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DIVERSE STUDENTS' PERCEPTIONS OF CULTURAL CONGRUITY AND
ENVIRONMENT AT A UNIVERSITY

by

Effie J. Thacker

A thesis submitted to the faculty of

Brigham Young University

in partial fulfillment of the requirements for the degree of

Educational Specialist

Department of Counseling Psychology and Special Education

Brigham Young University

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BRIGHAM YOUNG UNIVERSITY

GRADUATE COMMITTEE APPROVAL

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This thesis has been read by each member of the following graduate committee and by majority vote has been found to be satisfactory.

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As chair of the candidate's graduate committee, I have read the thesis of Effie J. Thacker in its final form and have found that (1) its format, citations, and bibliographical style are consistent and acceptable and fulfill university and department style requirements; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the graduate committee and is ready for submission to the university library.

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ABSTRACT

DIVERSE STUDENTS' PERCEPTIONS OF CULTURAL CONGRUITY AND ENVIRONMENT AT A UNIVERSITY

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The Culturally Responsive Special Education/English as a Second Language (ESL) program was designed to assist students from diverse backgrounds in being academically successful in a large western private university. Utilizing the Cultural Congruity Scale (CCS) and University Environment Scale (UES), this study analyzed the perceptions of 28 students who are ethnically diverse and enrolled in the Culturally Responsive Special Education/ESL Program. The data will be used to evaluate the program's success in addressing the barriers that have historically kept students who are ethnically diverse from succeeding in higher education. Participating students completed CCS and UES surveys questioning their perceptions regarding cultural congruity and how they perceived the university environment. Descriptive data based on responses to survey questions were summarized and examined. Additionally, individual survey items were examined to determine specific areas of student concern. Results from the current sample were compared against the instrument's validating normative sample to find the difference between perceptions of students from a more diverse university setting and this program's ethnically diverse students who are attending a program at a predominately white private institution. Results indicate that the students in the current sample perceive high levels of cultural congruity and positive

university environment. Compared with students from a more diverse setting, the current sample perceived similar levels of cultural congruity and significantly greater perceptions of positive university environment.

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INTRODUCTION

The demographics within the United States are changing. The shift has affected the distribution of students enrolled in public schools. Due to this change in distribution, the percentage of students from diverse ethnic backgrounds is increasing. In 1972, 78% of the students enrolled in public schools from kindergarten through twelfth grade were White, and the largest ethnically diverse group were Black students with 15% enrollment. Murdock and Hoque (1999) predicted that by 2050 only 57.6% of students would be White. However, the percentage of ethnically diverse students is increasing at an unexpected rate. It was reported that in 2003, 58% of the students enrolled in public schools were White, and the largest ethnically diverse student enrollments were Latino/a students at 19% (National Center for Education Statistics [NCES], 2005). Data shows that the number of students in the schools from ethnically and linguistically diverse backgrounds is increasing nationwide, and it is predicted that this population of students from diverse backgrounds will continue to grow (Ochoa, 2005).

The percentage from ethnically diverse groups is not represented in the teaching force or in college enrollment. The National Education Association (2003) reported that in 2001, 90% of all teachers were White. Teachers from diverse backgrounds were typically found in large school districts. The NCES (2005) reported that 19% of all students in 2003 were Latino/a, but only 5% of teachers were Latino/a (National Education Association, 2003). There is a large discrepancy between the percentage of students of ethnic diversity and the percent of teachers from ethnically diverse backgrounds.

Students from diverse backgrounds tend to succeed academically when they have a teacher with a similar background and ethnicity (Dee, 2001; Villegas & Clewell, 1998). Tyler, Yzquierdo, Lopes-Reyana, and Flippin (2004) identified three reasons that teachers who are

ethnically diverse are needed. First, the population in America is diverse, and the student population is diverse, therefore, the teaching force should reflect this diversity. Second, there is an overrepresentation of students who are ethnically diverse in special education; a diverse teaching force may be more able to identify and refrain from making inappropriate referrals. The last reason identified was the impact on student learning. Students who are placed with teachers of the same ethnicity or race will have more academic success than when placed with White, monolingual, middle class teachers. Consequently, there is an increased need for teachers from ethnically and linguistically diverse backgrounds to work in the schools. Students who are ethnically diverse are choosing fields of study other than teaching, hence most children in the schools are being taught by White teachers from middle class backgrounds (National Education Association, 2003).

One solution to discrepancy between students who are ethnically diverse and teachers who are ethnically diverse is to recruit and train an ethnically diverse teaching force. Dilworth and Ardila-Rey (2004) wrote the following:

Rapid demographic changes in PK-12 student population as well as the widening achievement gap between White students and students of other racial/ethnic and linguistic backgrounds make the need for a multicultural teaching force even more urgent than in the past. (p. 5)

The need for ethnically diverse teachers is growing. To address this need, numerous programs have been implemented at universities, school districts, and state offices to increase the number of ethnically diverse educators, but numbers have continued to drop since 1980 (Gallegos & McCarty, 2000).

College undergraduates from diverse backgrounds are less likely to complete a Bachelor's degree than their White counterparts. According to the National Center for Educational Statistics (2003), 44% of Latino/a students who enrolled in a 4-year institution for higher education during the 1995-96 school year graduated with a Bachelors degree. For White students enrolling in the same year, 68% completed a bachelor's degree. Thus there is a discrepancy between the attrition rate for White students and Latino/a students.

Those students from diverse backgrounds who are acquiring degrees of higher education are not choosing and graduating in fields related to education. Students from diverse backgrounds are not choosing education as a major or a career for several reasons. One reason is that a large percentage of ethnically diverse students who chose to receive higher education apply and attend 2-year community colleges (Laden, 2004). Many more reasons have been identified as barriers for students who are ethnically diverse in obtaining degrees in higher education. Waldshmidt (2002) identified barriers through ethnographic interviews with students from Mexican-American backgrounds attending a northwestern university. The barriers she identified through the interviews with students were tuition costs, work schedule, books, personal concerns, family issues, child care, transportation, and English proficiency. Quioco and Rios (2000) summarized the problems facing Latino/a teacher candidates and identified similar difficulties that face all ethnically diverse teacher candidates. They also discussed two additional barriers that face students who are ethnically diverse. These barriers were testing biases and negative perceptions of teachers and university professors. According to Prater (2005), the discrepancy between the number of diverse students and diverse teachers may continue to increase, especially in rural areas, because of the increased qualifications, such as passing a written test for teachers under the No Child Left Behind Act of 2001.

Another difficulty that affects the status and attainment of a degree of higher education is socioeconomic status. Vasquez (1982) discussed the effects of socioeconomic status on Mexican American women in higher education. Limited resources due to poverty have an affect on the higher education goals of students from Mexican American households. Socioeconomic status has an impact on education by limiting exposure to cultural and intellectual resources that will help Mexican Americans obtain degrees in higher education. Because of the limited exposure to these resources, Rintell and Pierce (2003) reported that students are challenged by the higher education culture. They are not familiar with how to register for classes, fill out the appropriate paper work to apply for entrance into the institution, or how to receive scholarships or grants. Other barriers for Latino/a students in higher education as reported by Reyes and Rios (2005) are “low expectations, nurturing of codependency by over reliance on mentors, isolation from the mainstream students,” and “funding” (p. 381, 382). The barriers facing the students from diverse backgrounds are countless and overwhelming.

Barriers that keep students from diverse backgrounds from achieving a degree in education are numerous. The experiences of students from ethnically and linguistically diverse backgrounds on college campuses are another barrier or challenge that students must overcome. Studies of the experiences of students from ethnically and linguistically diverse backgrounds identify some of the challenges faced on college campus. In a study by Jones, Castellanos, and Cole (2002) students from ethnically diverse backgrounds at a predominately White institution were studied through qualitative means to discover the experience of the students. The ethnically diverse students were from a wide variety of backgrounds, but had similar experiences within the system. Many of the students reported that although they had a cultural center, there was a lack of support throughout the campus. Consequently, they did not feel welcomed at the university,

and they did not feel that the university was committed to diversity. Some of the students experienced blatant racism across campus and even gave examples of faculty racism. Some of the students felt discriminated against for being a student of color and continued segregation between students of color and White students. This problem is universal. Similar problems have been found in a study done by Jones, Maguire, and Watson (1997) in England. The diverse teacher candidates reported having problems with racism and not being accepted as professionals in the schools.

Brown (1991) discussed that in order for students to successfully graduate from higher education institutions, effort must be made to make the university community attractive to students from diverse backgrounds. The needs of these students must be considered and curriculum content needs to be infused with diversity. He also discussed the importance of sensitizing faculty and the importance of faculty helping the students feel comfortable. California Tomorrow (2002) stated that staff and faculty need to have the skills to work with diverse students. Teachers need to understand the frame of reference and experiences of their students.

The Culturally Responsive Special Education/English as a Second Language(ESL) Program at a large western private institution was designed to help students from diverse backgrounds overcome these barriers and succeed in obtaining a degree in education. The program obtained funding from an Office of Special Education Program (OSEP) personal preparation grant that allows them to assist the students financially. They are also working to provide multicultural professional development for the faculty who will be teaching the students from diverse backgrounds. The multicultural professional development for the faculty involved with the students in the Culturally Responsive Special Education/ESL Program was designed to help the faculty members become culturally competent in the classroom and to better understand

their students. This will allow the faculty to assist their students in being successful in completing their education and becoming diverse teachers in the school system.

Definitions

These aforementioned terms have the following meaning as used in this study. *Latino/a* refers to people who are native of Latin American and are residing in the United States. *Hispanic* is used interchangeably with *Latino/a* and refers to all native Spanish speaking and Spanish descent individuals now residing in the United States. The term *White* refers to all Caucasian or non-Hispanic White persons currently living in the United States. *African American* is a term used to indicate people living in the United States who are of African descent. *Ethnically diverse persons* are those who have a different, culture, language, nationality, or race, from the predominant or majority population, and *multicultural* is a term used to indicate relating to, reflecting, or adapting to diverse cultures.

Statement of Problem

There is a documented scarcity of licensed educators who are culturally or linguistically diverse (National Education Association, 2003). This can have an effect on the classroom performance of children who are from ethnically diverse backgrounds. Students may respond more positively to teachers who have a similar ethnicity and background (Dee, 2001; Villegas & Clewell, 1998). Consequently, because of the discrepancy between the number of students who are ethnically diverse and the number of teachers who are ethnically diverse, there is a need to increase the number of teachers who are ethnically diverse. The increase in teachers who are ethnically diverse would increase the classroom performance of ethnically diverse students and decrease the amount of inappropriate referrals for special education services (Tyler et al., 2004).

