MEASURING ORGANIZATIONAL CLIMATE FOR DIVERSITY: A CONSTRUCT VALIDATION APPROACH

DISSERTATION

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By

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ABSTRACT

In an increasingly connected and multicultural world, it is imperative that organizations address and manage diversity. Creation and maintenance of a climate supportive of diversity allows organizational members to interact, learn and work cooperatively, maximizing organizational effectiveness. In response to the need for effective management of diversity, diversity researchers have urged organizations to conduct assessments of their current diversity climates, to clarify organizational needs, goals, and objectives in a strategic plan, before launching into diversity initiatives.

Despite researchers' calls for organizational diagnosis of the diversity climate, there is little evidence of systematic or comprehensive efforts to conceptually and operationally define organizational climate for diversity. Part of this lack of theoretical and empirical progress may perhaps be attributed to the difficulty of making the construct operational and of deriving scales amenable to empirical testing and validation.

The current research goals were to develop a multidimensional measure of climate for diversity, and to investigate the psychometric properties of the instrument developed, using a construct validation approach. This study

evaluated the utility of the construct of organizational climate for diversity within a network of theoretical relations, with practical implications. A domain sampling approach was used to delineate dimensions and items for the new measure. Empirical data collected from an independent school was used to carefully examine the scales of the new measure. Climate for diversity was operationally defined as comprising of incumbents' perceptions of top management support, formal institutional policies, student admissions policies, teaching equity and fairness, observations of teachers' behaviors in classes, fellow students' behaviors in classes, organizational resources and support, and personal diversity experiences. A global measure of climate for diversity was also introduced, as a molar-level measurement of the climate construct.

Results indicate that both the dimensional and global approaches are reliable and valid indicators of the construct. Examination of the empirical indicators within a nomological network of expected relationships allow inferences to be made about the validity of the measure developed. The construct of attitudes about diversity was also introduced as a moderator, and results indicate that attitudes moderate the relationships between climate ratings and the most domain-relevant outcome, satisfaction with diversity. The measure presented here represents a first step toward elucidating how researchers can conceptualize and measure the construct in a multidimensional manner that can facilitate both our theoretical and practical understanding. Theoretical and practical implications, limitations of the study, and directions for future research are discussed.

Dedicated to my parents

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CHAPTER 1

INTRODUCTION

In the contemporary world, there is irrefutable evidence of the continued prevalence of prejudice, discrimination, oppression, and hatred. A lack of understanding, conflict, tensions, and violence among people, cultures, and societies abound; consider the terrorists' unimaginable September 11 attacks on the United States and the Chinese government's gory oppression of its people's voices in Tiananmen Square. As the world gains interconnectivity, the fundamental need to increase intergroup understanding and acceptance, at all levels of societies – the individual, organizational, and systems levels – becomes even more central to harmonious and peaceful relations.

In the United States, from the founding days of the country, "E Pluribus Unum" – one from many – forms the basis of this democratic society. The United States prides itself as being created on the basis of democratic principles, and on respecting group differences. In the decades since the Civil Rights movement in the 1960s, some progress has been made toward reducing the inequalities in society (Banks & Banks, 2004). However, much progress is still needed, not only to balance the residual inequities from the past, but also to move toward understanding and acceptance of differences between individuals.

Globalization is transforming the present, and will continue to blur and fade boundaries in the future. Modern technologies allow people, organizations, and countries to be increasingly connected to one another. In work settings, employees with different value systems and backgrounds are interacting in dynamic team situations, in organizational networks, and with a progressively more diverse customer base (Carnevale & Stone, 1994). In educational settings, research suggests that a key factor in schools that can facilitate the intellectual and social development of students is the school's ability to provide an environment that is most conducive for learning and development (Hurtado, Milem, Clayton-Pedersen, & Allen, 1999). As such, an educational environment that is comprised of a diverse student body and faculty will allow opportunities for students to interact with, and learn from individuals of different backgrounds. An inclusive school environment will also better prepare students to be citizens of a global community.

In light of the necessity and benefits for the effective management of diversity, corporations and educational institutions have implemented diversity initiatives. There is much support for the benefits of proper management of diversity, but arguments will be presented that in order for diversity to be appropriately addressed, it is necessary to conduct a baseline assessment of the organization's current climate for diversity. The goal of this study was to develop and validate an organizational climate for diversity measure that would facilitate and encourage both theoretical and field research.

The current organizational climate being assessed is that of an independent college preparatory school. The school of interest established the need to incorporate diversity initiatives into its strategic planning process. As a precursor, the school sought to evaluate its organizational climate on fairness and inclusion, and to incorporate results of the assessment into the upcoming strategic plan. The assessment will thus facilitate enhancement of the learning environment for all students by allowing the school to conduct targeted long-term improvements in identified areas of need. Toward these ends, the current study investigated the theoretical dimensions underlying a school climate favoring diversity, developed a questionnaire that measured climate for diversity, and empirically examined the reliability and construct validity of the new measure.

In the current chapter, the organizing framework follows established recommendations for construct validation. Development of a sound measure depends on the researcher's ability to clearly and completely define the construct's conceptual domain and the development of a measure that provides a full representation of the domain (Cook & Campbell, 1979; Nunnally, 1978). In order to develop a reliable and valid measure, researchers are urged to develop a precise definition of the construct through clear specification of the nature of the construct, differentiation from other constructs, and sound operational definitions of the construct (Stone-Romero, 1994).

Construct validity is further enhanced by placing the instrument in a nomological network (Cronbach & Meehl, 1955). As Stone-Romero (1994) aptly stated, "construct validation-oriented research should be oriented toward testing

predictions stemming from theoretical models or nomological networks" (p. 173). The construct is thus situated in a nomological network of correlates and effects, in order to seek further evidence of its construct validity by demonstration of hypothesized relationships with other constructs of interest. In sum, the current study both sought to gather evidence of construct validity by development of an instrument through sound theoretical arguments for the underlying dimensions of the construct of interest, and to demonstrate the instrument's construct validity by examination of its relationships to other constructs within a nomological network.

Literature Review

The rest of this chapter is divided into two major sections. In this first section, the climate and culture constructs are differentiated. A summary of issues and advances related to the organizational climate construct are then presented, followed by a conceptual definition for the climate for diversity construct. In the next major section, evidence for the prevalence and benefits of diversity will be presented, followed by the importance of assessing organizational climate for diversity. The theoretical justifications for the dimensions of the construct will then be discussed.

Overview of Culture and Climate

Research in organizational culture and organizational climate has contributed to the understanding of important topics in Industrial/Organizational Psychology, such as leadership, job satisfaction, organizational socialization, turnover intentions, and job performance. Within the literature, there has been much confusion between the two terms and both have been used arbitrarily.

Given the current focus of interest, this section briefly reviews some disparities and similarities between their conceptualizations and measurement, moving toward an understanding of the conceptual boundaries of both constructs.

Organizational Culture

The culture literature is focused on the evolution of social systems over time and how social contexts develop out of interaction (Denison, 1996; Schein, 1985; Van Maanen, 1979). An organization's culture is defined as "the deep structure of organizations, which is rooted in the values, beliefs, and assumptions held by organizational members" (Denison, 1996, p. 624); and refers "to the broader pattern of an organization's mores, values, and beliefs" (Schneider, Gunnarson, Niles-Jolly's, 1994, p. 18).

Culture researchers are interested in gaining a deep understanding of the underlying assumptions (Schein, 1985) and insiders' views of the organization. Toward the end of gaining a full, rich, and detailed understanding of organizational culture, researchers generally engage in case study approaches. Organizational culture tends to be examined through qualitative methods, such as book-length ethnographies (Kunda, 1992; Schein, 1985) and article-length descriptions of cultural analyses (e.g., Van Maanen, 1973, 1975).

Organizational Climate

The climate literature focuses on the perception of social contexts and their impacts (Denison, 1996). Climate is conceived of as a set of cognitively-based, individual perceptions that describe an organization. These perceptions describe the organization in terms of salient organizational characteristics, such

as organizational features, events, and processes, and may be formed by how the organization and/or its subsystems deal with its members and environment (Hellriegel & Slocum, 1974; James & Jones, 1974; Kozlowski & Hults, 1987). Climate research is typically conducted using quantitative methods, as climate researchers are interested in discovering organizational members' perceptions of practices and procedures, and categorizing these perceptions into pre-defined analytic dimensions (Denison, 1996).

Additionally, social settings have multiple climates, and it is necessary for researchers to define the specific frame of reference for the climate construct (Schneider & Reichers, 1983). Omnibus measures of climate, without a specific reference, do not allow for differentiation between subunits, and cannot be expected to relate to any specific organizational criterion. Such general measures are "useless for anything but the most gross description of the range of variation in organizations" (Schneider & Reichers, 1983, p. 22). As Kozlowski and Hults (1987) contended, "climate should be regarded as a broad, multifaceted perceptual domain, with construct definition determined by the specific criteria of interest" (p. 542). Hence, it is essential that researchers be very clear conceptually about the kind or kinds of climate being addressed. Schneider (1990) suggested that the key question to determine the content of perceptual descriptions is "climate for what?". Due to the all-inclusive nature of the abstract and generic climate construct, it is necessary to conceptually bound and define the construct to facilitate assessment.

A handful of studies have examined the effects of climate for specific strategic outcomes. These studies suggest that strategically focused climate measures demonstrate stronger relationships with specific organizational outcomes. In particular, climate for updating (Kozlowski & Hults, 1987) was related to engineers' performance, climate for innovation in a research and development subsystem was related to number of technological breakthroughs (Abbey & Dickson, 1983); climate for safety was related to factory safety (Zohar, 1980), climate for service was related to bank customers' perceptions of the quality of service received (Schneider & Bowen, 1985; Schneider, Parkington, & Buxton, 1980), and climate for implementation was related to successful implementation of innovative technologies (Klein, Conn, & Sorra, 2001).

Current conceptualization of climate. The current investigation adopted Schneider and colleagues' conceptualization of climate, which has gained widespread acceptance by researchers. Climate is defined as "incumbents' perceptions of the events, practices, and procedures and the kinds of behaviors that get rewarded, supported, and expected in a setting" (Schneider, 1990, p. 384). Events, practices, and procedures are collectively known as routines of a setting, while behaviors that get rewarded, supported, and expected are referred to as the rewards of a setting (Schneider & Rentsch, 1988). In a given setting, incumbents both perceive the routines and rewards, and attach meaning to these routines and rewards (Schneider, 1975). The meanings attached to the routines and rewards further communicate and signal to incumbents the organizational outcomes that are valued (Schneider, 1990).

Following Schneider and colleagues' definition and the established need to clearly specify a referent, the following conceptual definition of climate for diversity is offered for the current study: An organization's climate for diversity refers to incumbents' summary perceptions of the extent to which efforts to promote an environment welcoming and embracing diversity are supported, expected, and rewarded within the school. Incumbents' perceptions of their organization's climate for diversity are formed by their experiences, observations, and discussions about the organization's policies, practices, and procedures with regards to diversity.

Choice of climate as the focus. Organizational diagnosis is a vital prerequisite to organizational change efforts related to diversity. In order for an organization to measure and develop strategies to create an environment that is welcoming of diversity, it is more appropriate to examine its climate for diversity than its diversity culture. As defined, respondents draw inferences about the organizational climate by forming summary perceptions of organizational policies and procedures. Hence, perceptions of the climate for diversity are malleable and amenable to organizational change efforts targeted at improvements in the climate (Hurtado et al., 1999).

From a theoretical viewpoint, conceptual definition of the boundaries of the climate construct with a specific referent (diversity) facilitates assessment, shifting the study of climate into a strategic mode (Schneider, 1990). Specifically, for researchers interested in developing a specific criterion of interest, Schneider (1990) made the following set of recommendations: (1) identify the routines and

rewards that facilitates the conceptual definition and accomplishment of the specified goal, (2) assess the current status of the organization's identified routines and rewards, and based on the assessments, (3) make changes to organizational routines and rewards.

Accordingly, climate research in a strategic mode involves identifying the routines (organizational events, practices, and procedures) and rewards (behaviors that are rewarded, supported, or expected) related to the criterion of interest. In essence, climate assessments allow researchers to identify organizational areas of strength and sustenance, and to recommend areas for targeted improvements; thus allowing a better basis for organizational interventions than culture assessments. We now turn to theory and empirical findings as related to diversity in both corporate and academic settings, followed by the proposed dimensions and the nomological network examined in the current research.

Diversity: Introduction and Overview

For the past ten years, there has been vast interest in the topic of diversity; there is a proliferation of both published academic articles and books, and applied discussions in major newspapers, magazines, and on the internet. The widespread coverage clearly signals that corporations, organizations, and educational institutions are making concerted efforts to integrate diversity concerns into organizational objectives and processes.

Definition of Diversity

The term “diversity” broadly pertains to the extent of differences between groups of people. Nonetheless, most diversity researchers have taken a narrow approach to conceptualizing diversity, mainly confining discussions of diversity to race, ethnicity, and gender issues. Instead, diversity must be defined in ways that are inclusive of the variety of dimensions along which people differ.

This study adopts a broader view of diversity, to address the range of socio-cultural differences amongst people, and to reflect the inclusive approach needed for multicultural education. Diversity is conceptualized as the differences among groups of individuals that are reflected in a variety of forms, such as gender, age, race, ethnicity, socioeconomic status, social class, religion, education, sexual orientation, language, disability, national origin, language preference and use, learning style, lifestyle, politics, and geographical locale.

Following the conceptual definition of organizational climate and the general definition of diversity presented, an organization with a climate favorable toward diversity maintains an environment where incumbents feel welcome and supported, regardless of their biological, social, or cultural backgrounds. The formation of a climate favorable toward diversity in schools requires the shared commitment of organizational members – administrators, faculty, staff, students, and parents – in integrating efforts into a multilayered approach.

Within the literature, some authors use the terms “fair”, “inclusive”, and “multicultural” to describe the atmosphere of organizations that welcome and celebrate diversity. Thus, an organizational climate favorable toward diversity

includes a fair and inclusive ethos that fosters members' understanding and acceptance of group differences, through mutual respect, communication, and collaboration.

Value of Diversity

The prevailing "business case" for diversity puts forth the arguments that the requirements of a growing global economy, an increasingly diverse recruitment pool and workforce, and diverse customer markets engender organizations to address diversity (e.g., Cox, 1993, 2003; Cox & Blake, 1991; Thomas, 1990). Effective management of diversity can also enhance an organization's value through its benefits. If well-managed, a pool of diverse individuals brings a wider range of perspectives into the organization, allowing more critical analyses, leading to organizational benefits, such as enhanced problem solving, decision making, and organizational flexibility (Cox, 2003). Diversity also enhances creativity and innovation. Research has demonstrated that the most innovative schools were also the most tolerant of diversity (Siegel & Kammerer, 1978) and ethically diverse teams surpassed all-Caucasians teams in performance of a marketing task (McLeod, Lobel, & Cox, 1996). Moreover, given today's diverse labor market and customer base, organizations that can successfully attract and retain diverse workers will enjoy competitive advantages.

Effective management of diversity occurs through organizational policies that not only promote the recruitment, hiring and retention of diverse employees, but also allows employees to reach their full potential through inclusive organizational environments that foster creativity and diverse talents. The

premise is that an organization that is supportive of all employees, and is one in which all employees have equal opportunities, will have a more motivated and creative workforce; resulting in competitive and strategic advantages for the organization. These widely-recognized arguments for the "business case" for diversity are pertinent to the current study, as the rationale presupposes that an organizational climate conducive to diversity is necessary for organizations to successfully manage diversity.

Reasons for Past Failure in Diversity Efforts

Despite the widely acknowledged importance and value of diversity, evidence is accumulating that many organizations have failed to effectively create and manage diversity. Some reasons for failure are explicated below, followed by an argument for the need to assess the current status of the organization's diversity climate.

Mere compliance with employment regulations. The rationale for employment regulations for the hiring and promotion of minorities in organizational settings – Affirmative Action (AA) and federal Equal Employment Opportunity (EEO) policies – is to facilitate correction of a history of discrimination. Since the 1960s, federal EEO laws have been enacted to prohibit discrimination and to ensure equal access to everyone. AA goes beyond non-discrimination, requiring all corporations and educational institutions to engage in outreach and recruitment efforts for minorities and women.

Unfortunately, some organizations mistakenly consider that compliance with guidelines set by AA and EEO policies equates to being attentive to diversity

issues. Organizations that merely establish and adhere to AA policies to recruit minority students or hire minorities for entry level jobs, unaccompanied by corresponding changes in organizational retention and promotion policies, are unlikely to provide the environments necessary for minorities to reach their full potential (Thomas, 1990). In essence, an approach to diversity that merely emphasizes recruitment and hiring of ethnic minorities at entry levels, unaccompanied by changes in the organizational culture and policies in support of diversity, is unlikely to succeed (Cox, 1993, 2003; Thomas, 1990).

Further, organizational members are naturally resistant to change, and will hamper organizational efforts that modify personnel policies that seek to foster an inclusive environment (Belfry & Schmidt, 1989). Kossek and Zonia (1993) observed that organizational policies which seek to promote diversity "are introduced against a backdrop of a dominant white culture" (p. 65). Consequently, Caucasian males (typically the dominant group) may allege that group identities (example, race) serve as the basis for personnel decisions, rather than performance (Vick, 1996). Hence, organizational development activities toward embracing diversity are likely to heighten intergroup conflict and tensions, as differences in goals, values, and power are accentuated (Berg & Smith, 1990).

In order for all employees to work productively with each other and to enhance organizational effectiveness, it is vital to create an organizational environment that supports all employees in valuing and respecting differences. Valuing diversity requires the vision that individuals should have equal rights,

while differences are celebrated (Thomas, 1990). The literature suggests that successful diversity initiatives in the workplace should empower individuals from diverse backgrounds to provide unique solutions to business problems, rather than requiring employees to give up their ethnic, gender, or social identities in order to be successful (Thomas, 1990).

Premature diversity training efforts. In response to projections that 85% of new entrants into the U.S. labor force during the 1990's will be female, minority, or immigrant (Johnson & Parker, 1987), many organizations have proceeded to spend millions of dollars on diversity training, in an effort to create inclusive organizational climates. Organizational diversity efforts are often pre-packaged programs seeking to instill new attitudes in employees (Beer, Eisenstat, & Spector, 1990) and to sensitize people to intergroup differences (Thomas, 1990). In particular, 92% of organizations focus on awareness training, in an effort to develop the organization as a multicultural workplace (Jost, 1997). In reality, such approaches may lead to further resentment and riffs among majority and minority employees, as majorities are resistant (Bielby, 1987) and minorities merely use training opportunities as forums to vent their anger (Galen, 1994).

Researchers have asserted that immediate launching into diversity training without conducting an assessment is not an effective strategy for creating and managing diversity. A more effective approach would be for the organization to clarify goals and objectives in a strategic plan, before embarking on diversity training (Evans, 1992). In order for organizations to effectively train

employees for diversity awareness, it is necessary to first conduct an assessment of the organization's needs and employees' current attitudes (Carnevale & Stone, 1994).

Diversity in Educational Settings

The school environment provides students, faculty, and staff with unique opportunities for daily contact with people of different racial and cultural backgrounds. By 2010, approximately 32% of the U. S. population will be comprised of a variety of ethnic and minority groups (Kipp, 1998), and students of color will make up 24% of persons 18 years and under (Carter & Wilson, 1993). Hence, in order to achieve success in academia and later on in life, students "must learn, in every part of their educational experience, to live creatively with the multiplicity, ambiguity, and irreducible differences that are the defining conditions of the contemporary world" (Association of American Colleges and Universities, 1995, p. xxii, cited in Hurtado, 1997). At an organizational level, schools need to provide comfortable learning and socializing environments that enhance the intellectual and social development of all students (Hurtado et al., 1999).

The "business case" for addressing diversity in educational settings is evidenced by several research findings. Hurtado et al. (1998) examined the impact of school environments on students. Three key findings were reported: (a) minority students had better educational experiences at campuses with more diverse racial/ethnic enrollments, (b) financial aid policies strongly impacted the

presence and persistence of minority students, and (c) the presence of faculty of color on campuses benefited students from their respective racial groups.

Another study found that Caucasian college students who had the least amount of social interaction with someone of a different background were less likely to embrace positive attitudes toward campus multiculturalism (Globetti, Globetti, Brown, & Smith, 1993). Globetti et al. duly concluded that, “in order to prepare students as participants in a more heterogeneous college environment, and as citizens in a global community, program planners and administrators need to recognize deficiencies in cultural sensitivity and build on the multicultural awareness that students do have” (p. 218). Clearly, the effective management of diversity is important to contemporary considerations of organizational effectiveness, both in academia and the corporate realm.

Regrettably, analogous to corporate organizations’ focus on recruitment and hiring of minorities, educational institutions also tend to focus on the admissions goal of increasing the numbers of racial/ethnic students on campus (Hurtado et al., 1999), an approach that is short-sighted and inadequate. In order for all students to learn to effectively study and interact with each other, “other elements of the climate also require attention and constitute key areas for focusing efforts to increase diversity” (Hurtado et al., p. 3). According to Hurtado et al., the “elements” within the institutional context that require attention included: the historical legacy of inclusion/exclusion within the institution (as represented in its mission and policies), structural diversity (numerical representation of diverse students, faculty, and staff), psychological climate

created by perceptions of racial/ethnic tension, prejudice or discrimination, and a behavioral dimension (social interaction, campus diversity, and classroom diversity). Thus, schools must go beyond mere recruitment and selection in order to create a fair and inclusive environment. Further, the Education Commission of the States recommended that programmatic changes to address issues of the campus climate begin with systematic self-assessment (Richardson, Matthews, & Finney, 1992).

Need for Assessment

In sum, a narrow approach to the management of diversity, either aimed at increasing numbers of minorities or immediate introduction of training efforts, is unlikely to succeed. Instead, successful organizational efforts to incorporate and manage diversity should be adopted with a strategic and long-range perspective. As a prerequisite, it is essential to measure the current status of the diversity climate. Based on the assessment results, organizational change efforts may then be targeted at sustenance of areas of strength, and provision of assistance to weak areas. Assessments are also necessary for organizations to facilitate the monitoring of the effects of diversity training.

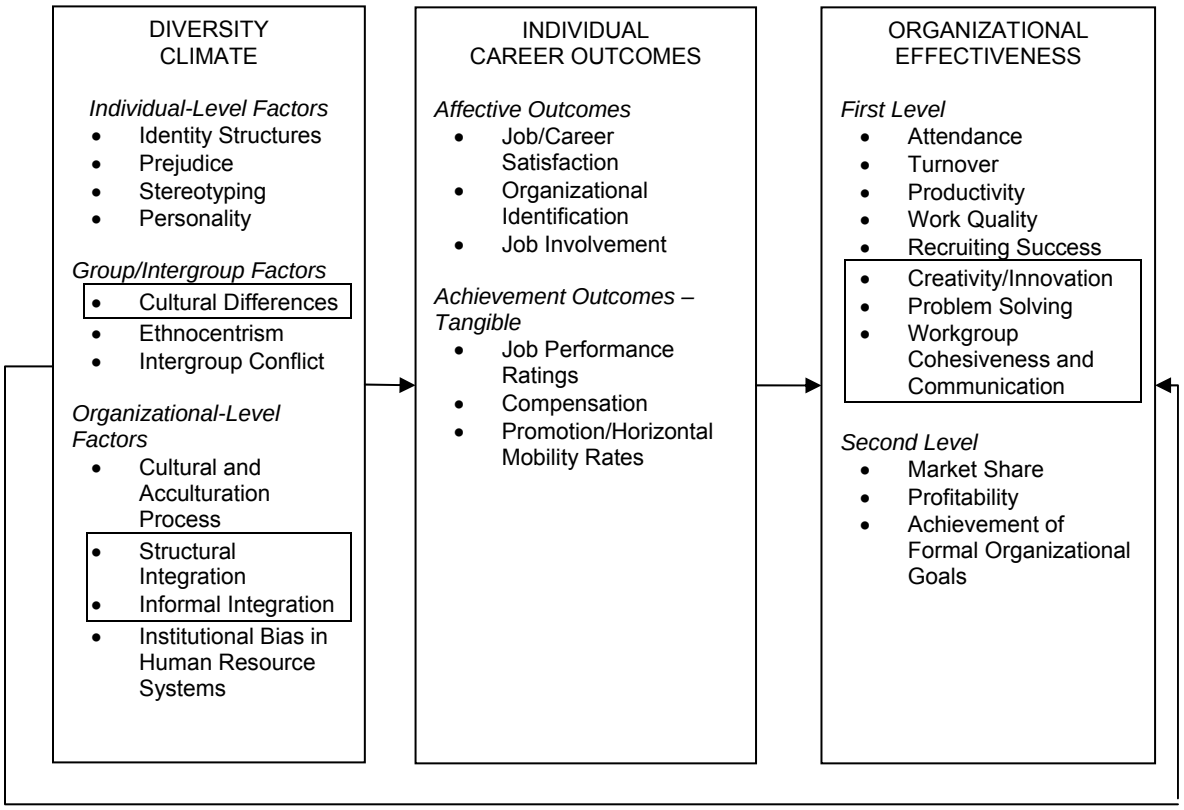
Organizational assessments allow for clarification of organizational routines and rewards related to the achievement of a goal, such as diversity (Schneider, 1990). Hence, conducting a baseline assessment allows organizations to move away from a mere focus on increasing the numbers of minorities, toward creating the foundation for a truly inclusive environment where differences are valued and respected by all organizational members. In order to

facilitate organizational climate assessment, it is necessary to employ a reliable and valid instrument for measuring organizational climate for diversity, which is the central goal of this research. As presented in the next section, there is a current dearth of adequate instruments which allow for a comprehensive and sound assessment of the campus climate for diversity.

Review and Critique of Existing Measures

Despite the established need for assessment, there is lack of reliable and valid instruments for assessment of diversity climate in the literature. In this section, a review of relevant theoretical and empirical work in this domain is presented. Both published journal articles and unpublished doctoral dissertations will be reviewed in chronological order, and the scales' Cronbach's alpha (α), if reported, will be noted as indices of the scales' reliability.

