

## **Career and Technical Education Teachers' Perceptions of Culturally Diverse Classes: Rewards, Difficulties, and Useful Teaching Strategies**

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### **Abstract**

*The purpose of this study was to identify CTE teachers' perceptions of selected rewards, difficulties, and useful teaching strategies in culturally diverse classes. The sample was comprised of 41 trade and industrial, business technology, and family and consumer sciences teachers who taught students from 30 cultural backgrounds. The data were analyzed in light of a theory of openness of disposition and using descriptive statistics, the chi-square test, and content analysis. Language and cultural differences posed challenges to teachers, with language differences slightly more challenging. Maintaining high standards was somewhat more difficult than building community, but teachers generally perceived success with both challenges. Culturally diverse classes were rated significantly more rewarding and creative than problematic and conflict-ridden. Teachers used visual aids, handouts, demonstrations, hands-on projects, and cooperative learning as teaching strategies. While the results generally reflected positive beliefs among CTE teachers, there were some indications that further professional development in multicultural education is warranted.*

### **Background of the Study**

Senior high school students vary widely regarding cultural backgrounds, racial and ethnic identities, and even languages spoken, leading to culturally diverse career and technical education (CTE) classrooms across the nation (Adams, Sewell, & Hall, 2004; Rehm, 2004). In 1998, African American high school students earned the highest (4.3 credits) and Asian students earned the fewest (3.2) number of vocational credits. Hispanic, Native American, and White students averaged 4.0 credits. Additionally, there were differences in the programs chosen. For example, African American students were more likely to concentrate in health and food service and Hispanic students were more likely to concentrate in agriculture. Students with limited English proficiency (LEP) averaged 3.2 vocational credits (Silverberg, Warner, Fong, & Goodwin, 2004). Furthermore, there is a mismatch of demographic characteristics between the largely white teacher population (75.4%) and the widely diverse student population (Florida Department of Education, 2005, 2008).

Career and technical education teachers face a number of challenges related to understanding the complexities of cultural diversity among their students. At the

same time that most teachers want to succeed with their students, they often possess only a superficial understanding about varying cultural contexts and lack knowledge about how to respond appropriately (Banks, 1996, 1997). Many teachers equate “cultural difference” with “cultural deficiency,” a stance that typically leads them to stereotype students as having problems to “fix” and may lead to less satisfaction and sense of success in teaching (Gitlin, Buendía, Crosland, & Doumbia, 2003; Gutiérrez & Rogoff, 2003).

Although CTE teachers “have always faced the challenge of educating students with diverse needs and abilities” (Reese, 2005, p. 15), there is limited empirical research on how rewarded or stressed they feel in terms of addressing cultural issues that affect their students’ work knowledge and skill development. One example of a potentially challenging work issue is that fundamental CTE concepts of “work” and “career” have varying meanings and degrees of salience in different cultures. Business and industry traditions in the United States foster competition and reward independence; whereas, other cultures favor cooperation and reward loyalty to the group (Yopp, 1993).

Another challenge involves communicating with students who speak first languages other than English. High stakes testing works against students who do not speak English proficiently or understand the nuances of American culture (Fear-Fenn, 1993; Wonacott, 2000). Career and technical education teachers face special challenges in providing fundamental work-related information because citizens with limited English proficiency (LEP) often suffer the lowest wages, lowest levels of vocational skills, and highest rates of unemployment (Friedenberg, 1995). Teachers might find it difficult to help LEP students learn the complicated material demanded by industry standards and acquire the conceptual understanding needed to fully participate in the economic system (Samper & Lakes, 1994).

Career and Technical Education teachers also play a key role in ensuring that students of diverse backgrounds can work together and demonstrate teamwork skills while maintaining their individuality (Austin, 1999; Yopp, 1993). However, the complexities of cultural values quite naturally lead to conflicts and disagreements, which can render team cohesion difficult in the daily life of the classroom (Desai, 2000; Pierce, 1993). Tensions in meaning between different cultural groups must be negotiated sensitively, reconfigured into common goals, resolved by participants who share power, and used for creative innovations (Schreiber, 1996). More knowledge regarding teachers’ sense of success in the challenges they face such as resolving conflict and promoting cooperation, maintaining high standards, and generally meeting the needs of students with linguistic and cultural differences would be valuable so that CTE can continue to advance productive work in a pluralist economic system.