Statement of Purpose

The Culturally Responsive Special Education/ESL Program at this large private university has attempted to address some of the issues that have kept students of diverse backgrounds from achieving and attaining a degree. First, the program provides scholarships for tuition and books from a federal Office of Special Education Programs (OSEP) personal preparation grant. Second, the program provides mentors who can guide the students through the college and department admissions, cultural climate in higher education, and class assignments and assessments. The Culturally Responsive Special Education/ESL Program has also provided faculty with appropriate multicultural professional development focused on helping them to learn how to be more culturally sensitive and to use culturally responsive practice while working with diverse students. Campbell-Whatley (2003) suggests that ongoing faculty development in culturally responsive practice may be part of the solution needed to have more diverse candidates in higher education.

Over the course of this study, the researcher will be able to assess the perceived cultural congruency and university environment of the students in the Culturally Responsive Special Education/ESL Program. Due to the nature of the study, generalization is limited because of the small sample size and single setting. However, valuable information can be obtained through the perceptions of the subjects that can be used to evaluate the current program as well as provide useful information in the implementation of similar programs.

Research Questions

The following research questions will be answered through the course of this study:

1. What is the mean Cultural Congruity Scale (CCS) and University Environment Scale (UES) total score for students in the Culturally Responsive Special Education/ESL Program?
2. What is the mean score for each item on the CCS and UES for students in the Culturally Responsive Special Education/ESL Program?
3. What is the difference between the mean CCS and UES total scores of this sample and the mean CCS and UES total scores of the hypothesized population?

Importance of the Study

The information gleaned from this study will be valuable in evaluating the campus climate, the cultural congruency of the students, and to some extent the faculty's culturally responsive practices. The information will help the researchers and department understand what areas are satisfactory and what changes need to be made to retain and further develop the program, and will allow the department and faculty to gain information that will help them assist the students in being successful in the Culturally Responsive Special Education/ESL Program.

Although previous studies evaluated institutions and programs throughout the nation (Bennet, Cole & Thompson, 2000; California Tomorrow, 2002; Jones, Castellanos, & Cole, 2002), no study was located that evaluated a program specifically organized to recruit, retain, and assist ethnically diverse students in obtaining a special education degree.

LITERATURE REVIEW

The need for students who are culturally diverse in higher education and the need for more teachers from culturally diverse backgrounds have not been disputed (National Education Association, 2003). This literature review begins with a discussion on the changing demographics in the nation and in higher education. The barriers identified in the literature that keep students who are ethnically diverse from attending institutes of higher education and choosing education as a major will also be reviewed. These include financial, parental levels of education, poverty, poor quality schools, bias and prejudice, and faculty barriers. The perceptions of students on the university environment and their feelings of cultural congruity have an influence on the persistence for students who are ethnically diverse in institutions of higher education. The literature addressing the university environment and cultural congruity as well as solutions suggested in the literature will be discussed.

Changing Demographics

The demographics throughout the United States are changing quickly. The population of Whites increased 4% between 2000 and 2005 (U.S. States Census Bureau, Population Department, 2006a). The increase for Caucasians is less than the increase of the two largest ethnically diverse groups combined, African American and Latino/a. The second largest ethnically diverse group in the United States is African American with a population of about thirty-eight million in 2005, which is an increase of 6% from 2000 (U.S. States Census Bureau, Population Department, 2006b). The African American group showed the greatest increase. The Latino/a population in 2000 was around 35.5 million and in 2005 the population had increased twenty percent to roughly 42.5 million (U.S. States Census Bureau, Population Department, 2006c). The Latino/a population is changing and growing faster than any single ethnic group.

The change in total population between April of 2000 and July of 2005, for the United States, was approximately 15 million; consequently, almost half of that change was due to Latino/a growth. The growth in the Latino/a population across the United States was over seven million. This increase in population is distributed across all age groups and is due to both births and international migration (U.S. States Census Bureau, Population Department, 2006d).

These changing demographics can be seen throughout the educational system and throughout the past few decades. The percentage of White students in public schools was 78% in 1972, with 22% of the population being students who are ethnically diverse enrolled in public schools. Today, however, 57% of students are White and 43% are ethnically diverse students. Since 1972 the population has shifted markedly from 78% of the public school enrollment being White to the reported 57% in 2004. The main cause of this shift is the growth of the Latino/a population throughout the United States. In every area of the United States the population of Latino/a students has increased from 6% in 1972 to 19% in 2004. The most noticeable shift in population occurred in the West with a total increase of 24% in ethnically diverse students. In 1972 15% of students in the West were Latino/a, but in 2004 39% of the public student population was Latino/a (U.S. Department of Education, 2006).

The percentage of students from ethnically diverse backgrounds in higher education is disproportional to the percentage of students from diverse backgrounds in public schools and differs significantly from the population as a whole in the United States. According to the U.S. Department of Education (2006), only 29% of enrollment at institutions of higher education were students from ethnically diverse backgrounds in 2002. When analyzing the enrollment for specific ethnicities only 12% of the enrolled student bodies at higher education were African American and only 10% of total enrollments were Latino/a (U.S. Department of Education,

2006). It is expected that approximately the same percentage of the population in each ethnic group would be enrolled in a degree seeking institution; however, there is a gap between the expected enrollment of Latino/a students and the actual percent. Latino/a's comprise 14% of the population in the United States; on the other hand, students from Latino/a backgrounds consist of only 10% of the enrollment in higher education institutions. An increase in the percentage of students from diverse backgrounds attending institutions of higher education in the past two decades was reported by Atwell (2004). This phenomenon has been observed for all ethnically diverse groups. However, Melendez (2004) reported that "the gap between Latino/a's and both Whites and all other groups remains unacceptably high" (p. 6).

Latino/a students are slowly closing the gap. Between 1992 and 2002, the largest growth for any ethnically diverse group in higher education enrollment was Latino/a (50%) (Bailey et al., 2004). Latino/a enrollment in institutions of higher education follows a trend in which many Latino/a students attend Latino/a serving institutions or community colleges, defined as those enrolling at least 25% Latino/a full-time students or equivalent. According to Laden (2004), 42% of all Latino/a undergraduate enrollments are at Latino/a serving institutions. Only 14 states have Latino/a serving institutions: Arizona, California, Colorado, Florida, Illinois, Massachusetts, New Jersey, New Mexico, New York, Oklahoma, Oregon, Pennsylvania, Texas, and Washington. A large proportion of these institutions are 2-year institutions with only 31% being 4-year universities (Laden, 2004).

There are at least two reasons Latino/a students are drawn to 2-year institutions or community colleges. First, these institutions are easily available in most communities. This makes it possible for students to remain living at home decreasing their living expenses, which allows the students to focus more fully on their class work. The second reason is also related to

finances. Community colleges are less expensive than 4-year institutions. These two reasons make community colleges affordable and accessible to the Latino/a population; consequently, Latino/a students and other students from ethnically diverse groups are overrepresented at 2-year institutions. More than half of Latino/a students attending higher education attend 2-year institutions when only one-third of White students attend community colleges (Nevares, 2001).

Students will attend 2-year universities to obtain credits and often the students will continue to have a goal of completing a Bachelors or graduate degree. Rendon and Nora (1997) reported that 85% of Latino/a students attending community colleges view their 2-year degree as a stepping stone to higher education. However, students are less likely to continue on and receive a 4-year degree than those students who begin their education at a 4-year institution. Only 5.5% of students starting in a 2-year institution will continue on to receive a bachelors degree, and almost half or 47.6% will stop attending school and will not receive a degree of any type (Nation Center for Educational Statistics, 2003).

Although Latino/a students are closing the gap for enrollment in higher education, however, the gap for completion and attainment of degrees continues to exist. The American Council of Education (2004) reports, “Hispanics continue to trail behind Whites and Asian Americans in rates of 4-year college completion” (p. 6). The percentage of students attending 4-year institutions and those who actually attain a Bachelors degree is disproportional between Whites and most ethnically diverse groups. Approximately 62% of Whites who begin their education at a 4-year university will graduate with a Bachelor’s degree compared to 43% African American and 44% Latino/a. However, students who attend a 4-year university are more likely to achieve a degree or certificate. According to the NCES, 25.7% of Latino/a students who start at a 4-year institution drop out and do not obtain a degree compared to 47.6% at 2-year institutions

(Nation Center for Educational Statistics, 2003). There has been an increase of Latino/a students attending institutions of higher education, but there has been little change in completion and degree attainment rates.

Barriers to Higher Education

The literature identifies many barriers and challenges that diverse students must overcome in order to attend institutions of higher education and complete a degree. Most of the barriers are external, over which students have little or no control. Waldshmidt (2002) classifies these barriers as social, political, and cultural. Social barriers are issues related to low income such as financial responsibilities due to education, family care, and transportation. Political concerns are barriers associated with work schedules and other possible challenges that are the result of institutional or area policy. Finally, cultural barriers can result from conflict between the cultural expectations and educational or academic expectations. Some of the cultural barriers are family issues or other personal concerns such as finding the time to fulfill their duty to their family and their responsibilities as a student. Some of the barriers Waldshmidt discusses are influenced by more than one or all three of the categories.

Finances. Limited financial resources is one of the barriers identified by Waldshmidt (2002) and has been identified in a great amount of the literature written on obstacles to receiving a degree in higher education for Latino/as. The literature states that lack of financial resources is one of the major barriers facing these students and has been shown to affect the attendance rate for diverse students in 4-year universities and the application to these universities (Brown, 1991; Carrier & Cohen, 2005; Castellanos & Jones, 2003; The Institute for Higher Education Policy, 2001; Rintell & Pierce, 2003; Waldshmidt, 2002). Lack of financial resources is also a concern for the retention of diverse students. The literature shows that students may

drop out of school due to the lack of financial stability. Students may find themselves unable to pay their bills, attend school regularly, and provide for their families. Carrier and Cohen (2005) suggest that in order to attract and retain students from diverse backgrounds there must be financial support provided that will alleviate some of the financial burden of the students.

