	53.4
Specialist	5	5.7
Ph.D.	1	1.1
No response	4	4.5
Total	88	100.0

Table 9: Distribution of respondents according to their current certification (N = 88).

Current Certification	Number	Percent
Permanent (continuing) certificate	42	47.7
Secondary provisional certificate with vocational endorsements	20	22.7
Two certificates	14	15.9
Temporary vocational authorization	6	6.3
Full vocational authorization	3	3.4
No response	3	3.4
Total	88	100.0

Type and Number of Diversity Sessions Attended

The distribution of respondents according to the number of university and/or college diversity courses they had attended is shown in Table 10. The

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overwhelming majority of respondents (76 or 86.4%) had never attended any diversity session offered by universities and/or colleges. Relatively few respondents had attended diversity sessions: 6 (6.8%) had attended two sessions, 2 (2.3%) had attended either one or four such sessions, and 1 (1.1%) had attended three or five diversity sessions.

Table 10: Distribution of respondents by the number of university and/or college diversity courses they had attended.

Number of Courses	Number	Percent
0	76	86.4
1	2	2.3
2	6	6.8
3	1	1.1
4	2	2.3
5	1	1.1
Total	88	100.0

Table 11 shows the distribution of respondents who had completed courses that included material on diversity. The overwhelming majority of respondents (73 or 83%) had attended no diversity sessions integrated into other classes. Six (6.8%) had attended one such session, and 5 (5.7%) had attended two diversity sessions. One person each (1.1%) had attended 3, 5, 6, or 25 diversity sessions integrated into other classes.

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Table 11: Distribution of respondents by the number of diversity sessions they had attended that were integrated into other classes (N = 88).

Number of Sessions	Number	Percent
0	73	83.0
1	6	6.8
2	5	5.7
3	1	1.1
5	1	1.1
6	1	1.1
25	1	1.1
Total	88	100.0

The figures in Table 12 indicate that the majority of respondents (67 or 76.1%) had not attended diversity workshops offered by universities and/or colleges. Twelve (13.6%) had participated in only one diversity workshop. Two respondents (2.3%) had attended 2 or 4 workshops, and one each (1.1%) had attended 3, 6, 10, 11, or 25 diversity workshops offered by colleges and/or universities.

Table 13 contains participation numbers for diversity workshops sponsored by local education agencies. Nearly three-fourths of the respondents (58 or 65.9%) had never attended such workshops, whereas 16 (18.2%) had attended one workshop. Seven respondents (8%) had attended 2 workshops sponsored by local education agencies, three (3.4%) had attended 5 such workshops, and one each (1.1%) had attended 3, 6, 8, or 15 workshops.

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Table 12: Distribution of respondents by the number of diversity workshops offered by colleges and/or universities they had attended (N = 88).

Number of Workshops	Number	Percent
0	67	76.1
1	12	13.6
2	2	2.3
3	1	1.1
4	2	2.3
6	1	1.1
10	1	1.1
11	1	1.1
25	1	1.1
Total	88	100.0

Table 13: Distribution of respondents by the number of diversity workshops sponsored by local education agencies they had attended (N = 88).

Number of Workshops	Number	Percent
0	58	65.9
1	16	18.2
2	7	8.0
3	1	1.1
5	3	3.4
6	1	1.1
8	1	1.1
15	1	1.1
Total	88	100.0

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The figures in Table 14 indicate the number of other diversity classes attended by the Michigan agriscience teachers who participated in this study. The overwhelming majority of respondents (83 or 94.3%) had not attended other diversity classes. Three respondents (3.4%) had attended two other classes, and one each (1.1%) had attended one or three other diversity classes.

Table 14: Distribution of respondents by the number of other diversity classes they had attended (N = 88).

Number of Classes	Number	Percent
0	83	94.3
1	1	1.1
2	3	3.4
3	1	1.1
Total	88	100.0

Interest in Diversity Training

The distribution of respondents by their interest in diversity training is shown in Table 15. Of the 88 respondents, 43 (48.9%) expressed no interest in diversity training, whereas 42 (47.7%) expressed an interest in such training.

Table 15: Distribution of respondents by their interest in diversity training (N = 88).

Interest in Diversity Training	Number	Percent
Yes	42	47.7
No	43	48.9
No response	3	3.4
Total	88	100.0

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The Meaning of Diversity

Forty-one of the 88 respondents briefly described what the word "diversity" meant to them, and the researcher analyzed these responses for similarities. Eleven of the 41 respondents (26%) defined diversity as a difference in backgrounds, lifestyles, experiences, culture, gender, race, and/or religion. Ten other respondents (24%) included some form of the words "wide variety" or "broad spectrum" in their definitions. Six people (14%) defined diversity using some form of the word "include" or "all." Four respondents (10%) defined diversity by incorporating the concept of "mixture" or "combination of" in their meaning. Other phrases used less frequently were "unique" or "attributes" (2 or 5%), "acceptance" (2 or 5%), or "adapt" (1 or 2%). Four respondents (10%) described diversity in terms of teaching strategies, whereas one respondent (2%) described it as "not putting all your apples into one bucket." Verbatim responses to this item may be found in Appendix E.

Teaching Practices

The Teaching Practices section of the questionnaire contained 28 items related to 72 diverse teaching practices carried out in the classroom. Respondents indicated how often they carried out those diverse teaching practices, using the following 5-point Likert-type scale: 0 = never, 1 = almost never, 2 = sometimes, 3 = most of the time, and 4 = always. Mean scores and standard deviations for the 10 teaching practices serving a diverse population that were most frequently used by the Michigan agriscience teachers who participated in this study are reported in Table 16. The standard deviations are included to provide insight into the variations in the respondent group's ratings. The mean scores on these practices ranged from

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3.60 to 3.80, indicating that most of the time these Michigan agriscience teachers carried out the listed teaching practices that serve a diverse population. As indicated by the three highest ranked items, these teachers most often carried out teaching practices related to promoting men and women as having the same capabilities. (Means and standard items for all 72 teaching practices are listed in Table F1, Appendix F.)

Table 16: Means and standard deviations of teaching practices serving a diverse population that were most frequently used by the respondents.

Teaching Practice	Rank	Mean	SD
Promote men and women as having the same capabilities in serving local community organizations.	1	3.80	0.43
Promote men and women as having the same capabilities in holding leadership positions in professional associations.	2	3.79	0.41
Promote men and women as having the same capabilities in working effectively in the workplace.	3	3.76	0.45
Avoid using language that may be racist.	4	3.75	0.78
Promote men and women as having the same capabilities in contributing to the family.	5	3.67	0.52
Ensure that students placed in cooperative placement programs are done so based on a career objective and not stereotypical roles.	6	3.63	0.62
Encourage students to think beyond stereotypes when making agriculture project choices.	7	3.62	0.64
Create a classroom atmosphere reflecting an acceptance of cultural differences.	8	3.61	0.74
Use instructional materials that are unbiased on the basis of race.	9	3.60	0.67
Create a classroom atmosphere reflecting an acceptance of ethnic differences.	10	3.60	0.79

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To gain further insight into the frequency with which the respondents carried out diverse teaching strategies, the researcher listed the additional comments the respondents made to various questionnaire items and analyzed these comments for similarities. The comments were categorized into three main areas: availability of diverse teaching materials, diverse teaching strategies, and recruitment strategies. These comments are discussed in the following paragraphs.

Availability of Diverse Teaching Materials

Three respondents said that they "use instructional materials as they become available; they are not always available." In reference to using instructional materials representative of the United States population, teachers gave the following responses: "Not applicable," "It was printed in the United States," and "I try to do this."

Diverse Teaching Strategies

In reference to exposing students to successful females, males, minorities, and disabled persons in various agricultural occupations, respondents' comments were as follows: "Not applicable to minorities and disabled persons," "I try to expose students if minorities and disabled persons are available," and "I have successful people come in, but I do think in terms of these areas [females, minorities, and disabled persons]. I only care that they are successful."

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Table F2

Recruitment Strategies

With regard to diverse recruitment strategies, three respondents said, "We try, but minorities and disabled persons are not available"; two others said that they did not have any minority populations. Other respondents commented, "If recruited, all are treated the same"; "Recruiting is never done with the idea of getting more of minorities than females or more females than males—agricultural interest only"; "I recruit all that are interested students"; and "Recruiting is done across the board. Agricultural interest—no special appeal to sex or minorities." Nine respondents said this issue was not applicable to them.

Beliefs and Attitudes Toward Diversity

Part III of the questionnaire concerned respondents' beliefs and attitudes toward various types of diversity. Teachers responded to each of the items and subitems in this section using the following 6-point Likert scale: 6 = strongly agree, 5 = agree, 4 = slightly agree, 3 = slightly disagree, 2 = disagree, and 1 = strongly disagree. Means and standard deviations for the 10 items receiving the strongest agreement are shown in Table 17. In reviewing these items, it can be seen that the respondents agreed most strongly on items related to working alongside students of both genders, women's being as capable as men, and welcoming an opportunity to work alongside those from various ethnic and racial groups. The means and standard deviations for all items in this section of the questionnaire are tabulated in Table F2, Appendix F.

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Table 17: Means and standard deviations of items concerning beliefs and attitudes toward diversity with which respondents most strongly agreed.

Attitude/Belief	Rank	Mean	SD
I would welcome an opportunity to work alongside females.	1	5.56	0.61
I would welcome an opportunity to work alongside males.	2	5.54	0.63
Women are as capable as men in American society.	3	5.51	0.75
I would welcome an opportunity to work alongside ethnic groups.	4	5.43	0.73
I would welcome an opportunity to work alongside racial groups.	5	5.43	0.71
I would feel quite comfortable talking to physically disabled people.	6	5.24	0.96
I would welcome an opportunity to work alongside physically disabled people.	7	5.21	1.03
I would welcome an opportunity to work alongside different religious groups.	8	5.13	0.98
Most school subjects are equally appropriate for girls and boys.	9	5.11	1.09
I would feel quite comfortable talking to males.	10	5.05	1.11

Individual items in the Beliefs and Attitudes Toward Diversity section of the questionnaire constituted six scales dealing with the following specific aspects of diversity: (a) sexual equality, (b) comfort with difference, (c) assimilation versus cultural pluralism, (d) multilingualism versus English only, (e) rural versus other communities, and (f) need for diversity. A complete tabulation of percentages of agreement with the items and subitems in each category may be found in Table F3, Appendix F. Means of respondents' agreement ratings for the items in each section

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were calculated and are reported in Table 18, in rank order. As seen in the table, statements concerning assimilation versus cultural pluralism and comfort with difference received the strongest agreement.

Table 18: Mean scores for each scale in the Beliefs and Attitudes Toward Diversity section of the questionnaire.

Scale	Rank	Mean
Assimilation Versus Cultural Pluralism	1	4.15
Comfort With Difference	2	4.02
Multilingualism Versus English Only	3	3.88
Sexual Equality	4	3.69
Need for Diversity Training	5	3.28
Rural Versus Other Communities	6	2.70

Sexual Equality

Overall, the agriscience teachers in this study had very positive attitudes toward sexual equality (see Table 19). The overwhelming majority (90.9%) believed that women are as capable as men, and 82.9% believed that "Most school subjects are equally appropriate for girls and boys." Relatively few (11.3%) agreed with the statement that "Women should not work outside the home unless the family needs the money," and just 2.3% believed that "Women's emotions interfere with their ability to do a good job." In response to the statement that "Women are as capable as men in American society," one respondent wrote in the comment, "Physically only." Another respondent asked, "Where are the questions about white males or any male not being competent?"

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Table 19:

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Table 19: Percentage of respondents who strongly agreed/agreed and strongly disagreed/disagreed with *sexual equality* statements.

Sexual Equality Statement	Strongly Agree/ Agree (%)	Strongly Disagree/ Disagree (%)
Women are as capable as men in American society.	90.9	0.0
Women should not work outside the home unless the family really needs the money.	11.3	71.6
Women's emotions interfere with their ability to do a good job.	2.3	76.1
Most school subjects are equally appropriate for girls and boys.	82.9	2.3

Comfort With Difference

Generally speaking, the respondents welcomed the opportunity to work alongside people from different racial and ethnic groups, males, females, physically disabled people, those with different sexual orientations, mentally retarded individuals, and people from different religious groups. However, they agreed more strongly with working with females (93.2%) than working with mentally retarded individuals (55.7%) and those with different sexual orientations (48.8%) (see Table 20). Only 54.5% agreed that people who had a learning disability were as intelligent as other people, 50% were comfortable talking to mentally retarded people, and 59.2% were comfortable talking to people of different racial groups. Further, only 59.1% felt comfortable talking about differences in religious beliefs.

The agriscience teachers responding to the survey added these comments: "The mentally retarded are dangerous!" "The community will not allow persons of

Table 20:

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Table 20: Percentage of respondents who strongly agreed/agreed and strongly disagreed/disagreed with *comfort with difference* statements.