### Theoretical Framework

According to Banks (1996), a teacher's *positionality* or perceptions, attitudes, beliefs, and normative frames of reference is a significant quality that shapes the environment and outcomes of culturally diverse classrooms. Garmon (2004) found that the most important feature predicting a teacher's success with culturally diverse students is a disposition towards openness, appreciation of differences, and eagerness to engage in new experiences. A disposition is defined as "the tendency or propensity for responding in specific ways to particular circumstances" (Eberly, Rand, & O'Connor, 2007, p. 31). Therefore, this study is based on a theory that emphasizes a disposition of openness towards cultural differences that consistently guides caring actions in pursuit of human flourishing (Fowers & Davidov, 2006).

Dispositions of openness and positive tendencies to appreciate others are important to a thriving dynamic of multiculturalism in any classroom. More specifically, openness includes awareness, sensitivity, and respect for others' cultures. It involves fascination, interest, and delight in cultural differences. A disposition of openness encompasses authentic emotions and well-meaning motivations over manipulative or selfish goals. It becomes beneficial in that a teacher continues to pursue information for understanding, affirmation of individuals, and socially just action "out of a genuine, abiding interest in cultural matters" (Fowers & Davidov, 2006, p. 591).

Openness to difference entails numerous benefits. It enhances self-exploration concerning personal values, biases, limitations, and strengths by contrast with multiple other views. Openness allows questioning the adequacy of presumptions, clarifying our commitments, and courageously facing and overcoming our biases (Fowers & Davidov, 2006). As individuals acquire the virtue of openness as a disposition, sensitivity and other qualities that connect people to each other begin to permeate their actions as a meaning system and matter of habit (Eberly et al., 2007).

In practical terms, CTE teachers with a genuine openness in cultural matters are different than those teachers who grudgingly cope with cultural diversity. For example, flexibility in using responsive teaching strategies is one of many forms of interacting well with students. Teachers with a disposition of openness would more likely use strategies intended to bring different cultural perspectives into the classroom dynamic and workforce, attempt diverse approaches to meet common goals, and teach in a way that enable students to flourish. Dispositions will affect the process of accommodating individual differences, communicating with culturally and linguistically different students, building a sense of community, and facilitating student achievement (Eberly et al., 2007; Fowers & Davidov, 2006). The dispositions of CTE teachers are likely to influence either a rewarding and positive classroom experience or a difficult and negative classroom experience. In an increasingly pluralistic educational system and workforce, the openness of the CTE teacher will be even more important in the future.

## Review of the Literature

Although cultural diversity has not been given as much scholarly attention in CTE as it has in academic education (Rios, 1992), several empirical studies and reports on classroom experiences have indicated that CTE teachers are well aware of cultural issues. A survey by Adams and Hall (2000) showed that business and marketing education teachers reflected positive attitudes toward equal opportunities for all students, multicultural values, and the need for CTE to be representative of a wide variety of cultures. However, approximately 10% of those surveyed viewed cultural diversity as a negative force in society and disagreed that CTE needed to change to reflect diverse students.

Another survey by Adams et al. (2004) reported mostly positive attitudes among family and consumer sciences teachers, however, less than one-half of the respondents indicated that they would likely change their teaching methods to support cultural diversity and almost one-third experienced uncomfortable feelings with cultural diversity. These findings differed from those of another survey of family and consumer sciences teachers in which 90% had changed their teaching methods, and more than 70% had adapted instruction and time for assignments, grouping of students, how they communicated and interacted with students, and grading/testing (Rehm & Allison, 2006). One interesting aspect of the study is that the 83 respondents taught students from 37 different cultural backgrounds and who spoke 19 languages in addition to or instead of English. Given that these teachers seemed immersed in cultural diversity in a vivid way, they likely were faced with an imperative and direct need to adapt.

One of the key attributes of successful workplaces and CTE classrooms is that they assume the form of a rich community emerging from dynamic, productive, and supportive relationships. Career and technical education teachers sometimes must adapt their interpersonal approaches regarding communication, interaction, and cooperation. As Fuller (2003) noted, teachers are challenged to weigh a “dizzying pastiche of cultural communities against the persisting importance of shared and unifying values” (p. 22). Career and Technical Education teachers need to help students learn to work together as future citizens because diverse customers, employees, and markets are the keys to workplace and economic success for all persons (Pierce, 1993). However, building community among students with divergent traditions can be challenging (Goodwin, 1997; Kleinfeld, 1998; Lesko & Bloom, 1998).