Parental education. Socioeconomic status is often a barrier to attendance at four-year universities for Latino/a youth and adults. Socioeconomic status (SES) refers to family income as well as parental education level and family/parents social status within the community. Many students from the Latino/a population have parents who are either immigrants or did not attain higher education. The National Center for Children in Poverty (2006) reports that 65% of Latino/a parents have received no education beyond a high school diploma and 36% of Latino/a parents have received less than a high school education. As cited by Harrell and Forney (2003), approximately 8% of mothers who are Latino/a obtain a Bachelor's degree or higher and about 10% of the fathers obtain a Bachelors degree or higher compared to 26% and 34% for Caucasian mothers and fathers, respectively. Harrell and Forney (2003) stated, "Hispanic parents are the least likely group to obtain college degrees; therefore, in general, they are the most unprepared group to initiate their offspring into the college experience" (p. 151-152). Latino/a students' parents may not be able to help the student maneuver through the paperwork needed to apply to an institution, or understand the university procedures. This places the student from Latino backgrounds at a distinct disadvantage. Furthermore, the families and parents of these students are less likely to be able to help the students financially. The pressure to pay tuition and fees can cause added stress to students from Latino backgrounds who are trying to do well in their classes and work to provide for themselves and their families.

Poverty. The lack of financial resources is often the result of poverty. Many students from diverse backgrounds were raised in poverty. *Poverty* or low SES is defined as the lack of money and/or possessions that are needed to provide for oneself and family. Poverty can greatly affect a student's preparation for higher education by affecting academic development and creating a lack of educational opportunities needed to succeed in academics. In education, poverty is determined by the qualification for free or reduced-price lunch. According to the U.S. Department of Education (2006), approximately 73% of Latino/a students in the fourth grade qualified for free or reduced-price lunch, compared to 24% of White students and 70% of Black students. The United States Department of Education (USDOE) also reported that 49% of students from Latino/a backgrounds are enrolled in schools with the highest rates of poverty. This indicates that more than 75% of the student body was eligible for free or reduced-price lunches, while only 5% of the students who were White attended schools with high poverty rates. Students who are Black or American Indian were also found to be a higher percentage of the population in high poverty schools, 48% and 36% respectively (USDOE, 2006). These schools are poor and are located in poor districts.

Socioeconomic status has been found to be a major factor in the development of children and their academic success (Beauvais & Jenson, 2003). Students in low SES households are less likely to do homework, read for pleasure, and are more likely to skip more days of school and receive lower grades than students from high SES households (Scales, Roehlkepartain, Neal, Kielsmeier, & Benson, 2006). Poverty also impacts the acquisition of an appropriate knowledge base. According to McLoyd (1998), children who live in poverty are exposed to less parental stimulation in the home. Children who do not receive appropriate cognitive stimulation develop cognitively at a decreased rate and are usually slightly behind in cognitive development than

children who receive appropriate stimulation. As reported by Raudenbush (2004), children in poverty have very similar growth rates to other children, but enter at a lower knowledge base. This will continue to affect the student throughout their academic career, if they are unable to acquire the knowledge base needed to succeed academically.

Schools with limited resources. In schools with limited resources opportunities for extracurricular activities and other learning opportunities are limited. The missed opportunities can have huge academic consequences if the missed opportunities are advanced classes or appropriate equipment, such as microscopes and up-to-date computers (Adam, 1999). Rendon and Hope (1996) reported that these schools and districts are not able to provide many of the vocational opportunities needed to obtain job skills. Due to the lack of money neither the schools nor the parents are able to provide computers and other technologies for the students to gain neither competency nor skills, nor do many schools provide training or class work outside of the regular core classes. These deficiencies have a huge effect on preparation for future schooling and preparation for the workforce.

In a study conducted by Borman and Rachuba (2001) results showed that low SES ethnically diverse students attended schools with lower quality and fewer resources than did low SES White students. Low-SES ethnically diverse students were most likely to achieve academically if they attended effective schools. Effective schools were identified as those with equal expectations for all students, a safe environment, and appropriate learning opportunities. This study also analyzed class and school composition and found that ethnically diverse students were more likely to attend schools with high proportions of students who are ethnically diverse. Caldas and Bankston (1997) found that students are more likely to attend schools with other students from the same racial and economic background. They concluded that students' families'

social status was a significant predictor of academic success. There was also a significant effect for family social status on academic achievement

A major barrier to effective preparation for higher education is the quality of teachers found in schools with limited resources. These schools are unable to attract and retain exceptional qualified teachers with experience (Rendon & Hope, 1996). With low quality teachers the students in these schools may not be receiving the knowledge they need in order to achieve a higher education. Peske and Haycock (2006) reported, “Poor and minority children don’t underachieve in school just because they often enter behind; but, also because the schools that are supposed to serve them actually shortchange them in the one resource they most need to reach their potential – high-quality teachers” (p. 1). There are immense differences between the qualifications of teachers in highest-poverty schools and highest-minority schools and teachers in high-poverty schools with few ethnically diverse students. Many of the teachers assigned to high-poverty schools are new teachers who have just graduated and have little experience. One in four teachers teaching in these schools have fewer than three years experience compared to the average of one in seven. The students in high-poverty, high-minority schools are also more likely to be taught a subject by someone with little experience with the subject or by someone out of the field. Peske and Haycock (2006) concluded that college readiness decreases with teacher quality. Students who are taught by low-quality teachers will not be academically prepared for college (Peske & Haycock, 2006).

Bias and prejudice. Another barrier, bias and prejudice, can affect student retention as well as application and progression to higher education. Prejudice and bias are most often represented in the classroom by teachers having lower expectations for their students who are low SES or who come from ethnically diverse backgrounds. McLoyd (1998) reported that

teachers tend to have lower expectations and view their low SES students negatively. She continues to discuss how the teachers who hold these perceptions tend to treat the children in their classes differently by giving them fewer learning opportunities and less reinforcement. These biases and expectations can have negative effects on the students' self-perceptions and self identity (Caldas & Bankston, 1997; George & Aronson, 2003; Steele, 1997). Caldas and Bankston state, "The teacher's artificially low expectations for the group may eventually influence how the individual student perceives his or her own capabilities, in essence, transferring to the student the negative stereotype of the teacher" (p. 270). Teachers' low expectations for students from low SES or ethnically diverse backgrounds can have a negative consequence for the academic success and persistence of the students.

These biases may be the result of teachers' unfamiliarity with poor and ethnically diverse students. Being unfamiliar with a student's culture can affect the way a teacher misinterprets cues such as body language and speech patterns (Alexander, Entwisle, & Thompson, 1987, as cited by McLoyd, 1998). Most teachers come from White middle class backgrounds. Approximately 90% of all teachers were White in 2001, approximately 5% of teachers were African American, and 5% of teachers reported being from Latino/a backgrounds (National Education Association, 2003). The lack of teachers from ethnically diverse groups can impact the academic achievement and goals of students from diverse backgrounds. Bradshaw (2002) stated that "when students and educational role models share a racial and cultural heritage, students begin to see the possibilities that await them not the barriers" (p. 34). Students from ethnically diverse backgrounds tend to achieve academically when their teachers have the same background and/or can have understanding and empathy towards their students' life experiences (Bradshaw, 2002; California Tomorrow, 2002; Quirocho & Rios, 2000).

Bias and prejudice on campus is another barrier that relates to teachers low expectations and can affect the retention of students from diverse backgrounds. According to George and Aronson (2003), bias can be shown to students through lack of resources and appropriate guidance, as well as the quality of instruction they receive and how faculty and staff respond to them. Sidel (1995) studied bias that students experience on campus and concluded that some students may be the recipient of overt racism (e.g., verbal slurs in public areas) or covert racism (e.g., professors or students saying derogatory comments or jokes about a diverse culture in class). For example, some students reported that people on campus assumed they had received an athletic scholarship. Others reported the lack of acceptance by their peers and accusations of only being on campus so the university could fill its diversity quota. Still other students reported high school counselors not supporting them in striving for advanced degrees because the schooling would be “too hard” for them. Many of the students reported a need to be the voice of diversity in the classroom, where they became an instructor for both the professor and the students. Yet other students became the expert on diversity matters because they were the only student of diversity in their class. Bias on campus can have a huge affect on the students’ perception of the university environment and their feelings of acceptance at school.

Faculty barriers. One factor that can affect the students perception of the university environment is feeling respected by faculty. In a study done by California Tomorrow (2002) one-third of students who are ethnically diverse reported feeling disrespected by faculty members. These encounters can have a debilitating effect on the academic success of the students. Faculty members often have preconceived ideas about students who are ethnically diverse and their preparation for higher education (Anaya & Cole, 2003; Hobson-Horton & Owens, 2004; Jones, Castellanos, & Cole, 2002). Anaya and Cole reported that “frequently minority college students

face race-related assumptions about their academic ability, ambition, and high school preparation, as well as more general faculty perceptions of minority students” (p. 101). Faculty may have little exposure or experience with other cultures, nevertheless, students should have faculty that are sensitive to their culture and their needs.

University Environment

Gonzales (1999) categorized the university environment into *social world*, *physical world*, and *epistemological world*. The social world is identified as a cultural representation in which all racial and ethnic groups exist. The physical world is defined as the spacing and architecture of buildings, artwork on campus, and other symbols found throughout the campus. The epistemological world is identified as the knowledge that is exchanged within the different groups and classes on campus. The study concluded that each of these categories plays an integral part in the campus climate or university environment. If a student is unsatisfied with any one or combination of these areas their academic persistence can be hindered.

The university environment can also be affected by the amount of diversity on campus or the social world. Villalpando (2002) concluded that diversity on campus had a positive effect for all students’ experiences and perceptions of the university environment. This indicates that not only are students who are ethnically diverse benefited from a diverse campus but so are students from the majority group. Similarly, Helm, Sedlacek and Prieto (1998) discovered that fair treatment by students and teachers is related to satisfaction with students’ college experience and the university environment. They also discovered that racial tension and lack of support were related to lower satisfaction with the college experience. Racial tension can have a tremendous effect on positive feelings for the university and on a student’s sense of belonging and feeling valued on campus (Hurtado & Carter, 1997). Students who are ethnically diverse often have both

positive and negative encounters with faculty and their peers. They typically report not feeling welcome in social interactions, which can also reflect their feelings and perceptions on the university environment (Hobson-Horton & Owens 2004).

Students who are satisfied with the university environment and feel that they are valued on campus will feel attached to their university and will be more involved. The Institute for Higher Education Policy (2001) reported that involvement on campus and feelings of attachment to the university are important for academic success. When Latino students find a university whose environment is warm and perceived to be positive they will be academically successful in attaining a higher education degree. Gloria (1997) concluded that if a Latino/a found a university environment that was supportive and friendly they were more likely to persist through their higher education. Castillo and Conoley (2006) found that a positive perception of the university environment was correlated with persistence attitudes.