The handful of dissertations that have examined the assessment of climate for diversity have generally used Cox's (1993) framework (Figure 1.1). Cox's principal contribution to the literature was his presentation of a comprehensive model summarizing the impact of climate for diversity on individual and organizational outcomes. In his model, diversity climate was related to individual career outcomes, which in turn were related to organizational effectiveness variables. Though providing a good framework for understanding the effects of diversity, a problem with Cox's model is that it seems to "include every single organizational factor as influencing, or being influenced, by diversity climate" (Hicks-Clarke & Illes, 2000, p. 329). Further, Cox conceptualized diversity climate as being composed of individual-level factors, group/intergroup



Note. From Cultural Diversity in Organizations: Theory, Research and Practice (p. 8), by T. Cox, Jr, 1993, San Francisco, CA: Berrett-Koehler Publishers. Copyright 1993, 1994 by Taylor H. Cox, Jr.

Figure 1.1. An interactional model of the impact of diversity on individual career outcomes and organizational effectiveness. Copied without permission from Cox (1993).

(gender and racioethnic heterogeneity, resource support for women and racioethnic minorities) and University faculty's perceptions of diversity climate.

Kossek and Zonia (1993) offered hypotheses based on intergroup theory to assess the relationships between group memberships (based on ethnicity, gender, and organizational level), contextual organizational unit characteristics factors, and organizational-level factors, thus making it extremely difficult to empirically test and advance theory on the construct.

Conceptually, the authors adopted Schneider and colleagues' definition of climate, as "the influence of work contexts on employee behavior and attitudes, which are grounded in perceptions" (p. 63). The authors purported to develop a diversity climate scale that examined the "current organizational climate regarding diversity and pluralism" (p.68). However, operationally, climate was narrowly measured through development of a 20-item instrument which only assessed faculty's attitudes and beliefs toward diversity, excluding other dimensions essential for a valid assessment of organizational climate. Five scales were used: value employer efforts to promote diversity (6 items, alpha = .90), attitudes toward qualifications of racioethnic minorities (2 items, alpha = .77), attitudes toward qualifications of women (2 items, alpha = .71), equality of department support for racioethnic minorities (2 items, alpha = .72) and for women (2 items, alpha = .74). An alpha for the overall scale was not reported.

Although the scales exhibited acceptable levels of reliability, the scales had little validity for measuring organizational climate for diversity. Contrary to their stated intent to develop an assessment tool for assessing organizational

(University) climate for diversity, Kossek and Zonia (1993) formed hypotheses based on intergroup theory. Consequently, the authors were not concerned with evaluating the psychometrics of the survey, and were instead focused on comparisons in perceptions between Caucasians and ethnic minorities (defined as non-Caucasians), and between males and females in the work context. In other words, instead of assessing the organizational dimensions of diversity climate, the authors effectively measured respondents' perceptions and reactions to diversity efforts.

There was further lack of construct validity as a priori dimensions were not specified. The constructs were also confounded as there was lack of differentiation between attitudes and perceptions. For instance, the two items of the scale titled "attitudes toward qualifications of women" inherently assessed respondents' perceptions, or judgments, of the research productivity and scholarly qualifications of women faculty compared with men faculty. Conceptual and operational definitions of the climate construct are confounded with other constructs and measures, resulting in a measure with little construct validity.

In addition to theoretical confounds, Kossek and Zonia's (1993) scale also had measurement issues. There were too few items per scale and a variety of unusual response scales were used: value efforts to diversity was measured with a 5-point Likert scale (from 1 = Strongly Disagree to 5 = Strongly Agree), attitudes toward qualifications of racioethnic minorities and women was measured with a different 5-point scale (1 = Much Lower, 3 = About the Same and 5 = Much Higher), while equality of department support of racioethnic

minorities and women was measured with a 3-point scale (1 = Less Chance, 2 = Same Chance and 3 = Better Chance). Overall, the measure had little content or construct validity and was inadequate as a measure of climate for diversity.

Similarly, based on social identity and intergroup theory, Mor Barak, Cherin and Berkman (1998) explored the diversity perceptions of an electronics company's employees. The authors construed an organization's diversity environment as consisting of two dimensions: a personal dimension that measured respondents' personal prejudicial attitudes and an organizational dimension that measured "management's policies and procedures specifically affecting minorities and women" (p. 85). Factor analytic results of their 16-item "Diversity Perceptions Scale" indicated that the organizational dimension was comprised of two factors: organizational fairness, which measured perceptions of management's fairness in policies and procedures (6 items, alpha = .86) and organizational inclusion, which measured "structural inclusion or exclusion of people from diverse backgrounds" (p. 92, 4 items, alpha = .80). The personal dimension also included two factors: personal diversity value, which measured respondents' personal views of the value of diversity (3 items, alpha = .77) and personal comfort, which tapped respondents' personal comfort and openness to diversity (3 items; alpha = .71).

Mor Barak et al. (1998) theorized that "the more positive the perceptions of these two dimensions (i.e., less prejudicial personal attitudes and less discriminatory organizational practices), the more accepting of diversity (pluralistic) the organizational climate is" (p. 86), yet stated that "the two

dimensions do not necessarily go hand in hand, and potentially, there might be tension between them". An overall scale score was computed by summation of responses for all 23 items, with higher scores reflecting a more favorable perception of diversity (both personal and organizational). The overall scale's alpha was reported at .83.

However, these statistics cannot be meaningfully interpreted as the authors have confounded their conceptualization of organizational climate with individuals' personal attitudes. Scale scores cannot be meaningfully interpreted as an indication of the organizational climate, as the scores could either be due to various combinations of high/low organization-personal ratings. Further, a summed scale score does not make sense since there are different items per scale, resulting in differential weights being used for the summed scale scores. Given the conceptual confound, the overall alpha also cannot be meaningfully interpreted, since the dimensions are not correlated as the authors postulated.

Hence, although Mor Barak et al. (1998) conceived of their instrument "as a diagnostic tool to evaluate the organization's diversity climate" (p.89), their instrument is not a construct valid assessment tool as it is conceptually confounded. In effect, their study served to compare majority and minority perceptions of (a) whether organizational practices were perceived as fair and equitable and (b) who was more comfortable with and valued diversity. Based on the survey findings, a conclusion was drawn that there were "significant gender and racial/ethnic differences in employee perceptions of the personal as well as the organizational dimensions of diversity" (p. 97).

McClellan and Cogdal (1996) developed the “Multicultural Assessment of Campus Programming” (MAC-P) Questionnaire to assess students, staff, and faculty perceptions of a “University’s acceptance and promotion of diversity on campus” (p. 85). MAC-P was developed based on an extensive literature review of multicultural campus programming. Eight assessment areas were identified: campus climate, institutional valuing of diversity, majority-minority student group relations, collaborative sponsoring of campus programs, types of programs, accessibility of programs, effects of multicultural programming on students’ perceptions, and fair allocations of activity funding and awards.

Based on the identified issues, the authors generated new items and modified items from an existing questionnaire (Cooper, 1991). A panel of student affairs administrators and student leaders familiar with multiculturalism reviewed a draft of the items for content validity, which resulted in a 42-item scale, measured with a 5-point Likert scale that ranged from 1 (Strongly Agree) to 5 (Strongly Disagree).

In the first study, the authors examined the reliability of the instrument. A test-retest reliability over four weeks of .79 was reported for a sample of 80 students, and 40 of the 42 items were significantly correlated between the first and second administrations. The test-retest reliability result of the MAC-P indicated that the instrument was stable over time. An overall alpha for the MAC-P was reported at .87.

Study two consisted of two samples – 167 faculty and staff and 1,328 University students. Factor analyses revealed that the 40 items were represented

by 6 factors: (1) Institutional Responsiveness measured perceptions of the University's support and responsiveness to multicultural matters (11 items, alpha = .83), (2) Student Relations addressed the relationship between majority and minority students (5 items, alpha = .82), (3) Students' Cultural Integration measured the extent to which people of diverse backgrounds recognized and accepted each other (9 items, alpha = .73), (4) Cultural Accessibility addressed the accessibility of campus activities and organizations to all students (7 items, alpha = .74), (5) Cultural Sensitivity addressed attentiveness to minority student needs (4 items, alpha = .70), and (6) Diversity Recognition addressed the recognition of minority traditions and achievements on campus (4 items, alpha = .62). An overall alpha was not reported. Consistent with expectations, results revealed that non-Caucasian students had more negative perceptions of the University's responsiveness, sensitivity, and accessibility to resources and support than Caucasian students. Also, faculty and staff perceived the institution as more culturally sensitive than students.

The MAC-P demonstrated content validity as it was reviewed by a panel of individuals with experience in the subject matter. Scales were also internally consistent, and this was the only study that reported test-retest reliability. In study two, use of two samples consisting of different target populations (faculty, staff and students) increased confidence in the validity of the results. Criterion-related validity was not examined.

McClellan and Cogdal (1996) asserted that the MAC-P measured organizational members' perceptions of a University's "commitment to cultural

diversity" (p. 91), specified the dimensions of the domain to be assessed followed by construction of items that represented the dimensions. However, the authors were noticeably silent on whether the eight areas proposed were measures of the same underlying construct. As Nunnally and Bernstein (1994) recommended, it is necessary that investigators at least "describe the properties of the attribute that is to be measured" (p. 311) when specifying the domain of content. The construct being measured was not explicitly defined, and can only be deduced through its stipulated use as an assessment tool for "acceptance and promotion of diversity on campus" (p. 85) and "commitment to cultural diversity" (p. 91). An overall alpha was reported for study one, but not reported for study two, which added more confusion about whether the instrument intended to measure one underlying construct. Further, factor analytic results indicated that the first factor (Institutional Responsiveness) accounted for 25% of the variance, while the remaining factors each accounted for 3% to 6% of the variance; in sum, a total of 45% of the variance was explained by the six factors. It is unclear if the scale assessed one construct or six different constructs.

Overall, the MAC-P provided a reasonable assessment for perceptions of a University's multicultural programming. However, in addition to the issues discussed, another limitation is that MAC-P primarily conceptualized diversity only in terms of race, and fails to account for the wide range of differences between people. Development of the MAC-P contributed to the conceptualization of campus climate in the current study, but this research seeks to adopt a more comprehensive framework to assessment of the climate for diversity construct.

Vick's (1996) unpublished dissertation, titled "Measuring organizational climate for diversity" similarly adopted Schneider and colleagues' conceptualization of climate, as "the shared perceptions of the formal and informal organizational policies, practices, and procedures" (p. 9). Her framework is the most comparable to the current research. Vick's study provided a constructive precedent to the much needed task of measuring climate for diversity according to a construct validation approach, by placing the construct in a nomological network to test hypothesized relationships with other proposed constructs. Climate was hypothesized to be related to various outcomes, including affective commitment, unit identification, job satisfaction, organizational citizenship behaviors, and intent to turnover. Convergent validity was assessed by having human resources generalist rate each group's climate for diversity; which was posited to relate to, but remain distinct from respondents' perceptions of the group's climate. Divergent validity was established by insignificant correlations with climate for diversity. A series of four alternate models were used to examine various pathways between the outcomes.

Vick (1996) proposed a set of climate dimensions based on the recommended characteristics for a multicultural organization (Bowens, Merenivitch, Johnson, James, & McFadden-Bryant, 1993) and Cox's (1993) comprehensive model. Nonetheless, she presented only indirect justifications, by citing ideas from Bowens et al. (1993) and Cox (1993), followed by a single comment that: "the ideas of Bowen et al. (1993) and Cox (1993) may be merged

to clarify the a priori dimensions of a strong climate for diversity" (p. 20). No other rationale was provided for each of the six a priori dimensions.

Vick (1996) took several steps to develop items for the climate measure – subject matter expert interviews, Q-sort procedures, pilot studies, and factor analysis of the structure and validity of the preliminary data. She developed items to tap individuals' perceptions of the degree to which their department: (a) values and fosters diversity, (b) manages barriers and conflict, (c) integrates women and minorities across organizational levels, (d) grants women and minorities access to informal networks, (e) provides flexible and responsive institutional policies and practices, and (f) celebrates diversity (six a priori dimensions). However, factor analytic results with a preliminary sample of University students indicated four factors, which either collapsed items from two dimensions, or "was composed of a variety of items across each of the dimensions" (p. 53). Alphas for the four scales ranged from .71 to .95. Another round of item writing and revisions were done, which resulted in a six-component, 42-item, climate for diversity survey. Alphas ranged from .53 to .82. Further factor analytic results of the new version of the survey using the study's sample of participants from different organizations resulted in three dimensions, with numerous items loading on different dimensions. New labels were again assigned. The final scale used for analyses was reduced from 39 to 13 items.

The measure was also placed in a nomological network, casting climate for diversity as an antecedent to a series of related outcomes. Additionally, Vick (1996) focused on the department or unit as the level of analysis; participants

were prompted to consider a particular department or unit when answering questions about the climate for diversity. Aggregation indices were used to assess appropriateness of aggregating to the departmental-level of analysis. Although the author provided clear theoretical rationale for adopting the department as the focal unit of analysis, empirical tests were contradictory as to whether the group or individual level of analysis should be retained. Consequently, the author considered both individual and group level of analyses.

As one of the three aggregation indices failed to lend support for aggregation to the higher level, Vick (1996) proceeded to test four alternative models, with both aggregated (to the department/unit level) and disaggregated (individual level) data. The conclusion was reached that the model of best fit was the a priori model using disaggregated data, which overall still provided a poor fit for the data.

A potential reason for the inconclusive aggregation indices and lack of model fit may be due to the use of a disparate sample of participants and inadequate items used to tap departmental climate. Vick (1996) used 95 participants were from one organization and a convenience sample of 224 from 57 different organizations. Data were collected from a variety of work organizations and it is unclear as to which department the author was having participants reference for responding. A review of the actual survey used suggested that participants were initially asked to indicate their department, and proceeded to respond to the survey using their own unit/department as the frame of reference (without further explicit cues). Participants could easily be using the

organization as their reference points, due to the manner in which items were written. For instance, an item in Employment Practices read “some jobs and occupations are women’s work” (item essentially tapped prejudicial beliefs). Better results may have been achieved by referencing the respondent’s department within the items. To exacerbate the measurement problems, three different response scales (frequency, agreement, and likelihood) were used for the 36 items – which may have further confused respondents.

In sum, although Vick (1996) used numerous procedures for item development, there was inadequate rationale provided for the various dimensions and items were not well-developed, despite the author’s efforts. Factor analytic results indicate that the items did not clearly load on the specified factors, which cause much confusion in interpretation. Despite the lack of clarity of the climate measure, Vick continued to focus on model testing and assessing the paths among the various constructs. The current author sought to further contribute to construct validation by: (a) overcoming Vick’s deficits in theoretical justifications, (b) providing a more thorough conceptualization of the construct, (c) establishing a reliable and valid instrument through sound survey development procedures, and (d) finding evidence for the hypothesized relationships between the measure and outcomes.

Gilbert and Ones (1999) developed the “Diversity Practices Survey” to assess the extent to which organizations engage in management of diversity practices. Three content areas were identified – diversity training (10 items, alpha = .87), measures of accountability (5 items, alpha = .88), and organizational work

initiatives to promote diversity (9 items, alpha = .85). The overall alpha was .75 for a small sample of 28 respondents. Although the alpha levels reported were good, the items within a scale seemed to measure different constructs. For instance, while the third scale purportedly measured organizational work practices, it included two items that tapped top management support and another item tapped company values. Items also reflected little face validity as they were too brief and ambiguous. For example, respondents were asked to indicate, on a scale of 0 (not at all) to 5 (a great deal) if their organization engaged in "workers' changing values" as a sample item for assessment of "training".

Gilbert and Ones (1999) merely reported that "exploratory factor analyses indicated that all three scales related to a higher-order organizational diversity climate construct", without sharing specific results. It is unclear whether the authors meant that all items loaded on a single-factor. In sum, their instrument had very limited construct and content validity as its theoretical rationale was not provided, and characterizes an inadequate approach to measurement of diversity in organizational settings.

Though Vactor's (1999) unpublished dissertation was titled "An assessment of the climate for diversity at the Pennsylvania State University (PSU)", the purpose of her study was not to develop a construct valid measurement of the construct. Rather, Vactor used the data for an existing survey and shared little information about how the survey was developed. Vactor simply stated "a project team had been appointed to guide the development and

implementation of the surveys" (p. 40). No other explanation was provided. Five areas examined in the survey were listed, without theoretical explanations.

The independent variables examined were gender, age, and years of service. The dependent variables were comfort level with overall climate for diversity at PSU, comfort level with overall climate for diversity within work unit, and personally experienced acts of intolerance. Survey results were used to answer research questions about improvements in the climate for diversity within a work unit by gender, age, and tenure with open-ended questions for ways to improve the climate. No reliability or validity information was provided for the instrument used. In sum, Vactor's (1999) study lacked clarity, with irregular idea development, insufficient theoretical justifications, and inadequate psychometric support.

Hicks-Clarke and Illes' (2000) objective was to examine the effects of diversity climate on various individual and career outcomes. The authors adopted an identical conceptualization of climate as the current study, as "the atmosphere that employees perceive in their organizations as created by policies, practices, and rewards" (p. 334). The authors appropriately recognized that widely-cited works (Cox, 1993; Kosssek & Zonia, 1993) failed to include the dimension of organizational justice in conceptualizations of organizational climate for diversity.

Nonetheless, Hicks-Clarke and Illes (2000) also did not provide a comprehensive conceptualization of diversity climate; climate was theorized as being comprised of only two dimensions – policy support (sample item: "seen EEO policy") and equity recognition (measuring organizational justice, need for

diversity, and support for diversity). Theoretical rationale was not provided for the dimensions, precluding claims that the instrument is a valid assessment tool.

The two dimensions were measured using new items, and items adapted from two existing scales (Alimo-Metcalfe, 1993; Kossek & Zonia, 1993). Using a sample of British managers in two organizations, the authors reported alphas for the three scales of equity recognition (alphas = .82, .84, and .66 respectively). No alpha was reported for the policy support scale, or for the entire equity recognition scale, even though these were the two dimensions asserted to underline the construct of interest. Thus, the scale developed had limited psychometric evidence, with insufficient reliability information and lacked both content and construct validities.

Pike (2002) developed the "Racial Climate Inventory" (RCI) to measure students' perceptions of racial climate in schools of social work. A conceptual definition of racial climate was not offered. Items were developed based on a review of available racial climate indicators that related to social work education. The RCI measured climate at the group level for its two scales: a faculty scale that measured students' perceptions of faculty's management of diversity content in the classroom environment (21 items, alpha = .95) and a student scale that measured students' perception of racial climate both within and outside of the classroom environment (19 items, alpha = .96). All of the scale's items were measured from 0 (<u>not a problem</u>) to 9 (<u>severe problem</u>).

An initial principal components analysis revealed six factors, with one factor accounting for approximately 48% of the total variance, a second factor

accounted for 8%, and the rest of the factors accounted for about 5% each. Thus, the factor structure did not support the hypothesized two-factor proposed. A second “factor analysis” was then conducted with “a specified two-factor solution based on the conceptual and theoretical issues for the scales as hypothesized” (p. 37), which leads one to believe that a confirmatory factor analysis was performed. Yet, the authors stated that another principal components was conducted, with the same empirical results.

Although Pike (2002) claimed that “the factor analyses provided preliminary evidence of the content, factorial, and construct validity of the scales”, results of the principal components analyses did not indicate that the hypothesized two-factor solution was supported. Moreover, the author’s claims are not warranted as factor analytic tools have been inappropriately applied. First, principal components should not be used to identify latent variables, as this technique does not account for unique factors. The main use of principal components should only be for data reduction, as components are defined as linear composites of the original measured variables and contain both common and unique variance (Fabrigar, Wegener, MacCullum, & Strahan, 1999). Therefore, it is conceptually incorrect to equate components with factors. Further, as the author has done, it is dangerous to check the model by carrying out (essentially) a confirmatory factor analysis on the same data used to derive the initial model as it capitalizes on chance (Browne & MacCallum, 1999).

Hence, contrary to Pike’s claims, the scale did not demonstrate adequate construct validity. Moreover, the items within each scale tapped a variety of

different aspects that were not necessarily reflective of racial climate, thus demonstrating little content validity. For instance, a sample item from the faculty scale is “faculty suggestions and help for Euro-American students when needed”; a response to such an item is not indicative of the racial climate created by faculty, as perceived by students.

Thomas (1991) and Sessa (1992) conducted interviews to assess Avon Corporation’s and Xerox’s climate for diversity, respectively, focusing on behaviors that enabled employees’ growth. Based on their findings, the authors provided recommendations for practitioners interested in improving organizational climate for diversity. Although qualitative research can be useful as tools for organizational diagnoses, such methods do not allow for quantifiable results that can be measured over time.

In sum, available measures lack a comprehensive and integrated approach to the assessment of organizational climate. Climate researchers have converged on conceptually defining climate as comprising of organizational members’ perceptions of organizational practices and procedures, which was recognized by a handful of the authors reviewed above (e.g., Kossek & Zonia, 1993; Mor Barak et al., 1998). However, although the authors have purported to develop scales to assess organizational climate for diversity, they have focused primarily on assessment of organizational members’ attitudes and beliefs (e.g., Kossek & Zonia, 1993; Mor Barak et al., 1998), reactions and behaviors (e.g., Hicks-Clarke & Illes, 2000; Kossek & Zonia, 1993; McClellan & Cogdal, 1996; Pike, 2002), rather than on respondents’ perceptions of organizations or units.

Current instruments are also inadequate in assessing the varied components required to conceptualize and measure organizational climate for diversity. Some authors adopted narrow conceptualizations of diversity as comprised of race issues (e.g., McClellan & Cogdal, 1996) or organizational policy support and equity recognition (Hicks-Clarke & Illes, 2000). Some authors purported to measure climate for diversity, based on social identity and intergroup theory (Kossek & Zonia, 1993; Mor Barak et al., 1998). Consequently, these authors were largely concerned with comparisons of perspectives between majority and minority groups, rather than on assessment of organizational climate for diversity.

In addition, current measures of organizational climate for diversity are neither comprehensive nor developed with theoretical justifications, thus lacking both construct and content validities. Cox's (1993) theoretical model included individual and organizational outcomes of climate for diversity but as discussed, Cox's work remains largely a theoretical model. Except for Hicks-Clarke and Illes' (2000) and Vick's (1996) studies, the published studies reviewed has generally lacked examination of criterion-related validity. Other studies lack construct validity as a priori dimensions were not specified (e.g., Kossek & Zonia, 1993; McClellan & Cogdal, 1996; Vick, 1996), constructs were confounded (e.g., Kossek & Zonia, 1993). The items on some scales (e.g., Gilbert & Ones, 1999) also lacked face validity. Other empirical issues were that some authors did not report sufficient reliability or validity information (e.g., Hicks-Clarke & Illes, 2000;

Vactor, 1999), had too few items per scale (e.g., Kossek & Zonia, 1993), or adopted unusual response scales (e.g., Kossek & Zonia, 1993; Pike, 2002).

In all, existing instruments are inadequate for measurement of climate for diversity. There is little evidence of systematic or comprehensive efforts to conceptually and operationally define the construct of organizational climate for diversity. If progress is to be made in explicating the construct so that useful research about its nature and consequences can be carried out, there exists a need for development of an instrument that exhibits acceptable psychometric evidence and support.

Specification of Current Model

The primary goal of the current study was to establish a psychometrically sound instrument to measure the construct of organizational climate for diversity, within an educational setting. Dimensions of the construct were developed based on a thorough review of the literature, and the construct was placed within a nomological network. In this section, the proposed dimensions for a broad and integrated conceptualization of climate for diversity are presented, followed by a review of construct validation principles, and a presentation of the network of variables used to examine the construct validity of the instrument.

Proposed Dimensions of Climate for Diversity

Campuses need to move beyond mere diversification of student bodies, toward creation of a fair and inclusive school environment that enhances student learning and interactions. Achievement of the benefits of a welcoming climate requires multi-layered, multi-targeted coordination in almost every aspect of the

school's programs, with support from its administration, personnel, and students. A broad, integrative framework creates a shared institutional commitment to diversity and provides the foundation for a multicultural school environment.

Dimensional Climate Ratings

The current study proposes that important components of a school-wide approach to creating and sustaining a climate accepting of diversity for students include: (1) top management support, (2) address of diversity in formal institutional policies (such as, mission statement), (3) student admissions policies that seek to attract and retain students from diverse backgrounds, (4) fair and equitable treatment of students by teachers, (5) inclusive teaching practices in the classroom, (6) a warm and welcoming classroom environment created by fellow students, (7) adequate organizational resources and support for minority populations, (8) a curriculum that includes diverse cultural perspectives, and (9) respondents' positive personal experiences, as related to diversity, within the school environment. Conceptually, all of the proposed dimensions are needed in order to gain an adequate and comprehensive assessment of an education institution's climate for diversity. Thus, the dimensions are to be construed as parts of a collective whole, as additive components in creating and fostering organizational climate for diversity.

As highlighted, a major problem with existing instruments for climate for diversity is that important aspects of the construct have not been included. When items in a measure represent an incomplete sample of the construct's domain, construct validity is diminished (Stone-Romero, 1994). To enhance construct

validity, the proposed set of dimensions has been carefully selected based on theory and research findings that are pertinent to the current setting. Further, as described in more detail in the next chapter, the author also incorporated information from subject matter experts for delineation of the dimensions important for a comprehensive assessment of climate for diversity. Following the theoretical definition of the climate construct, the dimensions will also focus on respondents' descriptive, rather than evaluative, perceptions of the environment (Klein & Sorra, 1996; Schneider, 1990). The theoretical justifications for the set of proposed dimensions for the measurement of the construct of climate for diversity are presented below.

Top management support. Top management and executives, whether implicitly or explicitly, choose to adopt certain practices and procedures, and to reward and support certain behaviors, based on their implicit goals for the organization. These practices, procedures, activities, and behaviors that are rewarded and supported communicate clear messages to employees, which serve to focus their efforts and attention (Schneider, 1987). Collectively, these routines and rewards imply and communicate the organization's strategic focus, and create the setting's climate (Schneider, 1990). The dimension of top management support is thus critical in the current conceptualization of assessment of the climate for diversity and measures the level of support given to diversity initiatives by the school's administration.

Formal institutional policies. Inclusion of diversity concerns within formal institutional policies communicate to incumbents that diversity is an important

topic of concern for the organization. This dimension assesses students' reports of whether diversity concerns are reflected in the institution's official policies, such as in its mission statement. Respondents' knowledge of anti-discrimination and anti-harassment policies is also assessed.