Career and Technical Education teachers can successfully deal with interpersonal challenges by creating environments for mutual learning, modeling respect for all students, and tapping into the unique possibilities of inclusion and diversity (Allison & Rehm, 2006; Banks, 1997). Training and support can improve their abilities to succeed with multicultural education (Bell, 1997). For example, a longitudinal study of agriculture and family and consumer sciences student teachers reported that a planned practicum focused on cognitive, affective, and behavioral

proficiencies in culturally diverse settings made a notable impact on participants' perceptions of teacher-student relationships. The directed experience and analysis improved recognition of personal bias, the ability to recover from cultural mistakes, and the use of alternative assessments, all actions that can improve relationships with diverse students. Schoolwide partnerships that integrate academic and vocational curriculum, include employers with culturally diverse environments, and create diversity-themed projects appear to support individual teachers' growth in understanding multiculturalism (Blassingame, 2000; Mischel, 2005; Trybus & Li, 1998).

Another multicultural issue that challenges CTE teachers is how to deliver instruction, while simultaneously respecting differences and avoiding deficit thinking so students achieve high standards (Fuller, 2003). Students from non-majority cultures do not always have the linguistic background or contextual understanding to do well on standardized tests of achievement and traditional indicators of success (Austin, 1999; Pierce, 1993). A number of alternative strategies have been suggested to assist such students learn fundamental information. Some strategies include: (a) use materials and role models from students' cultures to assist in their understanding, (b) adopt cooperative learning to enable students to help each other learn, (c) use small group projects and demonstrations to satisfy different learning styles, and (d) adopt alternative methods of assessment to allow students to demonstrate their abilities in various ways (Fear-Fenn, 1993; Rehm & Allison, 2006).

Research has identified principles that enhance the learning of students with LEP. Teachers can supplement CTE class content with language instruction, use visuals and graphic organizers to illustrate meanings, use case studies for cultural context, and incorporate hands-on projects that showcase skills and processes (Banks, 1997; Friedenber, 1995; Jennings & Smith, 2002; Kleinfeld, 1998; Platt, 1996; Wonacott, 2000). Each teacher faces a unique challenge to identify appropriate instructional options relevant to particular students, find additional resources, and bring students of varying language skill levels into the life of the classroom.

In summary, existing trends and studies have indicated that CTE teachers in the twenty-first century must approach their teaching with sensitivity to students from diverse linguistic and cultural backgrounds, build cooperative and dialogical skills, teach essential knowledge to students with various levels of proficiency with English, and maintain industry and educational standards. Although these challenges can seem daunting, individuals and the nation will benefit if teachers assume them with awareness and understanding. Career and Technical Education is poised for an opportunity to make an important impact on the vocational and personal success of individuals from many backgrounds, but it would be helpful to know more about the dispositions of CTE teachers toward diversity. Specifically, little is known about how satisfied or frustrated CTE teachers are in attempting to teach LEP and culturally diverse students, building community, maintaining standards, and adapting teaching strategies.

### **Purpose of the Study**

The purpose of this study was to examine high school CTE teachers' dispositional stance towards the challenges, rewards, difficulties, and teaching strategies involved with linguistically and culturally diverse students. The specific research questions included:

1. To what extent do CTE teachers perceive cultural and language diversity as difficult and rewarding?
2. To what extent do CTE teachers report difficulty in maintaining high academic standards and creating a sense of community in culturally diverse classes?
3. What are CTE teachers' perceptions of outcomes for diversity in terms of success and creativity and frustration and stress?
4. How do CTE teachers describe their challenges, rewards, and useful teaching strategies in culturally diverse classrooms?

### **Methodology**

The study was conducted in Florida, a state with a diverse population. It drew from a state database to obtain labels for high school programs (grades 9-12) in trade and industrial education, business technology, and family and consumer sciences in 6 of 67 counties. The three program areas were selected because they had traditional CTE status yet provided variety in the knowledge and skill base. The counties were selected to represent different geographical areas (panhandle, northeastern coastal, southeastern coastal, western Gulf coastal, and central) with the highest minority populations, all of them over 50% ([Florida Department of Education, April, 2008](#)).

The database was one year old, and it included one label for each of the three program areas within each high school in the six counties. One-hundred eighty labels (60 from each of the three CTE program areas) were randomly selected from 330 total labels (110 from each area), and surveys were mailed to the programs listed on the labels. Some programs may have been inactive due to a state teacher shortage, however, there was no way to determine it with certainty.