The administrators and faculty can have a huge effect on the university environment on campus, how much the students feel accepted, and their experience in the university. How the university acknowledges and incorporates other cultures can have an effect on academic success and the perceptions of warmth and acceptance of the university. George and Aronson (2003) stated,

The academic success of underserved students depends on their experiences within the education system. These experiences are influenced by the degrees to which their own culture and language are acknowledged and integrated into the school program, how engaged they become and are encouraged to become, and how well educators support them in instruction, guidance, and assessment. (p. 7)

The university environment is affected by many things. Universities are responsible for creating an environment where students from ethnically diverse backgrounds will feel accepted and will be able to succeed (Madkins & Mitchell, 2000).

Cultural Congruity

The university environment is a broad term that will accordingly affect the *cultural congruity* felt by the students. Cultural congruity is the cultural fit between the student's home culture and the culture of the university or the society and has been linked to the persistence of Latino/a students as well as other students who are ethnically diverse in higher education (Castellanos & Jones, 2003; Gloria, Castellanos, & Orozco, 2005; Gloria & Robinson Kurpius, 1996, 2001). Gloria and Robinson Kurpius (1996) reported that cultural incongruity is felt whenever students belong to two or more cultures and the cultures differ in values, expectations, and beliefs. This cultural incongruity can cause the students stress and sometimes will result in poor academic success, or even dropping out of school (Nevares, 2001). Often in order for students to have cultural congruity they must have connections with both cultures. Arellano and Padilla (1996) indicated that students who characteristically continue to identify themselves with their own culture are more likely to succeed academically. Hurtado and Carter (1997) concluded that Latino students feel more at home in the university setting when they are involved with both the college community and they maintain connections to their culture outside of the campus community. Continuing to be involved in both cultures can help students to have cultural congruity and develop a personal cultural identity that will allow them to be at home in both cultures.

An important issue when considering cultural congruency is cultural identity and with what culture a student chooses to identify. Students from ethnically diverse backgrounds are part of their ethnic or racial culture and are expected to simultaneously be part of the mainstream culture. Consequently, this can cause stress as the student makes choices to decide with what culture they will identify with when the cultures conflict (Torres, 2006). Torres (2003) reported that students that belong to two or more cultures must decide which values and behaviors they will accept. These decisions often make up who the student is and how they view the world. Bennet, Cole, and Thompson (2000), studied students who were in college to become teachers and they reported that ethnic identity was important and has a significant effect on academic success.

Students from ethnically diverse groups may perceive the university environment differently than the White students and have less of a sense of cultural fit. According to Gloria, Hird, and Navarro (2001), White students report higher cultural congruity and perceive the university environment to be more positive than do students from ethnically diverse backgrounds. Constantine, Robinson, Wilton, and Caldwell (2002) showed that students from ethnically diverse groups who reported a positive university environment in which they felt respected by others and staff and students had positive feelings and perceptions of their diverse culture felt higher levels of cultural congruity and interpersonal comfort. The study also found that when students felt supported by the university they perceived less difference between the university values and their personal values, and felt a greater level of cultural congruity (Constantine, Robinson, Wilton, & Caldwell, 2002). Similarly Gloria, Castellanos and Orozco (2005) found that there was a correlation between cultural congruity and psychological well-being among undergraduate students of Latino/a origin. The students who had higher cultural

congruity perceived fewer obstacles to receiving a higher education and were more likely to stay in college and succeed at obtaining a degree. Cultural congruity is important in academic persistence; indeed, higher levels of cultural congruity are related to persistence in college (Gloria & Robinson Kurpius, 2001). In order for universities to increase their students-from-minority-backgrounds' sense of cultural congruity they must first increase the number of diverse students in the university (Nora, Barlow, & Crisp, 2006).

Possible Solutions

There are many different strategies universities can use to overcome the obstacles and barriers that students from Latino/a backgrounds and other students from ethnically diverse backgrounds must overcome in order to succeed academically in an institution of higher education. Brown (1991) identified seven strategies a university needs to do in order to retain and recruit students from ethnically diverse backgrounds. The seven strategies listed included financial aid programs, a university multicultural environment, an appropriate multicultural social environment, communication and alliances within the community, sensitizing faculty, and academic retention programs. The first strategy universities must begin in order to recruit students from ethnically diverse backgrounds is to help them overcome the obstacle or barriers of finances which can be overcome through making financial aid and scholarships available and easily accessible to diverse students who do not have financial resources available to continue their education.

One of the strategies identified by Brown (1991) was sensitizing faculty. Effective diversity-oriented faculty professional development is one way for preparing faculty to be sensitive and effective in teaching their students. Faculty development, such as workshops and informative seminars, may be an effective beginning for faculty members to learn how to address

multicultural differences (Madkins & Mitchell, 2000). Recruitment and retention of diverse faculty members and administrators may help students from ethnically diverse backgrounds overcome some of these barriers mentioned (Talbert-Johnson & Tillman, 1999).

Jones, Castellanos, and Cole (2002) identified some institutional and departmental practices that would allow institutions to be better able to assist all students to achieve academically. One of the practices they felt was essential was “that all entities in the university acknowledge that negative and culturally insensitive attitudes and behaviors affect all incumbents in the university and affect the students academic performance, satisfaction, and retention” (p. 35). One of the goals of multicultural faculty development should be to recognize those insensitive attitudes and behaviors that are harmful to the academic success of ethnically diverse students.

The literature suggests that it is important for faculty members to look within themselves and reevaluate their beliefs and biases that may affect their interactions with their students. It is important for faculty members to view themselves as people who have educational experiences as well as a specific cultural background and learned beliefs which may or may not be conducive to providing appropriate information and guidance to students from ethnically diverse backgrounds (Allan, 2003; Marchesani & Adams, 1992; Weinstein & Obeir, 1992; Wilder, Jackson, & Smith, 2001). Oltjenbruns and Love (1998) implemented a program in which faculty members were given the opportunity to explore their personal beliefs, expand their knowledge, and learn new skills in order to better serve diverse students. After the professional development faculty reported positive outcomes such as viewing the world differently, knowing how to infuse diverse topics into the curriculum, being more aware of diversity issues, and having a better understanding of their personal biases and prejudices.

Another valuable tool that can be used by faculty to understand their students and allow students to have guidance from a faculty member is mentoring. De los Santos, Hume and Cortes (2002) reported that faculty members are in a great position to serve as mentors to the students. Faculty members who are mentors are able to give their students guidance and become their advocate. This support can be very helpful to the success and retention of students from ethnically diverse backgrounds (Baxter, Byrnes, & Shargel, 1996). Mentoring can also give teachers the opportunity to get to know the students and gain insight into the culture and diversity issues that may arise. Hood and Parker (1994) concluded their article with the following advice: “One way they (faculty members) can make significant headway is to listen to and act on the views of their minority students who can offer critical insights into the racial diversity needs and issues for the present and future” (p 170). Mentoring is advantageous to both the faculty member and the student. The student gains support and understanding and the faculty members obtain knowledge and insight.

Faculty development and retention and recruitment of faculty from diverse backgrounds are attempts by university administrators to improve the university environment or campus climate for students from diverse backgrounds. Ethnically diverse students, particularly Latino/a students, tend to view the university environment as being unfriendly (Castellanos & Jones, 2003; Gloria, Hird, & Navarro, 2001; Gloria & Robinson Kurpius, 2001; Rendon & Hope, 1996). Rendon and Hope reported the following:

Many students who are ethnically diverse at predominantly White colleges encounter a hostile campus climate. The number of racial incidents has increased, and many minorities find themselves the victims of hateful acts such as caricatures, jokes and stereotyping by both students and faculty. (p. 26)

The university environment includes the services available, staff disposition, feeling accepted and valued on campus, availability of faculty and staff, and class sizes (Gloria & Robinson Kurpius 1996).

Brown (1991) also suggested another way universities can help to retain students from ethnically diverse backgrounds. The suggested strategy is essential and is related to cultural congruity and university environment. The strategy refers to having an environment in which appropriate communication is open between alliances in the student's home culture and the university as well as a warm and comfortable university environment and social opportunities. The last objective mentioned by Brown (1991) for universities to complete is having academic retention programs. Multicultural faculty development sensitizes the faculty and provides them with the information needed in order to successfully mentor and help students from diverse backgrounds succeed. Mentoring is an academic retention program that is sometimes used to help students adjust to the academic environment and the expectations of the academic setting. In order to assess the effectiveness of these strategies and programs it is imperative that we ask the students about their perceptions and experience. Anaya and Cole (2003) noted that one indicator of the success of the student-faculty interactions and faculty sensitivity is through student report. Student reports help faculty understand how students perceive the environment, how they feel about their environment, and whether or not the faculty are being sensitive to their needs and available to help the students to succeed.

The literature reviewed discussed the changing demographics within the United States and within the educational system, and the need for educators who are from ethnically diverse backgrounds. To increase the number of educators who are ethnically diverse we must address the barriers that keep students from ethnically diverse backgrounds from receiving degrees of

higher education. As discussed previously, these barriers can be familial, financial, cultural, or institutional. Possible solutions were found in the literature which addressed these barriers. One possible solution was to increase the perceptions of the university environment and the level of cultural congruity felt by students from diverse backgrounds. The literature identified these factors as essential to persistence for ethnically diverse students in institutions of higher learning. The current research was designed to analyze the feelings of cultural congruity and perceptions of the university environment of students who are ethnically diverse and enrolled in a program designed to address the needs of the students who are ethnically diverse by providing assistance in overcoming the barriers to students who are ethnically diverse in higher education.

METHODS

Research Design

The researchers will describe the cultural congruity and university environment of the students in the Culturally Responsive Special Education/ESL Program, and how the subjects compare to other culturally diverse students. In order to obtain the descriptive data the researcher will be using quantitative methodology. The quantitative data will allow the researchers to identify the average or overall cultural congruity of the subjects and their perceptions of the university environment. The data will be compared with other samples' scores and will allow identification of areas with potential concern that may need further analysis and development within the program.

Participants

The participants of this study were approximately 30 students who are or were enrolled in the Culturally Responsive Special Education/ESL Program at a large western private university. Students in their first or second year in the program were asked to participate because they have attended several classes and have a sense of the climate within the classroom and on campus. These students encompass a wide range of backgrounds and demographics. The gender of the subjects is approximately 27.5% male and 72.5% female, and they are between the ages of 19-55. The students have different educational backgrounds and have been residents/citizens of the United States for varied amounts of time.