Comfort With Difference Statement	Strongly Agree/ Agree (%)	Strongly Disagree/ Disagree (%)
I would welcome an opportunity to work alongside:		
a. Racial groups	87.5	0.0
b. Ethnic groups	86.3	0.0
c. Males	92.0	0.0
d. Females	93.2	0.0
e. Physically disabled people	79.5	2.2
f. Different sexual orientation groups	48.8	23.9
g. Mentally retarded people	55.7	9.1
h. Different religious groups	82.9	3.4
People who are _____ different from me make me feel uncomfortable.		
a. Racially different	1.1	72.7
b. Ethnically different	1.1	77.3
c. Opposite sex	4.5	85.3
d. Physically different	3.4	72.7
e. Religiously different	4.5	80.7
People who have a learning disability are as intelligent as other people.	54.5	5.7
I often feel uneasy when I am around people who are not like me.	2.2	68.2
I would feel quite comfortable talking to:		
a. Racial groups	59.2	12.5
b. Ethnic groups	62.5	11.3
c. Males	84.1	6.8
d. Females	78.4	6.8
e. Physically disabled people	64.7	7.9
f. Different sexual orientation groups	46.6	27.3
g. Mentally retarded people	50.0	15.9
h. Different religious groups	68.2	10.3
People who are culturally different from me make me uncomfortable.	2.2	70.5
People of diverse groups are treated differently because they act different.	25.0	35.0
I feel comfortable talking about differences in religious beliefs.	59.1	13.6

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different sexual orientation groups." "Is there a difference between racial and ethnic groups?" "I would not welcome an opportunity to work alongside a person of a different sexual orientation." "I am not uncomfortable with persons who are of the opposite sex, physically different, or religiously different." In response to the statement, "People who have a learning disability are as intelligent as other people," two respondents commented, "Depends on disability—maybe." Others wrote, "Neutral; some yes but some no," "People who have a learning disability can be as intelligent as other people," and "In many cases they are more intelligent than other people." In response to the statement that "People of diverse groups are treated different because they act differently," one respondent commented: "Historically, slightly agree. Ideally, strongly agree."

Assimilation Versus Cultural Pluralism

Overall, the respondents held positive attitudes regarding cultural pluralism (see Table 21). Few of the respondents (21.6%) agreed with the statement that "We should try to eliminate cultural differences between racial minorities and whites in our society." Only 37.5% appreciated the differences that exist among different sexual orientation groups. More than three-fourths of the respondents (78.4%) agreed that "Each minority culture has something positive to contribute to American society." Further, 71.6% agreed that cultural diversity is a valuable resource.

In response to the statement that "Minorities should conform to the dominant American cultural standards if they want to be accepted," one respondent commented, "It depends on the issue." Another wrote, "Let us make an issue of

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America, which is the 'melting pot,' and we should not differentiate." A third added,

"This is a loaded question and not accurate with such a simple answer." In response

to the statement that "Immigrants should be expected to give up their own cultures

and adapt to American ways," a respondent noted, "Poor wording. They should not

give up their cultures, but yes they should adapt. I feel that they made this choice

when they chose to come to America."

Table 21: Percentage of respondents who strongly agreed/agreed and strongly
disagreed/disagreed with *assimilation versus cultural pluralism*
statements.

Assimilation Versus Cultural Pluralism Statement	Strongly Agree/ Agree (%)	Strongly Disagree/ Disagree (%)
Minorities should conform to the dominant American cultural standards if they want to be accepted.	25.0	25.0
If members of ethnic groups want to keep their own culture, they should keep it to themselves.	3.4	62.5
I appreciate the similarities that exist among: a. Racial groups b. Ethnic groups c. Males d. Females e. Physically disabled people f. Different sexual orientation groups g. Mentally retarded people h. Different religious groups	 68.2 68.2 76.1 76.1 66.0 37.5 59.1 65.9	 3.4 3.4 2.2 2.2 2.2 25.0 4.5 4.5

Table 21: Continued.

Assimilation Versus Cultural Pluralism Statement	Strongly Agree/ Agree (%)	Strongly Disagree/ Disagree (%)
I appreciate the differences that exist among:		
a. Racial groups	62.5	5.7
b. Ethnic groups	68.2	4.6
c. Males	70.4	3.4
d. Females	70.4	3.4
e. Physically disabled people	61.4	3.4
f. Different sexual orientation groups	38.7	27.2
g. Mentally retarded people	61.3	6.8
h. Different religious groups	67.1	6.8
America would be a better place if we all assimilate into one culture.	5.7	62.5
We should try to eliminate cultural differences between racial minorities and whites in our society.	21.6	35.2
Immigrants should be expected to give up their own cultures and adapt to American ways.	4.6	51.2
Having lots of different cultural groups in this country causes lots of problems.	7.9	43.2
Each minority culture has something positive to contribute to American society.	78.4	2.3
I find myself thinking, "Why don't they act like us?"	0.0	57.9
Cultural diversity		
a. is a valuable resource	71.6	0.0
b. should be preserved	67.0	0.0

Multilingualism Versus English Only

Seventy-five percent of the respondents agreed that it is good for our children to learn a second language, other than English, and 65.9% thought that the ability to speak another language is a valuable skill in this country (see Table 22). However, only 43.2% indicated that they enjoyed being around people who spoke more than one language; 45.5% said they were comfortable with the ability to speak only English. Conversely, 48.9% did not support the idea that a person who does not speak English has no right to expect to get ahead in America.

Table 22: Percentage of respondents who strongly agreed/agreed and strongly disagreed/disagreed with *multilingualism versus English only* statements.

Multilingualism Versus English Only Statement	Strongly Agree/ Agree (%)	Strongly Disagree/ Disagree (%)
It's good for our children to learn a second language, other than English.	75.0	4.5
I enjoy being around people who speak more than one language.	43.2	14.8
I get kind of irritated when I am around people who do not speak English.	4.6	45.4
I am comfortable with the ability to speak only English.	45.5	23.8
A person who doesn't speak English has no right to expect to get ahead in America.	12.5	48.9
The ability to speak another language is a valuable skill in this country.	65.9	6.8

Regarding the statement that it is good for our children to learn a second language, one respondent commented, "If required via school—free choice," whereas

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another asked, "Which language should they learn?" In response to the statement about being comfortable with the ability to speak only English, one of the teachers commented, "This is not true," and another noted, "I wish I was fluent in another language." Concerning getting irritated when being around people who do not speak English, one respondent said, "I only get irritated when I can't understand them."

Rural Versus Other Communities

Overall, the agriscience teachers in this study had a positive attitude about people from rural, urban, and suburban communities; however, they seemed to favor people from rural communities (see Table 23). A majority of these teachers (62.5%) agreed that children get a better sense of community growing up in a rural community, whereas only 39.8% agreed that people from rural communities make better neighbors. More than half of the respondents disagreed with the statements that people who live in urban communities work much harder than people who live in rural communities (63.3%) and suburban communities (53.5%).

Respondents added some comments to items in this section of the questionnaire, as well. With regard to whether people in rural, urban, or suburban communities work harder than others, one teacher commented, "Impossible to evaluate. Work ethic has nothing to do with rural versus urban versus suburban." Regarding whether children get a better sense of community growing up in rural, urban, or suburban communities, one respondent added, "All areas are facing the problems. The concept of community has changed drastically in this country over the past 20 years." Another qualified the response with "It depends on the area in

each of those communities." With regard to whether people in rural, urban, or suburban communities make better neighbors, one respondent commented, "Cannot answer because all can be good or bad." Another said, "All communities have all types of neighbors," and yet another added, "Bad question. I feel all people have the ability to be good neighbors."

Table 23: Percentage of respondents who strongly agreed/agreed and strongly disagreed/disagreed with *rural versus other communities* statements.

Rural Versus Other Communities Statement	Strongly Agree/ Agree (%)	Strongly Disagree/ Disagree (%)
People who live in rural communities work much harder than people who live in: a. urban communities b. suburban communities	 23.9 20.5	 37.5 37.5
People who live in suburban communities work much harder than people who live in: a. rural communities b. urban communities	 1.1 1.1	 57.9 46.6
People who live in urban communities work much harder than people who live in: a. rural communities b. suburban communities	 0.0 1.1	 63.6 53.5
This country would be much better off if people who live in _____ communities would learn to live more like people in rural communities. a. urban b. suburban	 15.9 14.8	 51.1 53.3

Table 23: Continued.

Rural Versus Other Communities Statement	Strongly Agree/ Agree (%)	Strongly Disagree/ Disagree (%)
This country would be much better off if people who live in _____ communities would learn to live more like people in <u>urban</u> communities.		
a. rural	3.4	72.8
b. suburban	3.4	69.3
This country would be much better off if people who live in _____ communities would learn to live more like people in <u>suburban</u> communities		
a. rural	3.4	73.9
b. urban	6.8	65.9
Children get a better "sense of community" growing up in the following communities:		
a. rural communities	62.5	14.8
b. urban communities	19.3	30.7
c. suburban communities	21.5	23.9
People who live in the following communities do not know what real work is:		
a. rural communities	3.4	85.3
b. urban communities	5.7	62.5
c. suburban communities	9.1	62.5
People in the following communities make better neighbors:		
a. rural communities	39.8	29.6
b. urban communities	11.4	35.3
c. suburban communities	14.8	33.0

Need for Diversity Training

Respondents' attitudes toward the need for diversity training tended to be positive (see Table 24). A solid majority (75%) agreed that an understanding of

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diversity is important for everyone whether they live in diverse communities or not.

Just 26.1% indicated that they needed diversity training because their position required them to work with an increasing population of diverse groups. Only 2.3% said they did not need training in diversity because the groups they worked with were all farm families.

Table 24: Percentage of respondents who strongly agreed/agreed and strongly disagreed/disagreed with *need for diversity training* statements.

Need for Diversity Training Statement	Strongly Agree/ Agree (%)	Strongly Disagree/ Disagree (%)
I don't need training in diversity because the groups I work with are all white.	4.6	61.4
An understanding of diversity is important for everyone whether they live in diverse communities or not.	75.0	4.5
I do not need training in diversity because the groups I work with are all farm families.	2.3	65.8
I need training in diversity because my position requires me to work with an increasing population of diversity groups.	26.1	20.4

The respondents added comments with regard to the following statements related to the need for diversity training. Commenting on the statement, "I don't need training in diversity because the groups I work with are all white," one respondent said, "Given time"; another chided that this was a "loaded question." Criticizing the statement, "I do not need training in diversity because the groups I work with are all farm families," one respondent commented, "This value judgment (because the groups I work with are all farm families) should be left off." Another agriscience teacher, responding to the statement, "I need training in diversity

because my position requires me to work with an increasing population of diversity groups, commented, "'Because my position requires me to work with an increasing population of diversity groups' is a value judgment; thus, I am neutral." Others added these comments: "I would prefer to enroll in a diversity institute in the fall," "I would love to see other instructors and their reactions," and "I don't need diversity training; I am very aware in this area."

Program Information

In the Program Information section of the questionnaire, respondents were asked to indicate the percentages of male and female students, students with disabilities, and those of various racial/ethnic groups who were enrolled in their high schools and the agriscience program, and who belonged to FFA. In reviewing the responses, it became evident to the researcher that knowing the actual numbers of students of the above-mentioned types would have been more useful than having the percentages. However, although the percentages that respondents indicated were not meaningful for reporting purposes, the researcher could detect that low percentages of racial/ethnic minority students or those with disabilities were enrolled in the agriscience programs or were members of FFA.

Summary

The results of the data analyses conducted for the study were reported in this chapter. Characteristics of the respondents were discussed, and questionnaire results were presented, using descriptive statistics. Chapter V contains a summary of the study, a discussion of the findings, conclusions drawn from the findings, implications, recommendations, and the researcher's reflections.

CHAPTER V

SUMMARY, DISCUSSION OF FINDINGS, CONCLUSIONS, RECOMMENDATIONS, AND REFLECTIONS

Summary

The researcher's purpose in this study was to determine the extent to which the teaching practices used by Michigan agriscience teachers address diversity in secondary agriscience programs. A further purpose was to determine the attitudes of agriscience teachers toward diversity in Michigan's agriscience programs. The population for the study included Michigan agricultural education teachers during the 1996-97 school year. The specific objectives of the study were to determine:

1. The extent to which various teaching strategies and practices of Michigan agriscience teachers are serving culturally diverse students.

2. The attitudes of agriscience teachers toward diversity in Michigan's agriscience programs.

3. The means by which agriscience teachers are being prepared to serve culturally diverse students in their classrooms.

4. The number of students enrolled in Michigan's secondary, vocational, and agricultural education programs.

Of the 139 Michigan agriscience teachers to whom the researcher sent surveys, 88 responded, for a return rate of 63%. The survey contained 86 items

divided into five sections: Meaning of Diversity, Teaching Practices, Beliefs and Attitudes Toward Diversity, Program Information, and Demographic Information. Completed questionnaires were processed by computer, using the Statistical Package for the Social Sciences (SPSS, 1996). Descriptive statistics (frequencies, means, and percentages) were used to summarize the data pertaining to the demographic characteristics of the respondents, their attitudes toward diversity in Michigan's agriscience programs, and the practices they are using in serving culturally diverse students. Major findings are summarized in the following section.