Student admissions policies. As mentioned, the diversity efforts of many educational institutions are currently focused on increasing the number of minority students, in order to create a more representative environment. An inclusive student admission policy is a necessary but insufficient condition for a climate supportive of diversity. This dimension measures students' perceptions of institutional policies with regard to recruiting, admitting, and retaining students from minority groups. If an institution is committed to creating a diverse school environment, efforts would be made to instill fair and inclusive admission policies, financial aid would be made available to all students based on need (rather than group membership), appropriate and visible community outreach programs and events would target recruitment of minority students, and policies would also be in place for the retention of minority students.

Teaching equity and fairness. Organizational justice (Adams, 1965) comprises of the dual concepts of distributive justice (fairness of outcomes) and procedural justice (fairness of the processes by which outcomes are determined.) For a school to demonstrate a positive climate for diversity, students should perceive that teachers are fair in their treatment of all students (procedural justice), and determination of outcomes, such as grades, are equitable and fair (distributive justice). This dimension assesses whether teachers are fair and

equitable in their treatment of students within the classroom environment. Items measure whether teachers have the same expectations and standards for all students and do not engage in preferential treatment. The current literature is deficient in addressing this key component of the climate for diversity; it is lacking in both Kossek and Zonia's (1993) and Cox's (1993) widely-cited models. As Coelho (1998) pointed out, "antiracist education is a philosophy based on concepts of social justice and equity" (p. 200). The current study addresses this deficiency by including students' perceptions of the fairness of teachers' treatment of students.

Classroom practices: Teachers' behaviors. In order for a school to demonstrate support for diversity, teachers need to adopt an inclusive approach to instruction that is responsive to the needs of all students. A fair and inclusive approach to teaching supports students' individual needs, teaches students to respect group differences, and creates an environment in which all students can learn collaboratively. By teaching students to be culturally sensitive and allowing the development of multiple views and perspectives in classes, teachers communicate that it is important to respect group differences, and contribute toward students' perceptions that the school's climate is supportive of diversity.

Classroom practices: Students' behaviors. The current conceptualization of climate for diversity seeks to provide a comprehensive framework of students' perceptions, within an educational setting. Hence, it is crucial to include students' perceptions of fellow students' behaviors, with regards to diversity issues in the classroom. This dimension taps perceptions of students' typical behaviors in

classes. In a classroom welcoming and accepting of diverse viewpoints, students should adopt appropriate and respectful language, and have equal opportunities for class participation in the various subject areas.

Organizational resources and support. Organizational policies and practices that relate to the availability of resources and support, across identity groups, are likely to shape perceptions of intergroup relations, and the diversity climate (Kossek & Zonia, 1993). In their three-year qualitative study of nine independent schools, Datnow and Cooper (2000) concluded that schools' sponsorship of African-American student associations was very important for the African-American students they interviewed. Such associations encourage students to share information and facilitate their discussions of pertinent matters.

In order to create a truly inclusive environment, resources and support should be available for all students, and not only for minority students. For instance, Coelho (1998) made a clever observation that a major problem with "Multicultural Night" is that it tends to only highlight "different" cultures, and not the dominant culture, which is deemed "normal". Additionally, similar levels of attention should be given to observance of special days like Chinese New Year as traditional American holidays, to diminish the likelihood that special days are merely "tokens" of diversity (Coelho, 1998). Support for diversity also includes positive role models and mentors (Coelho, 1998). Minority role models demonstrate to all students that achievement and success is achievable for a wide range of individuals, and mentors provide one-on-one support and advice.

Curriculum. An inclusive curriculum requires collaboration among administrators, teachers, parents, and students. Coelho (1998) succinctly provides the following definition for an inclusive curriculum, that "the approach to knowledge is transformed so that students are exposed to multiple perspectives and experiences" (p. 208). Students should be exposed to multiple approaches and viewpoints about different religions and cultural practices, and educated with an anti-racist and anti-bias focus.

Transformation toward this end requires a concerted effort to recognize biases in traditional approaches to the curriculum content in selected textbooks and examples presented by instructors in classes. For instance, in the typical mathematics curriculum, tasks and problems are not reflective of diversity – female names and females as examples are used less often and images of people from diverse backgrounds are not as well-represented (Coelho, 1998). Students should have opportunities to learn about the history and culture of minority groups. Thus, planned and deliberate incorporation of culturally diverse examples in the curriculum creates a learning environment that communicates the value of recognizing diversity to students.

Personal diversity experiences. A central idea in the theoretical definition of climate is the assumption that perceptions of climate emerge out of organizational members' interactions with each other (Schneider & Reichers, 1983). In other words, from their accumulated personal experiences (as related to diversity) within the current setting, respondents are likely to form opinions about diversity in the school environment. Further, though a school may espouse

diversity in its institutional policies and may be multicultural in numbers, quantified measures alone do not create a welcoming environment to all students. For instance, it is plausible that in a “diversified” school (according to the percentages of minority representation), students in actuality may report being segregated by race or other cultural backgrounds. Such a “diversified” school, in effect, has a weak/negative climate for diversity, with little interaction and understanding between groups. Thus, it is important to assess students’ reports of personal experiences as related to diversity, in order to gain a valid and complete understanding of its climate.

Global Ratings of Climate for Diversity

An inclusive school environment conveys that all students are accepted and valued (Hurtado et al., 1999). A school that serves as a multicultural, multilingual, and multiracial community is committed to and values cultural diversity. Students, teachers, staff, and parents feel included and valued, without relinquishing their cultural backgrounds and preferences (Coelho, 1998). To this end, institutional policies and practices that promote multiculturalism should be in place, leading to incumbents’ perceptions of an overall climate that is welcoming and accepting of differences. The dimension of “global ratings of diversity climate” taps students’ perceptions of the inclusiveness of the general school environment with regards to diversity, and does not directly assess respondents’ perceptions of specific policies, practices, or procedures.

Construct Validation Approach

At present, a construct validation approach is applied toward the development and empirical examination of an instrument for measuring organizational climate for diversity. Principles of construct validation are presented in this section. Construct validity refers to the association between a construct and its measure (Cronbach & Meehl, 1955; Schwab, 1980). Construct validation examines the degree to which a measure represents a construct, allowing inferences to be drawn about the nature of the construct (Cronbach & Meehl, 1955). Hence, construct validation studies examine the relationship between constructs and measures, and are concerned with "whether a test or other operational definition of a construct really does, indeed, reflect the construct" (Arvey, 1992, p. 61).

Construct validation is the means by which constructs can be tested empirically, allowing theorized relationships to be thoroughly examined, and hence are crucial to theory development (Edwards, 2003). In effect, the relationships between constructs and measures comprise another aspect of theory building, and can also be subject to empirical testing and falsification (Cronbach & Meehl, 1955; Schwab, 1980). In their seminal work, Binning and Barrett (1989) surmised that "the terms construct validation and theory development imply the same process. Both refer to the process of identifying (and often reifying) constructs by developing measures of such constructs and examining relationships among the various measures" (p. 479).

Despite the importance of construct validation in the theory-building process of scientific inquiries, much less attention has been paid to this crucial relationship, as researchers usually emphasize the relationships between constructs (Schwab, 1980). Accordingly, development of a new measure using a construct validation approach clarifies the nature of the construct, and contributes to both the theoretical and applied organizational literatures.

Construct validation must be conceived within a theoretical context, and is fundamentally concerned with "the extent to which a particular measure relates to other measures consistent with theoretically derived hypotheses concerning the constructs that are being measured" (Carmines & Zeller, 1979, p. 23). In other words, evidence for construct validity is attained when the data collected supports the hypothesized relationships between the construct and its measure (Arvey, 1992).

Nomological validity, a form of construct validity, is established by evidence that measures of a construct exhibit theoretically-predicted relationships with measures of other constructs (Cronbach & Meehl, 1955). Nomological validity is evaluated by situating the measure within a broader theory describing the antecedents, effects, and correlates of the construct and their relations to each other (Cronbach & Meehl, 1955). Therefore, the first step in establishing construct validity using this approach is to specify the nomological network surrounding the focal construct.

Nomological Net

In order to empirically establish that a measure defines a construct, the measure should behave in a theoretically-expected manner, within a network of expected relationships. The pattern of expected results is known as a "nomological network" (Cronbach & Meehl, 1955). In a nomological network, there are four key relationships among measures and constructs: (1) constructs A and B correlate positively, (2) X is a measure of construct A, (3) Y is a measure of construct B, and (4) X and Y correlate positively (Nunnally & Bernstein, 1994). This network of relationships is depicted in Figure 1.2.

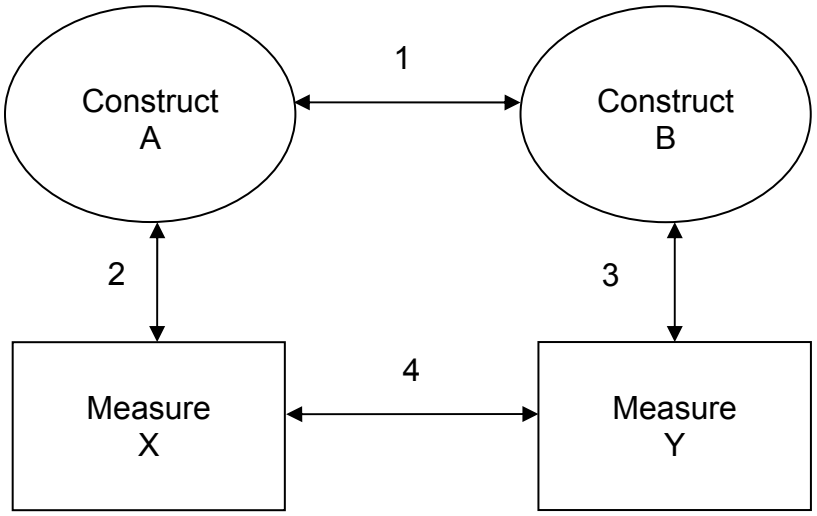


Figure 1.2. Diagram representing critical inferential relationships for theory-building.

Within this network, only relation 4, that measure X correlates positively with measure Y, can be tested directly in a single study. Based on the empirical

results of the relationship, it is necessary to infer the falsity or truth of the remaining relations (Nunnally & Bernstein, 1994). However, by logic, it can be seen that even if relation 4 is found to be true, there remains other plausible combinations of outcomes (for example, X and Y could relate positively not only because of constructs A and B, but due to a different construct). In practice, two of relations 1 to 3 are assumed to be correct, in order to allow for an investigator to make a valid inference about the remaining relation from an empirical test of relation 4 (Nunnally & Bernstein, 1994).

In theory building, all four inferences are of equal importance. In specific situations, such as development of a new measure, inference 2 (or 4) is emphasized (Binning & Barrett, 1989). Accordingly, a central goal of the current study is to gather evidence for proposition 2, that the measure developed represents a psychometrically sound measure of the construct of climate for diversity. In the following sections, based on the dimensions of climate for diversity presented, a nomological net of the consequences of diversity climate, along with a potential moderator are presented for examination of the construct validity of the new measure.

Criterion Measures

The criterion measures were selected based on conceptual considerations and previous research which suggest relationships with climate for diversity. Outcomes also had to be relevant to the study setting. The following seven outcomes were selected: (1) satisfaction with diversity at the school, (2) overall satisfaction, (3) intent to leave, (4) cultural awareness, (5) belongingness, (6)

identification, and (7) organizational citizenship behaviors (OCB). In the following sections, brief descriptions and rationale for each outcome, along with hypothesized relationships with climate ratings are presented.

In general, claims of validity do not pertain directly to the instrument itself, per se, but to the instrument in relation to the purpose for which it is being used (Carmines & Zeller, 1979). As Cronbach (1971) duly noted, strictly speaking, "one validates, not a test, but an interpretation of data arising from a specified procedure" (p. 447). Accordingly, in order to make inferences about the validity of the instrument, an additional hypothesis is presented that of the seven outcomes, given the content and domain overlap, satisfaction with diversity is expected to have the strongest relationships with the various dimensions of climate for diversity.

Given that the purpose of the current study is to accumulate evidence for construct validity of the new measure by examining if the measure behaves in theoretically-predicted manners, hypotheses are only offered about the direction, but not the strength for the remaining outcomes. The remaining outcome measures are likely to be affected by a variety of other factors, and should exhibit weaker relationships with climate ratings. For instance, students who are not performing well in classes may not be satisfied with the school, and may provide low ratings for overall satisfaction, regardless of their perceptions about the school's climate for diversity.

Satisfaction with diversity. Satisfaction is conceptualized as an individual's positive experience in relation to his/her values of what is desired. Given that an

individual holds positive attitudes toward diversity, and the organizational climate is perceived as being favorable for diversity, the individual should be satisfied with their diversity experiences in the campus life. Thus, it is hypothesized that there would be a strong, positive relationship between climate ratings and satisfaction with diversity.

Overall satisfaction. This outcome measures respondents' general levels of satisfaction with the school. By definition, this construct is much broader than satisfaction with diversity, and ratings are likely to be affected by a wider range of variables which may or may not be diversity-related. Accordingly, it is predicted that a positive relationship will be seen between climate ratings and overall satisfaction, though not as strong as that with satisfaction with diversity.

Intent to leave. Turnover intention measures an individual's conscious and deliberate plan to leave the organization and is the last in a sequence of withdrawal cognitions that strongly predicts actual withdrawal (Tett & Meyer, 1993). Turnover is postulated to be related to the climate for diversity, as individuals who desire to interact in diverse environments may be inclined to leave the organization, if the climate is not supportive of diversity. It is hypothesized that there will be a negative relationship between climate ratings and intent to leave; the more favorable a climate is toward diversity, the less likely individuals will report intentions of leaving.

Cultural awareness. The opportunity to interact with individuals from different cultures enhances the likelihood that more positive attitudes towards other cultures will be fostered. A climate favorable towards diversity should

facilitate individuals to develop more diverse friendship groups and to have increased opportunities for frequent interracial interaction outside the typical friendship group (Hurtado et al., 1998).

Studies have found that diverse climates are positively related to: students' awareness of diverse perspectives (Astin, 1993), acceptance of people from different cultures (Hurtado, 1997), tolerance of different beliefs (Hurtado, 1997), and experiences of cultural enrichment through the arts, literature (Coelho, 1998). Astin (1993) found that campus diversity was positively linked to students' commitment to promoting racial understanding and negatively related to students' beliefs that racial discrimination is no longer a problem in this country. Hence, a favorable climate for diversity should increase respondents' cultural awareness as individuals have more opportunities to interact effectively with others from different backgrounds. It is predicted that there would be a positive relationship between climate ratings and cultural awareness.

Belongingness. Students and their families must feel welcomed and comfortable, as being a significant and important part of the school (Datnow & Cooper, 2000). When students value diversity and attend a school with a favorable climate for diversity, they are more likely to report feelings of belongingness to the school. Individuals are more likely to report feeling as though they belong to the school, as feeling accepted, as part of the school community. Hence, a positive relationship is expected between climate ratings and feelings of belongingness.

Identification. When individuals identify with an organization, their self-concepts are linked, either cognitively or emotionally or both, to their organizational membership (Riketta, 2004). In applying this construct to school settings, students who identify with the school are likely to be happy when others praise the school and conversely feel insulted when they hear negative comments about the school. More generally, if an individual values being in a multicultural organization, and the climate of the organization is favorable toward diversity, s/he is more likely to identify with the multicultural culture of the organization. Thus, a positive relationship is expected between climate ratings and ratings of identification.

Organizational citizenship behaviors (OCB). Good citizenship behaviors (for example, volunteering one's time) are necessary for organizations to function and prosper. OCB has been defined as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (Organ, 1988, p.4). Thus, a student who feels that s/he is in the right environment is likely to be more willing to exert effort on behalf of the school and report a higher likelihood of engaging in OCB. A positive relationship is expected between climate ratings and reports of OCB.

Convergent validity

According to traditional construct validation principles, the measure of climate for diversity should be related to the measure of a similar, but different construct, to yield evidence of convergent validity (Campbell & Fiske, 1959). In

view of the absence of acceptable standards for comparison, it is difficult to establish convergent validity for the new measure. Consequently, as an extension of the central idea of convergent validity, although both global and dimensional climate ratings are measuring the same construct, global climate ratings serve as a different operationalization of the construct. This conceptualization aligns with Binning and Barrett's (1989) more recent assertion that "convergent evidence exists when test scores relate to scores on other tests of the same construct" (p. 482).

Conceptually, if the current school environment is inclusive, both overall scores on the global dimension and the scores of the various proposed dimensions should demonstrate moderate to strong correlations. Further, the scale score for the global ratings can be applied as a further test of construct validity. In particular, the overall score for the global ratings should exhibit hypothesized relationships with the outcomes. In sum, the global climate dimension should be related to the dimensional climate ratings, and serve to establish convergent validity if similar relationships are found with the outcomes assessed.

Only one published study has tried to examine the relationship between global climate ratings and specific facets of climate for diversity. Vick (1996) attempted to enlist generalists in the Human Resources department to provide overall ratings of the diversity climate, to demonstrate convergent validity of her instrument. Unfortunately, as there was insufficient variability, the generalists' ratings could not be used.

In addition to allowing for the assessment of convergent validity, inclusion of measurement of global climate ratings makes it possible to examine the relationship between each proposed dimension and the global ratings of diversity climate, to determine the dimensions that account for most of the variability in the global, overall ratings in this particular setting. Such empirical examination serves a practical function for organizational development, and may also serve to extend our conceptual understanding of the construct of interest.

An example of the logic by which construct validation is applied to the current study is presented in Figure 1.3. As Figure 1.3 shows, following construct validation guidelines, it is necessary to establish the assumptions that: (a) association 1 is correct (organizational climate for diversity relates to the outcome of satisfaction with diversity) and (b) association 3 is correct (empirical justifications that the measure of satisfaction with diversity is a valid and reliable measure for representing its construct). If these assumptions are shown to be correct, the actual correlation derived between the measures of global climate ratings and satisfaction with diversity (relation 4) allows a valid inference to be made about premise 2, that the global climate scale is a reliable and valid instrument for measuring organizational climate for diversity.

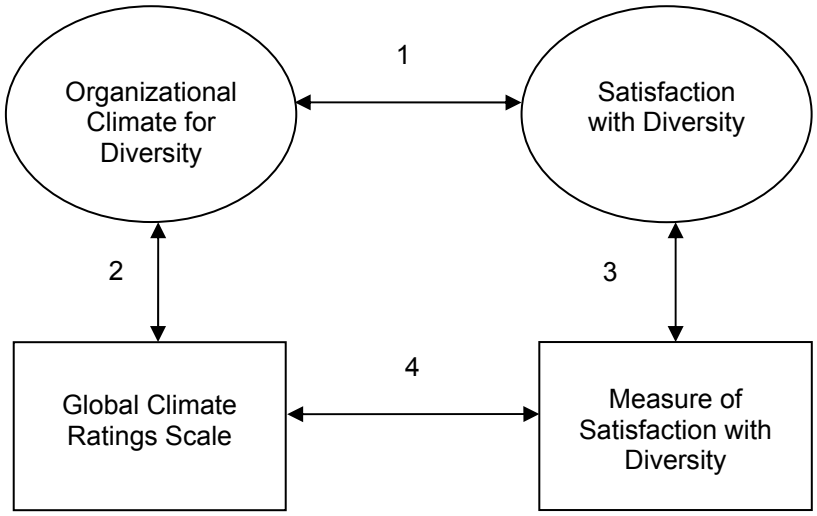


Figure 1.3. Diagram of two current study variables and corresponding measures as examples within construct validation framework.

Moderator: Attitudes about Diversity

Social psychologists have established that attitudes represent a network of beliefs that can be used to predict behavior (Fishbein & Azjen, 1975). Beliefs are considered to mediate between knowledge and action (Bandura, 1982). Aligned with this view of attitudes as the mediating variable between knowledge and action, current diversity researchers in both the education and business literatures have generally focused on the assessment of organizational members' attitudinal changes pre- and post-diversity training. Hence, most research examined the main effect of diversity training (representing increases in knowledge) on participants' attitudes toward diversity (as a proxy to predict future behaviors and action).

In contrast to past researchers' conceptualizations of attitudes as the mediator between diversity training effects and potential outcomes, attitudes about diversity are posited to moderate the relationship between perceptions of organizational climate and reported outcomes in the current study. In the current study, climate is conceptualized as cognitively-based perceptual descriptions, and is empirically distinguished from attitudinal constructs which are laden with affective evaluations (Hellriegel & Slocum, 1974; James & Jones, 1974; Kozlowski & Hults, 1987; Schneider, 1987). As defined, climate assesses respondents' descriptive perceptions of organizational policies. Attitudes, on the other hand, measure respondents' evaluative reports of their attitudes towards others who are different from them. A hypothesis is presented that the relationships between climate perceptions and reported outcomes may differ depending on individuals' attitudes about diversity.

Conceptually, it should not be expected that favorable perceptions of diversity climate would necessarily lead to desirable outcomes (such as satisfaction with diversity at the school), if respondents do not hold favorable attitudes towards diversity. In essence, there should be compatibility between one's preferences about diversity (attitudes) and perceptions of the current climate, in order for respondents to report desirable outcomes. Thus, if individuals hold favorable attitudes toward diversity, strong, positive relationships can be expected between high ratings of the current diversity climate and desired outcomes. For instance, individuals who value diversity are likely to report higher levels of satisfaction in climates supportive of diversity. Conversely, if an

individual holds less favorable attitudes toward diversity, the relationship between climate ratings and outcomes may still be positive but less strong, or a negative relationship may even be seen.

When testing for interactions, a moderator-type effect could be demonstrated through findings of either a crossover interaction or if a relation is substantially reduced (Baron & Kenny, 1996). In this context, a crossover interaction would depict a situation when relations between a predictor and outcome are reversed. Thus, a crossover interaction would be represented by a positive relationship between a predictor (for example, global climate ratings) and an outcome (for example, satisfaction with diversity) when one holds favorable attitudes toward diversity (high values for moderator) and, conversely, a negative relationship between the predictor and outcome when one holds unfavorable attitudes toward diversity (low values for moderator).

Alternatively, a moderated relationship also exists if relationships between the predictor and outcome are in the same direction, but less strong when one holds less favorable rather than favorable attitudes toward diversity. For instance, a significant interaction effect would be found if global climate ratings are positively related to satisfaction with diversity whether one holds favorable or less favorable attitudes toward diversity; however the relationship between global climate ratings and satisfaction with diversity is more positive (steeper slope) when one holds favorable attitudes toward diversity. The aim in the current study is to detect for significant interaction effects, which may emerge either as a crossover interaction or as a substantially reduced effect.

Overall, given that the goal of the current study is to examine the construct validity of dimensions of climate for diversity, a moderator framework is used to explore if relationships between the various dimensions of climate and outcomes differed, depending on one's attitudes about diversity. Empirical data can be used to delineate when attitudes act to moderate the relationships, and can more clearly elucidate our understanding of the conditions under which certain relationships hold. Further, inclusion of a product term is considered a "low-risk strategy", in that if the product term is significant, then it would be kept in the model; otherwise it can be dropped (Friedrich, 1982). If there is an interaction effect in the data, a model that includes the interaction term provides a more accurate description of the relationship between the predictor and criterion. Conversely, if there is an interaction but its effect is not included in the estimation of the model, there is an omitted variable bias, and the true relationship between the predictor and criterion will not be described accurately.

Proposed Model

Based on the logic of construct validation, the construct of climate for diversity is placed into a nomological network of effects and correlates (Figure 1.4). As depicted in Figure 1.4, the overall model presented is that the construct of organizational climate for diversity is posited to affect a variety of individual-level outcomes. Additionally, another construct – respondents' attitudes about diversity – are posited to moderate the relationship between perceptions of organizational climate for diversity and the outcomes.

To elaborate, the construct of organizational climate for diversity is conceptually defined as comprising of incumbents' shared perceptions of organizational policies, procedures, and practices with regards to diversity. It is operationalized by the dimensional climate ratings proposed (Top Management Support, Formal Institutional Policies, Student Admissions Policies, Teaching Equity and Fairness, Organizational Resources and Support, Classroom Practices: Teachers, Classroom Practices: Students, Personal Diversity Experiences, and Curriculum). The measure of Global Ratings of Climate for Diversity constitutes an alternate measure of the same underlying construct, and is posited to be correlated to the set of proposed dimensions underlying climate for diversity.

A fundamental premise of the climate literature is that respondents' perceptions lead to behavioral tendencies (Hellriegel & Slocum, 1974). Thus, perceptions of the diversity climate are posited to affect a variety of outcomes, such as satisfaction, cultural awareness, belongingness, identification, intent to leave, and OCB.