Procedure

The participants were recruited in a mentoring session and were given a brief explanation about the project, informed consent forms, and were asked to participate. The participants then filled out a survey that included questions pertaining to the university and the program cultural

climate, congruency with their culture, and experiences on campus. After completing the survey, they returned it in an unmarked envelope as they left the mentoring session. For the purpose of anonymity and confidentiality the only demographic question asked was ethnicity. Students who didn't attend the mentoring sessions were contacted via email. They were sent the surveys and consent form which they filled in and returned to the program secretary who printed the survey's out and returned the surveys to the researcher without any identifying information. After statistical analysis of the students' responses, the information gained from the survey was given to the Culturally Responsive Special Education/ESL department to identify areas of need for students and ideas for further faculty development.

Measures

To assess the level of congruency the students feel between their culture and the university, the students were given the Cultural Congruity Scale (CCS) developed by Gloria and Robinson Kurpius (1996) and can be found in Appendix A. This scale is designed to measure the cultural congruency of Latino/a students and has questions that focus on how the students feel their culture fits with the university college environment or the university culture.

The CCS was developed by reviewing the literature and through the personal experience of Gloria and Robinson Kurpius as racial/ethnic students. This scale includes statements such as "I feel that I have to change myself to fit in at school" and "I feel accepted at school as an ethnic minority." The students are asked to rate these statements on a seven-point Likert-type scale with one being "not at all" and seven being "a great deal." The instrument measures the "cultural congruity or cultural fit within the college." Total scores are then obtained by summing the responses. Total scores can range between 13 and 91, with higher scores indicating a "greater perceived cultural congruity." Eight of the statements need to be inversed or reverse scored and

were included in the scale to minimize the possibility of an automated response set. The mean reported for the validating population was 71.5 with a standard deviation of 14.03. This scale was found to have internal consistency or reliability of .81 alpha coefficients among Latino/a students. The validation sample consisted of 454 Latino/a undergraduate students from two southwestern 4-year universities (Gloria & Robinson Kurpius, 1996, p. 539-540).

In order to measure the subjects' perceptions of the overall university environment, they were asked to complete the University Environment Scale (UES). This instrument is "focused on concerns expressed in interviews with racial/ethnic minority students on university campuses" (p. 539). The scale is designed to assess how well the student feels they as a diverse student fit in with the college campus, whether or not they feel comfortable in the university environment, and if they feel valued as a student. A student who feels valued and comfortable may feel accepted and form an attachment to the university. Attachment and a positive university environment have been linked to academic persistence among students from diverse backgrounds (The Institute for Higher Education Policy, 2001).

The University Environment Scale (UES) was generated by Gloria and Robinson Kurpius (1996) and is included in Appendix B. The survey questions focused on the expressed concerns of ethnically diverse students that were interviewed on university campuses. The scale includes statements such as "The University seems to value minority students" and "I feel as if no one cares about me personally on this campus." The subjects respond to the scale in a seven-point Likert-type response format, with answers ranging from one to seven, with one indicating "Not at all", and seven signifying "Very true". The internal consistency or reliability for the UES was found to be .84. The mean reported for the validating population was 64.94 with a standard

deviation of 13.92. The validation sample consisted of 454 Latino/a undergraduate students from two southwestern 4-year universities (Gloria & Robinson Kurpius, 1996).

The researcher chose to use both measures to gain more complete understanding of the experience of the students who are bilingual/ethnically diverse. Gloria and Robinson Kurpius (1996) report the following:

The most effective use of the two scales ... might be to administer them jointly. By doing so, a more complete profile of Latino/a students' perceptions of the university and their ability to "fit in" can be assessed. This detailed information regarding the cultural value conflicts and environmental difficulties experienced by racial/ethnic college or university students can aid ... faculty members and other university personnel in creating a more culturally sensitive and supportive environment. (p. 542)

The reported correlation between the UES and the CCS is $r=0.49$. The information gained from the two scales allowed the researcher to obtain a more complete understanding of the student's perceptions of the university and faculty. The data allowed for analysis of the effectiveness of the program as perceived by the students' feelings of cultural congruency and university environment. When analyzing specific items the researcher was able to identify possible strengths and weaknesses within the university and for the faculty and staff. It is imperative to note that the scales were validated on a Latino/a population, and it is assumed that these scales measure the same constructs for students who are ethnically diverse but are not Latino/a.

Statistical Analysis

To analyze the quantitative data obtained through the survey the mean and standard deviation were obtained for both the University Environment Scale (UES) and the Cultural

Congruity Scale (CCS). The mean and standard deviation allowed the researcher to obtain a general idea of how the students felt about the university and the program in addition to their own culture congruency. To obtain more detailed information, each item in the scales was analyzed as well. The researcher obtained means and standard deviations for each item. This permitted the researcher to identify specific areas of concern that needed further research and attention. A single sample *t*-test was used to compute the difference between this sample and the hypothesized population for both the CCS total score and the UES total scores by using the average scores obtained through the reliability testing of the scales obtained by Gloria and Robinson Kurpius (1996), as the hypothetical values for the CCS and UES.

RESULTS

Response Rate of Participants

Of the 36 students who are ethnically diverse in the Culturally Responsive Special Education/ESL Program, 28 completed the surveys. Therefore, the response rate for this study was 78%. The students were given the survey during mentoring sessions and were asked to fill out the survey anonymously and seal the surveys in an envelope that would then be turned into the researchers. Surveys were then assigned a random identifying number. Students who were not in the mentoring sessions were contacted via email and asked to participate by filling out the surveys and returning the surveys to the researchers. Anonymity was maintained by printing out the surveys without any identifying information, then assigning a survey identification number not linked to personally identifying information.

Participant Demographics

The ethnicity of the participants is varied with the largest ethnic group being Latino/a (60.7%). Additionally, 14.3% of the participants reported that they were Pacific Islander. The remaining respondents indicated that they were Asian (10.7%), Native American (3.6%), or simply indicated “other” (10.7%) signifying that they were not White but did not further specify their ethnicity.

Data Analysis of Research Questions

Research question 1. What is the mean Cultural Congruity Scale (CCS) and University Environment Scale (UES) total score for students in the Culturally Responsive Special Education/ESL Program?

According to the collected survey data, all 28 of the students responded to each item on the CCS. The current sample's CCS mean total score was 71.00 ($SD = 13.28$). Of the 28 students

who filled out the surveys, 23 answered all items on the UES. Incomplete items were due to participants not having experiences with certain aspects of the university environment such as the library or financial aid office. The mean score for the 23 who did answer every item was 72.59 ($SD = 15.92$). In order to increase the sample size for the UES the researcher used mean substitution for those items that were not completed for those students who did not answer each item. This increased the sample size to 28 and increased the UES mean to 73.28 ($SD = 14.48$).

Research question 2. What is the mean score for each item on the CCS and UES for students in the Culturally Responsive Special Education/ESL Program?

The mean score for each item was computed. The mean responses to each item in the Cultural Congruity Scale (CCS) can be found in Table 1. The CCS scores ranged from 1 to 7, with 1 indicating “not at all” and 7 meaning “a great deal.” Furthermore, the mean score for each item on the University Environment Scale (UES) was computed, with scores ranging between 1 and 7, with 1 indicating “not at all” and 7 meaning “very true.” The UES means are reported in Table 2. The sample size for items on the UES varied because some of the survey questions did not align with the students’ experiences. These questions were left unanswered.

Research question 3. What is the difference between the mean CCS and UES total scores of this sample and the mean CCS and UES total scores of the hypothesized population?

The researcher computed a single sample t-test to compare the mean scores on the CCS to that of the hypothesized-validating sample (71.88). The difference was not significant ($t(27) = -0.351, p > .05$). The sample total mean or mean of the summed items was 71.00, and is not significantly different than the validating sample total mean CCS score. To determine the difference in the total mean UES score for this sample and the UES total mean scores in the

Table 1
Response on Items-Cultural Congruity Scale

Item	<i>N</i>	Mean ^a	Inversed Mean ^b	<i>SD</i>
1. I feel that I have to change myself to fit in at school.	28	3.0714	4.9282	1.78323
2. I try not to show the parts of me that are “ethnically” based.	28	2.3214	5.6786	1.70084
3. I often feel like a chameleon, having to change myself depending on the ethnicity of the person I am with at school.	28	2.3214	5.6786	1.54089
4. I feel that my ethnicity is incompatible with other students.	28	2.6786	5.3214	1.94467
5. I can talk to my friends at school about my family and culture.	28	5.2857		2.01581
6. I feel I am leaving my family values behind by going to college.	28	1.8571	6.1429	1.55669
7. My ethnic values are in conflict with what is expected at school.	28	1.6786	6.3214	1.41562
8. I can talk to my family about my friends from school.	28	5.8214		2.05577
9. I feel that my language and/or appearance make it hard for me to fit in with other students.	28	2.8571	5.1429	2.13809
10. My family and school values often conflict.	28	1.9286	6.0714	1.58532
11. I feel accepted at school as an ethnic minority.	28	4.9643		1.95282
12. As an ethnic minority, I feel as if I belong on this campus.	28	4.8929		2.16606
13. I can talk to my family about my struggles and concerns at school.	28	4.7500		2.25462

^aResponses for items were on a 7 point likert scale with 1 meaning not at all and 7 meaning a great deal.

^bNote: Some items were negatively worded and were inverse scored.

Table 2
Response on Items-University Environment Scale

Item	<i>N</i>	Mean ^a	Inversed Mean ^b	<i>SD</i>
1. Class sizes are so large that I feel like a number.	28	2.8929	5.1071	2.07880
2. The library staff is willing to help me find materials/books.	25	5.3200		1.34536
3. University staff has been warm and friendly.	28	5.3214		1.21879
4. I do not feel valued as a student on campus.	28	2.6071	5.3929	1.57149
5. Faculty has not been available to discuss my academic concerns.	27	2.2593	5.7407	1.37540
6. Financial aid staff has been willing to help me with financial concerns.	27	4.9630		2.00924
7. The university encourages/sponsors ethnic groups on campus.	27	5.0741		1.83818
8. There are tutoring services available for me on campus.	26	4.5769		2.15728
9. The university seems to value minority students.	28	4.8571		1.62650
10. Faculty has been available for help outside of class.	27	5.4444		1.55250
11. The university seems like a cold, uncaring place to me.	28	2.8571	5.1429	1.75782
12. Faculty has been available to help me make course choices.	28	5.0357		1.71015
13. I feel as if no one cares about me personally on this campus	28	2.3929	5.6071	1.49912
14. I feel comfortable in the university environment.	28	5.6964		1.57138

^aResponses for items were on a 7 point likert scale with 1 meaning not at all and 7 meaning very true.