Discussion of Findings

Demographic Characteristics of the Respondents

Nearly three-fourths (74% or 65) of the respondents were males, and 35.1% (29) of them were between the ages of 40 and 48. The majority (53.4% or 47) had been teaching for 16 or more years, and 43.2% (38) had been in their current teaching positions for 16 or more years. Fifty-eight percent (51) of the respondents taught at comprehensive high schools, 70.5% (62) were agriscience instructors, and 43.1% (38) said they spent 100% to 117% of the day teaching agriscience. The majority of respondents (53.4% or 47) had a master's degree; 47.7% (42) had a permanent (continuing) certificate. Forty-two percent of the 88 respondents expressed interest in diversity training. Few teachers had obtained informal training in diversity from a variety of sources, including Pals workshops, church conferences, gender equity seminars, and special education classes.

The Meaning of Diversity

Whereas the qualitative data in this section were not statistically sound, the researcher has extrapolated the implications of the open-ended questions and additional comments of the agriscience teachers. The teachers' definitions of diversity provided the researcher with insight into their beliefs on this subject. More than one-fourth of the teachers defined diversity as "different or difference in backgrounds, lifestyles, experiences, culture, sex, race, or religion." Another common definition of diversity included some form of the words "wide variety" or "broad spectrum."

Teaching Practices

The teaching practices these agriscience teachers used most frequently included promoting men and women as having the same capabilities in serving local community organizations (mean = 3.80), promoting men and women as having the same capabilities in holding leadership positions in professional associations (mean = 3.79), promoting men and women as having the same capabilities in working effectively in the workplace (mean = 3.76), avoiding using language that might be racist (mean = 3.75), promoting men and women as having the same capabilities in contributing to the family (mean = 3.67), ensuring that students placed in cooperative placement programs were done so based on a career objective and not stereotypical roles (mean = 3.63), and encouraging students to think beyond stereotypes when making agriculture project choices (mean = 3.62). Teaching practices most

frequently used were those carried out regardless of diverse populations of students in the classroom.

Practices rated lower but still in the "most of the time" range included using instructional materials representative of the United States population (mean = 3.09), using classroom management strategies including role assignments that reinforce multicultural behavior (mean = 3.07), working with the counseling staff to ensure that students did not make classroom decisions about enrollment in agriculture classes based on misleading stereotypes (mean = 3.06), actively recruiting disabled persons to participate in FFA chapter activities (mean = 3.01), and actively recruiting minorities to participate in FFA chapter activities (mean = 3.00).

Seventeen of the listed teaching practices had means between 1.0 and 2.0 (almost never to sometimes). Such practices included conducting on-going evaluations of instructional materials used to teach about culture (mean = 1.48), conducting on-going evaluations of the teaching strategies used to teach about culture (mean = 1.48), conducting on-going evaluations of the teaching strategies used to teach about ethnicity (mean = 1.47), promoting festivities and celebrations related to the minority cultures of the students enrolled in agriculture (mean = 1.43), and conducting on-going evaluations of the teaching strategies used to teach about ethnicity (mean = 1.43).

Individual comments in the Teaching Practices section of the questionnaire suggested the following problem areas: (a) limited availability of diverse teaching materials, (b) difficulty in implementing diverse teaching practices, (c) inaccessible minority student population, (d) lack of availability of minority resource persons in

agricultural occupations, and (e) lack of awareness of recruitment strategies to attract diverse populations of students. Many teachers expressed concern that there is a limited minority population; however, teachers have the responsibility to adopt culturally diverse teaching strategies regardless of the availability or lack of availability of students from diverse populations. In a pluralistic society, all students should be educated about the contributions of individuals from diverse backgrounds in agricultural development. Many teachers stated that culturally diverse curriculum materials often are limited or unavailable.

Beliefs and Attitudes Toward Diversity

The agriscience teachers in this study rated highly the opportunity to work alongside females. In the comfort-with-difference category, teachers seemed to be least comfortable with mentally retarded people and persons of different sexual orientations. These teachers agreed most strongly with statements in the *assimilation versus cultural pluralism* scale, whereas the lowest agreement was with statements in the *rural versus other communities* scale.

Teachers' comments indicated lack of knowledge about diversity issues as related to the special needs of minorities. Many were uninformed about the different experiences that minorities face in majority populations, whereas a number of teachers had reached a high level of tolerance and a low level of acceptance of diversity issues. In some instances, respondents' comments suggested that many of them viewed diversity as a threat to power instead of as a valuable contribution to society.

Comparison of the Study Findings With Those From Luft's and Ingram's Research

This study of the attitudes of Michigan agriscience teachers toward diversity was based on Luft's (1993) research on the extent to which cultural diversity was addressed in secondary agricultural education in Nevada. Thus, the researcher compared the findings from the two studies. When examining the comparison of findings in Table 25, one should note that Luft's sample comprised 21 teachers, whereas 88 teachers participated in the present study.

Table 25: Comparison of the findings from the present study with those from Luft's research.

	Nevada Agriculture Teachers (N = 21)	Michigan Agriscience Teachers (N = 88)
Response rate	100%	63.0%
Formal diversity training	57.1%	13.6%
Most frequently used teaching practice	Use a balance between large group, small group, and individual activities so that all students regardless of gender, race, and disability are encouraged to become involved.	Promote men and women as having the same capabilities in serving local community organizations.
Least frequently used teaching practice	Conduct on-going evaluations of teaching strategies and instructional materials used to teach about ethnicity and culture.	Conduct on-going evaluations of teaching strategies and instructional materials used to teach about ethnicity and culture.

The findings from this study were also compared to those from Ingram's (1996) study, which was conducted with extension educators in Connecticut. The results are shown in Table 26.

Table 26: Comparison of the findings from the present study with those from Ingram's research.

	Connecticut Extension Educators ($\underline{N}$ = 34)	Michigan Agriscience Teachers ($\underline{N}$ = 88)
Response rate	100.0%	63.0%

Gender
  Males
  Females
	
	14.7%
	85.3%
		
		74.0%
		24.0%

Primary teaching area	Agriculture and natural resources educator (16.5%)	Agriscience instructor (70.5%)

Mean scores for:
  Need for Diversity
  Gender Equality
  Assimilation vs. Pluralism
  Multilingualism vs. English Only
  Rural vs. Other Communities
  Comfort With Difference
	
	5.03
	4.94
	4.53
	4.40
	4.23
	4.17
		
		3.28
		3.69
		4.15
		3.88
		2.70
		4.02

Conclusions

Based on the findings, the following conclusions were drawn:

1.   The majority of students enrolled in Michigan's secondary and vocational education programs (including FFA) were white.

2.   Slightly more females than males were enrolled in Michigan agriscience programs.

3.   Few Michigan agriscience teachers received informal diversity training for serving culturally diverse students.

4.   An overwhelming majority of Michigan agriscience teachers had received no formal diversity training.

5.   The agriscience teachers in this study rated highly the teaching practice of promoting men and women as having the same capabilities in serving local community organizations.

6.   The agriscience teachers rated highly the opportunity to work alongside females.

Implications

The key implication derived from this study is that MSU should involve the teachers who participated in this study in future efforts to diversify the agriscience programs in the state. These teachers were interested in diversity training to help them better serve students from diverse populations. Thus, it is crucial for MSU to take the next step and involve these teachers in diversity initiatives. This study also has the following implications:

1.   The definition of diversity should include mention of the unique attributes that each individual adds to society for the betterment of our world. Those with unique attributes may include but are not limited to women, minorities, individuals of different sexual orientations, those from different religious backgrounds, and people with disabilities.

2.   Diversity training was not a high priority in the educational preparation of the agriscience teachers. Only 13.6% had received formal diversity training offered by colleges and universities.

3.   Agriscience teachers were not making strong efforts to recruit minorities into agriscience programs.

4.   Figures on minority populations were unavailable, and teachers' diverse teaching strategies were rarely implemented.

5.   Limited diversity training sessions were accessible to Michigan agriscience teachers to help them serve diverse populations of students or those who would work with students from diverse populations.

Recommendations

Recommendations for Practice

Based on the findings and conclusions from this study, the following recommendations are made:

1.   Agricultural education teachers should actively recruit minority students into their programs, providing the school has a minority population. Even if there is no minority population, students should still have the opportunity to learn about the contributions of minorities to agriculture.

2.   Teachers should encourage all agricultural education students to participate in FFA events, activities, and contests.

3.   According to the findings, just 13.6% of the respondents had received diversity training through courses offered by colleges and universities. Diversity

training should be a priority in the educational preparation of agriscience teachers. Diversity training sessions should be conducted to inform teachers of current diversity trends in the United States and Michigan and how these trends can be addressed through culturally diverse teaching practices.

4.   Administrators and teachers should celebrate diversity through various approaches, including diversifying recruitment strategies, incorporating diverse teaching practices, and revising and increasing diversity course requirements for teacher education students. The following two classes should be considered as additions to the current diversity course requirements: CEP 240--Diverse Learners in Multicultural Perspective and MGT 414--Diversity in the Workplace.

5.   To improve the extent to which Michigan agriscience teachers address cultural diversity in the future, preservice teacher education students should be required to take courses dealing with teaching culturally diverse students. The course content should contain content recommended by experts in multicultural education. Administrators, teachers, and others may find the following resources useful for background history on multicultural education and for effective teaching strategies.

Banks, J. A. (1979). Teaching strategies for ethnic studies (2nd ed.). Boston, MA: Allyn & Bacon.

Bennett, C. I. (1987). The effects of a multicultural education course on pre-service teachers' knowledge and attitudes. Bloomington: Indiana University Press.

Clarken, R. H., & Hirst, L. A. (1992, February). Enhancing multicultural education in teacher preparation programs. San Antonio, TX: American Association of Colleges for Teacher Education. (ERIC Document Reproduction Service No. ED 346 073)

Cochran-Smith, M. (1995). Color blindness and basket making are not the answers: Confronting the dilemmas of race, culture, and language diversity in teacher education. American Education Research Journal, 32(3), 493-523.

Copeland, L. (1988, May). Learning to manage a multicultural workforce. Training: The Magazine of Human Resource Development, pp. 48-59.

Grant, C. (1991). Culture and teaching: What do teachers need to know? In M. Kennedy (Ed.), Teaching academic subjects to diverse learners (pp. 237-256). New York: Teachers College Press.

Heid, C. A. (1987). Multicultural education: Knowledge and perceptions. Bloomington: Indiana University, Center for Urban and Multicultural Education. (ERIC Document Reproduction Service No. ED 312 196)

Hones, D. F. (1997). Preparing teachers for diversity: A service learning approach. Chicago, IL: Annual Meeting of the American Educational Research Association. (ERIC Document Reproduction Service No. ED 406 381)

Jones, M. C. (1994, June). Mentoring diverse populations: An ongoing process. Agricultural Education Magazine, 66(12), 12-13, 16.

Lisack, J. P., & Shell, K. D. (1988). Critical changes ahead: Demographic, technological, socio-economic with emphasis on multiculturalism in the workplace--Opportunities and challenges (Manpower Report 88-8). Lafayette, IN: Purdue University, Office of Manpower Studies. (ERIC Document Reproduction Service No. ED 301 663)

Sleeter, C. (1995). White preservice teachers and multicultural education coursework. In J. Larkin & C. Sleeter (Eds.), Developing multicultural teacher education curricula (pp. 17-29). Albany: State University of New York Press.

Weiner, L. (1993). Preparing teachers for urban schools. New York: Teachers College Press.

Zimpher, N., & Ashburn, E. (1992). Countering parochialism in teacher candidates. In M. Dilworth (Ed.), Diversity in teacher education (pp. 40-62). San Francisco: Jossey-Bass.

6. Administrators should make efforts to provide teachers with resource

materials and to assist teachers in locating and implementing diverse teaching

methods. The resource materials may be useful to teachers for teaching concepts

from a more diverse perspective:

Anderson, T., & Barta, S. (1984). Multicultural nonsexist education in Iowa schools: Agricultural education. Des Moines: Iowa State Department of Public Instruction. (ERIC Document Reproduction Service No. ED 256 918)

Bowen, B. E., & Jackson, G. B. (1992). Enhancing diversity in vocational education. Columbus: The Ohio State University/ERIC Clearinghouse on Adult, Career, and Vocational Education.

Ingram, P. (1996). Changing populations create diversity in the food marketplace. Briefs to Agricultural Educators, 1(8). State College: Pennsylvania State University, Department of Agricultural and Extension Education.

Johnston, W. B., & Packer, A. H. (1987). Workforce 1000: Work and workers for the 21st century. Indianapolis, IN: Hudson Institute.

Kromkowski, J. A. (Ed.). Race and ethnic relations. Guilford, CT: Dushkin Publishing Group.

Michigan State Department of Management and Budget. (1984, September). Employment and training needs of Hispanics in Michigan. Lansing: Michigan Commission on Spanish-Speaking Affairs. (ERIC Document Reproduction Service No. ED 256 834)

Monsanto Company. (1997). Diversity report. St. Louis, MO: Author.