A survey instrument was designed and developed. The items were derived and constructed from the literature, study's conceptual framework, and variables. They included both quantitative ratings and open-ended questions. Content and face validity were estimated using a common survey as a standardized stimulus, asking the same question several comparable ways, and using an ANOVA test that revealed no significant differences between the three content areas ([Patten, 2001](#)). The internal consistency reliability of the instrument was estimated using Cronbach's coefficient alpha for the items pertaining to difficult challenges with cultural diversity and language (coefficient alpha = 0.79) and the items regarding positive challenges

(coefficient alpha = 0.71). One colleague and one research assistant assisted in refining and clarifying the items.

Demographic information was requested concerning gender, program/courses taught, cultural background, and student languages/cultures represented in classes during the spring semester prior to the survey. Teachers rated the degree of challenge with respect to teaching students with cultural differences, handling language differences, maintaining consistent and high standards, and building a sense of community. They also rated items with respect to the degree of reward and success or difficulty and frustration experienced when teaching students with different languages and different cultures. There were 15 Likert items with statements such as “It is difficult to apply consistent expectations and high standards in culturally diverse CTE classes,” “Classes with high levels of diversity involve success, creativity, learning,” and “Overall, I experience rewards from teaching culturally diverse classes.” All ratings were based on a 5-point scale, from 1 indicating “strongly disagree” to 5 indicating “strongly agree,” with 3 indicating neutrality or uncertainty. The open-ended questions allowed teachers to write comments about their greatest challenges, greatest rewards, and most useful teaching techniques.

Descriptive statistics were tabulated to describe the sample and obtain mean ratings of teachers' perceptions of challenges and rewards. The chi-square test was used to determine statistical independence between categories of challenges and rewards. Categories of challenge, reward, and the most useful teaching strategies were identified through content analysis (Leedy & Ormrod, 2005; Patten 2001, 2004).

### **Sample Characteristics**

The sample was comprised of 14 business technology, 17 family and consumer sciences (6 in wage-oriented programs), and 10 trade and industrial education teachers; and 36 females and 5 males. The sample also included 18 European Americans/Caucasians (43.9%), 8 African Americans (19.5%), 5 Cuban Americans (12.2%), 2 Caribbean Americans, and 8 individuals from cultural backgrounds such as African American-European American, French Canadian, Jamaican, Mexican American-Puerto Rican American, and Native American. Teachers were not compared on these particular characteristics in the analysis due to the relatively small sample size.

During the spring semester prior to the survey, teachers' enrollments ranged between 28 and 160 students. Their students represented a total of 30 different cultural backgrounds. Twenty-two teachers taught students from three to five different cultural backgrounds during the semester. Eight teachers had students from eight or more cultural backgrounds, and one teacher had students from 16 cultural backgrounds. The most common student backgrounds and those represented in the classes of all teachers were African American and European American/Caucasian; 15



teachers listed Cuban, 11 listed Haitian, and 10 listed Puerto Rican cultural backgrounds. The remaining 25 cultural backgrounds of students included Chinese, Colombian, Creole, French, Haitian, Italian, Honduran, Jamaican, Mexican, Nicaraguan, Philippine, Portuguese, Puerto Rican, Russian, Seminole, and Vietnamese. Additionally, 12 teachers had no students specifically designated as needing English instruction because they spoke other languages, and 6 teachers had 20 or more LEP students. Although government classifications of students (African American, Asian/Pacific Islander, American Indian/Alaskan Native, Hispanic, and White) are useful for certain purposes, the sample indicated that such categories did not present a detailed description of the full range of diversity in CTE classes.

## Results

### Research Question 1: To what extent do CTE teachers perceive cultural and language diversity as difficult and rewarding?

Respondents identified how strongly they agreed or disagreed with statements related to the degree of difficulty and reward of challenges concerning general language and cultural differences. Ratings for each statement are summarized in [Table 1](#).

Table 1  
*Perceptions of Difficulty and Reward with Cultural and Language Differences*

Perception Ranking	Strongly Disagree					Strongly Agree	
	1	2	3	4	5		
	Frequency Distribution					<i>M</i>	<i>SD</i>
Difficult: Language	1	3	3	19	14	3.95	0.99
Difficult: Culture	1	13	3	16	8	3.41	1.20
Rewarded: Language	1	6	6	19	8	3.68	1.05
Rewarded: Culture	1	2	7	22	8	3.85	0.89

*Note.* Some cells are missing data.