^bNote: Some items were negatively worded and were inverse scored.

hypothesized-mean sample the researcher computed a single sample t -test. The difference was significant at the .05 level ($t(22)=2.439, p=0.023$). There is a significant difference between this samples mean UES score of 72.587 and the hypothesized-validating sample of 64.49.

Some of the students who filled out the UES scale did not answer every item because of their lack of experience with certain aspects of campus life, such as the library staff. In order to increase this sample size a single sample t -test was computed using mean substitution for the items not completed. After mean substitution a single sample t -test was completed between the sample and the hypothesized validating sample (64.49). A significant difference was found at the 0.05 significance level ($t(27)=3.212, p=0.003$). The sample mean of 73.28 is significantly greater than the hypothesized-validating sample mean.

The difference in p -values between the data without mean substitution and that containing mean substitution can be explained by the increase in the mean and sample size and decrease in standard deviation. These factors resulted in a smaller standard error of measure. To compute the t -test, the difference between the sample mean and the hypothesized mean is divided by the standard error. By increasing the mean of the sample the difference is greater and is divided by a smaller standard error which results in a greater t -value and lower probability of Type I Error. To further evaluate the t -test computed with (73.28) and without mean substitution, (72.59) the researcher computed a Cohen's d . The Cohen's d will demonstrate whether or not there is a significant difference between the means of the UES with and without mean substitution. Results indicated no significant difference ($d=.0458$) between the means that were computed with or without mean substitution, indicating that the effect size is the equivalent with or without mean substitution. Results for all reported t -tests can be found in Table 3.

Table 3

T-Test for Difference from Instrument Validation Sample Means^a.

Scale	<i>N</i>	<i>T</i> -Score	<i>p</i> -value	Mean	<i>SD</i>
Cultural Congruity (CCS)	28	-.351	.729	71.000	13.283
University Environment (UES)	23	2.439	.023	72.587	15.921
University Environment (UES) with mean substitution.	28	3.212	.003	73.2799	14.481

^aComparison means for CCS = 71.88, and for UES = 64.49

DISCUSSION

The purpose of this study was to evaluate the perceptions of the students who are ethnically diverse in the Culturally Responsive Special Education/English as a Second Language (ESL) Program. The researcher examined their feelings of cultural congruity between their ethnic culture and the campus or educational culture, and their perceptions of the university environment. A discussion of results will be followed by future research, limitations and cautions regarding this research, and implications for practice.

Discussion of Results

Previous research has focused on identifying what strategies need to be implemented in order for a student who is ethnically diverse to succeed in higher education. The research suggests that faculty should participate in multicultural professional development and that universities should address the financial, environmental, and cultural congruity barriers that have historically kept students from diverse backgrounds from receiving a higher education degree (Bennet, Cole, & Thompson, 2000, Jones, Castellanos, & Cole, 2002, California Tomorrow, 2002). No research was located that evaluated a program that was designed to address these concerns by measuring the students' perceptions of how their culture fits with the educational culture and how they perceive the university environment. By assessing the students' perceived cultural congruity and positive university environment one can evaluate important cultural aspects of a program and its success in helping the students be successful in higher education.

In order to evaluate the students' overall perceptions of cultural congruity and the university environment the researcher calculated the total score of each student's surveys and then found the mean total score for the CCS and the UES. Gloria and Robinson Kurpius (1996), who created and validated the instruments, indicated that the higher the total scores the greater

the perceived cultural congruity or university environment. The mean total scores for the CCS and UES for students in the Culturally Responsive Special Education/ESL program were 71.000 (SD = 13.283) and 72.587 (SD = 15.921) respectively. Total scores on the CCS can range between 13 and 91, and total scores on the UES range from 14-98. The scores of this sample are relatively high when analyzed in reference to the possible range and indicate that in general the students who are enrolled in the Culturally Responsive Special Education/ESL program perceive high levels of cultural congruity and positive university environment.

The total scores on the CCS ranged from 42 to 91, and the total scores varied from 39 to 98 on the UES. The variability in the total scores indicates that some of the students perceive a much more positive university environment and cultural congruity than do other students. It was expected that there would be less variability among the students who were involved in the Culturally Responsive Special Education/ESL Program than with the students in the validating sample. However, the variability on campus with students not involved with this program is unknown making it hard to determine whether the program has been successful or if there is a component of the campus climate that results in the students feeling accepted and increases the cultural congruity felt by the students. The validating sample had similar standard deviations. Gloria and Robinson Kurpius (2006) reported the standard deviations for the validating sample as 12.55 and 13.92 for the CCS and UES respectively. The standard deviations for this sample are slightly higher than those reported for the validating sample indicating that there is more variability in the sample of ethnically diverse students in a large western private university than in a sample of students who are ethnically diverse in a more diverse university setting. The reasons for the variability could be the campus climate or the demographics of the students. For example, this sample contains some non-traditional students, and age range is not reported for

the validating sample so it is unclear if these demographics could have an influence on the perceptions of cultural congruity and positive university environment.

The university where the current research was completed has demographics that may have an effect on the perceived university environment and feelings of cultural congruity. The university is a religious private institution where 98% of the students are members of the same religion. The student body consists of people from all fifty states and from over one hundred countries; however, only 12.1% are from ethnically diverse backgrounds (Brigham Young University (BYU), 2006). Although the percentage of students who are ethnically diverse is low, most of the students at the university have the same religion. This unique aspect of the university may result in the students feeling more accepted on campus and feeling as if they belong because they share the same religion with the rest of the student body. This unique environment may have influenced the scores on the UES and CCS.

According to Gloria and Robinson Kurpius (1996) the UES and CCS can be used to obtain important information that can be utilized to make any necessary changes needed in order to create a more positive cultural and academic environment. A positive environment has been shown to help students who are ethnically diverse persist through higher education (The Institute for Higher Education Policy, 2001). In order to determine specific areas of need within the program and possibly the university environment, the researcher calculated the mean for each item and analyzed where the mean response fell within the Likert scale. All of the mean responses reflected a generally positive perception from the students. The most positive responses were related to the perception of conflict between family/cultural values and academic culture. The responses indicate that the students in this sample do not feel that their values are in conflict with what is expected at school, or that they have to leave their familial values behind by

going to school, and they feel that they are able to share their school experiences with their families. These issues are central to feelings of cultural congruity. The students in the Culturally Responsive Special Education/ESL Program appear to feel that their cultural and educational values can be reconciled and are somewhat congruent. Other positive responses are related to feeling accepted on campus. In general the students that are enrolled in this program feel like they are accepted and belong on campus. Gloria and Robinson Kurpius (2001) discussed the importance of cultural congruity on academic persistence for students who are ethnically diverse. Therefore, these students are likely to persist and receive a degree because of their feelings of cultural congruity.

The researcher had hoped to find specific areas of concern that can be addressed and improved within the university by analyzing the individual items on the UES. However, there was also a great deal of variability on the individual responses to the items on the UES. The analysis of the items on the UES resulted in the mean responses reflecting positive perceptions of the university environment. The highest mean score indicates that the students feel comfortable at the university. Many of the items with high scores are related to the program and its faculty. They indicate that the students felt the professors were available to help them make course decisions, discuss academic concerns, and obtain help outside of class. This indicates that the faculty has been relatively effective in helping the students succeed at the university. The faculty has been participating in faculty development to help them become more culturally sensitive. The researcher is unable to conclude that the faculty development was successful in helping the staff become more culturally sensitive because there are no data before the faculty development. However, one can conclude that the faculty is perceived by the majority of students in the program as being available and approachable which indicates a level of cultural sensitivity. The

responses that are reflective of the university in general are also positive. The students indicated that the library staff, university staff, and financial aid staff have been helpful and friendly, and they believe the university encourages and sponsors ethnic groups on campus. These perceptions are responsible for their perceptions of belonging on campus, and being valued by the university. A student feeling valued is essential to persistence and academic success for students who are from ethnically diverse backgrounds (The Institute for Higher Education Policy, 2001).

The researcher found that the students in the Culturally Responsive Special Education/ESL program perceived the university environment to be more positive than students in the validating sample from more diverse settings. In general, it appears that the program and the university have been successful in helping the students feel comfortable at school and helping them to fit in and feel accepted on campus. The results of this study indicate that the program is doing a good job of addressing the needs of the students who are ethnically diverse.

Future Research

To further examine the program and assist the students in being successful, interviews or open-ended questionnaires should be given before starting the program and after the first year in the program to identify more specific areas of concern. The identified areas of concern can then be addressed to help all the students feel valued and accepted on campus as a person who is ethnically diverse. More open-ended questions will also allow for identification of academic areas of concern. If academic concerns are addressed the students perceptions of cultural congruity should improve as well as their academic success.

Research that investigates the differences by subgroups within the program may be helpful in determining if there is a certain subgroup or ethnicity whose needs remain unmet. This

research would help in evaluating the program and identifying areas of concern as well as identifying and recognizing needs for specific groups.

Future research should examine the validity of the CCS and UES for students who are ethnically diverse, but are not Latino/a. This would increase the validity and functionality of the instruments, and will help determine if the instruments measure the same constructs for all students who are ethnically diverse.

It would be helpful to expand the research to include students who are ethnically diverse on campus, and are not in the Culturally Responsive Special Education/ESL Program to determine how all the students who are ethnically diverse perceive the campus climate and their cultural congruity. Are the perceptions of ethnically diverse students on campus different from those students on the same campus who are ethnically diverse and are involved in a program designed to address their needs as students who are culturally diverse?

It is unclear if the CCS and UES contain subscales of items that address particular issues or areas of concern. Research to determine and identify possible subscales could be helpful in addressing specific needs and obtaining direct information about those needs by identifying subscales with low scores.

Limitations and Cautions

There are several limitations on this study which should be considered when evaluating the results. First, the percentage of respondents was high, indicating an adequate sampling of the students who are in the Culturally Responsive Special Education/ESL Program which results in sufficient information about the program; however, this research has limited external validity due to the small sample size and narrow context. Generalizability beyond the program cannot be inferred with any degree of confidence.

Second, the CCS and UES were validated with a Latino/a sample. The current sample was predominately Latino/a, but there were other students from different ethnicities included in the study. This may influence the validity and interpretation of the results because the scales have not been validated for other populations. The researcher makes the assumption that the instruments measure the same variables for all students who are ethnically diverse, but there are no data to corroborate that assumption.