Moore, E. A. (1994, June). Supporting diversity: A challenge and opportunity for the profession. Agricultural Education Magazine, 66(12), 4-5.

Nixon, J. (1985). A teacher's guide to multicultural education. New York: Basil Blackwell.

Office of Diversity and Pluralism, College of Agriculture and Natural Resources, Michigan State University. (n.d.). DMS (Diversity makes sense) (interactive multimedia diversity training). East Lansing, MI: Author.

Western Michigan University. (1982, September). Handicapped student-learners: Michigan Mandatory Special Education Act, Rehabilitation Act of 1973, Michigan Handicapper's Civil Rights Act, and Michigan's Hire the Handicapped Law. Legal modules for vocational cooperative education.

Lansing: Michigan State Department of Education. (ERIC Document Reproduction Service No. ED 222 709)

White, M. B. (Winter, 1997). Changing course: New diversity initiatives at Avon, AT&T, and TVA. The Diversity Factor, 5(2), 29-46.

6. A number of opportunities exist for increasing agriscience students' comfort level with diversity, thus better preparing them for a diverse workforce. At schools with limited or no minority populations, teachers should try to provide students with meaningful experiences that expose them to various cultures. For example, the Supervised Agricultural Experience Program (SAEP) offers an excellent opportunity to provide minority resource persons, such as speakers from the Black Farmers Association and/or the National Minorities in Agriculture, Natural Resources, and Related Sciences (MANRRS) organization.

Recommendations for Further Research

Efforts to diversify agricultural education programs in Michigan are in the beginning stages, and research in this area is limited. Thus, the following recommendations are made for future research studies:

1. A study should be conducted to determine the factors associated with students' participation and lack of participation in agricultural education programs.

2. This study should be replicated to measure progress and update the research data base on efforts to diversify agricultural education programs.

3. Replication of this study should include additional open-ended questions to determine the agriscience teachers' access to culturally diverse teaching materials.

4. A follow-up study should be conducted to determine the most effective means of providing agriscience teachers with culturally diverse teaching materials.

5. This study should be replicated in other states in which diversifying the agricultural program has not been given a high priority.

Reflections

In conducting this research, the researcher has learned that diversity training is greatly needed. The "monkey incident" at AT&T shows what can happen when some employees have little or no diversity training and their embedded biases emerge in the workplace. How can we end this cultural insensitivity so that we can all "just get along" and get the job done? Although some companies are beginning to take a stand and fire individuals who harbor racist views and blatantly insult other employees, prevention would be better.

Currently, various myths about diversity must be addressed before diversity can be accepted and embraced. Many teachers seem to think that diversity issues are applicable only to ethnic and racial minorities. The word "diversity," however, refers to a broad range of issues, including gender, sexual orientation, religious beliefs, physical or mental ability, and racial and ethnic groups. All students, regardless of their ethnic or racial background, should be educated about the significant contributions of diverse populations to the development of agricultural nationwide, as well as to other fields.

Organizations and companies that place little or no value on diversity may not thrive as we approach the 21st century because they are not maximizing the full

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potential of their employees. If educators do not expose students to diversity issues, they are not fulfilling their implicit goal of workforce preparedness, especially for teachers who will enter classrooms with diverse students. Teachers who are unwilling to incorporate diverse teaching practices are doing their students a disservice. If agricultural educators are to strengthen their programs, they need to reevaluate and revise how and what they teach and how they recruit students.

Researchers have suggested that unsuccessful diversity programs have focused on differences instead of similarities. In education and in the workplace, trainers should focus on similarities in order to achieve increased production and stronger teams working toward a common goal. Interestingly, the majority of respondents in this study defined diversity using some form of the word "difference." This clearly indicates that efforts to educate agriscience teachers in diversity issues are crucial if they are to develop cultural awareness and understanding of diverse students. Commonalities can serve as a means of uniting people. Focusing on similarities provides a sense of oneness and team effort necessary for effective teamwork.

The researcher is pleased with the high response rate (63%) and the interest these agriscience teachers showed in diversity training. They indicated specific problem areas: lack of diverse teaching materials, diverse teaching strategies, and recruitment strategies. This chapter has included many useful references interested teachers can use in furthering their own preparation in these areas.

APPENDICES

APPENDIX A

NAMES OF REVIEW COMMITTEE

Review Committee Members

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APPENDIX B

SURVEY INSTRUMENT

GENERAL INFORMATION:

As Michigan and other states increase in diverse populations, there is a need to develop a research base to begin to assess how well we are responding to the needs of diverse populations in the schools. The research team involved in this study understands that this voluntary questionnaire is one of many you have completed and appreciate the time you are taking to complete this survey.

This voluntary questionnaire is part of a research study which focuses on the attitudes of Michigan's agriscience teachers towards diversity, and the extent to which teaching practices are addressing diversity in secondary agriscience programs. There are **no right or wrong answers** and your responses will remain **confidential**. You should not put your name or any other information, other than the answers to the questions, on this questionnaire. Although you may decline to answer any question, your honest responses to all the questions are very important to the success of this study, and will help us in developing a meaningful and comprehensive research base. Please follow the instructions as given for each section. Thank you in advance for your cooperation!

Part I: Meaning of Diversity

Briefly describe what the word "Diversity" means to you.

Part II: Teaching Practices

Please use the following scale to respond to the statements below. Circle the number of your response which most closely matches your teaching practices.