The mean ratings, all above 3.00, indicated that it was somewhat difficult to accommodate cultural differences, but it was even more difficult to accommodate language differences. At the same time, it is interesting that 14 teachers disagreed that cultural differences were difficult, and 4 teachers disagreed that language



differences posed difficulty. Although the data revealed that the perceived difficulty of teaching students with language diversity was greater than the difficulty of teaching cultural diversity, the chi-square test revealed that the difference was not statistically significant,  $\chi^2(4, N = 41) = 8.132, p = .087$ .

At the same time that the respondents somewhat agreed that making accommodations to address both language and cultural differences was difficult, they also indicated that these challenges can be rewarding. Teachers rated the difficulty of accommodating language differences more difficult than rewarding, but the difference was not statistically significant,  $\chi^2(4, N = 41) = 3.636, p = .458$ . However, accommodating cultural differences was statistically more rewarding than difficult at the .05 level,  $\chi^2(4, N = 41) = 10.603, p = .031$ .

**Research Question 2: To what extent do CTE teachers report difficulty in maintaining high academic standards and creating a sense of community in culturally diverse classes?**

The respondents identified how strongly they agreed or disagreed with statements related to the difficulty of applying consistent expectations and high standards and building a sense of community in culturally diverse classrooms (see Table 2). In terms of mean ratings, the teachers slightly disagreed that the challenges of maintaining consistent standards and building community were difficult. Although the respondents rated the maintenance of high standards more difficult than building community, the difference was not statistically significant as indicated by the chi-square test,  $\chi^2(4, N = 41) = 1.993, p = .737$ . Although more than one-half of the respondents disagreed that maintaining high standards and community were difficult, there was a bimodal trend; more than one-fourth of the respondents agreed that these challenges were difficult.

Table 2  
*Perceptions of Difficulty with Standards and Community*

Difficulty Ranking	Strongly Disagree			Strongly Agree		M	SD
	1	2	3	4	5		
	Frequency Distribution						
High standards	4	17	4	10	6	2.93	1.29
Community	8	17	3	9	4	2.71	1.30

**Research Question 3: What are CTE teachers' perceptions of outcomes for diversity in terms of success and creativity and frustration and stress?**

The respondents identified how strongly they agreed or disagreed with statements related to specified outcomes in culturally diverse classrooms (see Table 3). The teachers agreed that diverse classes led to creativity and learning success ( $M = 3.83$ ,  $SD = 0.89$ ), however, they tended to disagree that they are frustrating and stressful ( $M = 2.27$ ,  $SD = 1.12$ ). The chi-square test revealed that teachers perceived diverse classes as significantly more creative and dynamic than conflict-ridden,  $\chi^2(4, N = 41) = 39.50$ ,  $p < .0001$ . Diverse classes also were rated significantly more rewarding than stressful,  $\chi^2(4, N = 41) = 30.46$ ,  $p < .0001$ .

Table 3  
*Perceived Outcomes of Diversity*

Outcomes	Strongly Disagree		Strongly Agree			<i>M</i>	<i>SD</i>
	1	2	3	4	5		
	Frequency Distribution						
Frustration	9	21	5	3	3	2.27	1.12
Success creativity	1	2	8	22	8	3.83	0.89
I experience rewards	0	3	3	23	12	4.07	0.82
I experience stress, tension	7	17	6	8	3	2.59	1.20

In summary, the respondents viewed diversity as challenging and sometimes difficult, but perceived the challenges more positively than negatively. The teachers generally showed an open disposition towards diversity in that they felt capable of consistently maintaining high standards, building community, and experiencing personal rewards. However, some teachers acknowledged more difficulty in maintaining high standards and building community, and admitted feeling frustrated with diverse classes. Although frustration could easily indicate a relatively close-minded disposition, it may be that such teachers simply were more open about admitting they were not yet achieving success.

**Research Question 4: How do CTE teachers describe their challenges, rewards, and useful teaching strategies in culturally diverse classrooms?**

The survey provided teachers with opportunities to provide open-ended comments and describe their challenges, rewards, and useful teaching strategies.

Their comments added further insights into the ways teachers think about culturally diverse classrooms.

**Challenges with Limited English Proficiency.** When asked to provide their two greatest challenges with teaching culturally diverse classes, the most common category mentioned by 30 teachers was "language barriers." Teachers felt that meeting the needs of students with different languages was somewhat difficult in itself and more difficult than cultural differences. Language difficulties were believed to (a) contribute to students' failure to grasp fundamental course knowledge, (b) relate to a corresponding difficulty in staying motivated to learn, and (c) cause frustration due to lack of understanding essential information. Examples of individual comments were:

They fail because they don't understand.