In Figure 1.4, following the logic of construct validation, relation 1 is assumed to be correct, through a review of the literature about outcomes pertinent to organizational climate for diversity. Relation 3 is also assumed to be correct and the assumption will be empirically examined. Given that relations 1 and 3 are correct, the correlational relationships between the dimensions and outcomes (relations 4a and 4b) will then be examined, to make inferences about the reliability and validity of the instrument for measuring organizational climate

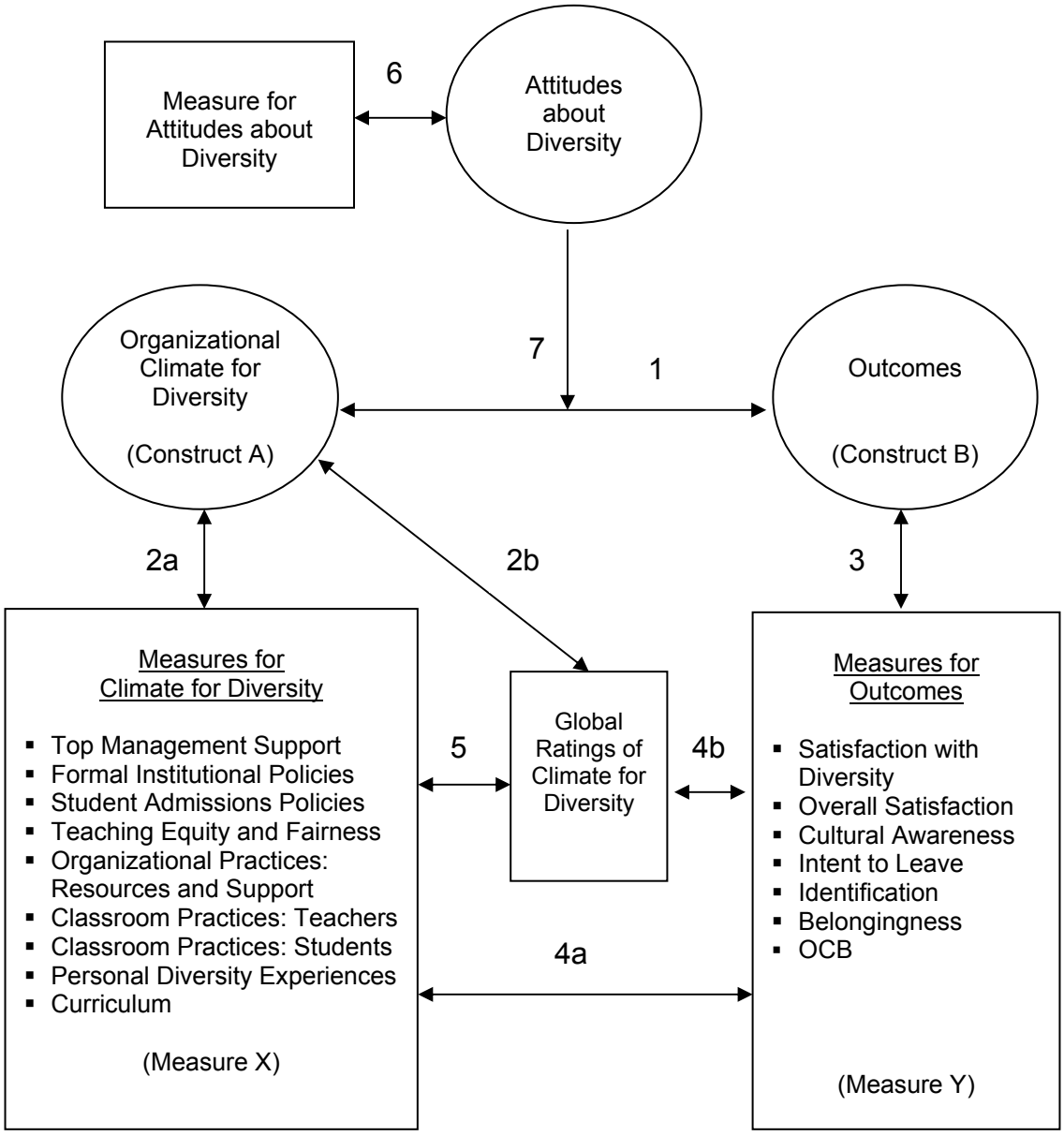


Figure 1.4. Model of organizational climate for diversity, attitudes about diversity, and various outcomes placed within theoretical representation of nomological network (relations 1 to 4) with additional study relations (5 to 7).

for diversity (relations 2a and 2b). In addition to the classic view of construct validation, two additional relationships are proposed, to gather further evidence of the psychometric properties of the instrument. The relationship between global climate ratings and the dimensional measures of climate for diversity will also be examined (relation 5). Lastly, the proposed moderator (attitudes for diversity) will be tested for significant interaction effects (relations 6 and 7).

In summary, through decades of study, climate researchers have converged on operationalizing climate through assessments of organizational policies, procedures, and practices. The lack of a theoretically-based instrument, with established psychometrics creates a lull in both the research and applied aspects of understanding, assessing and improving the climate for diversity. Thus, there is a clear need to develop an instrument with psychometric standards, including evidence of its reliability and validity. A psychometrically sound instrument will allow for theory testing, advancing the conceptualizations and understanding of the underlying construct. The instrument will also have much practical significance, in allowing organizations to assess the current status before pouring resources into training. In the next chapter, information about the research context, participants, survey development, review, and administration procedures are presented.

CHAPTER 2

METHODS

Research Context

The participants for the current study were recruited from an independent and elite college preparatory day school located in the Midwest. The school's diversity initiatives had been in place for about ten years. Through a working relationship with the Chairperson of the Education and Student Life (ESL) Committee which was responsible for the initiatives, the author was granted the opportunity to develop an assessment tool to measure the school's climate for diversity. After attending numerous ESL Committee meetings, performing a through review of the literature, and assisting with telephone interviews with "best practices" schools, the author proposed dimensions and items, and reviewed the items with officials and students from the school. The items in the instrument were selected by the ESL Committee, whose members comprised of the Headmaster, Heads of School, teachers, and Trustees for inclusion in the assessment. A copy of the survey administered is presented in Appendix A.

Participants

In 2005, there were 999 students enrolled: 379 students in the Lower School (Pre-Kindergarten to Grade 4), 297 students in the Middle School

(Grades 5 to 8), and 323 students in the Upper School (Grades 9 to 12). Of the total, 474 (47%) were girls and 525 (53%) were boys. More detailed information about the demographics of the sample is presented in Chapter Three.

In order to have a consistent set of items across respondents and to keep the length of the survey manageable, Lower School students were not included in this study as they have different reading and comprehension levels. Moreover, Lower School students may be too young to perceive and report on the subtleties involved in assessment of climate perceptions. A total of 620 Middle School and Upper School students (Grades 5 to 12) were invited to participate in this study.

Instrument Development

As presented in the introduction chapter, a major problem with existing instruments for climate for diversity is that important aspects of the construct have not been comprehensively addressed. When items in a measure represent an incomplete sample of the construct's domain, construct validity is diminished (Stone-Romero, 1994). To overcome this major shortcoming, a domain-sampling approach was used for item development.

Domain-sampling Approach

A comprehensive review of the domain for survey development builds evidence for content validity, which reflects the degree to which a measure adequately represents the domain of interest. Content validity is not evaluated via empirical or statistical procedures, but through logical procedures and "appeals to reason" (Nunnally, 1978, p. 3).This study sought to establish content validity by conducting a thorough review of the literature for relevant dimensions,

careful development of relevant items sampling the domain, and assembly of the items into a survey. A review of the item generation process is presented below.

A broad examination of the domain of interest was conducted in the education, psychology, and business literatures, which included books, journal articles, and unpublished dissertations. Relevant and current theoretical frameworks and practical suggestions were chosen to delineate a comprehensive set of dimensions and items (e.g., Banks & Banks, 2004; Coelho, 1998; Cox, 1993; Davis, 2000; Hurtado et al., 1999; Thomas, 1991; Vick, 1996). In particular, four relevant sources (Banks, 1993; Cox, 1993; Hurtado et al., 1999; Vicks, 1996) were selected to provide the foundation for the initial set of dimensions of climate for diversity in the current study. The comprehensive sets of items from chosen existing scales – including five published scales (Johnson, Johnson, Kranch, & Zimmerman, 1999; Kossek & Zonia, 1993; McClelland & Cogdal, 1996; Mor Barak et al., 1998; Pike, 2002), three Universities' (Ohio State University, Oklahoma State University, and Pennsylvania State University) climate for diversity surveys, and scales from two unpublished dissertations (Davis, 2000; Vick, 1996) were then carefully matched to the initial set of dimensions. Such methodology follows construct validation guidelines to first define the domain of interest (accomplished in Chapter 1), then to use item pools as samples of content, and to evaluate the items "in terms of how well they sample the implied domain" (Nunnally & Bernstein, 1994, p. 311.). The items from these published works were adapted for a private school setting, and to tap the proposed dimensions of climate for diversity.

Phone Interviews

Additionally, the current author identified sixteen schools recognized as having “best practices” in creating diverse learning environments. These schools had either received national recognition by winning annual awards from the National Association of Independent Schools’ Equity and Justice Initiatives or were acknowledged as having implemented successful diversity initiatives. Information about the schools was presented to the ESL Committee. The author then assisted the school’s Diversity Coordinator in conducting extensive phone interviews with subject matter experts (usually Diversity Coordinators) from ten of these schools. The author transcribed phone interviews, summarized and presented the information learned to the ESL Committee, in order to identify common practices that led to the schools’ success.

The information collected from the phone interviews supplemented the general theoretical underpinnings for the construct of interest. Such use of information gathered through preliminary qualitative research allowed the author to gain additional in-depth understanding of the successful diversity initiatives across organizations, and provided the groundwork for development of survey items. The proposed dimensions were then further revised, with the needs of an independent school setting in mind, and new dimensions added (example, equity and fairness). The dimensions were then reviewed by two industrial/organizational psychologists.

Item Revision

From this exhaustive set of dimensions and items, the author eliminated items based on the following criteria: items that did not fit the operational definition of the construct or dimensions, redundant items, ambiguously worded items, and items not amenable to be an “agree-disagree” response format. Most items also included the term “this school” to cue respondents’ reference, to maximize the scale’s validity.

Moreover, if scores contain high levels of non-systematic or random variance, low reliability will result, leading to decreased confidence in the construct validity of the scale. A source of low reliability is caused by measures that strain the cognitive abilities (e.g., reading abilities) of respondents (Stone-Romero, 1994). To reduce the influence of random error, a guideline of fifth-grade reading level (ten year-olds) was established for all items in the instrument. Ten years of age was the youngest possible age for the current sample. This guideline further served to eliminate the use of jargon, thus enhancing comprehension of the items and increasing reliability. Additionally, items were revised and adapted to ensure an appropriate focal entity. For instance, for the dimension of “top management support”, the focal point for all items is the school’s administration. These procedures led to an initial set of 235 items across all the dimensions of climate for diversity, attitudes, and outcome measures.

Most measures used in organizational behavior research tend to evoke impression management tendencies in respondents (Stone, 1989). Hence, the initial pool of items was carefully examined with a psychologist with vast

experience in survey development and item writing. This same psychologist currently serves as a Trustee on the school's Board and is also a parent of a child currently attending the school. Hence, content validity of the items was further enhanced, as the psychologist is very familiar with the organizational setting. Items were carefully examined for ambiguous meanings, jargon, to avoid social desirability response biases and measurement-related artifacts, such as positive and negative wording of items. Items were re-written to be clear and concise, with the targeted reading level in mind. Items not applicable to the setting of the school were eliminated. This led to a version of the instrument with 156 total items across all climate, attitudes, and outcome measures.

Item Review Session

It is recommended that prior to using an instrument in testing hypotheses in a nomological network, preliminary or pilot studies should be conducted, to ensure that items can be easily read and understood by the target respondents (Stone-Romero, 1994). An item-review session was conducted with 12 of the school's Middle and Upper School students to examine the clarity and comprehensibility of the items. The students were selected by the Upper School Head, who served as the facilitator of the review session. Each student was invited to answer all the items, circle any unclear or ambiguous items, and to write notes or comments on the survey itself, as needed. The items were then discussed as a group, with students voicing any comments or concerns about particular items. Instructions for the facilitator of the review session are included in Appendix B.

Version Administered

The students' feedback during the item review session further enhanced the content validity of the scale. Based on the comments, I eliminated items that were confusing or overlapped in terms of content, reworded items, and eliminated confusing examples. In sum, due consideration was given to shorten the length of the survey without comprising the content validity of each scale. For each scale, a minimum of three items was necessary, to allow for computation of Cronbach's alpha.

The survey was then presented to the school's ESL Committee. The Committee decided to adopt the items on the survey, for use as an assessment tool for its current climate for diversity. The final version of the survey distributed by the school consisted of 121 items, which included a burnout scale which was of interest to the school, but not included for use in the current study. Of the total, 20 negatively-worded items were included to guard against the acquiescence response tendency. The version of the survey administered is included in Appendix A. Another version, arranged by scales, is included in Appendix C.

Response scale

All items were measured on a 7-point Likert scale (1 = Strongly Disagree; 2 = Disagree; 3 = Somewhat Disagree; 4 = Neither Agree Nor Disagree; 5 = Somewhat Agree; 6 = Agree; 7 = Strongly Agree). Two additional response categories were also provided: 0 = Don't Know and 9 = Does Not Apply.

Dimensional Measures of Climate for Diversity

Top management support. This dimension measured the level of support given to diversity initiatives by the school's administration. Respondents were directed to focus attention on the administration by use of that term in all five items within the scale. A sample item was: "Administrative leadership (which refers to Headmaster, Division Heads, and other school management personnel) encourages appreciation of group differences at this school".

Formal institutional policies. This scale used five items to assess respondents' awareness of whether diversity concerns were reflected in the institution's official policies, such as in its mission statement, diversity statements, anti-harassment, and anti-discrimination policies. A sample item was: "This school has clear procedures for anyone to report prejudiced or discriminatory experiences".

Student admissions policies. This scale used six items to measure students' perceptions of whether the institution makes concerted efforts to attract, recruit, and retain minority students. A sample item was: "The school makes an effort to admit students from a variety of economic backgrounds".

Teaching equity and fairness. The five items in this dimension assessed if teachers were fair in their treatment towards all students, analogous to procedural justice. A sample item read: "In classes, teachers treat minority students more negatively (example, less eye contact"). Items also assessed if teachers were fair in their grading practices, regardless of students'

backgrounds; which corresponded to distributive justice. A sample item was: “In classes, teachers have lower standards (example, they grade easier) for students from minority groups”.

Classroom practices: Teachers’ behaviors. This dimension included eight items that assessed students’ perceptions of teachers’ willingness to incorporate diverse viewpoints and use culturally sensitive terms. Students’ perceptions of the structure and frequency of group activities were also measured. A sample item read: “In classes, teachers encourage students to express different views and perspectives”.

Classroom practices: Students’ behaviors. This dimension tapped students’ behaviors and use of appropriate language in the classroom with seven items. A sample item was: “In classes, students’ verbal comments sometimes indicate a lack of respect for minority group members”. Students’ habits in forming groups are also assessed. A sample item read: “When given a choice, students tend to form groups with students of similar backgrounds”.

Organizational resources and support. This dimension tapped the availability of resources and support for the success of students from different backgrounds. The focus of the eight items in this dimension was on students’ perceptions of the school’s overall level of support. Some sample items were: “At this school, there are organizations and clubs that appeal to students’ varied interests” and “The school often invites guest speakers from minority groups, such as African American women, Hispanic men, or disability awareness speakers”. The symbols for diversity was also assessed, such as with the item

"Within the school's buildings, such as classrooms or hallways, there are displays and images of people from different cultural and racial groups".

Personal diversity experiences. For this scale, fourteen items were used to tap students' reports of their personal experiences, as related to diversity, at the school. Some sample items were: "I have experienced racial discrimination at this school" and "I have been treated unfairly by a teacher or staff member".

Curriculum. Four items were used, based on the tenets of inclusive curriculum as proposed by Coelho (1998), as described earlier. A sample item read: "The school's library materials reflect a wide variety of perspectives".

Global Ratings of Climate for Diversity

This dimension assessed students' perceptions of whether the overall school environment communicated a sense of inclusiveness to all respondents, and did not reflect perceptions of specific policies, practices, or procedures. The focus of all 12 items was on the general environment of the school. Two sample items were: "The environment at this school is welcoming to all students" and "At this school, students from different cultural groups socialize with one another".

Attitudes about Diversity

Nine items were developed to measure respondents' attitudes about the value and importance of diversity. Items were modified from Pohan and Aguilar's (2001) and Mor Barak et al's (1998) scales, and original items were constructed. Sample items were: "All cultural groups make positive contributions to American society", and "It is very important that society is respectful of gay and lesbian individuals".

Outcomes Measures

Items for the outcomes scales were either constructed or adapted from published scales to fit the current setting and research needs. For the scales of overall satisfaction, intent to leave, feelings of belongingness, identification, and Organizational Citizenship Behaviors (OCB), items were adapted from widely-accepted scales from the Industrial/Organizational Psychology literature: Job Diagnostic Survey (Hackman & Oldman, 1975), Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins & Klesh, 1979), Organizational Citizenship Behavior (Smith, Organ & Near, 1983), shortened version of the Organizational Identification Questionnaire (Gautam, Van Dick, & Wagner, 2004), organizational commitment (Meyer, Allen, & Smith, 1993). Items for cultural awareness were adapted from some of the afore-mentioned climate for diversity scales.

Satisfaction with diversity. Three original items were constructed to assess students' satisfaction with diversity at the school. The items included specific references to diversity, such as how students from minority groups are treated. A sample item read: "This is a good school for students from minority groups".

Overall satisfaction. There were five items to tap whether students were, in general, satisfied with being students at the school. A sample item was: "I am glad to be a student at this school".

Intent to leave. The three items in this scale measured whether students had intentions or thoughts of leaving the school for another school. A sample item read: "I often think about leaving this school".

Increased cultural awareness. This scale included four items to assess whether students have increased their cultural awareness and understanding since they have been attending the school. A sample item was: “Since attending this school, I have learned to value the ideas of people from different backgrounds”.

Feelings of belongingness. The five items in this scale measured whether students felt a sense of belonging to the school, as part of the school community. A sample item read: “I feel as though I belong in the school community”.

Identification. In this scale, six items measured whether students identified with the school, its values, and other students from the school. A sample item was: “When someone praises this school, it feels like a personal compliment”.

OCB. The six items in this scale measured whether students are likely to exert additional effort to help and promote the school. A sample item read: “I am willing to volunteer my time for school projects”.

Survey Administration

Before distribution of the survey packet, the school mailed a letter co-written by the Headmaster and a Trustee to parents’ home mailing addresses, to inform them about the school’s diversity initiatives, the objectives of the climate survey, and the school’s intent to conduct the survey. After the mailing, the Headmaster informed all faculty, staff, and students about the survey. Teachers were given a box of surveys and instructions for administering the survey. The survey administration instructions are included in Appendix D.

On the day of data collection, survey packets were distributed to groups of students during their home room sessions by their respective home room teachers. The survey packet contained a cover letter explaining the objectives of the study, the instrument which included a demographics page, and an envelope.

In order to ensure that survey administration procedures were consistent across all sessions, all teachers read instructions verbatim aloud to students. They informed students of their right not to participate, reviewed the 7-point response scale, reminded students that items could be skipped, and told students that they could choose to stop participation at any time. If a particular student did not wish to participate, s/he was to remain in the classroom. The surveys were completed anonymously. Each student placed the completed survey in the envelope provided, sealed the envelope, and dropped the sealed envelope in a box placed by the teacher's desk.

CHAPTER 3

RESULTS

Characteristics of Sample

Response rate

A total of 584 Middle and Upper School students completed and returned the survey, for an overall response rate of 94% (584/620). Of the total responses, 284 surveys were completed by Middle School students and 294 surveys were completed by Upper School students, for a response rate of 96% (284/297) and 91% (294/323) respectively. Of the total, six students did not indicate their current grade levels.

Demographics of respondents

The respondents were split about evenly in terms of males and females (n = 306 vs. n = 275) and with or without sibling(s) currently attending the same school (n = 298 vs. n = 278). Eighteen percent of respondents (n = 105) reported having a sibling who was an alumnus and 8% (n = 46) reported having a parent who was an alumnus of the school. Students' tenures at the school ranged from 1 to 16 years (M = 6.63 years, SD = 3.57).

The majority of respondents (81%) were Caucasian/White (n = 467). The remaining 19% of the sample (n = 110) were African American/Black,

Asian/Pacific Islander, Hispanic, Interracial or of other cultural groups. The majority (68%) of the students were Christian (n = 396), 17% of the students (n = 99) were of other religions, and 12% (n = 72) were non-religious. Almost all the students (98%, n = 574) reported that English was their primary language and that they were either U.S. citizens or Permanent Residents (98%, n = 574).

Sixty-six percent of the sample (n = 385) reported on their estimates of family income, compared to other students at the school. Of the total sample, 15% (n = 89) reported family incomes of below average, 36% (n = 211) reported average family incomes, and 15% (n = 88) reported above average family incomes. A small minority of the students reported having been diagnosed with a physical disability (2%, n = 10) or a learning disability (8%, n = 46). The students' grade point averages ranged from 1.00 (D) to 4.33 (A+) (M = 3.41, SD = .46).

Reliability of Scores from Original Scales

Table 3.1 presents the number the items, valid sample sizes used in computation of Cronbach's alpha for each of the scales from the instrument administered (in the columns under "original scales"). Information about the columns under "revised scales used in analyses" will be presented when describing the final scale used in analyses.

For the original scale scores from the survey administered, the alpha for global ratings of climate for diversity was a strong .84. For the dimensions of climate for diversity scales, the alpha for curriculum was the lowest, at .50; while alphas for the remaining scales ranged from .64 to .84. The alpha for attitudes

	Original Scales			Revised Scales used in Analyses		
Scale	No. of Items	Valid n	Alpha	No. of Items	Valid n	Alpha
Climate for Diversity Scales						
Global ratings	12	278	.84	10	328	.83
Top mgmt support	5	358	.84	4	369	.80
Formal inst. policies	5	256	.72	Excluded from analyses		
Student admissions	6	144	.64	Excluded from analyses		
Equity and fairness	5	395	.76	5	363	.76
Teachers' behaviors	8	265	.67	5	352	.67
Students' behaviors	7	396	.67	4	393	.66
Org. resources & support	8	288	.70	7	339	.73
Personal div. experiences	14	330	.83	8	363	.81
Curriculum	4	342	.50	Excluded from analyses		
Attitudes about Diversity Scale						
Attitudes about diversity	9	403	.83	9	375	.83
Outcome Scales						
Satisfaction with diversity	3	478	.74	3	428	.72
Overall satisfaction	6	524	.91	6	445	.91
Intent to leave	3	527	.88	3	450	.89
Increased cultural awareness	4	469	.84	4	416	.84
Belongingness	5	522	.90	5	454	.90
Identification	6	440	.81	6	400	.82
OCB	6	458	.88	6	413	.88

Notes. Valid n= Number of cases used in the reliability calculation procedure (only cases with valid data for all items in each scale were included in computation of the scale's alpha).

The total n for all of the revised scales and the n used in the analyses which follow is 467. As explained in the text, a participant's data was used if they answered at least half of the items on a scale.

Table 3.1. Number of items and cases per scale, and Cronbach's alpha for both original and revised scales used in analyses.

about diversity was .83, and the alphas for the dependent variables ranged from .74 to .91. Reliability analyses further indicated that deletion of items did not result in substantial improvements in the alphas for the scales' scores. Specifically, deletion of an item from each of seven different scales would have improved each scale's alpha by a negligible .01 to .02, and deletion of an item in the curriculum scale would improve the scale's alpha by .05.

The valid sample sizes for computation of Cronbach's alpha ranged from 144 (formal policies: student admissions scale) to 396 for the remaining climate for diversity scales. The valid sample size for the attitudes scale was 403, while the valid sample sizes for the dependent variables ranged from 440 to 527. The reason for the vacillating sample sizes for the various scales is because Cronbach's alpha is computed only for participants with valid responses on all items within a scale (listwise deletion). In computations of alpha, responses of Don't Know or Not Applicable are not considered as valid responses and such cases are automatically deleted. For example, if a participant did not answer 1 of the 12 items (left item blank, or reported Don't Know or Not Applicable) in the global ratings of climate for diversity scale, the participant would not be included in the computation of Cronbach's alpha for that scale. Hence, the alpha reported for each scale is the best estimate of reliability, based on the participants who provided valid responses to all items in the scale.

Pre-analysis decisions

Although results of the reliability analyses revealed that the scores on the original scales exhibited good to excellent reliabilities, and deletion of only one

item (in curriculum) would make a worthy improvement in the overall scale's alpha, there was a fluctuating number of valid responses across scales. When dealing with a large data set with missing data, the first important task is to inspect the pattern of missingness, if the missingness was related to any of the observed variables. If the missingness concerns only one specific variable which is not central to the research question, a decision may be made to delete the variable, in order to retain more cases of data for analyses (Hox, 1999). Thus, prior to data analyses and hypothesis testing, it was necessary to carefully examine the data to determine the reasons and establish rationale for the lack of responses within particular scales.

Scale Reduction

Given the range of valid responses across scales, careful examination of the data was necessary, to delineate reasons for the response rates. The goal at this preliminary stage was to increase the number of valid responses (i.e., improve response rate) while preserving the estimates of alpha for each of the measured scales. In general, efforts were made to increase the number of valid responses per scale, either by reduction in the number of items per scale, or by exclusion of scales with disproportionate non-valid responses (blank, Don't Know, Not Applicable).

Toward these ends, a combination of methods were employed to examine the data: (a) the rate of non-valid responses to items within scales (blank, Don't Know, Not Applicable), (b) principal components analysis (PCA) to determine the number of components extracted for different combinations of

items within each scale, and (c) item analysis to assess content and conceptual overlap. The valid n, descriptive statistics, and non-response percentages for the original scales at the item level are presented in Appendix E.

PCA, rather than factor analysis, was used as the analytic tool at this stage of empirical investigation as the objective was data reduction and not to identify latent constructs. A benefit of PCA is that the components derived carry a maximum amount of information contained in the original variables. Further, PCA provides a better fit to raw data than factor analysis, which is primarily used to understand the structure of the intercorrelations amongst variables (Browne & MacCullum, 1999). Thus, to suggest potential items to be eliminated, careful judgment and interpretation was used and PCA was employed as a statistical tool to verify that decisions would maximize the information contained within the revised scales (within each component). Results of PCA analyses for each scale are in Appendix F.

Global Ratings of Climate for Diversity

The valid sample size for the original 12 items in this scale was 278. Hence, only 48% (278/584) of the participants provided valid responses to all items in the scale. Within the scale, more than 20% of the respondents answered Don't Know to items 8, 10, and 11. Item 8 read: "This school provides appropriate accommodations for persons with disabilities". The meaning of this item may be ambiguous to students, as disabilities may refer to either physical or learning disabilities, and students without disabilities may be unaware of the accommodations provided to those with disabilities. Item 10 was: "At this school,

important leadership positions (example, Class Officers or Team Captains) are held by students from different backgrounds". Students may not be cognizant of the backgrounds of student leaders. Inclusion of this item would thus reduce the content validity of the scale. Item 11 read: "Current students at this school are provided with information about the diversity of the school community". Even though 22% of sample did not respond to this item, a decision was made to retain the item because its content is not represented in other items. Given the content of the item, students should also be able to respond. PCA results showed that exclusion of items 8 and 10 resulted in one underlying component. A decision was made to exclude items 8 and 10 from the scale, with a .01 reduction in alpha to .83 and increased the valid n to 344.

Top Management Support

For the five original items in this scale, 358 respondents (61%) provided valid responses. Although more than 20% of the respondents answered Don't Know to items 3, 4, and 5, a decision was made to exclude only item 5 as it had significant content overlap with items 1 and 2 and had the highest number of non-valid responses. The remaining four items tapped different aspects of top management support, which the literature points to as being a key component in the creation and maintenance of a positive climate for diversity.