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Scale:  0 = never
        1 = almost never
        2 = sometimes
        3 = most of the time
        4 = always
```

1. Use a balance between large group, small group, and
    individual activities so that all students are encouraged
    to become involved regardless of the following factors:
    a. Sex   0   1   2   3   4
    b. Race   0   1   2   3   4
    c. Disability   0   1   2   3   4

2. Avoid using language which may be:
    a. Sexist   0   1   2   3   4
    b. Racist   0   1   2   3   4

3. Create a classroom atmosphere reflecting an acceptance of:
    a. Cultural differences   0   1   2   3   4
    b. Ethnic differences   0   1   2   3   4

4. Use instructional materials that are unbiased on the basis of:
    a. Race   0   1   2   3   4
    b. Sex   0   1   2   3   4
    c. Disability   0   1   2   3   4

5. Promote men and women as having the same capabilities in:
    a. Contributing to the family   0   1   2   3   4
    b. Working effectively in the workplace   0   1   2   3   4
    c. Serving local community organizations   0   1   2   3   4
    d. Holding leadership positions in professional
        associations   0   1   2   3   4

6. Use classroom management strategies including role
    assignments that reinforce:
    a. Multicultural behavior   0   1   2   3   4
    b. Nonsexist behavior   0   1   2   3   4

7. Provide opportunities for students to view the following groups in a variety of successful agricultural roles:

a.	Females	0	1	2	3	4
b.	Males	0	1	2	3	4
c.	Minorities	0	1	2	3	4
d.	Disabled persons	0	1	2	3	4

8. Alert students to stereotyping when it occurs in the following:

a.	Instructional materials	0	1	2	3	4
b.	Classroom discussions	0	1	2	3	4
c.	Writing assignments	0	1	2	3	4
d.	FFA program activities	0	1	2	3	4

9. Ensure that students placed in cooperative placement programs are done so based on a career objective and <u>not</u> stereotypical roles.

    0   1   2   3   4

10. Encourage students to think beyond stereotypes when making agriculture project choices.

    0   1   2   3   4

11. Expose agricultural education students to successful individuals in various agricultural occupations who are:

a.	Females	0	1	2	3	4
b.	Males	0	1	2	3	4
c.	Minorities	0	1	2	3	4
d.	Disabled persons	0	1	2	3	4

12. Work with the counseling staff to ensure that students do <u>not</u> make classroom decisions about enrollment in agriculture classes based on misleading stereotypes.

    0   1   2   3   4

13. Actively recruit the following groups to participate in FFA chapter activities:

a.	Minorities	0	1	2	3	4
b.	Females	0	1	2	3	4
c.	Disabled persons	0	1	2	3	4
d.	Males	0	1	2	3	4

14. Use instructional materials representative of the U.S. population.

    0   1   2   3   4

15. Develop special support strategies for non-traditional students.　　　　0　1　2　3　4

16. Use a variety of assessment procedures that reflect the following differences of students in the program:
    a.   Ethnic diversity　　　　0　1　2　3　4
    b..   Cultural diversity　　　　0　1　2　3　4

17. Encourage students to inquire into the historic involvement or exclusion of the following groups in agricultural occupations:
    a. Minorities　　　　0　1　2　3　4
    b. Females　　　　0　1　2　3　4
    c. Disabled persons　　　　0　1　2　3　4
    d. Males　　　　0　1　2　3　4

18. Discuss the roles the following groups have played in the history of agriculture:
    a. Minorities　　　　0　1　2　3　4
    b. Females　　　　0　1　2　3　4
    c. Disabled persons　　　　0　1　2　3　4
    d. Males　　　　0　1　2　3　4

19. Discuss how agricultural practices relate to the various cultures of students in your agriculture classes.　　　　0　1　2　3　4

20. Make bulletin boards and displays for the classroom which are representative of the roles of the following groups:
    a. Minorities　　　　0　1　2　3　4
    b. Females　　　　0　1　2　3　4
    c. Disabled persons　　　　0　1　2　3　4
    d. Males　　　　0　1　2　3　4

21. Discuss public policies related to agriculture which are relevant to:
    a. Ethnic diversity　　　　0　1　2　3　4
    b. Cultural diversity　　　　0　1　2　3　4

22. Recruit the following groups to enroll in agriculture classes:
    a. Minorities   0   1   2   3   4
    b. Females   0   1   2   3   4
    c. Disabled persons   0   1   2   3   4
    d. Males   0   1   2   3   4

23. Use instructional materials which represent the following groups: '
    a. Minorities   0   1   2   3   4
    b. Females   0   1   2   3   4
    c. Disabled persons   0   1   2   3   4
    d. Males   0   1   2   3   4

24. Provide curricular activities that promote the cultures of the ethnic minority students in your program.   0   1   2   3   4

25. Use persons from culturally diverse groups as resources in the classroom including:
    a. Minorities   0   1   2   3   4
    b. Females   0   1   2   3   4
    c. Disabled persons   0   1   2   3   4
    d. Males   0   1   2   3   4

26. Promote festivities and celebrations related to the minority cultures of the students enrolled in agriculture.   0   1   2   3   4

27. Conduct on-going evaluations of the teaching strategies used to teach about:
    a. Ethnicity   0   1   2   3   4
    b. Culture   0   1   2   3   4

28. Conduct on-going evaluations of instructional materials used to teach about:
    a. Ethnicity   0   1   2   3   4
    b. Culture   0   1   2   3   4

Part III: Beliefs and Attitudes Toward Diversity

Circle the number of your response which most closely matches your beliefs or attitude to the statement. Please use the following scale to respond to the statements below.

Scale:
1. Strongly Disagree
2. Disagree
3. Slightly Disagree
4. Slightly Agree
5. Agree
6. Strongly Agree

1. Women are as capable as men in American society. 1 2 3 4 5 6

2. I would welcome an opportunity to work alongside:
    a. Racial groups   1 2 3 4 5 6
    b. Ethnic groups   1 2 3 4 5 6
    c. Males   1 2 3 4 5 6
    d. Females   1 2 3 4 5 6
    e. Physically disabled people   1 2 3 4 5 6
    f. Different sexual orientation groups 1 2 3 4 5 6
    g. Mentally retarded people   1 2 3 4 5 6
    h. Different religious groups   1 2 3 4 5 6

3. Minorities should conform to the dominant
    American cultural standards if they want to be
    accepted.   1 2 3 4 5 6

4. It's good for our children to learn a second
    language, other than English.   1 2 3 4 5 6

5. People who live in rural communities work much
    harder than people who live in:
    a. urban communities   1 2 3 4 5 6
    b. suburban communities   1 2 3 4 5 6

6. People who live in suburban communities work
    much harder than people who live in:
    a. rural communities   1 2 3 4 5 6
    b. urban communities   1 2 3 4 5 6

7. People who live in urban communities work much
    harder than people who live in:
    a. rural communities   1 2 3 4 5 6
    b. suburban communities   1 2 3 4 5 6

8. People who are _____ from me make me feel uncomfortable.

a.	Racially different	1	2	3	4	5.	6
b.	Ethnically different	1	2	3	4	5	6
c.	Opposite sex	1	2	3	4	5	6
c.	Physically different	1	2	3	4	5	6
d.	Religiously different	1	2	3	4	5	6

9. If members of ethnic groups want to keep their own culture they should keep it to themselves.　1　2　3　4　5　6

10. I don't need training in diversity because the groups I work with are all White.　1　2　3　4　5　6

11. I appreciate the similarities that exist among:

a.	Racial groups	1	2	3	4	5	6
b.	Ethnic groups	1	2	3	4	5	6
c.	Males	1	2	3	4	5	6
d.	Females	1	2	3	4	5	6
e.	Physically disabled people	1	2	3	4	5	6
f.	Different sexual orientation groups	1	2	3	4	5	6
g.	Mentally retarded people	1	2	3	4	5	6
h.	Religious groups	1	2	3	4	5	6

12. I appreciate the differences that exist among:

a.	Racial groups	1	2	3	4	5	6
b.	Ethnic groups	1	2	3	4	5	6
c.	Males	1	2	3	4	5	6
d.	Females	1	2	3	4	5	6
e.	Physically disabled people	1	2	3	4	5	6
f.	Different sexual orientation groups	1	2	3	4	5	6
g.	Mentally retarded people	1	2	3	4	5	6
h.	Religious groups	1	2	3	4	5	6

13. This country would be much better off if people who live in _____ communities would learn to live more like people in rural communities.

a.	urban	1	2	3	4	5	6
b.	suburban	1	2	3	4	5	6

14. This country would be much better off if people who
live in _____ communities would learn to live
more like people in urban communities.

    a.   rural   1   2   3   4   5   6

    b.   suburban   1   2   3   4   5   6

15. This country would be much better off if people who
live in the following communities would learn to live
more like people in suburban communities.

    a.   rural communities   1   2   3   4   5   6

    b.   urban communities   1   2   3   4   5   6

16. People who have a learning disability are as
intelligent as other people.   -   1   2   3   4   5   6

17. Women should not work outside the home unless
the family really needs the money.   1   2   3   4   5   6

18. I often feel uneasy when I am around people who
are not like me.   1   2   3   4   5   6

19. America would be a better place if we all assimilate
into one culture.   1   2   3   4   5   6

20. I enjoy being around people who speak more than
one language.   1   2   3   4   5   6

21. We should try to eliminate cultural differences
between racial minorities and Whites in our
society.   1   2   3   4   5   6

22. Children get a better "sense of community" growing
up in the following communities:

    a.   rural communities   1   2   3   4   5   6

    b.   urban communities   1   2   3   4   5   6

    c.   suburban communities   1   2   3   4   5   6

23. I would feel quite comfortable talking to:

		1	2	3	4	5	6
a.	Racial groups	1	2	3	4	5	6
b.	Ethnic groups	1	2	3	4	5	6
c.	Males	1	2	3	4	5	6
d.	Females	1	2	3	4	5	6
e.	Physically disabled people	1	2	3	4	5	6
f.	Different sexual orientation groups	1	2	3	4	5	6
g.	Mentally retarded people	1	2	3	4	5	6
h.	Religious groups	1	2	3	4	5	6

24. Immigrants should be expected to give up their own cultures and adapt to American ways.

1 2 3 4 5 6

25. People who are culturally different from me make me uncomfortable.

1 2 3 4 5 6

26. Women's emotions interfere with their ability to do a good job.

1 2 3 4 5 6

27. An understanding of diversity is important for everyone whether they live in diverse communities or not.

1 2 3 4 5 6

28. People who live in the following communities do not know what real work is:

		1	2	3	4	5	6
a.	rural communities	1	2	3	4	5	6
b.	urban communities	1	2	3	4	5	6
c.	suburban communities	1	2	3	4	5	6

29. Having lots of different cultural groups in this country causes lots of problems.

1 2 3 4 5 6

30. I get kind of irritated when I am around people who do not speak English.

1 2 3 4 5 6

31. People of diverse groups are treated differently because they act different.

1 2 3 4 5 6

32. Each minority culture has something positive to contribute to American society.

1 2 3 4 5 6

33. I feel comfortable talking about differences in religious beliefs.

    1   2   3   4   5   6

34. I am comfortable with the ability to speak only English.

    1   2   3   4   5   6

35. Most school subjects are equally appropriate for girls and boys.

    1   2   3   4   5   6

36. I find myself thinking, "Why don't they act like us?"

    1   2   3   4   5   6

37. People in the following communities make better neighbors:

   a.   rural communities   1   2   3   4   5   6
   b.   urban communities   1   2   3   4   5   6
   c.   suburban communities   1   2   3   4   5   6

38. Cultural diversity

   a.   Is a valuable resource   1   2   3   4   5   6
   b.   Should be preserved   1   2   3   4   5   6

39. A person who doesn't speak English has no right to expect to get ahead in America.

    1   2   3   4   5   6

40. I do not need training in diversity because the groups I work with are all farm families.

    1   2   3   4   5   6

41. The ability to speak another language is a valuable skill in this country.

    1   2   3   4   5   6

42. I need training in diversity because my position requires me to work with an increasing population of diversity groups.

    1   2   3   4   5   6

Part IV: Program Information

1. Please provide the approximate percentage of students who are enrolled in the Agriscience program and are members of the FFA for the following groups:

Groups	Program (%)	FFA Membership (%)
Caucasian/Non-Hispanic	_____	_____
African/American/Non-Hispanic	_____	_____
Chicano/Mexican American	_____	_____
Hispanic.	_____	_____
America Indian or Alaskan Native	_____	_____
Asian (Pacific Islander/Asian American)	_____	_____
Other (Specify) _____	_____	_____

2. Please provide the approximate percentage of students who are enrolled in the Agriscience program and are members of the FFA for the following groups:

Groups	Program (%)	FFA Membership (%)
Females	_____	_____
Males	_____	_____

3. Please provide the approximate percentage of students who are enrolled in the high school(s) for the following groups.

	Percent
Caucasian/Non-Hispanic	_____
African American /Non-Hispanic	_____
Chicano/Mexican American	_____
Hispanic	_____
American Indian or Alaskan Native	_____
Asian (Pacific Islander/Asian American)	_____

4. What is the approximate percentage of disabled students for the following categories:

Categories	Percent
Enrolled in the Agriscience program	_____
Membership in the FFA chapter	_____
Enrolled in the high school(s)	_____

5. Please indicate the types and number of diversity sessions you have attended within the last three years.

Categories | Number

Diversity classes offered by colleges and universities _____
Diversity integrated in classes _____
Workshops and in-services offered by colleges and universities _____
Workshops and in-services provided by local educational agencies _____
Other (specify) _____ _____

6. If a diversity in-service session was held during the summer or fall professional development institutes within the next year, would be interested in attending?

Yes _____
No _____

Part IV: Demographic Information

7. Gender (Check one.)
   a. _____ Male
   b. _____ Female

8. Age of respondent: (include this year) _____ years

9. How many years have you been teaching agriscience/horticulture, or other agricultural classes?

   □ **Less than one year**
   □ 1-3 years
   □ 4-6 years
   □ 7-9 years
   □ 10-12 years
   □ 13-15 years
   □ 16 or more years

10. Please indicate the number of years in current teaching position:

   □ Less than one year
   □ 1-3 years
   □ 4-6 years
   □ 7-9 years
   □ 10-12 years
   □ 13-15 years
   □ 16 or more years

11. Do you teach in a: (Check one.)
    a. _____ comprehensive high school
    b. _____ career center
    c. _____ comprehensive high school that is a designated career center
    d. _____ other (Specify) _____

12. What percent of the day are you teaching Agriscience and Natural Resources?

    _____ %

13. Do you consider yourself a: (Check one.)
    a. _____ Production Agricultural Instructor
    b. _____ Horticulture Instructor
    c. _____ Agriscience Instructor
    d. _____ Ag. Mechanics Instructor
    e. _____ Other (Specify)

14. Please indicate your highest degree completed. (Check one.)
    a. _____ High School Diploma
    b. _____ Associate's
    c. _____ Bachelor's
    d. _____ Masters
    e. _____ Specialist
    f. _____ Ph.D.
    g. _____ Postdoctoral

15. Please indicate your current certification. (Check one.)
    a. _____ Secondary Provisional Certificate with Vocational Endorsements
    b. _____ Permanent (Continuing) Certificate with Vocational Endorsements
    c. _____ Temporary Vocational Authorization
    d. _____ Full Vocational Authorization
    e. _____ Annual Authorization

Thank you so much for taking the time to respond to this questionnaire!
Please return the questionnaire in the enclosed envelope to:

Laikhe Jones
408 Agriculture Hall
Michigan State University
East Lansing, MI 48824-1039

APPENDIX C

LETTER OF APPROVAL FROM THE UNIVERSITY COMMITTEE ON

RESEARCH INVOLVING HUMAN SUBJECTS (UCRIHS)

MICHIGAN STATE
U N I V E R S I T Y

December 30, 1996

TO: Eddie A. Moore
        410 Agricultural Hall

RE: IRB#:   96-716
        TITLE: EXTENT TO WHICH CULTURAL DIVERSITY IS ADDRESSED
                                   IN MICHIGAN'S AGRISCIENCE PROGRAMS
        REVISION REQUESTED: N/A
        CATEGORY: 1-A
        APPROVAL DATE: 12/23/96

The University Committee on Research Involving Human Subjects' (UCRIHS)
review of this project is complete. I am pleased to advise that the
rights and welfare of the human subjects appear to be adequately
protected and methods to obtain informed consent are appropriate.
Therefore, the UCRIHS approved this project and any revisions listed
above.

RENEWAL: UCRIHS approval is valid for one calendar year, beginning with