They seem to give up, join forces with other students with similar difficulties, or shut down.

It is difficult watching the frustration of students who do not understand the language.

Whereas most respondents focused on the difficult language challenges experienced by students, five also mentioned their own limitations in assessing students, using familiar activities, or working with families as indicated in selected comments below:

It is hard to know how to fairly assess students who speak limited English or don't understand the social aspects of English.

I can't always use language-intense learning activities that I'd like such as writing or oral presentations.

I would like to know how to get parents more involved.

**Challenges with Interpersonal and Cultural Differences.** Sixteen teachers identified issues related to interpersonal relationships and community in the classroom. They reported difficulty in satisfying the needs of students with a wide range of levels of English within the larger classroom dynamic and its human context:

It is hard balancing the needs of students who can't speak English and keeping a motivating pace for other students.

Slowing down curriculum without losing other students' interest is a challenge.

Some are shy about expressing themselves in the class.

Five teachers noted biases among students and the need to help students appreciate each other's differences:

There is some tension and frustration when students have preconceived notions about other students' cultures.

Students disagree with other students' traditions without understanding their ideas are based on their cultures.

They want to stay only with their own group.

One teacher was concerned that some students "take a long time to open up," and another was concerned that "they stick with others like themselves." It appears that teachers preferred that students participate actively and outside their own cliques. However, students sometimes resisted mingling and interactions across cultural groups.

Four teachers mentioned challenges related to differences in meanings and interpretations:

It is difficult when students put up walls because they think you don't understand them.

You have to be careful with communication styles that might offend or trigger emotions.

Concepts and activities that are acceptable or common in American culture may not be so in other cultures.

One teacher indicated awareness that his or her own background and viewpoints could be biased or interpreted as biased: "I try not to impose my own values and philosophy on students. I only hope they accept those that are helpful to them in their lives."

**Rewards of Diverse Perspectives.** When given the opportunity to describe the most rewarding aspects of culturally diverse classes, teachers overwhelmingly noted the benefits of varying perspectives upon creativity, inspiration, quality of life, and sharing and exchange:

It is rewarding to help students appreciate and accept each other's differences.

Diversity brings different views, traditions, ideas to the class climate.

It is a joy to see their understanding of key concepts, discovering their unique talents, and their strong work ethic as an example for all.

They are kind and courteous and appreciative of public education.

In my CTE classes they are all equal, yet they bring different aspects to enhance creativity.

Four teachers indicated how they were personally "inspired" by the stories and experiences of their students. One stated, "They have stretched my comfort levels to

make me a better teacher and a better person." Others felt rewarded when they taught new information and later saw students "succeed with a class project or in everyday life," or when they could "introduce vocations that will increase the students' quality of life."

Teachers identified a number of useful strategies that can ease language barriers: visual aids, extra handouts, repetition with technical concepts, demonstrations, hands-on projects instead of oral presentations and written papers, practice of new skills, inclusion of examples from representative cultures, dividing processes into smaller segments, graphic organizers, and concept maps. Individualized attention from the teacher or another student was also described as valuable. As one teacher stated, "Teaching to the 'whole child' and accepting cultural and academic differences makes the students feel comfortable."

Fourteen teachers named cooperative strategies such as small group tasks, laboratory projects, and teamwork as valuable, perhaps because working together facilitates both high standards and the sense of community. Whereas three teachers more specifically mentioned grouping students from the same cultural background, one teacher liked to group students to maximize cultural variety.

Certainly the daily reality of teaching CTE subjects to students with varying degrees of English proficiency and diverse cultural traditions and viewpoints can be challenging and exhausting. However, despite the difficulties, all but one teacher wrote one or more comments related to specific rewards in teaching culturally diverse students. Teachers indicated that diverse classes create interesting and lively CTE classroom dynamics, extend personal growth on the part of students and teacher, and enhance learning and understanding.

### **Conclusions and Discussion**

This study suggested that CTE teachers have various dispositions regarding culturally diverse classes. Most teachers perceived challenges in building community and ensuring consistently high standards, but they tried a variety of ways to satisfy the challenges and reported feeling rewarded. The highest mean rating of any item on the survey related to the sense of satisfaction and success, and the lowest mean rating corresponded to the sense of frustration and stress. It appears that the CTE teachers generally viewed the challenges of diversity as a positive feature in their classrooms.