Formal Institutional Policies

Only 44% of the sample provided valid responses to all items in this scale, for a valid n of 256. More than 27% of the sample did not respond to 3 of the 5 items (10% and 16% did not provide valid responses to the remaining two items).

Despite the theoretical importance of including this dimension in an assessment of organizational climate for diversity, students may not be the right target group for questions tapping the content of formal policies. Students, who are mainly focused on academic learning and sports activities, may not be privy to or have active knowledge of the school's formal policies; even those students who responded may have simply guessed or inferred on the content of the school's formal policies. For instance, if students do not experience discrimination, they may not learn about the school's policies for handling discrimination.

Logically, if students have no knowledge in the first place about formal policies, it is implausible to tap their perceptions of the content of the formal policies. Rather, in an educational setting, faculty, staff, and parents may be more appropriate focal groups for questions regarding formal policies. A decision was made to exclude this scale from analyses, based on the logical explanations presented above, and the disproportionate number of lack of responses observed amongst students.

Student Admissions Policies

Only 144 students (25%) provided valid responses to all items in the scale; more than 35% of the sample did not provide valid responses to 4 of the 6 items. Again, students may not be aware of the school's admissions policies, especially if they have been in attendance at the school for an extended period of time. As reported in the demographics, the average tenure of students at the school was about 7 years. Further, participants of the item review session noted

that students may not know about how the school recruits students or about the availability of scholarship funds. Based on the respondents' lack of knowledge and expertise in providing valid responses for this scale and the small number of valid responses, a decision was made to exclude this scale from analyses.

Teaching Equity and Fairness

For this scale, 68% (valid n = 395) of the respondents provided valid responses to all five items. All items were retained for analyses, as none of the items had more than 20% non-response rate. Further, there was little content overlap between items.

Classroom Practices: Teachers' Behaviors

For the original eight items, 45% of the sample provided valid responses (valid n = 265). About 20% of the sample did not provide valid responses to items 4, 7, and 8. These items were excluded from analyses, as students may not have comprehended the content of the items, which limits the validity of the items. For instance, it may have been difficult for students to understand or interpret the meaning of the term "highlight the obstacles" in item 4: "In classes, teachers highlight the obstacles that are often faced by members of minority groups". Item 7 read: "When assigning groups, teachers place students with mixed backgrounds together". Students may not pay attention to how teachers assign students to groups, and when placed in groups, students are likely to be task-focused, rather than notice the backgrounds of fellow group members.

Item 8 was: "In classes, teachers welcome the introduction of ideas, games, or sports from other countries". The use of the term "ideas", with "games"

and “sports” may have caused confusion and a lack of understanding of the meaning of the item. Further, respondents may have found the meaning of the phrase “welcome the introduction of” to be ambiguous. A better item may have been: “In classes, teachers introduce games or sports from other countries”. Exclusion of items 4, 7, and 8 increased the valid n to 383 (66%). Moreover, even though alpha should increase as more items are included (assuming high inter-item correlations), exclusion of the three items increased alpha by .01, to .68, providing further empirical support for exclusion of the three items.

Classroom Practices: Students’ Behaviors

For this scale, 396 students (68%) provided valid responses to all seven items, and none of the items had less than 16% of non-valid responses. Upon examination, items 5 and 6 were excluded as they referred specifically to math and science classes, whereas the remainder of items measured students’ general behaviors in classroom settings. Also, for item 1 (“When given a choice, students tend to form groups with students of similar backgrounds”), students may have had a different reference point, as they may be thinking of study groups outside of the classroom. Further, item 1 had the lowest item-total correlation and consistently loaded the lowest on various combinations of items using PCA. Thus, analyses of this scale excluded items 1, 5, and 6, which increased the valid n to 432 (74%) and decreased the scale’s alpha slightly by .02 to .65.

Organizational Resources and Support

For the eight items in this scale, 288 students (49%) provided valid responses. Less than 15% of the sample provided non-valid responses to each item, except item 6, which 30% of the sample did not answer. Item 6 read: “The school has funds available to assist all students to participate in school-related activities, such as field trips”. Students, without financial needs, may not be aware of whether extra funds are available. Also, the availability of such funds may be communicated to parents, rather than students. Thus, item 6 was excluded from analyses, which increased the valid n to 372 (64%) and increased the scale’s alpha by .03 to .73.

Personal Diversity Experiences

For the 14 original items, 330 students (57%) provided valid responses. Items in this scale tapped students’ reports of general observations around school, and their experiences during interactions with others at school. For purposes of analyses, in order to preserve the content validity of this dimension for tapping organizational climate for diversity, only items that specifically measured students’ experiences as related to diversity were included.

Item 1 read: “I am treated with respect at this school”. Although the school may be interested in comparing majority to minority’s responses to item 1, the response to this item does not provide for an assessment of the organizational climate for diversity. There are many factors contributing toward whether a student thinks s/he is treated with respect; for example, a popular football athlete may be more likely to respond “strongly agree” than a non-athlete. Thus, a

positive response to this item does not equate to a positive score for organizational climate for diversity on a measurement level.

Application of similar reasoning precluded item 10 from analyses: “I get more personal attention from teachers and staff who are similar to me (for example, same race)”. Items 12 (“In my experience, teachers at this school are easily approachable”) and 13 (“Teachers at this school have difficulty pronouncing non-American names”) were also not directly related to organizational climate for diversity and were excluded from analyses.

Items 4 (“In school, I have friends from different cultural groups) and 5 (“In school, I often study with students from different backgrounds”) were also excluded from analyses, as these items reflected students’ personal choices in interactions, rather than measurement of respondents’ general observations of the school’s climate through their personal experiences.

When the remaining eight items (excluding items 1, 4, 5, 10, 12, and 13) were subjected to PCA, two components were derived. Specifically, the first five items (items 2, 3, 6, 7, and 8) clearly loaded on the first component, and the remaining three items (items 9, 11, and 14) loaded on both the first and second components, but with higher loadings on the first component. The main difference in content is that the latter set of three items contains teachers and/or staff members as the referent group (example – item 11: “I have been treated unfairly by a teacher or staff member”). Examination of the variance explained and scree plot revealed that the first component had an eigenvalue of 3.47, while the eigenvalue of the second component was 1.03, only slightly above the

recommended cutoff using the eigenvalues-greater-than-one rule. In addition, the corrected item-total correlations of the three items were in the range of the other items, and there were no significant improvements to the scale's Cronbach's alpha if any of these three items were deleted from the scale. Given the collective evidence, a decision was made to retain these eight items as comprising a scale for purposes of analyses, as the data fit reasonably well and provided a degree of parsimony.

Curriculum

Cronbach's alpha for this scale was the lowest, at .50. For the four original items, 342 students (59%) provided valid responses. However, 25% of the students did not provide valid responses to item 3: "In math and science classes, names used in examples and problems are usually male". This item was excluded as the the focus of this item was narrow, within specific subject areas, while the remaining items assessed students' perceptions of the broad content of curriculum. Exclusion of item 3 increased the valid n of the scale to 410 (70%) and increased the alpha to a more adequate .59. Although the scale's alpha was improved by the exclusion of item 3, a decision was made to exclude this scale from analyses for three primary reasons. First, as a collective whole, the items represented an inadequate sample of the broad domain and did not reflect content validity. Second, the alpha for the revised scale was still below the acceptable level of .60, and was the lowest of all the scales. Further, exclusion of this scale improved the overall (all scales) listwise sample size for analyses from 445 to 467.

Remaining Scales

For the remaining scales of attitudes about diversity and dependent variables, all original items were kept. Collectively, the scales exhibited the following properties: the lowest valid n was 403 (69%), none of the items had more than 17% non-valid responses, all scales loaded on one component, Cronbach's alphas were healthy, ranging from .74 to .91, and conceptual examination of the items further sufficed that they should all be included.

Final Instrument Used for Analyses

To summarize, based on patterns of non-responsiveness and PCA results, three dimensional climate scales (formal institutional policies, student admissions, and curriculum) were excluded from analyses. A total of 16 items were also eliminated from the other scales. The final instrument used for analyses was composed of 43 items used to tap global and dimensional aspects of climate for diversity, 9 items to measure attitudes for diversity, and 33 items to measure the outcomes, a total of 85 items.

Scale scores were calculated for individuals who provided valid responses to at least half the number of items within each scale. Thus, if there were five items in the scale and an individual provided the answers to at least half the number of items (for example, three responses), a scale score was computed for the individual, as the average of the individual's three responses. Further, in order to achieve a data set with a constant sample size, if an individual had missing scores on any of the scales, the individual was excluded from analyses. The data set used for all analyses comprised of 467 individuals,

with valid scale scores on all key measures. Cronbach's alpha for the revised scales are presented in Table 3.1, under the column "revised scales for analyses". The reason the valid n for each scale is different than 467, is because the reliability calculation procedure uses only cases with valid data for all items in the respective scale.

The correlation matrix for the revised scales is presented in Table 3.2, and the means and standard deviations for the revised scales used in analyses are presented in Table 3.3. The mean scores for all scales are slightly above the midpoint of the 7-point Likert scale, and ranged from 4.47 to 5.84 (intent to leave was reverse-coded). Among the climate for diversity scales, the mean score for teaching equity and fairness was the highest, at 5.76 (SD = 1.06). The mean score for attitudes about diversity was also high, at 5.84 (SD = 0.89). For these two scales, there may be potential range restriction, as mean scores are toward the 6-point on a 7-point scale, and SD are around 1.0. Means and standard deviations for remaining scales indicate an acceptable distribution of responses. The average inter-item correlations for the entire set of 43 climate for diversity items was .23, indicating that the items are moderately correlated across the dimensions.

Variable	Global	Top	Equity	Teacher	Student	Resource	Per. Exp.	Attitudes	Sat. Div.	Ov. Sat	Leave	Cult. Aw.	Belong	ID	OCB
1. Global	--														
2. Top	.74	--													
3. Equity	.39	.28	--												
4. Teachers	.67	.55	.37	--											
5. Students	.57	.39	.43	.40	--										
6. Resources	.70	.55	.28	.55	.39	--									
7. Pers. exp.	.51	.33	.53	.35	.63	.37	--								
8. Attitudes	.18	.13	.34	.23	.14	.12	.08	--							
9. Sat. Div.	.77	.66	.34	.49	.57	.52	.49	.11*	--						
10. Ov. Sat.	.54	.47	.25	.43	.25	.31	.30	.23	.45	--					
11. Leave	-.44	-.37	-.24	-.29	-.21	-.25	-.34	-.14	-.30	-.76	--				
12. Cult. Aw.	.55	.51	.20	.51	.27	.44	.19	.27	.48	.41	-.24	--			
13. Belong	.60	.48	.29	.44	.34	.39	.42	.08	.54	.74	-.64	.37	--		
14. ID	.54	.48	.21	.43	.26	.36	.28	.25	.46	.77	-.59	.45	.74	--	
15. OCB	.49	.43	.22	.40	.22	.34	.22	.37	.40	.74	-.52	.41	.60	.79	--

Note. Valid n for correlations = 467.Underlined correlations are not significant; * Correlation is significant at p < .05; all other correlations are significant at p < .01.

Variable 1 = Global ratings; 2 = Top management support; 3 = Teaching equity and fairness; 4 = Classroom practices: Teachers' behaviors; 5 = Classroom practices: Students' behaviors; 6 = Organizational resources and support; 7 = Personal diversity experiences; 8 = Attitudes about diversity; 9 = Satisfaction with diversity; Variable 10 = Overall satisfaction; 11 = Intent to leave; 12 = Increased cultural awareness; 13 = Belongingness; 14 = Identification; 15 = Organizational citizenship behaviors.

Table 3.2. Correlation matrix of key measures used in analyses.

	Mean	SD
Climate for Diversity Scales		
Global ratings	5.10	0.93
Top management support	5.24	1.10
Teaching equity and fairness	5.76	1.06
Teachers' behaviors	4.97	1.01
Students' behaviors	4.97	1.12
Organizational resources and support	4.83	0.98
Personal diversity experiences	4.47	1.31
Attitudes Scale		
Attitudes about diversity	5.84	0.89
Outcome Scales		
Satisfaction with diversity	5.11	1.22
Overall satisfaction	5.77	1.20
Intent to leave	2.37	1.61
Cultural awareness	4.89	1.25
Belongingness	5.03	1.39
Identification	4.78	1.22
Organizational Citizenship Behaviors	5.01	1.23

Note. Valid n for all scales used in analyses = 467.

Table 3.3. Means and standard deviations for scales used in analyses.

Examination of Nomological Network

Internal Consistency of Revised Scales

In order to satisfy the requirements for construct validation, it is necessary that the scores derived from the measures used are reliable and demonstrate acceptable levels of internal consistency. As Nunnally and Bernstein (1994) duly noted, "internal consistency is necessary but not sufficient for construct validity" (p. 90). Cohen and Cohen (1983) suggested that coefficient alphas of .60 were sufficient for group research and coefficient alphas of .80 were necessary for clinical decision making with regard to individuals. Given the purpose of this study, all revised scales met the acceptable alpha levels of .60: the alphas for the climate for diversity scales ranged from .66 to .83, alpha for attitudes about diversity was .83, and the alphas for dependent variables ranged from .72 to .91.

Climate for Diversity Dimensions

Since the dimensions were conceived as interrelated components of the construct of climate for diversity, it was expected that the dimensions would be positively related to each other. In evaluating the magnitudes of correlations, Cohen's (1988) convention will be adopted: .1 being small, .3 moderate, and .5 large. The bivariate correlations between the dimensional measures of climate for diversity ranged from .28 to .63, and all correlations were significant at $p < .01$. Further, the magnitudes of these relationships were moderate to large. Collectively, these positive and statistically significant correlations were in the expected direction, providing empirical support that the climate for diversity measures were related to each other.

The measure of global ratings of climate for diversity was construed to tap students' overall perceptions of the diversity climate, and does not reflect their perceptions of specific policies or procedures. Conceptually, the global measure encompasses the summary perceptions of the specific facets of climate ratings, and should be related to the dimensional measures of climate for diversity (relation 5 in Figure 1.4). As expected, the bivariate correlations between global ratings of climate for diversity and the various dimensional measures of climate for diversity ranged from .39 to .74, and all were significant at $p < .01$. Thus, dimensional climate ratings exhibited moderate to strong relationships with the global climate ratings. Global climate ratings were related to top management support ($r = .74$), teaching equity and fairness ($r = .39$), classroom practices: teachers' behaviors ($r = .67$), classroom practices: students' behaviors ($r = .57$), organizational resources and support ($r = .70$), and personal diversity experiences ($r = .51$). These positive and statistically significant correlations provide empirical evidence of the relationship between the dimensions measured and global ratings of climate for diversity, in support of relation 5.

Since the goal of the current study was not to investigate the relative usefulness of each dimension, specific hypotheses about the weighting of individual dimensions were not offered. As an exploratory analysis, stepwise regression was conducted to investigate the relative and collective usefulness of the dimensional measures in predicting global ratings of climate for diversity. The results of the stepwise regression analyses are presented in Table 3.4, with the caveat that the obtained results are setting-specific.

The final model of the stepwise regression analysis retained five of the six dimensions of climate for diversity, which explained 75% of the variance in global ratings of climate for diversity ($F(5, 461) = 275.74$, $p < .01$). The coefficient for top management support was highest, at .36 ($p < .01$). Thus, for every unit increase in top management support, a .36 unit increase in global ratings was predicted, holding all other variables constant. This increase was significantly different from

	β	F	df	R^2	Std. Error
DV = Global ratings		275.74	5, 461	.75 ***	.47
Top management support	.36 ***				
Organizational resources/support	.28 ***				
Classroom: Students' behaviors	.17 ***				
Classroom: Teachers' behaviors	.20 ***				
Personal diversity experiences	.11 ***				
Teaching Equity and Fairness (Excluded)	.01				

Note. N = 467. β = standardized regression coefficient for the variable in the step at which it was entered. R^2 = proportion of variance in the dependent variable accounted for by all the predictors in the final regression equation. Std. error = standard error of the estimate.
*** $p < .01$.

Table 3.4. Stepwise regression results of global ratings of climate for diversity on dimensions of climate for diversity.

zero. The next highest coefficient was for organizational resources and support. Thus, for each unit increase in organizational resources and support, global ratings increased by .28 ($p < .01$).

The coefficients of classroom practices: teachers' behaviors was .20 ($p < .01$), and for students' behaviors was .17 ($p < .01$). Personal experiences also accounted for significant increases in global ratings ($\beta = .11$). Of the climate dimensions, the only non-statistically significant dimension was teaching equity and fairness ($\beta = .01$, $p = .71$); this dimension did not significantly predict increases in global ratings.

Results of the stepwise analyses were very encouraging in two aspects. First, five of the six scales each explained significant variance in global ratings of climate for diversity. Second, collectively, the five scales accounted for a substantial amount of variance explained in global ratings. In contrast to the empirical results, if either of the following hypothetical pattern of results were found: (a) few (to the extreme, none) of the dimensions predicted significant variance in global ratings, or (b) the overall variance explained by the dimensions were insignificant, doubt would seriously be cast on the validity of the scales for measurement of climate for diversity.

Overall, results from both the correlational and stepwise regression analyses provided additional support for the construct validity of the measure: all the dimensional measures were significantly related to global ratings, five of the six dimensional measures each explained significant variance in global ratings, and collectively, explained 75% of the variance in global ratings. The results

indicated the utility of the measures in providing both a dimensional approach to assessment of organizational climate for diversity, and provided empirical support for links 2a, 2b, and 5 in Figure 1.4.

Climate for Diversity and Outcome Measures

In the introduction chapter, rationale was provided for the relationships between climate for diversity and the various outcomes (linkage 1 in Figure 1.4). Within the nomological network of relationships presented in Figure 1.4, if the theoretical relationships between predictors and outcomes were found to hold with the data, there would be further evidence for the construct validity of the new measure. The operational indicator used to establish the degree of correspondence between the test and a criterion is usually estimated by the size of its correlation.

Global Ratings with Outcomes

In order to establish that the global ratings scale was related to relevant outcomes, results should indicate that the global scale was significantly related to each of the outcomes measured, and in the expected direction (linkage 4b in Figure 1.4). As indicated in Table 3.2, the correlations between global ratings with all the outcome measures were all significant at $p < .01$. The magnitudes of the correlations ranged from -.44 to .77, and all correlations were in the expected direction. The relationship between global climate ratings with intent to leave was -.44, which was in the expected direction since the more favorable the school's climate, the less likely students should report wanting to leave the institution. Global climate ratings were correlated .77 with satisfaction with diversity, .54 with

both overall satisfaction and identification, .55 with cultural awareness, .60 with belongingness, and .49 with Organizational Citizenship Behaviors (OCB). Hence, there were significant relationships between global ratings and each of the outcomes assessed, in support of linkage 4b.

As a further exploratory test, the set of outcome variables were regressed on global climate ratings. Since the outcome variables were moderately to strongly correlated with each other (correlations ranged in magnitude from .24 to .79), the multivariate option in SPSS (subsumed under General Linear Model) was used for this regression analysis. In testing the significance of the whole model, multivariate analyses allow for dependent variables to be correlated, as the coefficients estimated are adjusted accordingly. The null hypothesis being tested is that global climate ratings have no overall effect on the set of dependent variables. Results for tests of the entire model regressing the set of outcome variables on global climate ratings was significant ($\underline{p} < .00$), and the observed power was 1.00, allowing the conclusion to be drawn that global climate ratings is related to the set of dependent variables. The results for the entire model are presented in Appendix G. Results of the analysis to estimate the parameter estimates for each regression are presented in Table 3.5. These parameter estimates are derived if separate regressions were ran for each outcome variable on global climate ratings.

As shown in Table 3.5, global climate ratings accounted for significant variance in all dependent variables. Specifically, for every unit increase in global climate ratings, there was a parallel unit increase in satisfaction with diversity (B

= 1.01, p < .001) was predicted. Further, 59% of the variance in satisfaction with diversity can be explained by global climate ratings. A unit increase in global climate ratings was also associated with .69 increase in overall satisfaction (R^2 = .29, p < .001), .76 decrease in intent to leave (R^2 = .19, p < .001), .74 increase in cultural awareness (R^2 = .30, p < .001), .91 increase in belongingness (R^2 = .36, p < .001), .71 increase in identification (R^2 = .29, p < .001), and .65 increase in OCBs (R^2 = .24, p < .001). Further, the observed power of each test was 1.00.

IV = Global climate ratings	B	Std. Error	F	df	R^2
Satisfaction with diversity	1.01 ***	.04	680.59	1,466	.59
Overall satisfaction	.69 ***	.05	187.97	1,466	.29
Intent to leave	-.76 ***	.07	108.62	1,466	.19
Cultural awareness	.74 ***	.05	200.40	1,466	.30
Belongingness	.91 ***	.06	266.57	1,466	.36
Identification	.71 ***	.05	189.10	1,466	.29
Organizational citizenship behaviors	.65 ***	.05	145.19	1,466	.24

Note. N = 467. IV = Independent variable (predictor). B = unstandardized regression coefficient. Std. error = standard error of the estimate. F = F-ratio. df = degrees of freedom. R^2 = proportion of variance in the dependent variable accounted for by predictor.
*** p < .01.

Table 3.5. Multivariate regression results for set of dependent variables on global climate ratings.

Given the size of the coefficients, proportion of variance explained and observed power, it can be seen that global climate ratings can be used to predict a fair amount of variance in each of the outcomes in this setting.

Theoretically, among the outcome measures, the relationship between global climate ratings and satisfaction with diversity should be strongest, as satisfaction with diversity is the most directly domain-relevant outcome. Conceptually, when the climate is favorable toward diversity (high global climate ratings), respondents' satisfaction with diversity should also be high. Of the seven correlations between global climate ratings and the seven outcomes, the relationship between global climate ratings and satisfaction with diversity ($\underline{r}$ = .77) was larger than the rest. Using the sign test (Darlington, 1974, p. 434-436), all six of the correlations between global climate ratings with the other dependent variables are less than .77 ($\underline{p}$ < .016). Hence, empirical data provided firm support for this hypothesis: (a) the relationship between global climate ratings and satisfaction with diversity was the stronger than its relationship with remaining outcomes, (b) the regression coefficient indicated a parallel unit-increase in satisfaction with diversity when global climate ratings increased ($\underline{B}$ = 1.01, $\underline{p}$ < .001), (c) global climate ratings explained a substantial portion of the variance in satisfaction with diversity ($\underline{R}^2$ = .59), and (d) global climate ratings explained the most variance in satisfaction with diversity, compared to the other outcomes.

Dimensional Measures with Outcomes

Similarly, each of the dimensional measures should be significantly related to each of the outcomes (linkage 4a in Figure 1.4). There should be a positive relationship between the dimensional measures and all the outcome variables, except for intent to leave, which should exhibit a negative relationship.

Results indicated that the relationships were in the expected direction and significant. The bivariate correlations between the dimensional measures and outcome measures (satisfaction with diversity, overall satisfaction, increased cultural awareness, belongingness, identification, and OCB) ranged from .25 to .77. The bivariate correlations between the climate for diversity measures and intent to leave ranged from -.21 to -.44. All these correlations were significant at $p < .01$, in support of linkage 4a and provided empirical evidence of the relationships between the climate for diversity and outcome measures.

As a further test of the relationships, the set of dependent variables was regressed on each dimension. In order to account for the multicolllinearity present between the correlated dimensions, separate analyses were conducted for each dimension. For instance, all dependent variables were regressed on top management support. For each dimension, the entire model was significant for predicting the set of outcomes ($p < .00$) and the observed power for each test was estimated at 1.00. The results for tests of the entire model, for each dimension, are presented in Appendix H. The parameter estimates for the regression of the set of outcomes on each dimension are presented in Table 3.6.

Predictor (Climate dimension)	B	Std. Error	F	df	R^2
Top Management Support					
Satisfaction with diversity	.73 ***	.04	358.60	1, 466	.44
Overall satisfaction	.51 ***	.04	132.09	1, 466	.22
Intent to leave	-.53 ***	.06	71.87	1, 466	.13
Cultural awareness	.58 ***	.05	163.25	1, 466	.26
Belongingness	.61 ***	.05	141.81	1, 466	.23
Identification	.53 ***	.05	136.18	1, 466	.23
Organizational citizenship behaviors	.48 ***	.05	105.25	1, 466	.19
Teaching Equity and Fairness					
Satisfaction with diversity	.38 ***	.05	58.97	1, 466	.11
Overall satisfaction	.28 ***	.05	30.45	1, 466	.06
Intent to leave	-.36 ***	.07	27.69	1, 466	.06
Cultural awareness	.23 ***	.05	18.58	1, 466	.04
Belongingness	.38 ***	.06	42.23	1, 466	.08
Identification	.24 ***	.05	22.02	1, 466	.05
Organizational citizenship behaviors	.26 ***	.05	24.58	1, 466	.05
Observations of Teachers' Behaviors in Classrooms					
Satisfaction with diversity	.59 ***	.05	148.26	1, 466	.24
Overall satisfaction	.51 ***	.05	106.58	1, 466	.19
Intent to leave	-.45 ***	.07	41.08	1, 466	.08
Cultural awareness	.63 ***	.05	162.89	1, 466	.26
Belongingness	.60 ***	.06	108.91	1, 466	.19
Identification	.52 ***	.05	103.32	1, 466	.18
Organizational citizenship behaviors	.49 ***	.05	90.53	1, 466	.16
Observations of Students' Behaviors in Classrooms					
Satisfaction with diversity	.62 ***	.04	220.59	1, 466	.32
Overall satisfaction	.27 ***	.05	30.76	1, 466	.06
Intent to leave	-.31 ***	.07	21.98	1, 466	.05
Cultural awareness	.30 ***	.05	36.53	1, 466	.07
Belongingness	.43 ***	.05	62.28	1, 466	.12
Identification	.28 ***	.05	32.67	1, 466	.07
Organizational citizenship behaviors	.24 ***	.05	23.86	1, 466	.05
Organizational Resources and Support					
Satisfaction with diversity	.65 ***	.05	176.46	1, 466	.28
Overall satisfaction	.38 ***	.05	49.51	1, 466	.10
Intent to leave	-.41 ***	.07	31.40	1, 466	.06
Cultural awareness	.56 ***	.05	108.89	1, 466	.19
Belongingness	.55 ***	.06	83.30	1, 466	.15
Identification	.45 ***	.05	69.68	1, 466	.13
Organizational citizenship behaviors	.42 ***	.06	58.63	1, 466	.11

Continued

Table 3.6. Multivariate regression results of set of dependent variables on each dimension of climate for diversity.