                 the approval date shown above. · Investigators planning to
                 continue a project beyond one year must use the green renewal
                 form (enclosed with the original approval letter or when a
                 project is renewed) to seek updated certification. There is a
                 maximum of four such expedited renewals possible. Investigators
                 wishing to continue a project beyond that time need to submit it
                 again for complete review.

REVISIONS: UCRIHS must review any changes in procedures involving human
                 subjects, prior to initiation of the change. If this is done at
                 the time of renewal, please use the green renewal form. To
                 revise an approved protocol at any other time during the year,
                 send your written request to the UCRIHS Chair, requesting revised
                 approval and referencing the project's IRB # and title. Include
                 in your request a description of the change and any revised
                 instruments, consent forms or advertisements that are applicable.

PROBLEMS/
CHANGES: Should either of the following arise during the course of the
                 work, investigators must notify UCRIHS promptly: (1) problems
                 (unexpected side effects, complaints, etc.) involving human
                 subjects or (2) changes in the research environment or new
                 information indicating greater risk to the human subjects than
                 existed when the protocol was previously reviewed and approved.

If we can be of any future help, please do not hesitate to contact us
at (517)355-2180 or FAX (517)432-1171.

Sincerely,

David E. Wright, Ph.D.
UCRIHS Chair

DEW:bed

cc: Laikhe Jones

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APPENDIX D

CORRESPONDENCE TO SUBJECTS

March 25, 1997

FIELD(Teacher)
FIELD(School)
FIELD(Address)
FIELD(City state zip)

Dear FIELD(Salutation):
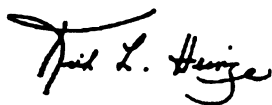
Early in February you received a questionnaire from our Department of Agricultural and Extension Education (AEE) entitled, "Attitudes of Michigan's Agriscience Teachers Towards Diversity." If you have already completed the questionnaire and returned it, we would like to thank you for your cooperation and participation. If you have not yet responded, we would very much appreciate your participation in this important study.

A word or two may help you decide that this study is worthy of your response. From our literature review, we believe this research is the most comprehensive of its kind in the country. Diversity is a priority of the National Council for Agricultural Education, Michigan State University, Michigan's Department of Education, other entities, and perhaps even your local school district. Therefore, it is our professional responsibility to establish a research base regarding diversity in agricultural education. **There are no right or wrong answers, and your responses will remain confidential.** Only aggregate data will be used in tabulating the results. It is anticipated that the results from this study will contribute significantly to the body of knowledge with respect to the preparation of teachers, in-service training, and overall agriscience programming.
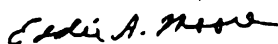
In 1991, our department conducted another sensitive study entitled, "Attitudes of Agriscience Teachers in Michigan Toward Internationalizing Agricultural Education Programs." The results assisted Michigan in better preparing students for an ever changing global society. Additionally, the study assisted Michigan in providing national leadership for internationalizing agriscience programs throughout the country. The response rate for this study was 88%. That was an excellent response rate since we surveyed all of the agriscience teachers in the state. We view the diversity study as equally important because it is an attempt to address one of America's most difficult, yet crucial issues. Your response will assist us in achieving a reasonable response rate which is important in conducting quality research.

In the event you do not have the earlier questionnaire sent to you, we have enclosed another one in hopes that you will assist us in completing this important research. Your earliest response will enable us to complete this research study as planned. Let any of us know if you are interested in a copy of the results, or give us a call if you have questions. Thanks for your time and willingness to participate in one of our most important research initiatives.
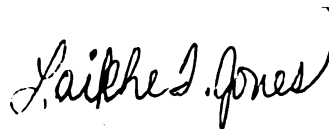
Sincerely,

Kirk Heinze   Eddie A. Moore   Laikhe Jones
Acting Chairperson   Professor   Graduate Assistant

Encl: questionnaire

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January 20, 1997

Jim Johnson
Alcona Comm High School
51 N Barlow Road
Lincoln, MI 48742

Dear Jim:

Happy New Year! We trust you will have a healthy, enjoyable, and prosperous year in 1997.

The increased diversity of Michigan's population has created a challenge for K-12 educators in serving a greater diversity of youth in schools. Several training efforts designed to increase cultural knowledge and understanding, as well as, excellent examples of successful programs targeting diverse audiences in the state can be cited. However, there is a need for developing a research base on diversity.

An appropriate preliminary step in developing a research base on diversity in agricultural education, would be to determine the attitudes of agriscience teachers toward diversity. The responsibilities of agriscience teachers in motivating students to reach their potential are very important. Since teachers are on the front-line serving youth in Michigan, the development of a research base on diversity should start with agriscience teachers. You can support the development of a research base on diversity in agricultural education by responding to the enclosed questionnaire. Your responses will be held in strict confidence and your participation in this study is a voluntary effort.

The questionnaire should take about 15 minutes to complete. It would be great to receive your completed questionnaire within a week or so. Your earliest response will assist us in completing this important research study as planned. All data will be analyzed and reported in group form only. The code number at the lower right hand corner of the last page will be used for follow-up of non-respondents only. A pre-paid envelope addressed to Laikhe Jones, graduate assistant, is enclosed for your convenience. Upon receipt of your questionnaire, Laikhe will cut-off the code number and throw away the mailing envelope.

Thanks in advance for your assistance in helping to complete this valuable study.

Sincerely,

Eddie A. Moore, Professor   Laikhe T. Jones, Graduate Assistant

EAM/dld

Enclosures (3)

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Agricultural & Extension Education
410 Agriculture Hall
Michigan State University
East Lansing, MI   48824

February 18, 1997

Dear Ms. Higgins:

As you know, we are conducting a survey to assess the beliefs and perceptions of Michigan agriscience teachers towards issues related to diversity. So that the study can proceed on schedule, we would appreciate it if you would complete and return your questionnaire within the next seven days. You are reminded that your participation in this survey is strictly voluntary and your responses will be analyzed collectively.

Thank you for assistance in helping to complete this valuable study.

Sincerely,

Laikhe Jones   Dr. Eddie A. Moore

APPENDIX E

RESPONSES TO "WHAT DIVERSITY MEANS TO ME"

What the word "Diversity" means to me:

In respect to our students, diversity refers to different backgrounds, lifestyles, experiences. For example, farm vs. nonfarm, rural vs. urban, parental–guidance, jobs, economics–well to-do to economically disadvantaged. Diversity could also include race, religion, gender, and age, but in education these are not considered in educating students because all students deserve our best.

I believe that diversity is a collection of people with all different types of experiences and backgrounds, which include but are not limited to sex, race, ethnicity, culture, sexual preference, etc.

To me, diversity means the allowing of differences and accepting differences.

Covering a wide range of topics within a given area.

A mix of something. In this case, [it means] a mix of ethnic, religious, and economic backgrounds.

Diversity means that all possible combinations of something are represented. Examples of these are ideas, race, gender, species of livestock, etc.

In school, it covers students from different cultures, races, [and] social and economic backgrounds.

Diversity means that a person has a wide array or variety of knowledge and ideas to share with another person or group. Diverse means variety; therefore, a person who is diverse in cultural, ethnic view will help broaden our views.

Diversity is the involvement of all people in all activities.

In addition to the obvious, those things that we can visibly see such as race, color, ethnic backgrounds. Diversity includes unseen characteristics that make up our student populations. Examples of unseen characteristics are learning styles, aptitudes, attitudes, etc., which may be different from mine as the instructor.

Diversity means working in an environment wherein all differences are respected and celebrated.

Diversity is a mixture of ideas, enterprises, and people. In agriculture, we thrive on diversity to minimize risk. In education, we celebrate diversity to share concepts and history to create a well-rounded and educated consumer.

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Diversity is not the same throughout an area. It includes a variety of items, objects, and things.

Diversity means a diverse or different group that is representing a population. It can involve race, religion, or ethnic background.

It involves using different approaches to teaching and different subject matters. This not a 15-minute survey! Your idea of diversity is different from the word diversity in education and what I thought you meant.

Diversity entails acceptance and sensitivity for all people from different backgrounds and/or handicaps.

Various positions on an issue or idea having many different enterprises.

Diversity is the mixing of a wide variety of people, animals, plants, crops, plans, activities, etc.

Diversity means being able to adapt to varying conditions.

Diversity has to do with differences which are cultural, philosophical, physical, political, and motivational.

A range of anything!

Diversity includes having a wide range of experiences that offer opportunities to a larger number of students. To be able to keep a program dynamic, it should meet as many needs of students as possible. Offering nontraditional opportunities in Agriscience to reach a variety of student interests.

Diversity is to include all people regardless of race, sex, religion, or national origin.

Diversity in Education can mean one of two things. The first [is] the importance of being diverse in our teaching methods. The second and probably more important task is to maintain diversity in our efforts to educate all of our clientele or students. To make sure that our programs are reaching across ethnic, racial, and sexual barriers.

Diversity means a different idea other than the original or same concept. It is composed of a multitude of groupings. It involves thinking of other ideas in some way related to the original concept and looking at the total picture and not concentrating on one item but the whole picture.

Diversity, to me, means having students from both sexes, all ability levels, all physical (motor) levels, and all races (cultures) having access and/or being part of the agriscience classroom and FFA program. It involves "inclusion" of various

students. The biggest problem is finding sources of materials which are culturally **diverse** if you already have the right attitude.

Diversity includes all of the many attributes we bring to the human experience, such as religion, gender, physical and mental ability, culture, race, social and economic level. These features make each of us unique and shape our point of view of any given topic.

Do not put all your apples in one bucket!

Diversity is varying in economic, social, and cultural backgrounds. It is generally assumed to be race, language, or religion.

Diversity is being unique!

Diversity is many differences.

Diversity means being able to cover a broad topic using many different levels of skills and techniques to implement the emphasis of the subject being taught.

To me, diversity in my student population refers to differences in sex, race, disability of many types, and differences in social and economic family backgrounds.

Diversity means all races, ethnic groups, and sexes.

Diversity encompasses many different types of people with different ethnic, economic, sexual, and personality differences working together.

Diversity in terms of population is the broad spectrum of ethnic, racial, cultural and social initiation to create a rich and respectful group (i.e., New York suburbs and not Detroit).

Diversity is a difference among groups. It can be challenging and opportunities, it can be rewarding or distressing. Each situation is different, depending on circumstances.

Diversity means people who come from different ethnic backgrounds, religions, family incomes, and different thoughts and feelings.

Diversity is a variety of people or things having a different origin or background.

Diversity is reaching all groups of people.

Diversity means a wide range of backgrounds, interests, culture/heritage, abilities and disabilities, gender, and ways of learning.

APPENDIX F

SUPPLEMENTAL TABLES

Table F1: Agriscience teachers' ratings of teaching practices.

Statement	Rank	Mean	SD
Promote men and women as having the same capabilities in serving local community organizations.	1	3.80	0.43
Promote men and women as having the same capabilities in holding leadership positions in professional associations.	2	3.79	0.41
Promote men and women as having the same capabilities in working effectively in the workplace.	3	3.76	0.45
Avoid using language which may be racist.	4	3.75	0.78
Promote men and women as having the same capabilities in contributing to the family.	5	3.67	0.52
Ensure that students placed in cooperative placement programs are done so based on a career objective and not stereotypical roles.	6	3.63	0.62
Encourage students to think beyond stereotypes when making agriculture project choices.	7	3.62	0.64
Create a classroom atmosphere reflecting an acceptance of cultural differences.	8	3.61	0.74
Use instructional materials that are unbiased on the basis of race.	9	3.60	0.67
Create a classroom atmosphere reflecting an acceptance of ethnic differences	10	3.60	0.79
Avoid using language which may be sexist.	11	3.59	0.77
Use instructional materials that are unbiased on the basis of sex.	12	3.55	0.70
Expose agricultural education students to successful individuals in various agricultural occupations who are females.	13	3.47	0.66
Use instructional materials that are unbiased on the basis of disability.	14	3.46	0.81
Expose agricultural education students to successful individuals in various agricultural occupations who are males.	15	3.45	0.68
Use classroom management strategies including role assignments that reinforce nonsexist behavior.	16	3.44	0.74
Provide opportunities for students to view males in a variety of successful agricultural roles.	17	3.42	0.69
Use a balance between large group, small group, and individual activities so that all students are encouraged to become involved regardless of sex.	18	3.41	0.83

Table F1: Continued.

Statement	Rank	Mean	SD
Actively recruit females to participate in FFA chapter activities.	19	3.40	1.15
Use a balance between large group, small group, and individual activities so that all students are encouraged to become involved regardless of race.	20	3.39	0.97
Recruit females to enroll in agriculture classes.	21	3.39	1.07
Provide opportunities for students to view females in a variety of successful agricultural roles.	22	3.39	0.72
Recruit males to enroll in agriculture classes.	23	3.35	1.08
Actively recruit males to participate in FFA chapter activities.	24	3.34	1.17