Third, answers to the surveys could be influenced by different factors both intrinsic and extrinsic to the respondents. For example, the responses to the surveys may have been influenced by a belief that their responses would have an effect on the students standing in the program. Due to the nature of the surveys the data must be interpreted with caution.

Implications for Practice

This research has shown that there is no significant difference between the perceptions of the students in the Culturally Responsive Special Education/ESL program and students who are attending a university in a more diverse situation. It is unclear whether these results are indicative of the program or the university; however, it is clear that, in general, these students feel as if there is cultural congruity between their culture and the academic culture.

This research also indicates that the students feel as if they belong on campus and are accepted and valued for their diverse backgrounds. The data suggests that the student at this private institution feel more valued and accepted than students who attend a more diverse university setting. It is unclear whether or not this is indicative of the program, campus climate, or the result of most students sharing the same religion. It is clear, however, that they feel comfortable, valued, and cared about.

The analysis of the individual items indicate that the questions that relate specifically to the faculty are the highest scores on the UES indicating that the program/faculty are being effective in helping the students get the academic assistance they need in order to succeed. Due to these scores it seems that the program may have an influence on the student's perceptions of the university environment. However, there is no indication that the program has had an effect on the feelings of cultural congruity. The students' scores on the CCS may be a result of the campus climate and shared religion rather than the program.

Creating an atmosphere where students feel as if they belong on campus and increasing the students feelings of cultural congruity are most likely related to a combination of both the program the students are enrolled in as well as the campus climate. A program that is designed to assist students from diverse backgrounds can be helpful to the success of the students. In addition it is also important to create a campus climate that is accepting and one in which the students feel as if they can relate to all or most of the students on campus.

REFERENCES

- Adams, M. (1999). Strategies: Latino's in education: Where do we go from here? *The Hispanic Outlook in Higher Education*, 9(16), 21.
- Allan, E. J. (2003). *Bringing voice to the silences of privilege: Strategies for faculty development and curricular change*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL. (ERIC Document Reproduction Service No. ED 479656)
- Anaya, G., & Cole, D. G. (2003). Active faculty involvement: Maximizing student achievement efforts. In J. Castellanos & L. Jones (Eds.), *The majority in the minority: Expanding the representation of Latina/o faculty, administrators, and students in higher education* (pp. 95-110). Sterling, VA: Stylus.
- Arellano, A. R., & Padilla, A. M. (1996). Academic invulnerability among a select group of Latino university students. *Hispanic Journal of Behavioral Sciences*, 18(4), 485-507.
- Atwell, R. H. (2004). *The long road ahead: Barriers to minority participation persist*. In *Reflections on 20 years of minorities in higher education and the ACE annual status report* (pp 1-3). Washington, DC: American Council on Education.
- Arellano, A. R., & Padilla, A. M. (1996). Academic invulnerability among a select group of Latino university students. *Hispanic Journal of Behavioral Sciences*, 18(4), 485-507.
- Bailey, T., Alfonso, M., Calcagno, J. C., Jenkins, D., Kienzl, G., & Leinback, T. (2004). *Improving student attainment in community colleges: Institutional characteristics and policies*. New York: Columbia University, Community College Research Center Teachers College.

- Baxter, J., Byrnes, M., & Shargel, F. (1996, February). *Diversity and the quality process: Curriculum reform in the school and the university*. Paper presented at the annual meeting of the American Association of Colleges for Teacher Education, Chicago, IL. (Eric Document Reproduction Service No.Ed 393 825)
- Bennett, C., Cole, D., & Thompson, J. (2000). Preparing teachers of color at predominantly White university: A case study of project TEAM. *Teacher and Teacher Education* 16, 445-464.
- Bradshaw, W.G. (2002, September). The changing face of American education. *USA Today*, 131, 34-35.
- Brigham Young University. (2006). *About BYU: Demographics*. Retrieved June 23, 2007, from <http://unicomm.byu.edu/about/default.aspx?content=demographics>
- Beauvais C., & Jenson, J. (2003). *The well-being of children: Are there "neighborhood effects"?* Ottawa, ON: Canadian Policy Research Networks.
- Borman, G. D., & Rachuba, L. T. (2001). *Academic success among poor and minority students: An analysis of competing models of school effects* (CRESPAR-R-52). Baltimore, MD: Johns Hopkins University.
- Brown, C. (1991). Increasing minority access to college: Seven efforts for success. *NASPA Journal*, 28(3), 224-230.
- Caldas, S. J., & Bankston, C. (1997). Effect of school population socioeconomic status on individual academic achievement. *The Journal of Educational Research*, 90(5), 269-277.
- California Tomorrow. (2002) *The high-quality learning conditions needed to support students of color and immigrants at California community colleges*. Policy report. (ED 465 383) San Francisco, CA: Author.

- Campbell-Whatley, G. D. (2003). Recruiting and retaining of culturally and linguistically diverse groups in special education: Defining the problem. *Teacher Education and Special Education, 26*(4), 255-263.
- Carrier, K. A., & Cohen, J. A. (2005). Hispanic individuals in their communities: An untapped resource for increasing the bilingual teacher population. *Journal of Hispanic Higher Education, 4*(1), 51-63.
- Castellanos, J., & Jones, L. (2003). Latina/o undergraduate experiences in American higher education. In J. Castellanos & L. Jones (Eds.), *The majority in the minority: Expanding the representation of Latina/o faculty, administrators, and students in higher education* (pp. 1-15). Sterling, VA: Stylus.
- Castillo, L. G., & Conoley, C. W. (2006). University environment as a mediator of Latino ethnic identity and persistence attitudes. *Journal of Counseling Psychology, 53*(2), 267-271.
- Constantine, M. G., Robinson, J. S., Wilton, L., & Caldwell, L. D. (2002). Collective self-esteem and perceived social support as predictors of cultural congruity among Black and Latino college students. *Journal of College Student Development, 43*(3), 307-316.
- Dee, T. S. (2001). *Teacher's race and student achievement in a randomized experiment* (Working Paper 8432). Washington, DC: National Bureau of Economic Research.
- De Los Santos, G., Hume, E. C., & Cortes, A. (2002). Improving the faculty's effectiveness in increasing the success of Hispanic students in higher education-Pronto! *Journal of Hispanic Higher Education, 1*(3), 225-237.
- Dilworth, M. E., & Ardila-Rey, A. (2004). *Culture, language, and student achievement recruiting and preparing teachers for diverse students. Proceedings from the 2003*

- wingspread conference*. Washington, DC: American Association of Colleges for Teacher Education. (ERIC Document Reproduction Service No. ED 484653)
- Gay, G. (1993). Building cultural bridges: A bold proposal for teacher education. *Education and Urban Society*, 25(3), 285-299.
- Gallegos, A., & McCarty L. L. (2000). Bilingual multicultural special education: An integrated personnel preparation program. *Teacher Education and Special Education*, 23(4), 264-270.
- George, P., & Aronson, R. (2003). *How do educators' belief systems affect underserved students pursuit of postsecondary education?* Washington, DC: Pathways to College Network.
- Gloria, A. M. (1997). Chicana academic persistence: Creating a university-based community. *Education and Urban Society*, 30(1), 107-121.
- Gloria, A. M., Castellanos, J., & Orozco, V. (2005). Perceived educational barriers, cultural fit, coping responses, and psychological well-being of Latina undergraduates. *Hispanic Journal of Behavioral Sciences*, 27(2), 161-183.
- Gloria, A. M., Hird, J. S., & Navarro, R. L. (2001). Relationships of cultural congruity and perceptions of the university environment to help-seeking attitudes by sociorace and gender. *Journal of College Student Development*, 42(6), 545-562.
- Gloria, A. M., & Robinson Kurpius, S. E. (1996). The validation of the cultural congruity scale and the university environment scale with Chicano/a students. *Hispanic Journal of Behavioral Sciences*, 18(4), 533-549.
- Gloria, A. M., & Robinson Kurpius, S. E. (2001). Influences of self-beliefs, social support, and comfort in the university environment on the academic nonpersistence decisions of

- American Indian undergraduates. *Cultural Diversity and Ethnic Minority Psychology*, 7(1), 88 -102.
- Gonzales, K. P. (1999, November). *Campus culture and the experiences of Chicano students in predominantly White colleges and universities*. Paper presented at the Annual Meeting of the Association for the Study of Higher Education, San Antonio, TX.
- Harrell, P. E., & Forney, W. S. (2003). Ready or not, here we come: Retaining Hispanic and first-generation students in postsecondary education. *Community College Journal of Research and Practice*, 27, 147-156.
- Helm, E. G., Sedlacek, W. E., & Prieto, D. O. (1998). The relationship between attitudes toward diversity and overall satisfaction of university students by race. *Journal of College Counseling*, 1(2), 111-120.
- Hobson-Horton, L. D., & Owens, L. (2004). From freshman to graduate: Recruiting and retaining minority students. *Journal of Hispanic Higher Education*, 3(1), 86-107.
- Hood, S., & Parker, L. (1994). Minority students informing the faculty: Implications for racial diversity and the future of teacher education. *Journal of Teacher Education*, 45(3), 164-171.
- Hurtado, S., & Carter, D. F. (1997). Effects of college transition and perceptions of the campus racial climate on Latino College students' sense of belonging. *Sociology of Education*, 70(4), 324-345.
- The Institute for Higher Education Policy. (2001, February). *Getting through college: Voices of low-income and minority students in New England*. Washington, DC: Author.
- Johnson, B., & Christensen, L. (2004). *Educational research: Quantitative, qualitative, and mixed approaches* (2nd ed.). Boston, MA: Pearson Education.

- Jones, C., Maguire, M., & Watson, B. (1997). The school experience of some minority ethnic students in London schools during initial teacher training. *Journal of Education for Teaching, 23*(2), 131-144.
- Jones, L., Castellanos, J., & Cole, D. (2002). Examining the ethnic minority student experience at predominantly White institutions: A case study. *Journal of Hispanic Higher Education, 1*(1), 19-39.
- Laden, B. V. (2004). Hispanic serving institutions: What are they? Where are they? *Community College Journal of Research and Practice, 28*, 181-198.
- Madkins, J. B., & Mitchell, C. E. (2000, February). *Establishing a "level playing field" for minority students on predominantly Anglo university campuses*. Presented at the National Association of African American Studies and National Association of Hispanic and Latino Studies, Houston, TX. (ERIC Document Reproduction Service No. ED455747)
- Marchesani, L. S., & Adams, M. (1992). Dynamics of diversity in the teaching-learning process: A faculty development model for analysis and action. In M. Adams (Ed.), *Promoting diversity in college classrooms: Innovative responses for the curriculum, faculty, and institutions* (pp. 9-20). San Francisco, CA: Jossey-Bass Publishers.
- Loyd, V. C. (1998). Socioeconomic disadvantage and child development. *American Psychologist, 53*(2), 185-204.
- Melendez, S. (2004). From humble beginnings comes great achievement. In *Reflections on 20 years of minorities in higher education and the ACE annual status report* (pp. 5-9). Washington DC: American Council on Education.