Table 3.6 continued

Predictor (Climate dimension)	B	Std. Error	F	df	R^2
Personal Diversity Experiences					
Satisfaction with diversity	.46 ***	.04	147.80	1, 466	.24
Overall satisfaction	.28 ***	.04	47.39	1, 466	.09
Intent to leave	-.42 ***	.05	60.63	1, 466	.12
Cultural awareness	.18 ***	.04	17.22	1, 466	.04
Belongingness	.45 ***	.05	97.89	1, 466	.17
Identification	.26 ***	.04	39.71	1, 466	.08
Organizational citizenship behaviors	.21 ***	.04	24.56	1, 466	.05

Note. N = 467. IV = Independent variable. B = unstandardized regression coefficient. Std. error = standard error of the estimate. F = F-ratio. df = degrees of freedom. R^2 = proportion of variance in the dependent variable accounted for by predictor.
*** $p < .01$.

As Table 3.6 shows, each dimension predicted a significant amount of variance in the entire set of dependent variables. For the dimension of top management support, the unstandardized regression coefficients ranged in magnitude from .48 to .73 ($p < .001$), and explained 13 to 44 percent of the variance in each outcome. For the dimension of teaching equity and fairness, the coefficients ranged in magnitude from .23 to .38 ($p < .001$), and explained 4 to 11 percent of the variance in each outcome. For the dimension of observations of teachers' behaviors in classrooms, the unstandardized regression coefficients ranged in magnitude from .45 to .63 ($p < .001$), and explained 8 to 26 percent of the variance in each outcome. For the dimension of observations of fellow students' behaviors in classrooms, the unstandardized regression coefficients ranged in magnitude from .24 to .62 ($p < .001$), and explained 5 to 32 percent of the variance in each outcome. For the dimension of organizational resources and

support, the unstandardized regression coefficients ranged in magnitude from .38 to .65 ($p < .001$), and explained 6 to 28 percent of the variance in each outcome. For the dimension of personal experiences, the unstandardized regression coefficients ranged in magnitude from .18 to .46 ($p < .001$), and explained 4 to 24 percent of the variance in each outcome.

Of the outcome measures, satisfaction with diversity should again be most highly correlated with the dimensional measures of climate for diversity. As indicated in Table 3.2, there are 36 correlations between the six dependent variables (excluding satisfaction with diversity) and the six dimensional climate scales. Of these 36 correlations, all but one was larger in absolute magnitude than the comparable correlation between that climate dimension and satisfaction with diversity. Specifically, only the correlation between observations of teachers and cultural awareness ($r = .51$) was larger than the correlation between observations of teachers and satisfaction with diversity ($r = .49$). Using the sign test, the probability of obtaining 34 smaller correlations in a set of 36 correlations is less than .000. Further, regression results (Table 3.6) indicated that dimensional climate ratings predicted 11 to 59 percent of the variance in satisfaction with diversity, and for five of the six dimensions, dimensional climate ratings explained the most variance in satisfaction with diversity, as compared to the remaining outcomes. Thus, empirical findings provide support for the hypothesis that the various climate dimensions would exhibit strong with satisfaction with diversity, adding further evidence for the construct validity of the measure.

Ancillary Analyses

Both correlational and regression analyses indicate the top management support is an important determinant of both global climate ratings and are strongly related to outcomes. Ancillary analyses were conducted to explore the importance of top management support in this setting.

The correlation between global climate ratings and top management support was .74. The remaining correlations between global climate ratings and the five dimensional climate ratings were less than .74. Using the sign test, the probability that the correlations between global climate ratings and the remaining five dimensional climate ratings were less than $r = .74$ (by chance) was less than .016 (Darlington, 1974). Additionally, regressing global climate ratings on the set of dimensional climate ratings indicates that top management support has the highest coefficient.

Among the climate dimensions, top management support also seemed to be most highly related with the various outcomes. The absolute magnitude of the seven correlations between top management support and the seven outcomes ranged from .37 to .66. The absolute magnitude of the 35 correlations between the other five climate dimensions with the seven outcomes ranged from .20 to .57. Using the sign test, it was concluded that the probability that the set of 35 correlations would be smaller in magnitude than the set of seven correlations would occur by chance was less than .000. Hence, it can be concluded that across the board, the correlations between top management support and the outcomes are larger than the correlational relationships between the other

dimensional climate ratings and the set of outcomes. Further, regression results indicate that the R^2 for top management support (ranging from 13% to 44%) was also higher than the other dimensions, which ranged from 4% to 32%. These ancillary analyses indicate that compared to the other climate dimensions, top management support is strongly related to the outcomes and explains the most variance in the set of dependent variables.

Summary Statements

Correlational analyses of the global and dimensional climate ratings revealed that each pair of variables was statistically significant and exhibited moderate to strong relationships, in the expected direction. Further, regression results indicated that five of the six dimensions predicted 75% of the variance in global climate ratings.

Correlational analyses of both dimensional and global climate ratings with outcomes also exhibited moderate to strong relationships that were statistically significant and in the right direction. Regression results indicated that all dimensions and global climate ratings predicted significant amounts of variance in each of the dependent variables. Further, as hypothesized, the correlations between the climate ratings and the most domain-relevant outcome, satisfaction with diversity was larger than the correlations with the remaining outcomes. Collectively, these results provide evidence for the construct validity of the climate for diversity measures.

Tests of Moderation

Individuals' attitudes about diversity were proposed as a potential moderator between the various dimensions of climate for diversity and outcome variables. As discussed in the introduction chapter, moderator effects could be demonstrated through findings of either a crossover interaction or if a relation is substantially reduced (Baron & Kenny, 1996). It was hypothesized that depending on one's attitudes about diversity, differential relationships (reversed or reduced effects) would be found when individuals held either favorable or less favorable attitudes toward diversity (relation 7 in Figure 1.4).

Use of Hierarchical Multiple Regression

In the social sciences, two common approaches are used to test for interaction effects: (a) dichotomizing the predictor and moderator variables using median splits (or some "cutting rule") and then performing a 2 x 2 ANOVA on the dependent variable, or (b) using hierarchical multiple regression procedures. As simulation studies have shown (e.g., Stone-Romero & Anderson, 1994), when variables are measured on a continuous scale, hierarchical multiple regression procedures are preferred as the analytic method, as the continuous nature of the variables are retained, which result in fewer Type I and Type II errors. Further, the use of cut points (e.g., median splits) to create artificial groups from continuous variables for use in comparing correlations between groups through use of ANOVA, actually result in a loss of information and loss of power in detecting interaction effects (Aiken & West, 1991; Frazier et al., 2004). Following

the recommendations and as all the variables in the current study were continuous variables, hierarchical multiple regression procedures were applied toward the examination of interaction effects.

The general strategy followed Cohen and Cohen's (1983) recommendations, by computation of a multiplicative term (predictor x moderator) that encompasses the interaction effect, and comparison of the two R^2 values for the two-term additive model and the three-term interactive model (i.e. hierarchical F-test). If an interaction effect is present, the difference between the two R^2 values would be statistically significant. The steps taken to structure the hierarchical regressions are explicated in the following sections.

Centered/standardized variables. For variables measured on continuous scales, it is recommended that the predictor and moderator variables be either centered or standardized, prior to creation of the product (interaction) term. Such a transformation will tend to yield low correlations between the product term and the component parts of the term, and serve to reduce problems of multicollinearity among the variables in the regression equation, since the predictor and moderator variables are generally highly correlated with the interaction terms created from them (Cronbach, 1987; Frazier et al., 2004; Jaccard, Turrisi, & Wan, 1990). Further, such transformations neither impact the level of significance of the interaction terms, nor the simple slopes of the plotted regression lines (Holmbeck, 1997).

Centered variables are created by subtracting sample means from each score, to produce revised sample means of zero (i.e. put into deviation units).

The mean of centered variables is zero, and the standard deviation remains unchanged. As Frazier et al. (2004) noted, standardization of variables (i.e. z-scoring), offers the added benefit of facilitating easier plots of the significant moderator effects. Specifically, when variables are standardized, low (-1 standard deviation from the mean) and high values (+1 standard deviation from the mean) can be easily substituted into regression equations to obtain predicted values for representative groups. In the current study, all predictor and moderator variables used in the analysis were standardized, so that each had a mean of 0 and a standard deviation of 1.

Since changing the scaling of the criterion has no effect on the regression coefficients in equations containing interactions, “there is typically no reason to center the criterion Y when centering predictors” (Aiken & West, 1991, p. 35). Accordingly, the dependent variables were left uncentered, which also facilitate the interpretation of the predicted scores in the original scale of the criterion.

Created product terms. After the predictor and moderator variables were standardized, product terms were created to represent the interaction between the predictor and moderator. Product terms were formed by multiplication of the standardized predictor with the standardized moderator variables (Aiken & West, 1991; Frazier et al., 2004; Jaccard et al., 1990).

Structured regression equations. Hierarchical regression equations were structured by entering the variables in a series of specified blocks or steps (Aiken & West, 1991; Frazier et al., 2004; Jaccard et al., 1990). The predictor and moderator main effects were entered into the regression equation first, followed

by the interaction of the predictor and moderator (i.e. the product term). Although the main effects may be entered in any order, the key is entering them before the interaction term, as the interaction term "only becomes the interaction when its constituent elements are partialled" (Cohen & Cohen, 1983, p. 305). Thus, in order to correctly evaluate the presence of a moderated relationship, it is necessary to partial the component parts of the product term from the term itself, which comprises the essence of the hierarchical test (Jaccard et al., 1990). The moderator hypothesis is supported if the interaction term is significant.

To perform each hierarchical regression analysis of the interaction effect, in the first step, the dependent variable was regressed on the z-scored predictor and z-scored moderator measures. In the second step, the interaction between the z-scored predictor and z-scored moderator measures were entered. For instance, to examine whether attitudes about diversity moderated the relationship between global ratings of the climate for diversity and satisfaction with diversity, satisfaction with diversity was first regressed on z-scored global ratings and z-scored attitudes in the first step, then regressed on the product term in the second step.

Alternatively, the equation can be structured in three steps, with the predictor variable in the first step, the moderator in the second step, and the product term in the final step. The beta coefficients, their significance, and their standard errors remain unchanged by either approach. Given that the primary purpose of these analyses is to detect interaction effects, significant main effects "are not directly relevant conceptually to testing the moderation hypothesis"

(Baron & Kenny, 1996, p. 1174). Moreover, as Frazier et al. (2004) cautioned, the regression coefficient for the predictor variable should only be interpreted if there is strong theoretical justification that the predictor causes the moderator since all of the variance shared among the predictor, moderator, and their interaction is attributed to the predictor. If an interaction is detected, “the main effects cannot be considered in isolation of the interaction effect” (Stone, 1988).

Thus, the two-step approach was selected, which facilitated the clear delineation of the amount of change in R-squared, and its significance, that results from adding the interaction term by examination of the results of the hierarchical F-test. If the amount of change in R-squared is statistically different, there is evidence of moderation and it can be concluded that the predictor and moderator interactively influence criterion scores (Stone, 1988).

Interpretation of results. In interpretation of results, unstandardized (B), rather than standardized (β) regression coefficients were examined, because in equations that include interaction terms, the β coefficients for the interaction terms are not properly standardized and thus not interpretable (Aiken & West, 1991; Frazier et al., 2004).

To determine the statistical significance of the moderator effect, the single-degree of freedom F-test, which represents the stepwise change in variance explained by the addition of the interaction term was used. The null hypothesis evaluated is that the regression coefficient for the product (interaction) term is zero in the population. Rejection of the hypothesis signifies that an interaction

effect is present. Alternatively, the same conclusion can also be reached by examining the t-test result of B3 coefficient (Jaccard et al., 1990).

Plots of Significant Interactions

Statistically significant interactions were interpreted by plotting of simple regression lines for low and high values of the predictor and moderator variables. Equations included terms for the two main effects, the interaction term, along with the corresponding unstandardized regression coefficients (B) and the y-intercept constant term (Aiken & West, 1991; Cohen & Cohen, 1983; Frazier et al., 2004; Holmbeck, 1997). The general interaction model is:

$$\text{Predicted } Y = b_0 + b_1X + b_2Z + b_3XZ + e$$

Following Aiken and West's (1991) recommendations, the equation was restructured as the regression of the criterion on one predictor; specifically, the regression of Y on X at values of Z:

$$\text{Predicted } Y = (b_1 + b_3Z)\,X + (b_2Z + b_0)$$

All possible combinations of low (- 1SD from the mean) and high (+1SD from the mean) values of the predictor and moderator were then formed. Hence, four combinations (high X-high Z, low X-low Z, high X-low Z, and low X-high Z) were used to generate two regression lines to plot the predicted values of the outcome variable. The plot of the regression lines obtained from this process creates a figure which summarizes the form of the moderator effect (Frazier et al., 2004). The plots of significant interaction effects are presented in Figure 3.1 to Figure 3.12. The results and plots of the significant interaction effects for predicting the

various outcome measures are presented below, arranged by outcome variables. Appendix I contains the complete set of hierarchical regression results for the moderation analyses.

At the first step, satisfaction with diversity was regressed on global ratings of climate for diversity and attitudes about diversity. At the second step, the product of global ratings and attitudes was entered as the interaction term. As table 3.7 shows, the interaction term was significantly related to satisfaction with diversity and explained an additional 1% of the variance in satisfaction with diversity, over and above that explained by global ratings and attitudes (B = .13, ΔR^2 = .01, $p < .001$). Therefore, the moderator hypothesis was supported for these variables, although the effect size was small. The relationship between global ratings and satisfaction with diversity depended on one's attitudes about diversity.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Global ratings	.92 ***	.04			
	Attitudes	.01	.04	.60 ***		340.92
2	Global x Attitudes	.13 ***	.04	.61 ***	.01	13.58

Note. Independent variable = global ratings, dependent variable = satisfaction with diversity.

N = 467. B = unstandardized regression coefficient for the variable in the step in which it was entered. SE(B) = standard error of the regression coefficient. R^2 = proportion of variance in the dependent variable accounted for by all the predictors in the regression equation. ΔR^2 = incremental variance accounted for by all the predictor variables entered at each step.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.7. Hierarchical regression of satisfaction with diversity on global ratings, attitudes, and the interaction term.

As depicted in Figure 3.1, when individuals held favorable attitudes about diversity, global ratings for climate for diversity was strongly and positively related to satisfaction with diversity. In other words, higher global ratings of the climate were associated with higher satisfaction with diversity. When individuals' attitudes were not as favorable toward diversity, the relationship between global ratings and satisfaction with diversity was still positive, although not as strongly positive as when individuals held favorable attitudes, as indicated by the flatter slope. The figure shows that when the climate was not favorable toward diversity (low climate), individuals with less favorable attitudes rated their satisfaction with diversity higher than individuals with favorable attitudes toward diversity. Conversely, when the climate was favorable toward diversity (high climate), individuals with more favorable attitudes rated their satisfaction with diversity higher than individuals with favorable attitudes toward diversity.

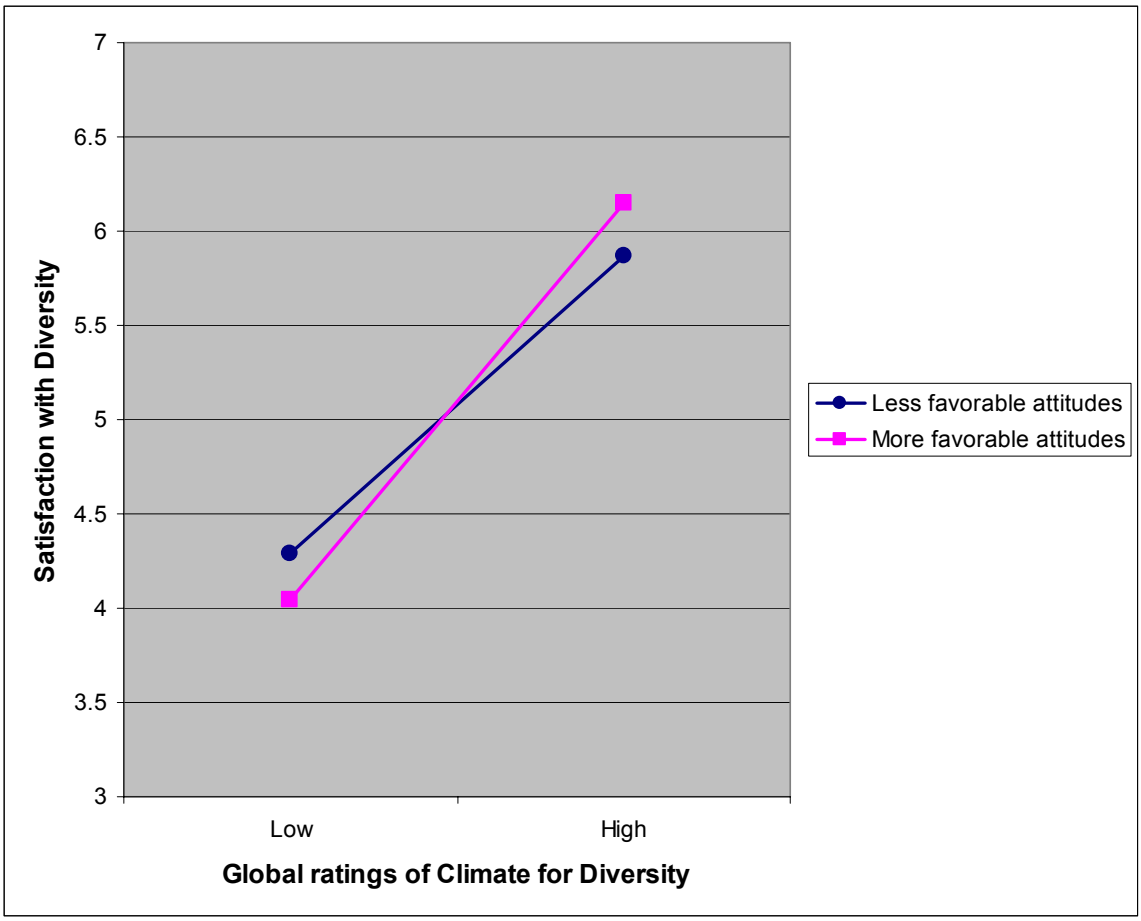


Figure 3.1: Graphical representation of the interaction of global ratings and attitudes toward diversity with satisfaction with diversity as the dependent variable.

The interaction between top management support and attitudes for predicting satisfaction with diversity was significant (B = .14, p < .001), and explained an additional 1% of the variance in the outcome, for a total of 45% of the variance (Table 3.8).

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Top mgmt support	.78 ***	.04			
	Attitudes	.05	.04	.44 ***		179.37
2	Top x Attitudes	.14 ***	.04	.45 ***	.01	12.35

Note. Independent variable = top management support, dependent variable = satisfaction with diversity.

N = 467. B = unstandardized regression coefficient for the variable in the step in which it was entered. SE(B) = standard error of the regression coefficient. R^2 = proportion of variance in the dependent variable accounted for by all the predictors in the regression equation. ΔR^2 = incremental variance accounted for by all the predictor variables entered at each step.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.8. Hierarchical regression of satisfaction with diversity on top management support, attitudes, and the interaction term.

As hypothesized and illustrated in Figure 3.2, regardless of one's attitudes toward diversity, there was a positive relationship between top management support and satisfaction with diversity. However, for individuals with less favorable attitudes toward diversity, their ratings of satisfaction with diversity was higher than individuals with favorable attitudes, even when top management was less supportive of diversity (low top management ratings). On the other hand, when individuals held positive attitudes toward diversity, their satisfaction with diversity was much higher when they perceived that top management was supportive of diversity causes.

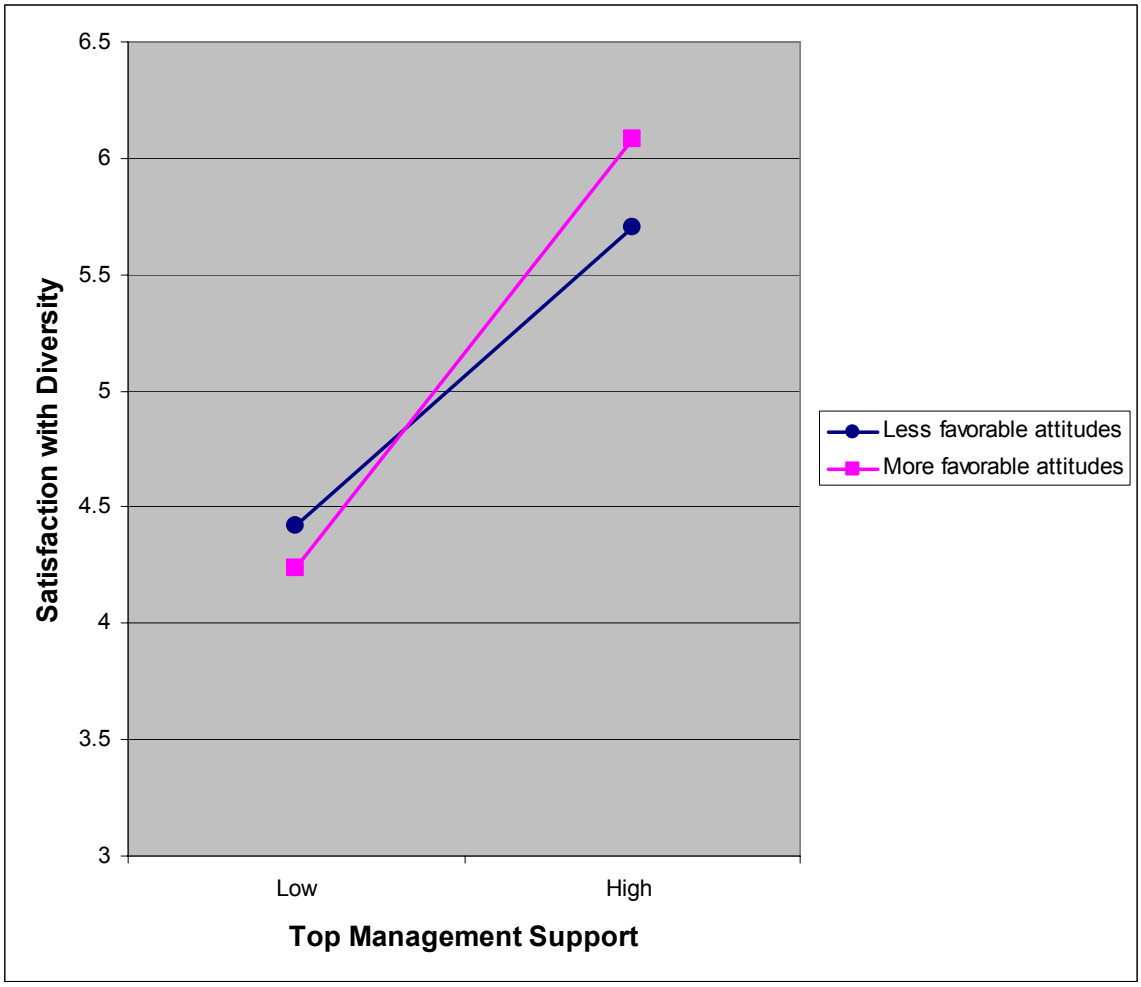


Figure 3.2: Graphical representation of the interaction of top management support and attitudes toward diversity with satisfaction with diversity as the dependent variable.

As table 3.9 shows, attitudes moderated the relationship between the predictor of teaching equity and fairness and the outcome of satisfaction with diversity (B = .14, p < .01). The interaction term explained an additional 2% of the variance in satisfaction with diversity, for a total of 13% of the variance.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Equity	.44 ***	.06			
	Attitudes	.04	.06	.11 ***		29.43
2	Equity x Attitudes	.14 **	.05	.13 **	.02	8.73

Note. Independent variable = teaching equity and fairness, dependent variable = satisfaction with diversity.

N = 467. B = unstandardized regression coefficient for the variable in the step in which it was entered. SE(B) = standard error of the regression coefficient. R^2 = proportion of variance in the dependent variable accounted for by all the predictors in the regression equation. ΔR^2 = incremental variance accounted for by all the predictor variables entered at each step.
* p < .05. ** p < .01. *** p < .001.

Table 3.9. Hierarchical regression of satisfaction with diversity on teaching equity and fairness, attitudes, and the interaction term.

Figure 3.3 presents the nature of the interaction. There was a positive relationship between teaching equity and fairness and satisfaction with diversity for both individuals with less favorable and more favorable attitudes toward diversity. However, the positive relationship was stronger (as indicated by the slope) for individuals who held favorable attitudes. When teaching practices were perceived to be less equitable and fair (low equity), individuals who held favorable attitudes rated their satisfaction with diversity as lower than individuals who held less favorable attitudes. Clearly, when teaching practices were perceived to be equitable and fair (high equity), individuals with favorable attitudes toward diversity reported that they were more satisfied with diversity of the school, than individuals with less favorable attitudes.