Use a balance between large group, small group, and individual activities so that all students are encouraged to become involved regardless of disability.	25	3.29	0.91
Provide opportunities for students to view minorities in a variety of successful agricultural roles.	26	3.27	0.75
Alert students to stereotyping when it occurs in classroom discussions.	27	3.24	0.88
Expose agricultural education students to successful individuals in various agricultural occupations who are minorities.	28	3.13	0.95
Recruit minorities to enroll in agriculture classes.	29	3.09	1.19
Use instructional materials representative of the U.S. population.	30	3.09	0.88
Use classroom management strategies including role assignments that reinforce multicultural behavior.	31	3.07	0.92
Work with the counseling staff to ensure that students do not make classroom decisions about enrollment in agriculture classes based on misleading stereotypes.	32	3.06	1.06
Recruit disabled persons to enroll in agriculture classes.	33	3.05	1.20
Actively recruit disabled persons to participate in FFA chapter activities.	34	3.01	1.28
Actively recruit minorities to participate in FFA chapter activities.	35	3.00	1.35
Provide opportunities for students to view disabled persons in a variety of successful agricultural roles.	36	2.99	0.82
Alert students to stereotyping when it occurs in instructional materials.	37	2.98	0.91

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Table F1: Continued.

Statement	Rank	Mean	SD
Alert students to stereotyping when it occurs in FFA program activities.	38	2.96	1.18
Alert students to stereotyping when it occurs in writing assignments.	39	2.94	0.90
Expose agricultural education students to successful individuals in various agricultural occupations who are disabled persons.	40	2.89	1.09
Develop special support strategies for nontraditional students.	41	2.85	1.15
Use instructional materials which represent males.	42	2.81	1.17
Use instructional materials which represent females.	43	2.78	1.14
Use instructional materials which represent minorities.	44	2.63	1.21
Use persons from culturally diverse groups as resources in the classroom including males.	45	2.56	1.17
Use persons from culturally diverse groups as resources in the classroom including females.	46	2.55	1.21
Recruit disabled persons to enroll in agriculture classes.	47	2.45	1.21
Use a variety of assessment procedures that reflect the cultural diversity of students in the program.	48	2.39	1.16
Use a variety of assessment procedures that reflect the ethnic diversity of students in the program.	49	2.36	1.16
Discuss how agricultural practices relate to the various cultures of students in your agriculture classes.	50	2.30	1.19
Discuss the roles females have played in the history of agriculture.	51	2.21	1.30
Discuss the roles males have played in the history of agriculture.	52	2.16	1.30
Use persons from culturally diverse groups as resources in the classroom including minorities.	53	2.14	1.26
Discuss the roles minorities have played in the history of agriculture.	54	2.13	1.33
Make bulletin boards and displays for the classroom which are representative of the roles of females.	55	2.01	1.47
Encourage students to inquire into the historic involvement or exclusion of females in agricultural occupations.	56	1.99	1.25
Use persons from culturally diverse groups as resources in the classroom including disabled persons.	57	1.99	1.29

Table F1: Continued.

Statement	Rank	Mean	SD
Make bulletin boards and displays for the classroom which are representative of the roles of males.	58	1.98	1.44
Encourage students to inquire into the historic involvement or exclusion of males in agricultural occupations.	59	1.95	1.27
Discuss public policies related to agriculture which are relevant to cultural diversity.	60	1.91	1.21
Encourage students to inquire into the historic involvement or exclusion of minorities in agricultural occupations.	61	1.90	1.21
Discuss public policies related to agriculture which are relevant to ethnic diversity.	62	1.87	1.19
Make bulletin boards and displays for the classroom which are representative of the roles of minorities.	63	1.84	1.46
Provide curricular activities that promote the cultures of the ethnic minority students in your program.	64	1.83	1.37
Encourage students to inquire into the historic involvement or exclusion of disabled persons in agricultural occupations.	65	1.82	1.16
Discuss the roles disabled persons have played in the history of agriculture.	66	1.80	1.18
Make bulletin boards and displays for the classroom which are representative of the roles of disabled persons.	67	1.75	1.43
Conduct on-going evaluations of instructional materials used to teach about culture.	68	1.48	1.27
Conduct on-going evaluations of the teaching strategies used to teach about culture.	69	1.48	1.31
Conduct on-going evaluations of instructional materials used to teach about ethnicity.	70	1.47	1.28
Promote festivities and celebrations related to the minority cultures of the students enrolled in agriculture.	71	1.43	1.39
Conduct on-going evaluations of the teaching strategies used to teach about ethnicity.	72	1.43	1.28

Key: 0 = Never   3 = Most of the time
      1 = Almost never   4 = Always
      2 = Sometimes

Table F2: Agriscience teachers' ratings of beliefs and attitudes toward diversity.

Statement	Rank	Mean	SD
I would welcome an opportunity to work alongside females.	1	5.56	0.61
I would welcome an opportunity to work alongside males.	2	5.54	0.63
Women are as capable as men in American society.	3	5.51	0.75
I would welcome an opportunity to work alongside ethnic groups.	4	5.43	0.73
I would welcome an opportunity to work alongside racial groups.	5	5.43	0.71
I would welcome an opportunity to work alongside physically disabled people.	6	5.24	0.96
I would welcome an opportunity to work alongside different religious groups.	7	5.21	1.03
Must school subjects are equally appropriate for girls and boys.	8	5.13	0.98
I would feel quite comfortable talking to males.	9	5.11	1.09
Each minority culture has something positive to contribute to American society.	10	5.05	1.11
It's good for our children to learn a second language, other than English.	11	5.05	1.11
An understanding of diversity is important for everyone whether they live in diverse communities or not.	12	5.04	1.22
I would feel quite comfortable talking to females.	13	5.02	0.86
Cultural diversity should be preserved.	14	4.93	0.88
I appreciate the similarities that exist among females.	15	4.92	0.90
I appreciate the similarities that exist among males.	16	4.88	0.96
The ability to speak another language is a valuable skill in this country.	17	4.86	1.18
I appreciate the differences that exist among females.	18	4.83	1.02
I appreciate the similarities that exist among females.	19	4.82	1.01
I appreciate the similarities that exist among racial groups.	20	4.80	1.00
I appreciate the differences that exist among males.	21	4.79	1.06
I appreciate the similarities that exist among physically disabled people.	22	4.77	0.99
I would feel quite comfortable talking to physically disabled people.	23	4.73	1.25

Table F2: Continued.

Statement	Rank	Mean	SD
I appreciate the differences that exist among ethnic groups.	24	4.72	1.09
I would feel quite comfortable talking to individuals of different religious groups.	25	4.71	1.34
I appreciate the differences that exist among religious groups.	26	4.70	1.17
I would feel quite comfortable talking to ethnic groups.	27	4.67	1.32
I appreciate the similarities that exist among religious groups.	28	4.66	1.09
I appreciate the differences that exist among physically disabled people.	29	4.65	1.11
I appreciate the differences that exist among racial groups.	30	4.63	1.15
I would feel quite comfortable talking to racial groups.	31	4.62	1.33
I would welcome an opportunity to work alongside mentally retarded people.	32	4.61	1.41
I appreciate the similarities that exist among mentally retarded people.	33	4.58	1.15
I appreciate the differences that exist among mentally retarded people.	34	4.52	1.23
Children get a better "sense of community" growing up in rural communities.	35	4.49	1.49
People who have a learning disability are as intelligent as other people.	36	4.48	1.16
I feel comfortable talking about differences in religious beliefs.	37	4.43	1.39
I would feel quite comfortable talking to mentally retarded people.	38	4.33	1.50
I enjoy being around people who speak more than one language.	39	4.12	1.36
I would welcome an opportunity to work alongside different sexual orientation groups.	40	4.10	1.80
I would feel quite comfortable talking to different sexual orientation groups.	41	3.87	1.76
I am comfortable with the ability to speak only English.	42	3.84	1.50
I appreciate the similarities that exist among different sexual orientation groups.	43	3.74	1.69
I appreciate the differences that exist among different sexual orientation groups.	44	3.70	1.70

Table F2: Continued.

Statement	Rank	Mean	SD
I need training in diversity because my position requires me to work with an increasing population of diversity groups.	45	3.68	1.31
People in rural communities make better neighbors.	46	3.67	1.31
Minorities should conform to the dominant American cultural standards if they want to be accepted.	47	3.60	1.42
People of diverse groups are treated differently because they act different.	48	3.50	1.31
Children get a better "sense of community" growing up in suburban communities.	49	3.42	1.34
Children get a better "sense of community" growing up in urban communities.	50	3.33	1.31
People who live in rural communities work much harder than people who live in urban communities.	51	3.29	1.64
We should try to eliminate cultural differences between racial minorities and Whites in our society.	52	3.26	1.55
People who live in rural communities work much harder than people who live in suburban communities.	53	3.24	1.61
People in suburban communities make better neighbors.	54	3.05	1.47
People in urban communities make better neighbors.	55	2.88	1.39
This country would be much better off if people who live in urban communities would learn to live more like people in rural communities.	56	2.85	1.58
Having lots of different cultural groups in this country causes problems.	57	2.84	1.26
This country would be much better off if people who live in suburban communities would learn to live more like people in rural communities.	58	2.81	1.59
I get kind of irritated when I am around people who do not speak English.	59	2.75	1.24
A person who doesn't speak English has no right to expect to get ahead in America.	60	2.65	1.38
Immigrants should be expected to give up their own cultures and adapt to American ways.	61	2.58	1.22

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Table F2: Continued.

Statement	Rank	Mean	SD
People who live in suburban communities work much harder than people who live in urban communities.	62	2.53	1.03
People who live in urban communities work much harder than people who live in suburban communities.	63	2.36	1.00
I find myself thinking, "Why don't they act like us?"	64	2.33	0.96
People who live in suburban communities do not know what real work is.	65	2.32	1.43
America would be a better place if we all assimilate into one culture.	66	2.32	1.19
If members of ethnic groups want to keep their own culture, they should keep it to themselves.	67	2.31	1.07
I don't need training in diversity because the groups I work with are all White.	68	2.27	1.20
People who live in suburban communities work much harder than people who live in rural communities.	69	2.25	0.93
People who live in urban communities do not know what real work is.	70	2.24	1.26
This country would be much better off if people who live in urban communities would learn to live more like people who live in suburban communities.	71	2.21	1.31
I often feel uneasy when I am around people who are not like me.	72	2.18	1.12
People who are culturally different from me make me uncomfortable.	73	2.16	1.52
Women should not work outside the home unless the family really needs the money.	74	2.16	1.04
I do not need training in diversity because the groups I work with are all farm families.	75	2.13	0.96
People who live in urban communities work much harder than people who live in rural communities.	76	2.12	0.87
This country would be much better off if people who live in suburban communities would learn to live more like people in urban communities.	77	2.06	1.16
People who are physically different from me make me feel uncomfortable.	78	2.03	1.20

Table F2: Continued.

Statement	Rank	Mean	SD
People who are racially different from me make me feel uncomfortable.	79	2.0	1.12
This country would be much better off if people who live in rural communities would learn to live more like people in urban communities.	80	1.96	1.15
Women's emotions interfere with their ability to do a good job.	81	1.95	1.14
This country would be much better off if people who live in rural communities would learn to live more like people in suburban communities.	82	1.95	1.00
People who are ethnically different from me make me feel uncomfortable.	83	1.94	1.08
People who are religiously different from me make me feel uncomfortable.	84	1.85	1.09
People who live in rural communities do not know what real work is.	85	1.75	1.12
People who are the opposite sex from me make me feel uncomfortable.	86	1.73	1.08

Key: 6 = Strongly agree   3 = Slightly disagree
      5 = Agree   2 = Disagree
      4 = Slightly agree   1 = Strongly disagree

Table F3: Agriscience teachers' responses to items in the Beliefs and Attitudes Toward Diversity section (in percent).

Statement	A/SA	SLA	SLD	D/SD	NR
Assimilation Versus Cultural Pluralism					
Minorities should conform to the dominant American cultural standards if they want to be accepted.	25.0	35.2	10.2	25.0	4.5
If members of ethnic groups want to keep their own culture, they should keep it to themselves.	3.4	11.4	21.6	62.5	1.1
I appreciate the similarities that exist among:					
a. Racial groups	68.2	20.5	4.5	3.4	3.4
b. Ethnic groups	68.2	19.3	4.5	3.4	4.5
c. Males	76.1	11.4	6.8	2.2	3.4
d. Females	76.1	14.8	3.4	2.2	3.4
e. Physically disabled people	66.0	20.5	6.8	2.2	4.5
f. Different sexual orientation groups	37.5	20.5	12.5	25.0	4.5
g. Mentally retarded people	59.1	18.2	13.6	4.5	4.5
h. Religious groups	65.9	15.9	10.2	4.5	3.4
I appreciate the differences that exist among:					
a. Racial groups	62.5	23.9	5.7	5.7	2.3
b. Ethnic groups	68.2	18.2	6.8	4.6	2.3
c. Males	70.4	17.0	6.8	3.4	2.3
d. Females	70.4	20.5	3.4	3.4	2.3
e. Physically disabled people	61.4	22.7	10.2	3.4	2.3
f. Different sexual orientation groups	38.7	20.5	11.4	27.2	2.3
g. Mentally retarded people	61.3	15.9	13.6	6.8	2.3
h. Religious groups	67.1	20.5	3.4	6.8	2.3
America would be a better place if we all assimilate into one culture.	5.7	8.0	20.5	62.5	3.4
We should try to eliminate cultural differences between racial minorities and Whites in our society.	21.6	23.9	17.0	35.2	2.3
Immigrants should be expected to give up their own cultures and adapt to American ways.	4.6	19.3	22.7	51.2	2.3
Having lots of different cultural groups in this country causes lots of problems.	7.9	26.1	19.3	43.2	3.4
Each minority culture has something positive to contribute to American society.	78.4	13.6	2.3	2.3	3.4
I find myself thinking, "Why don't they act like us?"	0.0	13.6	23.9	57.9	4.5

Table F3: Continued.

Statement	A/SA	SLA	SLD	D/SD	NR
Cultural diversity is a valuable resource.	71.6	20.5	4.5	0.0	3.4
Cultural diversity should be preserved.	67.0	23.9	5.7	0.0	3.4
Rural Versus Other Communities					
People who live in <u>rural</u> communities work much harder than people who live in:					
a. urban communities	23.9	23.9	11.4	37.5	3.4
b. suburban communities	20.5	25.0	13.6	37.5	3.4
People who live in <u>suburban</u> communities work much harder than people who live in:					
a. rural communities	1.1	5.7	31.8	57.9	3.4
b. urban communities	1.1	17.0	31.8	46.6	3.4
People who live in <u>urban</u> communities work much harder than people who live in:					
a. rural communities	0.0	4.5	28.4	63.6	3.4
b. suburban communities	1.1	9.1	33.0	53.5	3.4
This country would be much better off if people who live in _____ communities would learn to live more like people in <u>rural</u> communities.					
a. urban	15.9	23.9	6.8	51.1	2.3
b. suburban	14.8	22.7	6.8	53.3	3.4
This country would be much better off if people who live in _____ communities would learn to live more like people in <u>urban</u> communities					
a. rural	3.4	3.4	15.9	72.8	4.5
b. suburban	3.4	4.5	18.2	69.3	4.5
This country would be much better off if people who live in _____ communities would learn to live more like people in <u>suburban</u> communities.					