- Murdock, S. H., & Hoque, N. (1999). Demographic factors affecting higher education in the United States in the twenty-first century. *New Directions for Higher Education*, 108, 5-13.
- National Center for Children in Poverty. (2006). *The racial gap in parental education*. New York: Author.
- National Center for Educational Statistics. (2003). *Table 310: Percentage distribution of enrollment and completion status of first-time postsecondary students starting during the 1995-96 academic year, by type of institution and other student characteristics: 2001*. Retrieved June 9, 2006, from http://nces.ed.gov/programs/digest/d05/tables/dt05_310.asp
- National Center for Educational Statistics. (2005). *The condition of education 2005 in Brief*. Washington, DC: United States Department of Education. (Publication No. NCES 2005-095)
- National Education Association. (2003, August). *Status of the American public school teacher 2000-2001*. Washington, DC: Author.
- Nevarres, C. (2001). *Mexican Americans and other Latinos in postsecondary education: institutional influences*. Eric Digest (Report No. EDO-RC-01-1). Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. (Eric Document Reproduction Service No. ED459038)
- Nora, A., Barlow, L., & Crisp, G. (2006). An assessment of Hispanic students in four-year institutions of higher education. In J. Castellanos, A. M. Gloria, & M. Kamimura (Eds.), *The Latina/o pathway to the Ph.D.* Sterling, VA: Stylus Publishing.

- Ochoa, S. H. (2005). English-language learners in U.S. public schools: A heterogeneous population. In R. L. Rhodes, S. H. Ochoa, & S.O. Ortiz (Eds.), *Assessing culturally and linguistically diverse students: A practical guide* (pp.1-14). New York: Guilford Press.
- Oltjenbruns, K., & Love, C. T. (1998). Infusing a multicultural perspective into higher education curricula. *Journal of Family and Consumer Sciences*, 90(1), 57-60.
- Peske, H. G., & Haycock, K. (2006). Teacher inequality: How poor and minority students are shortchanged on teacher quality. Washington, DC: The Education Trust.
- Prater, M. A. (2005). Ethnically diverse rural special educators who are highly qualified: Does NCLB make this impossible? *Rural Special Education Quarterly*, 23(1), 23-26.
- Quiocho, A., & Rios, F. (2000). The Power of their presence: Minority group teachers and schooling. *Review of Educational Research*, 70(4), 485-528.
- Raudenbush, S. W. (2004). *Schooling, statistics, and poverty: Can we measure school improvement*. Princeton, NJ: Educational Testing Service. (ERIC Document Reproduction Service No. ED486417)
- Rendon, L. I., & Hope, R. O. (1996). An educational system in crisis. In L. I. Rendon & R. O. Hope (Eds.), *Educating a new majority* (pp. 1-34). San Francisco, Ca: Jossey-Bass.
- Rendon, L.I., & Nora, A. (1997). *Student academic progress: Key data trends*. Report prepared for the National Center for Urban Partnerships. New York: Ford Foundation.
- Reyes, X. A., & Ríos, D. I. (2005). Dialoguing the Latina experience in higher education. *Journal of Hispanic Higher Education*, 4(4), 377-391.
- Rintell, E. M., & Pierce, M. (2003). Becoming maestra: Latina paraprofessionals as teacher candidates in bilingual education. *Journal of Hispanic Higher Education*, 2(1), 5-14.

- Scales, P. C., Roehlkepartain, E. C., Neal, M., Kielsmeier, J. C., & Benson, P. L. (2006). Reducing academic achievement gaps: The role of community service and service-learning. *Journal of Experiential Education*, 29(1), 38-60.
- Sidel, R. (1995). Battling bias: College students speak out. *The Educational Record*, 76, 2-3, 44-52.
- Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist*, 52(6), 613-629.
- Talbert-Johnson, C., & Tillman, B. (1999). Perspectives on color in teacher education programs: Prominent issues. *Journal of Teacher Education*, 50(3), 200-208.
- Torres, V. (2003). Mi casa is not exactly like your house: A window into the experience of Latino students. *About Campus*, 8(2), 2-7.
- Torres, V. (2006). Bridging two worlds: Academia and Latina/o identity. In J. Castellanos, A. M. Gloria, & M. Kamimura (Eds.), *The Latina/o Pathway to the Ph.D.* (pp.135-147). Sterling, VA: Stylus Publishing, LLC.
- Tyler, N. C., Yzquierdo, Z., Lopez-Reyna, N., & Flippin, S. S. (2004). Cultural and linguistic diversity and the special education workforce: A critical overview. *The Journal of Special Education*, 38(1), 22-38.
- United States Census Bureau, Population Division. (2006a). *Table 4: Annual estimates of the population by age and sex of White alone for the United States: April 1, 2000 to July 1, 2005*. Retrieved February 3, 2007, from <http://www.census.gov/popest/national/asrh/NC-EST2005-asrh.html>
- United States Census Bureau, Population Division. (2006b). *Table 4: Annual estimates of the population by age and sex of Black or African American alone for the United States:*

- April 1, 2000 to July 1, 2005*. Retrieved February 3, 2007, from
<http://www.census.gov/popest/national/asrh/NC-EST2005-asrh.html>
- United States Census Bureau, Population Division. (2006c). *Table 4: Annual estimates of the population by age and sex of Hispanic or Latino origin for the United States: April 1, 2000 to July 1, 2005*. Retrieved February 3, 2007, from
<http://www.census.gov/popest/national/asrh/NC-EST2005-asrh.html>
- United States Census Bureau, Population Division. (2006d). *Table 4: Cumulative estimates of the components of population change by race and Hispanic or Latino origin for the United States: April 1, 2000 to July 1, 2005*. Retrieved February 3, 2007, from
<http://www.census.gov/popest/national/asrh/NC-EST2005-compchg.html>
- United States Department of Education, National Center for Educational Statistics. (2006). *The condition of education 2006* (Publication No. NCES 2006-71). Washington DC: Author.
- Vasquez, M. J. T. (1982). Confronting barriers to the participation of Mexican American women in higher education. *Hispanic Journal of Behavioral Sciences*, 4(2), 147-165.
- Villalpando, O. (2002). The impact of diversity and multiculturalism on all students: Findings from a national study. *NASPA Journal*, 40(1), 124-144.
- Villegas, A.M., & Clewell, B. C. (1998). Increasing the number of teachers of color for urban schools. *Education and Urban Society*, 31(1), 42-61.
- Waldschmidt, E. D. (2002). Bilingual interns' barriers to becoming teachers: At what cost do we diversify the teaching force? *Bilingual Research Journal*, 26(3), 537-561.
- Weinstein, G., & Obear, K. (1992). Bias issues in the classroom: Encounters with the teaching self. In Adams, M. (Ed.). *Promoting diversity in college classrooms: Innovative*

responses for the curriculum, faculty, and institutions (pp. 39-52). San Francisco, CA: Jossey-Bass Publishers.

Wilder, L. K., Jackson, A. P., & Smith, T. B. (2001). Secondary transition of multicultural learners: Lessons from the Navajo Native American experience. *Preventing School Failure, 45*(3), 119-124.

Appendix A

Cultural Congruity Scale

For each of the following items, indicate the extent to which you have experienced the feeling or situation at school. Use the following ratings:

- | Not at all | | | | | | | | | | A Great Deal |
|--|---|---|---|---|---|---|---|--|--|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | |
| ___1. I feel that I have to change myself to fit in at school. | | | | | | | | | | |
| ___2. I try not to show the parts of me that are “ethnically” based. | | | | | | | | | | |
| ___3. I often feel like a chameleon, having to change myself depending on the ethnicity of the person I am with at school. | | | | | | | | | | |
| ___4. I feel that my ethnicity is incompatible with other students. | | | | | | | | | | |
| ___5. I can talk to my friends at school about my family and culture. | | | | | | | | | | |
| ___6. I feel I am leaving my family values behind by going to college. | | | | | | | | | | |
| ___7. My ethnic values are in conflict with what is expected at school. | | | | | | | | | | |
| ___8. I can talk to my family about my friends from school. | | | | | | | | | | |
| ___9. I feel that my language and/or appearance make it hard for me to fit in with other students. | | | | | | | | | | |
| ___10. My family and school values often conflict. | | | | | | | | | | |
| ___11. I feel accepted at school as an ethnic minority. | | | | | | | | | | |
| ___12. As an ethnic minority, I feel as if I belong on this campus. | | | | | | | | | | |
| ___13. I can talk to my family about my struggles and concerns at school. | | | | | | | | | | |

Gloria, A. M., & Robinson Kurpius, S.E., (1996). The validation of the cultural congruity scale and the university environment scale with Chicano/a students. *Hispanic Journal of Behavioral Sciences*, 18(4), 533-549.

Appendix B

University Environment Scale

Please respond to these next statements using the following scale:

Not at all

Very True

1 2 3 4 5 6 7

- ___1. Class sizes are so large that I feel like a number.
- ___2. The library staff is willing to help me find materials/books.
- ___3. University staff has been warm and friendly.
- ___4. I do not feel valued as a student on campus.
- ___5. Faculty has not been available to discuss my academic concerns.
- ___6. Financial aid staff has been willing to help me with financial concerns.
- ___7. The university encourages/sponsors ethnic groups on campus.
- ___8. There are tutoring services available for me on campus.
- ___9. The university seems to value minority students.
- ___10. Faculty has been available for help outside of class.
- ___11. The university seems like a cold, uncaring place to me.
- ___12. Faculty has been available to help me make course choices.
- ___13. I feel as if no one cares about me personally on this campus
- ___14. I feel comfortable in the university environment.

Gloria, A. M., & Robinson Kurpius, S.E., (1996). The validation of the cultural congruity scale and the university environment scale with Chicano/a students. *Hispanic Journal of Behavioral Sciences*, 18(4), 533-549.