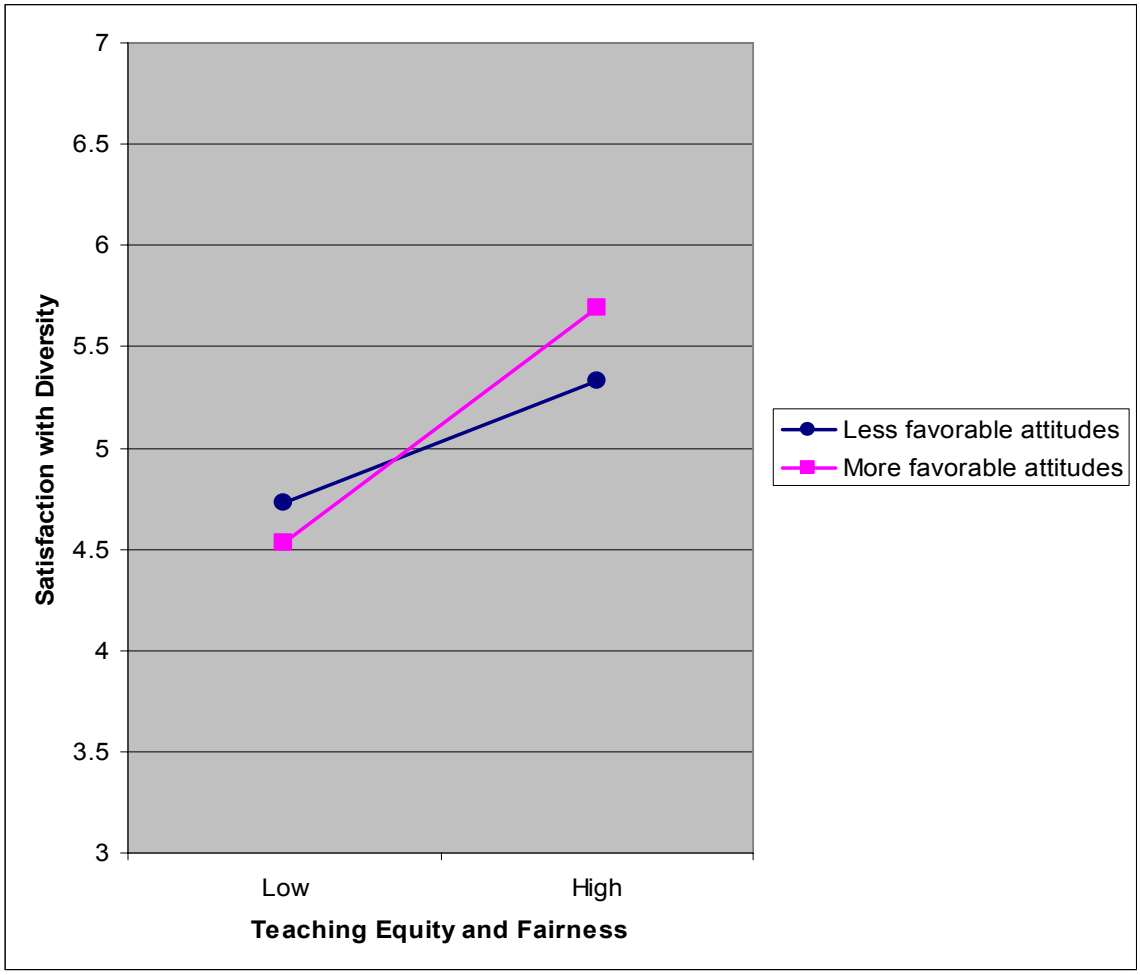


Figure 3.3: Graphical representation of the interaction of teaching equity and fairness and attitudes toward diversity with satisfaction with diversity as the dependent variable.

The relationship between students' behaviors in classrooms and satisfaction with diversity was significantly moderated by individuals' attitudes toward diversity ($B = .13$, $p < .01$). The interaction term explained an additional 1% of the variance in satisfaction with diversity, for a total of 33% of the variance (Table 3.10).

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Students' Behaviors	.68 ***	.05			
	Attitudes	.07	.05	.32 ***		110.61
2	Students' Behaviors x Attitudes	.13 **	.05	.33 **	.01	8.48

Note. Independent variable = classroom practices: students' behaviors, dependent variable = satisfaction with diversity.

N = 467. B = unstandardized regression coefficient for the variable in the step in which it was entered. SE(B) = standard error of the regression coefficient. R^2 = proportion of variance in the dependent variable accounted for by all the predictors in the regression equation. ΔR^2 = incremental variance accounted for by all the predictor variables entered at each step.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.10. Hierarchical regression of satisfaction with diversity on classroom practices: students' behaviors, attitudes, and the interaction term.

When the behaviors of fellow classmates were perceived as increasingly respectful of diversity, students' satisfaction with diversity increased (positive slopes). As portrayed in Figure 3.4, the interaction effect can be seen by the higher ratings of satisfaction with diversity for individuals with more favorable attitudes toward diversity when fellow students in classrooms were perceived as behaving in manners conducive to creating a climate accepting of diversity. Further, when students held favorable attitudes toward diversity, and students' behaviors in classroom settings were rated as low, they reported lower levels of satisfaction with diversity than for students with less favorable attitudes toward diversity. Hence, when this dimension of climate is perceived as low, students with favorable attitudes react more negatively than students with less favorable attitudes.

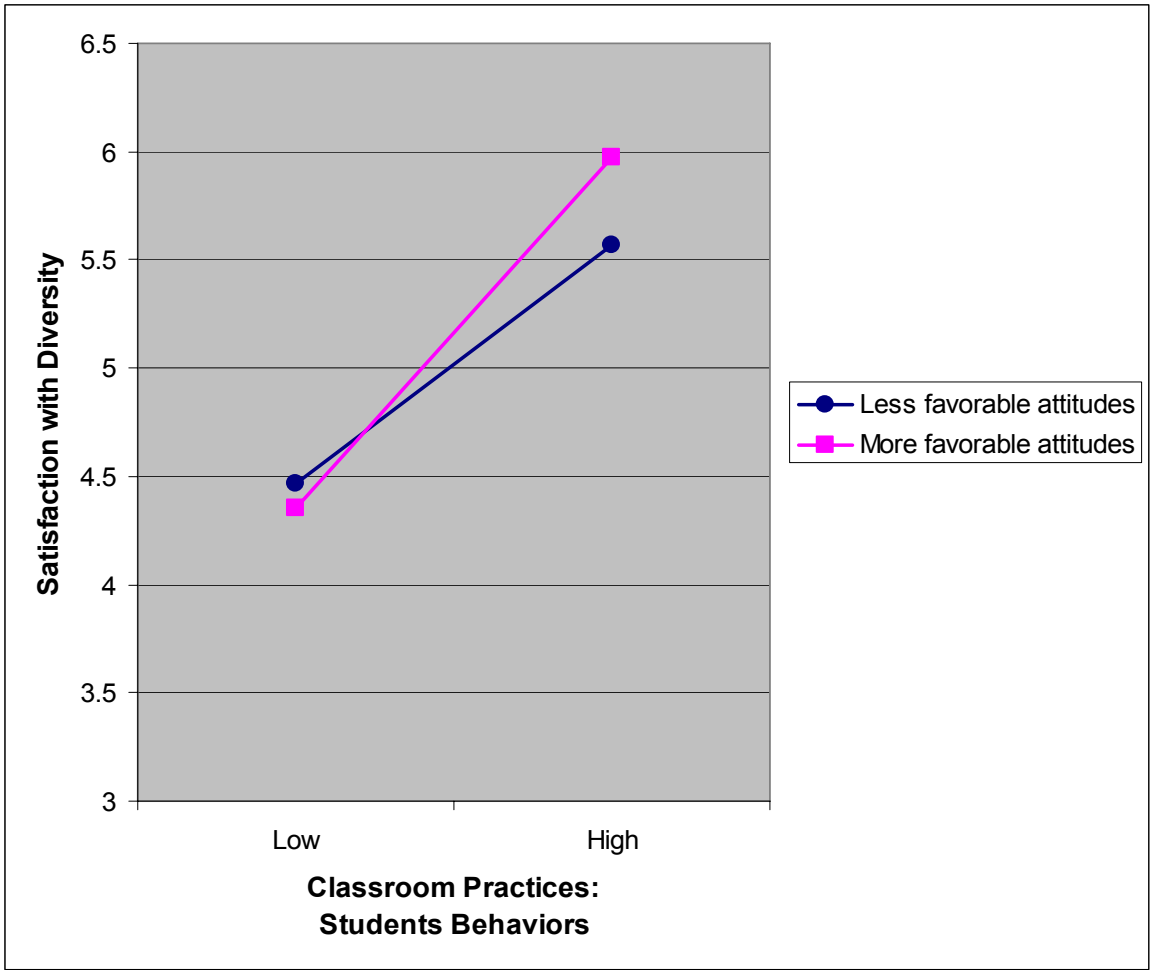


Figure 3.4: Graphical representation of the interaction of classroom practices: students' behaviors and attitudes toward diversity with satisfaction with diversity as the dependent variable.

Attitudes toward diversity significantly moderated the relationship between organizational resources and support and satisfaction with diversity (B = .13, p < .01). The interaction term explained an additional 1% of the variance in satisfaction with diversity, for a total of 29% of the variance (Table 3.11).

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Resources	.62 ***	.05			
	Attitudes	.08	.05	.28 ***		89.05
2	Resources x Attitudes	.13 **	.05	.29 **	.01	7.23

Note. Independent variable = organizational resources and support, dependent variable = satisfaction with diversity.

N = 467. B = unstandardized regression coefficient for the variable in the step in which it was entered. SE(B) = standard error of the regression coefficient. R^2 = proportion of variance in the dependent variable accounted for by all the predictors in the regression equation. ΔR^2 = incremental variance accounted for by all the predictor variables entered at each step.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.11. Hierarchical regression of satisfaction with diversity on organizational resources and support, attitudes, and the interaction term.

Organizational resources and support was positively related to satisfaction with diversity. Figure 3.5 further shows that when organizational resources and support were low in support of diversity, individuals with less favorable attitudes toward diversity rated their satisfaction with diversity slightly higher than individuals with favorable attitudes toward diversity. Conversely, when organizational resources and support were perceived as being supportive of diversity, individuals with more favorable attitudes rated their satisfaction with diversity much higher than individuals with favorable attitudes toward diversity. Thus, the nature of the interaction effect is elucidated.

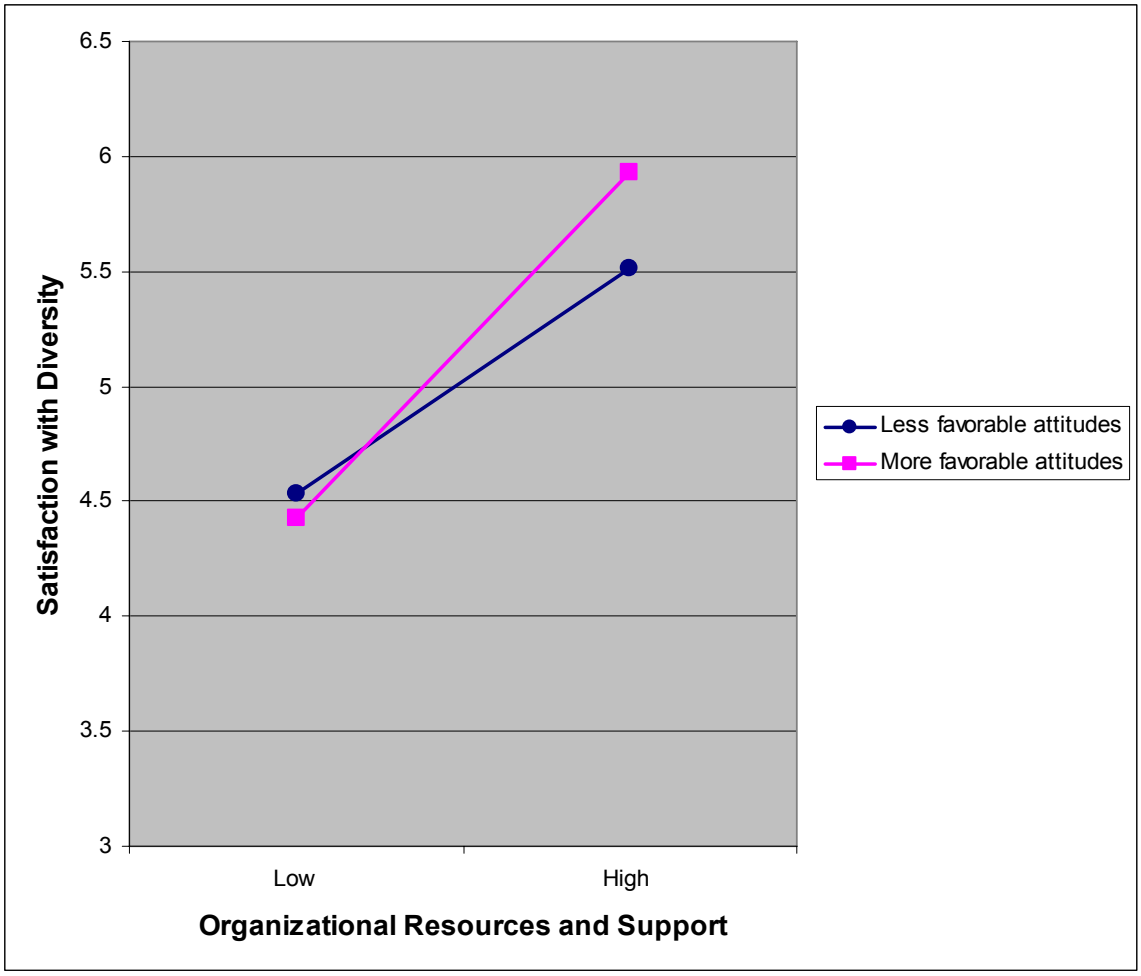


Figure 3.5: Graphical representation of the interaction of organizational resources and support and attitudes toward diversity with satisfaction with diversity as the dependent variable.

The relationship between one's personal diversity experiences and ratings of satisfaction with diversity was significantly moderated by one's attitudes toward diversity (B = .19, p < .001). Attitudes explained an additional 2% of the variance in satisfaction with diversity, for a total of 27% of the variance (Table 3.12).

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Personal experiences	.58 ***	.05			
	Attitudes	.11 *	.05	.25 ***		75.92
2	P.exp x Attitudes	.19 ***	.05	.27 ***	.02	16.44

Note. Independent variable = Personal diversity experiences, dependent variable = satisfaction with diversity.

N = 467. B = unstandardized regression coefficient for the variable in the step in which it was entered. SE(B) = standard error of the regression coefficient. R^2 = proportion of variance in the dependent variable accounted for by all the predictors in the regression equation. ΔR^2 = incremental variance accounted for by all the predictor variables entered at each step.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.12. Hierarchical regression of satisfaction with diversity on personal diversity experiences, attitudes, and the interaction term.

As a dimension of the climate for diversity, personal diversity experiences tapped respondents' reports of their personal experiences as related to diversity. When individuals had less favorable attitudes toward diversity and rated their personal diversity experiences as low, their reports of satisfaction with diversity was slightly higher than for individuals with more favorable attitudes. As ratings of their personal experiences increased, so did their levels of satisfaction with diversity. The interaction effect is depicted in Figure 3.6 by the much steeper slope of students with favorable attitudes. The steeper slope illustrates that for individuals with favorable attitudes toward diversity, when reports of personal experiences improve, their reported levels of satisfaction with diversity also increases, and at a much faster rate, than the other group of students.

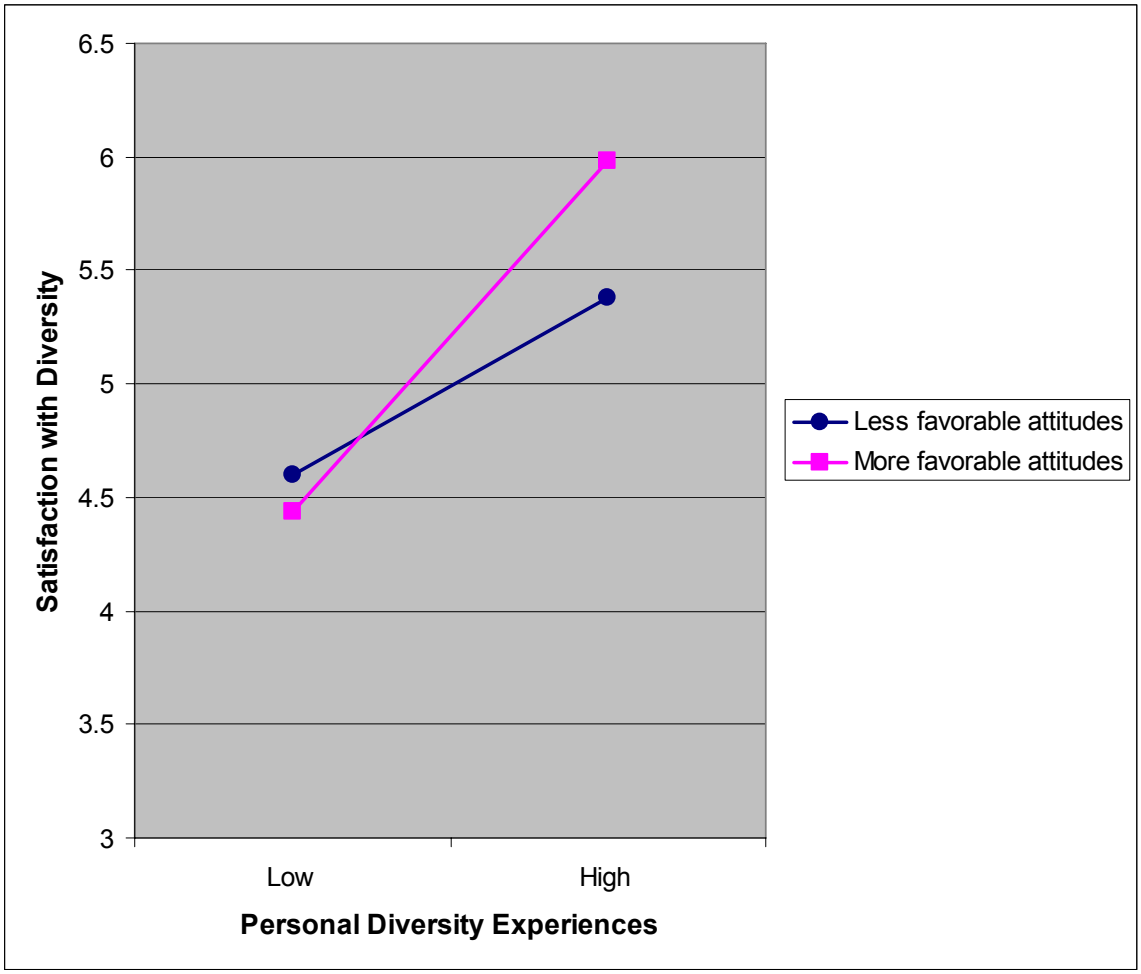


Figure 3.6: Graphical representation of the interaction of personal diversity experiences and attitudes toward diversity with satisfaction with diversity as the dependent variable.

Attitudes about diversity significantly moderated the relationship between teaching equity and fairness with overall satisfaction (B = .12, p < .01). Although the interaction was significant, the effect was small and explained an additional 1%, for a total of 10%, of the variance in overall satisfaction (Table 3.13).

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Equity	.25 ***	.06			
	Attitudes	.24 ***	.06	.09 ***		21.78
2	Equity x Attitudes	.12 **	.05	.10 **	.01	6.54

Note. Independent variable = teaching equity and fairness, dependent variable = overall satisfaction.

N = 467. B = unstandardized regression coefficient for the variable in the step in which it was entered. SE(B) = standard error of the regression coefficient. R^2 = proportion of variance in the dependent variable accounted for by all the predictors in the regression equation. ΔR^2 = incremental variance accounted for by all the predictor variables entered at each step.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.13. Hierarchical regression of overall satisfaction on teaching equity and fairness, attitudes, and the interaction term.

As indicated by the much flatter slope in Figure 3.7, when individuals held less favorable attitudes toward diversity, the relationship between their overall satisfaction with the school and teaching equity and fairness was slightly positive, and their ratings of overall satisfaction was lower than for individuals with more favorable attitudes. As indicated by the steeper slope, when individuals held favorable attitudes toward diversity, their ratings of overall satisfaction with the school was much higher and had a stronger, more positive relationship when they perceived teaching practices to be equitable and fair. Thus, for individuals with favorable attitudes, there were significant increases in their overall levels of satisfaction when teachers were perceived as equitable and fair in their treatment of students; such that these students reported the highest levels of overall satisfaction when teaching practices were deemed to be equitable and fair.

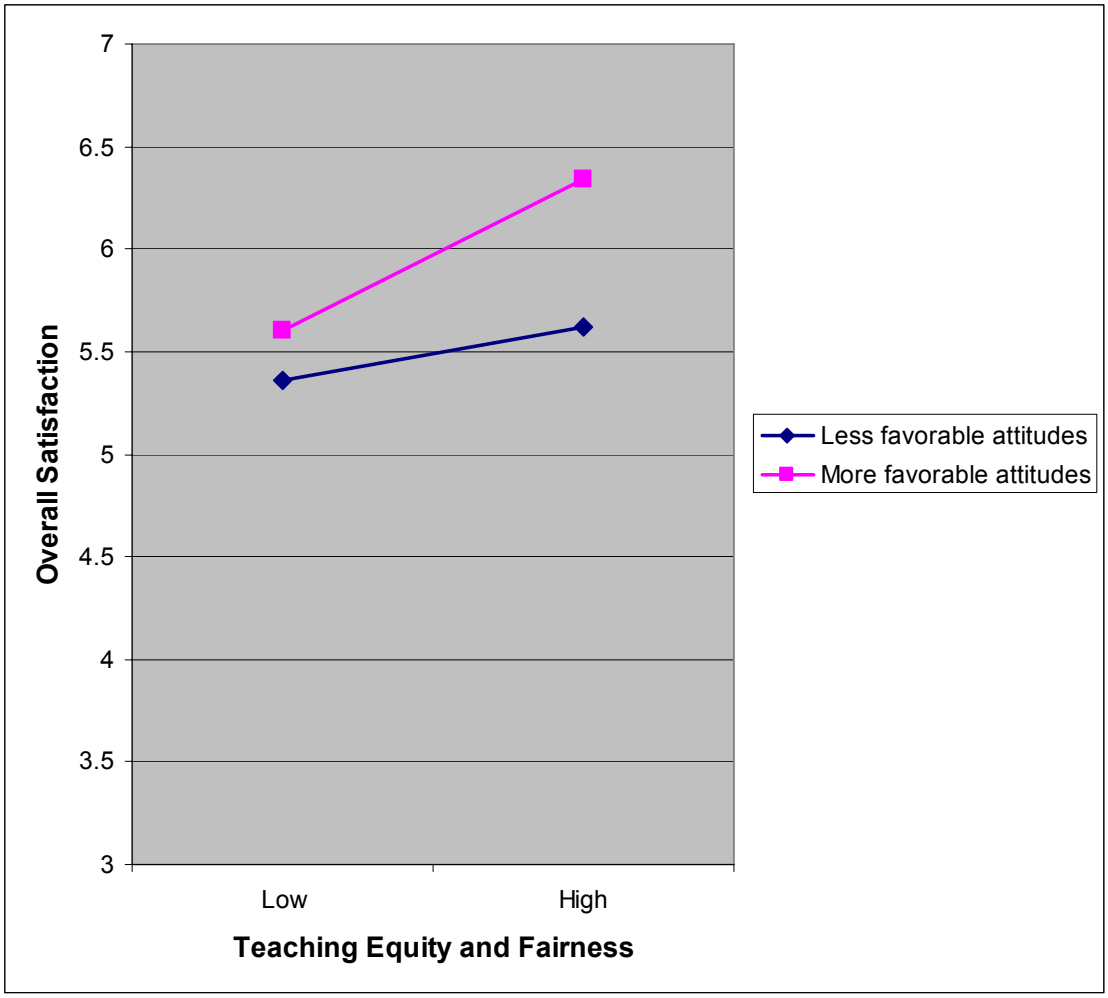


Figure 3.7: Graphical representation of the interaction of teaching equity and fairness and attitudes toward diversity with overall satisfaction as the dependent variable.

As shown in Table 3.14, the interaction between teaching equity and fairness and attitudes for predicting cultural awareness of significant (B = .12, p < .05). The interaction term contributed to explaining an additional 1% of the variance in increased cultural awareness, for a total of 9% of the variance.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Equity	.17 **	.06			
	Attitudes	.32 ***	.06	.08 ***		21.23
2	Equity x Attitudes	.12 *	.05	.09 *	.01	5.80

Note. Independent variable = teaching equity and fairness, dependent variable = cultural awareness.

N = 467. B = unstandardized regression coefficient for the variable in the step in which it was entered. SE(B) = standard error of the regression coefficient. R^2 = proportion of variance in the dependent variable accounted for by all the predictors in the regression equation. ΔR^2 = incremental variance accounted for by all the predictor variables entered at each step.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.14. Hierarchical regression of cultural awareness on teaching equity and fairness, attitudes, and the interaction term.

When individuals held less favorable attitude toward diversity, their ratings of cultural awareness were much lower than individuals who held more favorable attitudes toward diversity, and whether teaching equity and fairness were rated as high or low did not make much of a difference in their ratings of cultural awareness (as indicated by the very flat slope in Figure 3.8). Conversely, when individuals held positive attitudes toward diversity, their ratings of cultural awareness was higher, and much higher when teaching practices were perceived as being equitable and fair (as indicated by the steep slope).

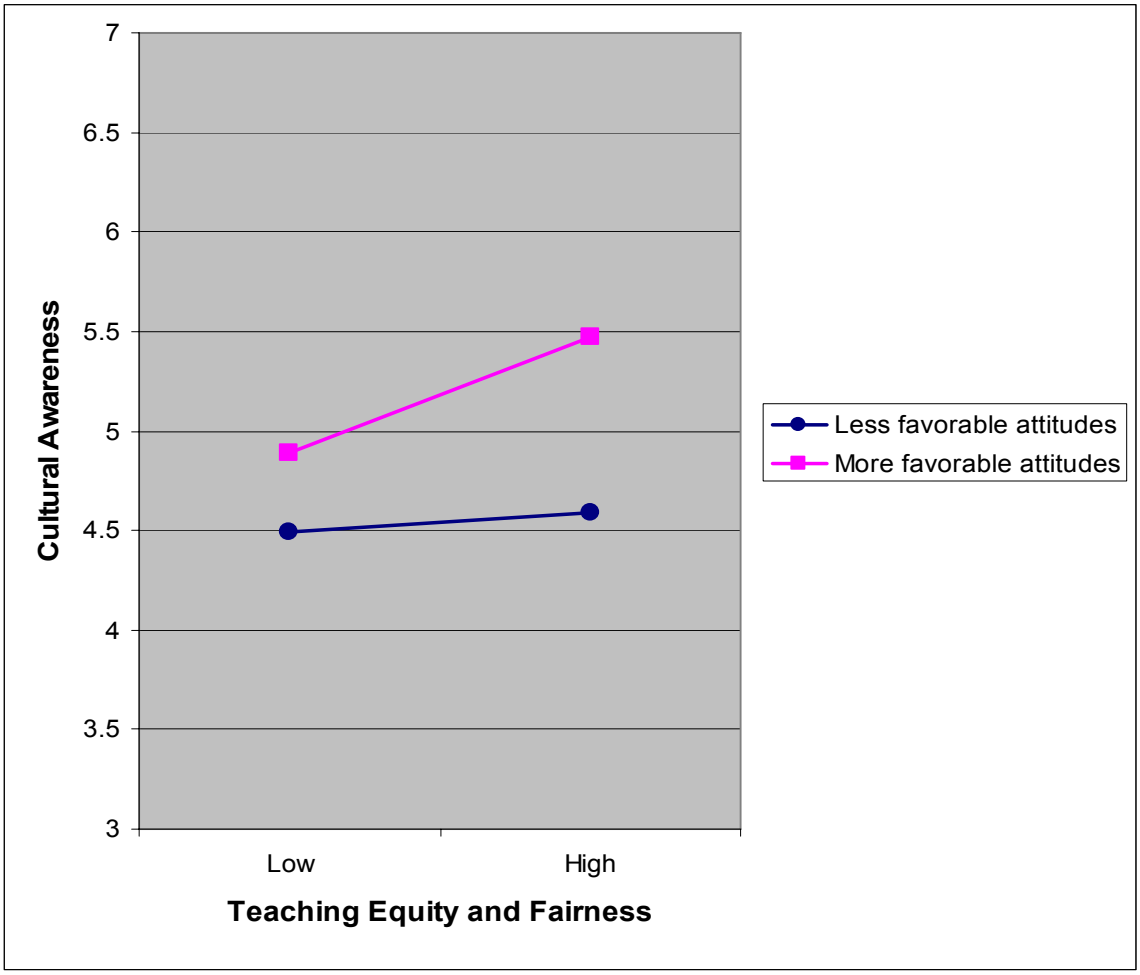


Figure 3.8: Graphical representation of the interaction of teaching equity and fairness and attitudes toward diversity with cultural awareness as the dependent variable.