a. rural	3.4	5.7	12.5	73.9	4.5
b. urban	6.8	10.2	12.5	65.9	4.5
Children get a better "sense of community" growing up in the following communities:					
a. rural communities	62.5	14.8	3.4	14.8	4.5
b. urban communities	19.3	27.3	18.2	30.7	4.5
c. suburban communities	21.5	25.0	25.0	23.9	4.5

Table F3: Continued.

Statement	A/SA	SLA	SLD	D/SD	NR
People who live in the following communities do not know what real work is:					
a. rural communities	3.4	4.5	2.3	85.3	4.5
b. urban communities	5.7	9.1	18.2	62.5	4.5
c. suburban communities	9.1	5.7	18.2	62.5	4.5
People in the following communities make better neighbors:					
a. rural communities	39.8	18.2	5.7	29.6	6.8
b. urban communities	11.4	18.2	27.3	35.3	8.0
c. suburban communities	14.8	26.1	19.3	33.0	6.8
Comfort With Difference					
I would welcome an opportunity to work alongside:					
a. Racial groups	87.5	9.1	1.1	0.0	2.3
b. Ethnic groups	86.3	10.2	1.1	0.0	2.3
c. Males	92.0	6.8	0.0	0.0	1.1
d. Females	93.2	5.7	0.0	0.0	1.1
e. Physically disabled people	79.5	11.4	5.7	1.1	2.3
f. Different sexual orientation groups	48.8	14.8	10.2	23.9	2.3
g. Mentally retarded people	55.7	19.3	12.5	9.1	3.4
h. Different religious groups	82.9	5.7	5.7	3.4	2.3
People who are _____ from me make me feel uncomfortable.					
a. Racially different	1.1	12.5	11.4	72.7	2.3
b. Ethnically different	1.1	11.4	8.0	77.3	2.3
c. Opposite sex	4.5	3.4	4.5	85.3	2.3
d. Physically different	3.4	12.5	9.1	72.7	2.3
e. Religiously different	4.5	3.4	9.1	80.7	2.3
People who have a learning disability are as intelligent as other people.	54.5	21.6	15.9	5.7	2.3
I often feel uneasy when I am around people who are not like me.	2.2	12.5	15.9	68.2	1.1
I would feel quite comfortable talking to:					
a. Racial groups	59.2	21.6	3.4	12.5	2.3
b. Ethnic groups	62.5	19.3	4.5	11.3	2.3
c. Males	84.1	6.8	0.0	6.8	2.3
d. Females	78.4	11.4	1.1	6.8	2.3
e. Physically disabled people	64.7	15.9	8.0	7.9	2.3
f. Different sexual orientation groups	46.6	9.1	14.8	27.3	2.3
g. Mentally retarded people	50.0	20.5	11.4	15.9	2.3
h. Different religious groups	68.2	11.4	8.0	10.3	2.3

Table F3: Continued.

Statement	A/SA	SLA	SLD	D/SD	NR
People who are culturally different from me make me uncomfortable.	2.2	9.1	17.0	70.5	1.1
People of diverse groups are treated differently because they act different.	25.0	34.1	13.6	35.0	2.3
I feel comfortable talking about differences in religious beliefs.	59.1	17.0	8.0	13.6	2.3
Need for Diversity Training					
I don't need training in diversity because the groups I work with are all White.	4.6	9.1	22.7	61.4	2.3
An understanding of diversity is important for every-one whether they live in diverse communities or not.	75.0	12.5	3.4	4.5	4.5
I do not need training in diversity because the groups I work with are all farm families.	2.3	4.5	23.9	65.8	3.4
I need training in diversity because my position requires me to work with an increasing population of diversity groups.	26.1	28.4	21.6	20.4	3.4
Multilingualism Versus English Only					
It's good for our children to learn a second language, other than English.	75.0	15.9	3.4	4.5	1.1
I enjoy being around people who speak more than one language.	43.2	26.1	14.8	14.8	1.1
I get kind of irritated when I am around people who do not speak English.	4.6	27.3	19.3	45.4	3.4
I am comfortable with the ability to speak only English.	45.5	11.4	15.9	23.8	3.4
A person who doesn't speak English has no right to expect to get ahead in America.	12.5	13.6	21.6	48.9	3.4
The ability to speak another language is a valuable skill in this country.	65.9	22.7	2.3	6.8	2.3

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Table F3: Continued.

Statement	A/SA	SLA	SLD	D/SD	NR
Sexual Equality					
Women are as capable as men in American society.	90.9	4.5	3.4	0.0	1.1
Women should not work outside the home unless the family really needs the money.	11.3	10.2	5.7	71.6	1.1
Women's emotions interfere with their ability to do a good job.	2.3	2.3	17.0	76.1	2.3
Most school subjects are equally appropriate for girls and boys.	82.9	6.8	3.4	2.3	4.5

Key: A/SA = Agree/Strongly agree
SLA = Slightly agree
SLD = Slightly disagree
D/SD = Disagree/Strongly disagree
NR   = No response

APPENDIX G

ADDITIONAL RESPONSES TO SURVEY ITEMS

Teaching Practices

Use a balance between large group, small group, and individual activities so that all students are encouraged to become involved regardless of sex, race, and disability.

>   What is a disability? LD, ADD, physical handicap, etc. (1)
>   I try to address the entire group. (1)
>   Not applicable. (1)

Create a classroom atmosphere reflecting an acceptance of cultural and ethnic differences.

>   I try to make it always. (1)

Use instructional materials that are unbiased on the basis of race, sex, or disability.

>   Use instructional materials as they become available; they are not always
>   available. (3)
>   Not sure. (1)
>   Difficult. (1)
>   Not applicable. (1)

Use classroom management strategies including role assignments that reinforce multicultural and nonsexist behavior.

>   Not applicable. (1)

Alert students to stereotyping when it occurs in instructional materials, classroom discussions, writing assignments, and FFA program activities.

>   Not applicable in FFA program activities. (2)
>   Not applicable. (1)

Ensure that students placed in cooperative placement programs are done so based on a career objective and not stereotypical roles.

>   Sometimes for the employer this is hard to break. Employers can be a
>   challenge. (2)
>   Not applicable. (2)

Expose agricultural education students to successful individuals in various agricultural occupations who are females, males, minorities, and disabled persons.

I try to expose students if minorities and disabled persons are available. (2)

Not applicable to minorities and disabled persons. (2)

I have successful people come in, but I do not think in terms of these areas (females, males, minorities, and disabled persons). I only care that they are successful. (1)

Work with the counseling staff to ensure that students do not make classroom decisions about enrollment in agriculture classes based on misleading stereotypes.

Doesn't seem to get through, though. (1)

We don't have this control. (1)

Actively recruit the following groups to participate in FFA chapter activities: minorities, females, disabled persons, and males.

We don't have any minority populations. (2)

If recruit, all are treated the same.

Recruiting is never done with the idea of getting more of minorities than females or more of females than males. Agricultural interest only. (1)

I recruit all that are interested students. (1)

Not applicable. (7)

Use instructional materials representative of the U.S. population.

It was printed in the U.S. (1)

I try to do this. (1)

Not applicable. (1)

Develop special support strategies for nontraditional students.

You mean educationally disadvantaged? Then 3 or 4. (1)

Not applicable.

Use a variety of assessment procedures that reflect ethnic and cultural diversity of students in the program.

Farm versus nonfarm knowledge level imparts discussion, participation, and assessment. (1)

There is a very small minority population—1 Black and 2 Hispanics in 18 years. (1)

I don't know what you mean. (1)
Not applicable. (3)

Discuss the roles minorities, females, disabled persons, and males have played in the history of agriculture.

Not an issue. (1)

Discuss public policies related to agriculture which are relevant to ethnic and cultural diversity.

Not applicable. (1)

Recruit minorities, females, disabled persons, and males to enroll in agriculture classes.

We try, but minorities and disabled persons are not available. (3)
Recruiting is done across the board. Agricultural interest--no special
    appeal to sex or minorities. (1)
Not applicable. (2)

Use instructional materials which represent minorities, females, disabled persons, and males.

I try to use it if it is available! (2)
These instructional materials are hard to find. (1)
Not applicable. (1)

Provide curricular activities that promote the cultures of the ethnic minority students in your program.

Not applicable. (1)

Use persons from culturally diverse groups as resources in the classroom.

I utilize these students as resources if they are available; however, a lot of
    times they aren't. (1)
I have successful people come in, but I do not think in terms of these areas
    (females, males, minorities, and disabled persons). I only care that
    they are successful. (1)
Not applicable. (1)

Promote festivities and celebrations related to the minority cultures of the students enrolled in agriculture.

Don't do any! (1)
Not applicable. (1)

Conduct on-going evaluations of instructional materials used to teach about ethnicity and culture.

Hard to find. (1)

Beliefs and Attitudes Toward Diversity

Women are as capable as men in American society.

Physically only. (1)

I would welcome an opportunity to work alongside . . .

The mentally retarded are dangerous! (1)
The community will not allow persons of different sexual orientation groups. (1)
Is there a difference between racial and ethnic groups? (1)
I would not welcome an opportunity to work alongside a person of a different sexual orientation. (1)

Minorities should conform to the dominant American cultural standards if they want to be accepted.

It depends on the issue. (1)
Neutral. (1)
Let us make an issue of America which is the "melting pot," and we should not differentiate. (1)
This is a loaded question and not accurate with such a simple answer. (1)

It's good for our children to learn a second language, other than English.

If required via school--free choice. (1)
Which language should they learn? (1)

People in _____ communities work harder.

Impossible to evaluate. Work ethic has nothing to do with rural versus urban versus suburban. (1)
Rural versus urban, 1 to 1. Strongly agree. (1)
I don't care. (1)
Define work. (1)
No opinion. (1)

I am uncomfortable with people who are racially different, ethnically different, opposite sex, physically different, and religiously different.

> I am not uncomfortable with persons who are of the opposite sex,
> physically different, or religiously different. (1)

I don't need training in diversity because the groups I work with are all White.

> Given time. (1)
> Loaded question! (1)

I appreciate the similarities that exist among . . .

> Don't understand as compared to or within group? (1)

People who have a learning disability are as intelligent as other people.

> Depends on disability--maybe. (2)
> Neutral. Some yes but some no. (1)
> People who have a learning disability can be as intelligent as other
> people. (1)
> In many cases they are more intelligent than other people. (1)

America would be a better place if we all assimilate into one culture.

> Neutral. (1)

Children get a better "sense of community" growing up in the following communities:

> All areas are facing the problems. The concept of community has
> changed drastically in this country over past 20 years. (1)
> It depends on the area in each of these communities. (1)

Immigrants should be expected to give up their own cultures and adapt to American ways.

> Poor wording. They should not give up their cultures, but yes they should
> adapt. I feel that they made this choice when they chose to come
> to America. (1)

Having lots of different cultural groups in this country causes lots of problems.

> Neutral. (1)
> Define problems. (1)

I get kind of irritated when I am around people who do not speak English.

I only get irritated when I can't understand them. (1)

People of diverse groups are treated differently because they act differently.

Historically, slightly agree. Ideally, strongly agree. (1)

Each minority culture has something positive to contribute to American society.

Neutral. (1)

I am comfortable with the ability to speak only English.

This is not true. (1)
I wish I was fluent in another language. (1)

People of rural, urban, or suburban communities make better neighbors.

Cannot answer because all can be good or bad. (1)
All communities have all types of neighbors.
Bad question. I feel all people have the ability to be good neighbors. (1)

Most school subjects are equally appropriate for girls and boys.

Loaded question. All, strongly agree. Most, disagree.
Neutral. (1)

I find myself thinking, "Why don't they act like us?"

They who? Do you mean all students or only minorities? (1)

I do not need training in diversity because the groups I work with are all farm families.

This value judgment (because the groups I work with are all farm families) should be left off. (1)

I need training in diversity because my position requires me to work with an increasing population of diversity groups.

"Because my position requires me to work with an increasing population of diversity groups" is a value judgment; thus, I am neutral. (1)

Program Information

Please provide the approximate percentage of students who are enrolled in the agriscience program and are members of the FFA for the following groups: Other.

> Japanese—1% in agriscience program.
> Human—60% (1)
> Arabic, Chaldean—20% in agriscience program. (1)
> There is an exchange student in the agriscience program. (1)
> Chaldean—2% in the agriscience program. (1)
> 1% Middle Eastern in program and FFA. (1)
> Not applicable. (2)

Please provide the approximate percentage of students who are enrolled in high school for the following groups.

> I do not know. There are 7 schools, and each is different. (1)
> Other: Middle East—0.5% out of 808 students.
> Not applicable. (1)

What is the approximate percentage of disabled students in agriscience, FFA, and high school?

> Do you mean physically disabled? (1)
> 40% are at-risk or LD (learning disability). (1)
> Which disability or all in total? Some information is not furnished to our staff. (1)
> I have no idea. (1)
> Not applicable to FFA membership. (1)
> Physical, mental, emotional, or learning [disabled]? (1)

Please indicate the types and number of diversity sessions you have attended within the last three years.

> Pals workshops. (2)
> Special education. (2)
> Church conferences. (1)
> Gender equity. (1)
> I would prefer to enroll in a diversity institute in the fall. (1)
> I would love to see other instructors and their reactions. (1)
> I don't need diversity training. I am very aware in this area. (1)

Demographic Information

Type of school in which you teach:

> Career center by ourselves. (1)
> Middle school. (1)
> Agricultural instruction. (1)

Type of teacher you consider yourself.

> Cooperative coordinator. (1)
> Agriscience instructor--1 class. Other physical and biological science
> technology. (1)
> Science teacher. (1)
> Computer teacher. (1)
> Agriscience and natural resources instructor. (1)

Miscellaneous Comments

> I do not like the questions. (1)

> Where are questions about white males or any male not being competent?
> (1)

> In reference to the 6-point scale, where is neutral? I think this choice
> selection shows a bias. You are assuming that we feel either "hot" or
> "cold" and not warm. I feel the neutral category needs to be added. (1)

> Biased questions and inadequate response choices. I think the results will
> reflect intended biases as written into the questions. (1)

> This is too much reading. I'm sorry, but this does not pertain to me. I have
> 140 students in my high school. There are no Blacks and 2 Mexicans,
> that's it!

> Your questions are not very clear. You are looking for too many
> generalizations. As always, 15 minutes is not enough time to complete a
> survey from MSU!

> Many of the first 20 questions do not apply to me. I teach, encourage, and
> react to one's attitude and effort (or lack of it) and not to their status or
> gender. (1)

> This is very lengthy! At a busy time in agriscience educators' careers--
> example, leadership contests--this is unreasonable to expect us to dish out

all of this time, especially when you have repeat questions! Some of them are ridiculous! (1)

Many of the questions led me to say, "It depends." Also, some of the questions were too vague and/or needed much clarification with detail. Also, some seemed to be repetitive; just in a different form. All students are human beings [and] are treated the same in my classroom. No special features for anyone. Every child gets the same exposure and opportunities. The more diverse the group, the more they bring to the classroom for the benefit of all.

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