A small number of teachers indicated a high degree of stress and frustration with the challenges they faced. The teachers might have had negative dispositions toward diversity if they felt little satisfaction at the end of the school day and semester. Another possibility is that stressed teachers might have been open to diversity, but nevertheless struggled to succeed because they did not have the necessary skills. Such teachers might be open to professional development, have support from administrators, or have assistance from a mentor teacher.

Even when culturally diverse classes are perceived as successful and rewarding, teachers deal with difficulties that present obstacles to achieving classroom goals. In this study, language barriers emerged as the greatest challenge for teachers. In light of state mandates for all students to attain specific achievement goals regardless of their language of origin (Austin, 1999; Fuller, 2003), teachers likely felt pressure for their students to perform well on state tests regardless of their English skills. Teachers indicated concern when students failed to achieve, gave up, lost motivation, or lost opportunities to get to know other students due to a lack of understanding or fluency with the language.

It might be expected that the respondents' somewhat high rating of language as a difficult challenge would correspond to similarly high ratings of difficulty with maintaining high standards in the classroom. Interestingly, this was not the case for the majority of teachers who disagreed or strongly disagreed that it was difficult for them to maintain standards. There are several plausible explanations. Perhaps the challenge of helping students with limited English proficiency achieve high standards was difficult in a general sense, but teachers were open and sensitive enough to find successful ways to teach important concepts through visual aids and graphic organizers, hands-on projects, demonstrations, and a variety of assessment methods. Or perhaps high standards comprised the guiding force that shaped classroom expectations, and language differences were but one of many obstacles that they were able to resolve. Open and optimistic teachers simply might have believed that students aspire to and reach the highest level when they are expected to do so.

Cultures have different meanings, values, and traditions in work and family (Allen, & Hermann-Wilmarth, 2004; Austin, 1999) which can add conflict and tension to discussions and make teamwork problematic (Banks, 1997; Goodwin, 1997; Gutiérrez & Rogoff, 2003; Jennings & Smith, 2002; Kleinfeld, 1998). Therefore, it might be expected that the teachers' overall ratings of culturally diverse classes as difficult would correspond to high ratings of difficulty with building community. However, this was not the case, with twice as many teachers disagreeing as those agreeing that building community was difficult. Interestingly, they felt rewarded by interactions among students of different cultures at the same time cultural diversity generally was rated as a difficult challenge. For hopeful and open teachers, differences in values and behaviors likely added interesting possibilities for creativity that far outweighed any negative tensions such as frustration or stress.

Teachers felt successful when students communicated with each other, shared views, appreciated differences, and worked together for positive outcomes. It is noteworthy that CTE teachers suggested many of the same teaching strategies recommended by others (Allison & Rehm, 2006; Banks, 1996, 1997; Fear-Fenn, 1993; Friedenber, 1995) to build and nurture a cohesive community. Teamwork, pairing, sharing, laboratory projects, discussions, and applications to daily life were mentioned frequently. Certainly, teachers who help students learn to work together in the classroom and build skills for their future careers contribute to their ability to

work with diverse customers, coworkers, employees, and employers. However, the teachers' comments did not indicate the use of critical thinking, advocacy, or debate that might challenge elements of culture or economic structures as recommended by previous research (Davenport, 2003; Pierce, 1993; Samper & Lakes, 1994; Yopp, 1993). The teachers appeared to value a classroom of learning and good relationships over a classroom with provocation and risk associated with cultural critique. Their openness to student diversity might not have extended to political or controversial levels.

### **Implications and Recommendations for Practice and Research**

The results of this study are based on a relatively small sample and a 23% response rate which limits the generalizability of the findings. Further, it is possible that the respondents were more favorably inclined towards cultural diversity than the nonrespondents. Despite these limitations and in light of the study's purpose, the respondents were drawn only from counties with extensive diversity in their student populations. Given that the 41 participants were diverse and taught diverse classes, their perspectives provided an initial view into what it is like to teach in culturally diverse classrooms. They contributed tentative but valuable insights. The ratings and open-ended comments provided an initial understanding in regard to CTE teachers' dispositions toward culturally diverse classrooms. However, the problem should be investigated further with larger samples, with larger and validated surveys, and in other states (Patten, 2004).

Although most of the CTE teachers in this sample viewed diversity positively, their comments indicated that some dealt with cultural conflicts among students and their own uncertainty about how to deal with differences. A small number appeared to be struggling and frustrated more than rewarded in their teaching. The large percentage of nonrespondents suggested the possibility that many teachers did not respond due to a lack of openness to diversity. Teacher educators, curriculum developers, and professional development workshop leaders should appreciate and utilize positive attitudes, but they also should focus on providing a larger repertoire of practical experiences and strategies for success. Topics that address cultural issues could include fair assessment, dialogue to resolve cultural tensions, and balancing common standards with individuality (Allen & Hermann-Wilmarth, 2004; Austin, 1999; Bell, 1997; Davenport, 2000; Desai, 2000). Support teams could be developed for teachers to share stories and ideas with each other, and mentors could be assigned to those who desire such assistance.

A specific challenge involves teaching students with limited English proficiency. To prevent limited English students from remaining in low wage jobs (Friedenberg, 1995), teachers need to provide extra assistance in developing combined academic and CTE skills. Teacher training should include courses in theory and methods of teaching students with a range of English proficiency levels.



Additionally, it should include a range of practical experiences with instruction, tutoring, and assessment. Professional workshops could provide practical tips, language resources, and cultural resources specifically designed to develop greater understanding and skills for working with LEP students. Collaborations of CTE and academic educators, businesses, and students who are learning English could lead to mutually beneficial projects and activities (Friedenberg, 1995; Platt, 1996).

The challenges inherent in culturally diverse classes have a profound impact on interpersonal understanding, misunderstanding, and other human relationship issues (Lesko & Bloom, 1998; McAllister & Irvine, 2000). Although the teachers in this study were open to helping students work together as a team, all CTE teachers could benefit from additional practical tips, examples, and experiences that enhance their abilities to facilitate positive interactions and creatively respond to conflict. Business owners, managers, and employees should gain experience with diverse workplaces early in teacher education programs. Practical experiences with conflict resolution, problem solving, communication regarding different values, building common goals, and critical reflection would be invaluable (Banks, 1997; Bell, 1997; Brown, 2001; Rehm & Allison, 2006).

The teachers in this study viewed the challenges of cultural diversity more positively than negatively, and they believed that they were somewhat successful in building a sense of community by using team projects and cooperative learning. However, some respondents perceived the difficulties as frustrating and stressful rather than rewarding. Comparative studies are needed to determine specific factors such as teaching attitudes, approaches in the classroom, previous experience, wider school environment, and student relationships that contribute to dispositions that encourage success and reward rather than failure and stress. This study was limited by the small sample of teachers, small number of CTE programs, and selected counties in one state. Therefore, similar studies should be conducted with larger samples of teachers, CTE programs, and states.

Although teachers reported using hands-on practice, demonstration, visual aids, and pairing students to help those with limited English proficiency, such approaches may differ in success rates and need to be empirically verified through further research. Studies using direct observation and measures should examine the relationships between different teaching approaches with workplace skills and knowledge gained by students from diverse cultures and with varying levels of English proficiency. Studies could determine students' views regarding their sense of inclusion by the teacher, academic success, and engagement with other students. Furthermore, post-graduation longitudinal studies are needed to document success with jobs and the family lives of students educated in diverse CTE classrooms.

Research focused on the depth of understanding with respect to the richness of diversity and its relationship to both dispositions and actions is limited. The next logical stage is to conduct ethnographic and case study research within CTE classrooms. Answers to the following questions could be gleaned through

observations and in-depth interviews: (a) What is the process of building cohesion and dealing with differences in diverse classrooms? (b) What is it like to be a CTE student who does not speak English proficiently? (c) Who comes from a culture that is distinctly different from that of other students? and (d) Can negative dispositions toward cultural diversity be changed, and if so, how? Additionally, critical studies should be conducted to assess if and how CTE teachers nurture students' participatory skills to engage in critical discourse and advocate new ideas in the workplace (Allen & Hermann-Wilmarth, 2004; Lesko & Bloom, 1998; McAllister & Irvine, 2000; Pierce, 1993; Samper & Lakes, 1994; Yopp, 1993).

Career and technical educators face the challenge of preparing the future workforce (Brown, 2001), often within classrooms brimming with cultural and language diversity. This study suggested that cultural diversity is a positive challenge for CTE teachers. Most teachers felt successful in building a sense of community and maintaining high standards in diverse classes; they experienced rewards much more frequently than frustrations. However, some teachers felt frustrated and uncertain and indicated a need for practical and emotional support from CTE teacher educators, administrators, and other leaders. Career and technical education teachers must develop the necessary dispositions and skills to assist all their students to become productive workers, citizens, and family members.

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