Attitudes significantly moderated the relationship between teaching equity and fairness and belongingness ($B = .15$, $p < .01$). The interaction term explained an additional 2% of the variance, for a total of 10% of the variance in belongingness (Table 3.15).

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Equity	.44 ***	.07			
	Attitudes	.01	.07	.08 ***		21.22
2	Equity x Attitudes	.15 **	.05	.10 **	.02	7.86

Note. Independent variable = teaching equity and fairness, dependent variable = belongingness.

N = 467. B = unstandardized regression coefficient for the variable in the step in which it was entered. SE(B) = standard error of the regression coefficient. R^2 = proportion of variance in the dependent variable accounted for by all the predictors in the regression equation. ΔR^2 = incremental variance accounted for by all the predictor variables entered at each step.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.15. Hierarchical regression of belongingness on teaching equity and fairness, attitudes, and the interaction term.

Figure 3.9 depicts a clear interaction effect. When individuals held less favorable attitudes toward diversity, their ratings of belongingness was positively related to teaching equity and fairness. When individuals held more favorable attitudes toward diversity, their ratings of belongingness was also positively related to teaching equity and fairness, but more strongly so (as indicated by the steeper slope). Also, for this latter group, when they perceived teaching practices as being equitable and fair, their ratings of belongingness was higher than the former group. Conversely, when the latter group viewed teaching practices as being less equitable and fair, their sense of belongingness was rated lower than the former group of individuals.

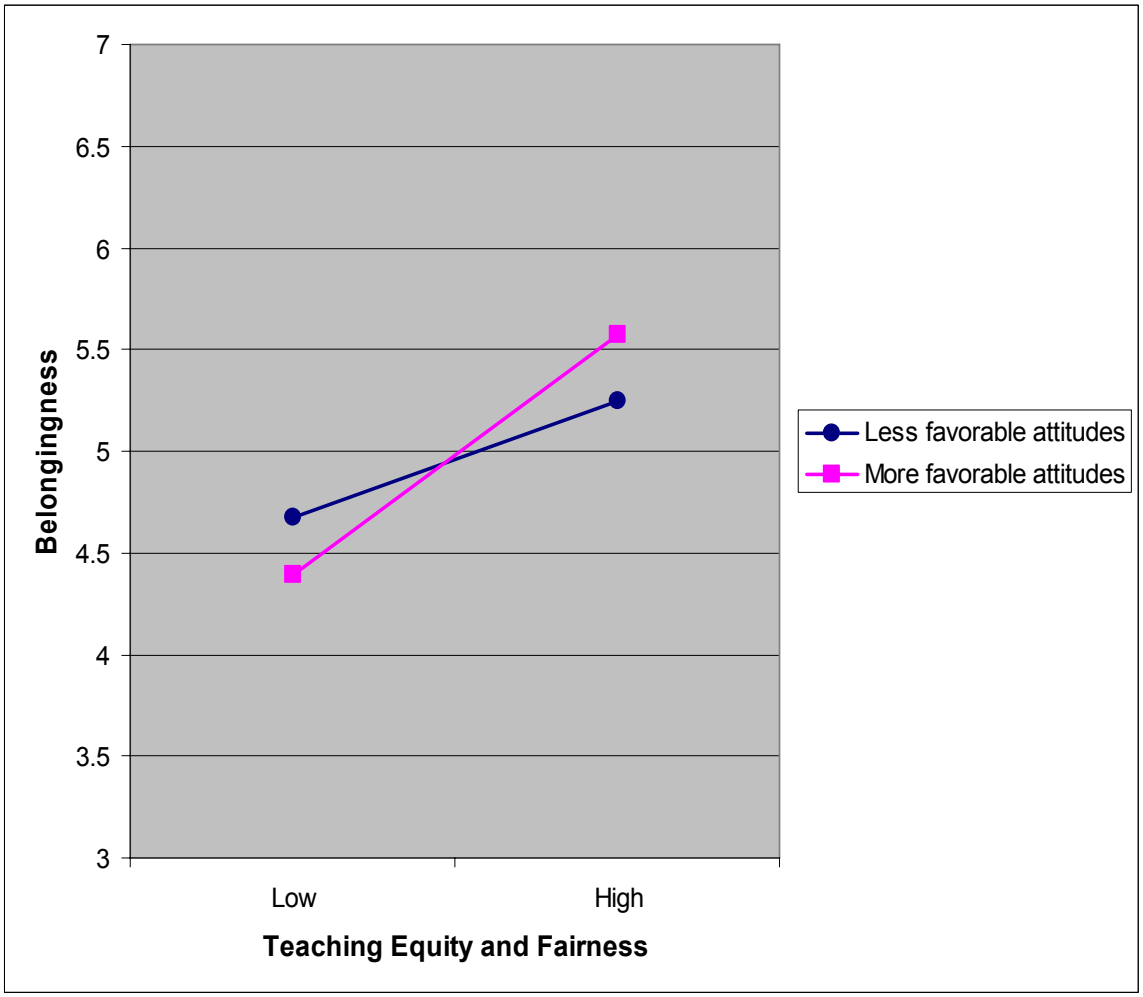


Figure 3.9: Graphical representation of the interaction of teaching equity and fairness and attitudes toward diversity with belongingness as the dependent variable.

The interaction term between teaching equity and fairness and identification was significant (B = .09, p < .05). The interaction term explained an additional 1% of the variance in identification, for a total of 9% of the variance (Table 3.16). Thus, the moderator hypothesis was supported for these variables.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Equity	.19 ***	.06			
	Attitudes	.28 ***	.06	.08 ***		20.73
2	Equity x Attitudes	.09 *	.05	.09 *	.01	3.86

Note. Independent variable = teaching equity and fairness, dependent variable = identification.

N = 467. B = unstandardized regression coefficient for the variable in the step in which it was entered. SE(B) = standard error of the regression coefficient. R^2 = proportion of variance in the dependent variable accounted for by all the predictors in the regression equation. ΔR^2 = incremental variance accounted for by all the predictor variables entered at each step.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.16. Hierarchical regression of identification on teaching equity and fairness, attitudes, and the interaction term.

As Figure 3.10 shows, for individuals with less favorable attitudes toward diversity, whether teaching equity and fairness was perceived as low or high, their sense of identification was much lower than for individuals with more favorable attitudes toward diversity. For individuals with more favorable attitudes toward diversity, the more teaching practices were perceived as being equitable and fair, the higher their ratings of identification with the school. Thus, positive diversity experiences on campus for individuals with favorable attitudes lead to students reporting higher levels of identification with the school, whereas there is less change in identification levels for students with less favorable attitudes toward diversity. Students who value diversity and report experiencing behaviors that are supportive of diversity correspondingly report being more identified with the school.

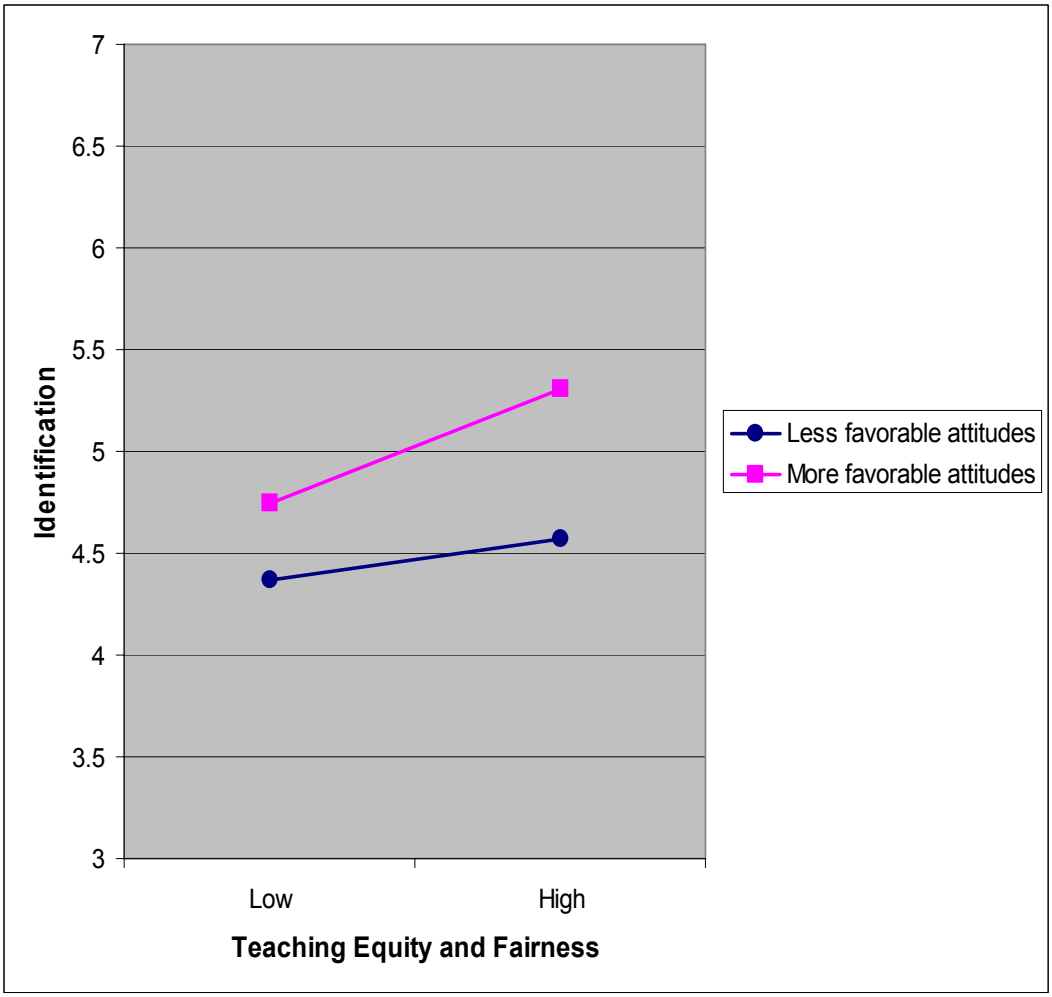


Figure 3.10: Graphical representation of the interaction of teaching equity and fairness and attitudes toward diversity with identification as the dependent variable.

Attitudes about diversity also significantly moderated the relationship between students' reports of personal experiences and their levels of identification (B = .13, p < .01). Attitudes explained an additional 1% of the variance in identification scores, for a total of 14% of the variance (Table 3.17).

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Personal experiences	.31 ***	.05			
	Attitudes	.30 ***	.05	.13 ***		35.45
2	P.exp x Attitudes	.13 **	.05	.14 **	.01	6.04

Note. Independent variable = personal diversity experiences, dependent variable = identification.

N = 467. B = unstandardized regression coefficient for the variable in the step in which it was entered. SE(B) = standard error of the regression coefficient. R^2 = proportion of variance in the dependent variable accounted for by all the predictors in the regression equation. ΔR^2 = incremental variance accounted for by all the predictor variables entered at each step.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.17. Hierarchical regression of identification on personal diversity experiences, attitudes, and the interaction term.

The form of the interaction is illustrated in Figure 3.11. As expected, personal diversity experiences were positively related to students' levels of identification. The interaction is reflected in the steeper slope of increase for students with favorable attitudes toward diversity; indicating that their levels of identification rose at a faster rate when their ratings of personal experiences as related to diversity improved. Conversely, for students with less favorable attitudes, their ratings of identification also improved, but at a slower rate.

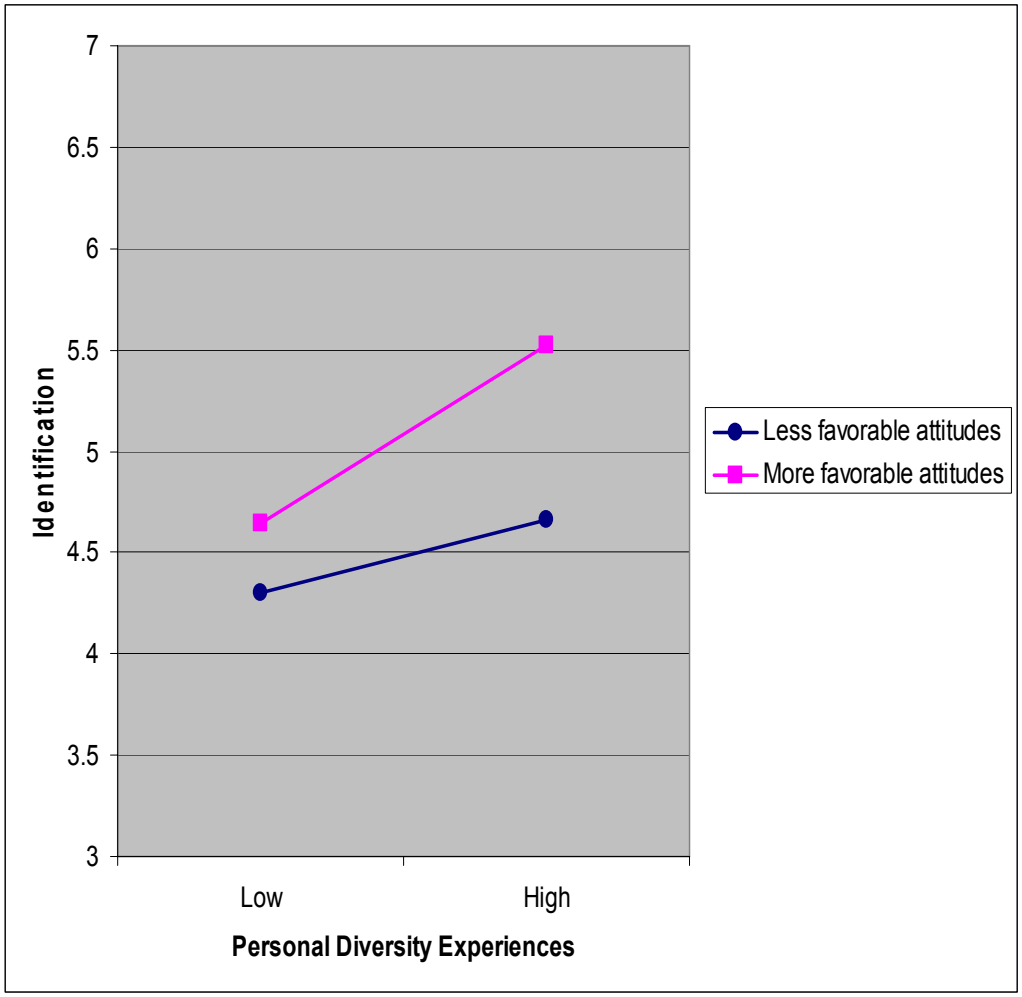


Figure 3.11: Graphical representation of the interaction of personal diversity experiences and attitudes toward diversity with identification as the dependent variable.

As shown in Table 3.18, attitudes significantly moderated the relationship between teaching equity and fairness and OCB (B = .13, p < .01). The interaction term explained an additional 1% of the variance in OCB, for a total of 16% of the variance.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Equity	.16 **	.06			
	Attitudes	.45 ***	.06	.15 ***		39.45
2	Equity x Attitudes	.13 **	.05	.16 **	.01	7.74

Note. Independent variable = teaching equity and fairness, dependent variable = OCB.

N = 467. B = unstandardized regression coefficient for the variable in the step in which it was entered. SE(B) = standard error of the regression coefficient. R^2 = proportion of variance in the dependent variable accounted for by all the predictors in the regression equation. ΔR^2 = incremental variance accounted for by all the predictor variables entered at each step.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.18. Hierarchical regression of OCB on teaching equity and fairness, attitudes, and the interaction term.

As Figure 3.12 shows, for individuals with less favorable attitudes toward diversity, whether teaching equity and fairness was perceived as low or high, they were less likely to report engaging in performance of OCB, than for individuals with more favorable attitudes toward diversity. For individuals with more favorable attitudes toward diversity, the more teaching practices were perceived as being equitable and fair, the more they reported engaging in OCB, as reflected in the steeper slope for these individuals. Thus, students who value diversity are more likely to engage in OCBs when they perceive that teachers are equitable and fair in their treatment of all students.

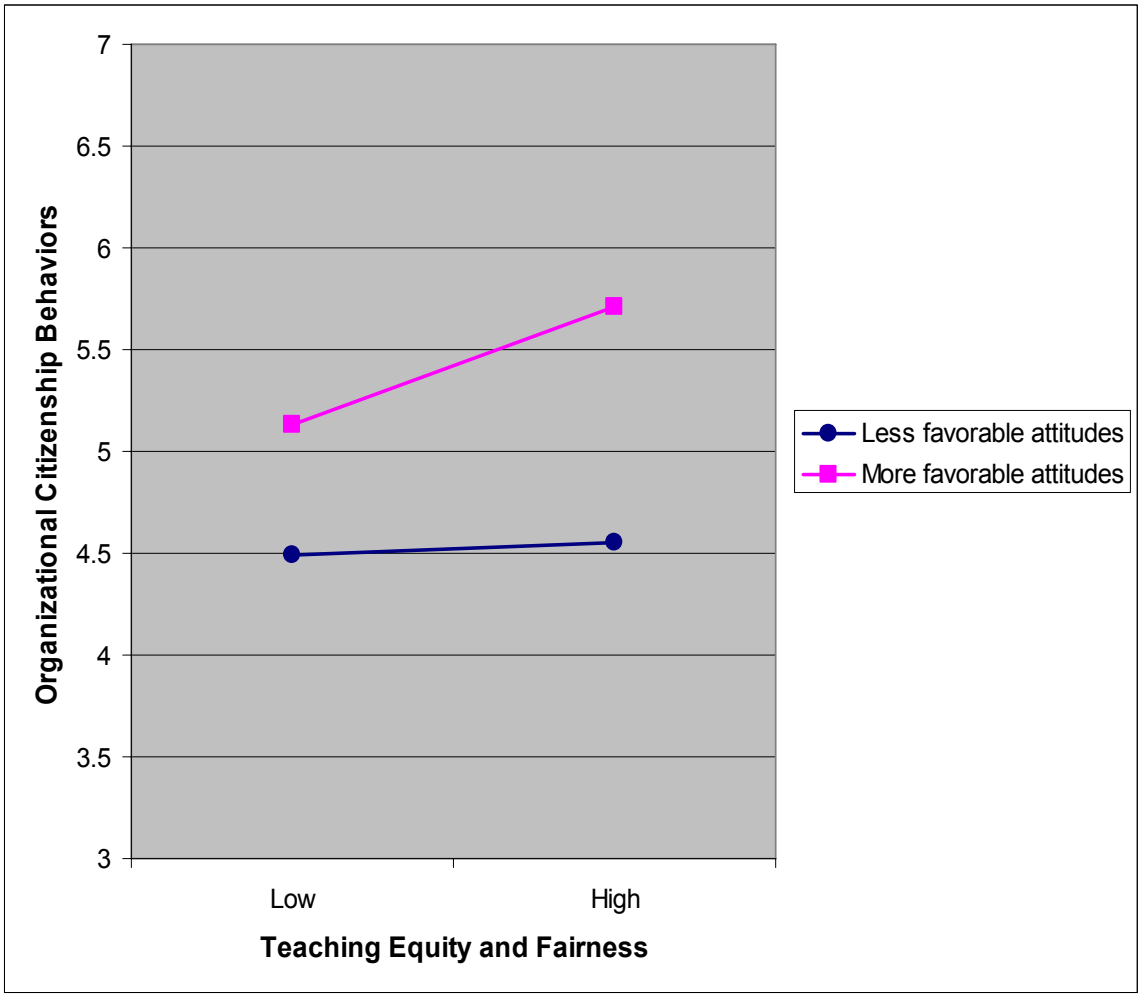


Figure 3.12: Graphical representation of the interaction of teaching equity and fairness and attitudes toward diversity with OCB as the dependent variable.

Overall, results of tests for moderation indicated that students' attitudes about diversity significantly interacted with six of the seven dimensions on satisfaction with diversity. Specifically, attitudes significantly moderated the relationship between satisfaction with diversity and six of the seven dimensions –

global climate ratings, top management support, teaching equity and fairness, observations of students' behaviors in classrooms, organizational resources and support, personal diversity experiences. In addition, for the climate dimension of teaching equity and fairness, six of the seven outcomes – satisfaction with diversity, overall satisfaction, cultural awareness, belongingness, identification, OCB – were significantly moderated by individuals' attitudes about diversity. There was also a significant interaction between personal diversity experiences and students' levels of identification.

CHAPTER 4

DISCUSSION

Measurement is a process that involves both theoretical and empirical considerations by focusing on the relationship between the unobservable construct and its empirical indicators. The central goals of this research were to develop a new instrument to measure the construct of organizational climate for diversity and examine its psychometric properties by applying a construct validation approach. Toward these ends, the construct was examined within a nomological network of expected relationships. A domain-sampling approach was used to review, select and develop items for the instrument. Data was gathered from a sample of students within a school setting to examine empirical support for the instrument. In this chapter, findings of the current research, implications, limitations, and suggestions for future research are considered.

Overview of Instrument Development Process

After a thorough review of the existing literature, the author provided theoretical rationale for the dimensions of organizational climate for diversity, predicted relationships between the climate construct and various outcomes, and presented a potential moderator of the relationships in the introduction chapter. A model was introduced that specified the relationships among the constructs and

measures. Collectively, these steps serve to satisfy assumption 1 of the nomological network presented in Figure 1.4, that the climate construct was related to the various outcomes.

Content Validity

To enhance the content validity of the instrument, the author attended diversity committee meetings at the client organization to gain understanding for the organization's needs, identified and assisted with telephone interviews of "best practices" schools, and conducted a systematic perusal of the existing academic literature to gather, select, and develop items for a measure used to tap the constructs of interest. Items were carefully reviewed with a psychologist with vast expertise in the area of scale development, who was also a Trustee of the client organization. Potential users were then invited to critique the pilot instrument for relevancy and inclusiveness.

Based on the careful use of the proper procedures for item development, it can be concluded that the new measure has content validity for assessing organizational climate for diversity. Demonstration of content validity supports construct validity, as the same procedures used to ensure content validity are closely related to defining the domain of empirical measures used in examinations of construct validity (Nunally & Bernstein, 1994).

Reliability

Empirical results indicated that coefficient alpha results were good to excellent for all of the original scales, except curriculum. Next, scale reduction procedures were conducted that aimed to increase the number of valid

responses and content validity of the scales, while preserving the estimates of alpha for each of the measured scales. Based on these criteria, three scales (formal institutional policies, student admissions, and curriculum) were excluded. After exclusion of justified items, the remaining scales still exhibit good to excellent levels of reliability, as measured by Cronbach's alpha. These indices provide initial validation of the assumptions that the dimensional and global climate measures are reliable indicators of the underlying constructs in the model (relations 2a, 2b, 3, and 6).

Review of Findings

Nomological Net: Traditional Construct Validation Approach

In accordance with the logic of construction validation, establishing the reliability of the scores derived from scales is a pre-requisite to examining the network of relationships in the model. Once it is established that the measurement scales are internally consistent, validation testing can proceed with hypotheses about interrelated constructs (Spector, 1992). Next, the empirical relationships between the measures are discussed, in order to make valid inferences about whether the measure developed represents an adequate tool for measuring the construct of interest.

Climate for Diversity Measures

Global ratings of diversity climate were proposed as evidence for convergent validity of the dimensional approach to measurement of climate for diversity. Correlation results reveal that global climate ratings exhibit moderate to strong relationships with each of the dimensional climate ratings. Each climate

dimension is moderately to strongly related to each other. These significant results provide empirical support for the hypothesized relationships between global climate ratings and dimensional climate ratings (relation 5), and for the inter-relatedness of the dimensions for assessing climate for diversity (relation 2a).

Further, exploratory stepwise regression results confirmed that five of the six dimensional ratings explain a significant proportion of the variance in global climate ratings, providing additional support for relation 5. These results are interpreted to imply that global climate ratings are a function of at least five sets of organizational practices: top management support, organizational resources and support, teaching practices, fellow students' behaviors, and personal experiences as related to diversity. Global climate ratings are thus a result of a complex set of systems issues, comprising of perceptions of both organizational support factors and others' behaviors within the school environment.

Teaching equity and fairness was the only dimension that failed to explain a significant portion of the variance in global climate ratings. This finding should be interpreted with caution, as it is setting-specific. I calculated the power of this test to examine if perhaps low power was a reason for the non-significant result. The power for this dimension is low (.07), indicating that Type II error (failure to detect true differences) is high (.93). A reason for the low power of this dimension is the numerous significant interaction effects found for this dimension, which will be discussed in a subsequent section.

Climate for Diversity with Outcomes

Further evidence of the construct validity of the measure is established if it behaves in theoretically-relevant manners with outcome measures, as represented in the nomological network. Correlation results between dimensional climate ratings with outcomes (relation 4a) and global climate ratings with outcomes (relation 4b) indicate that all relationships range from moderate to strong and are statistically significant, providing firm empirical support for the linkages. As hypothesized, high climate ratings (high dimensional or global ratings) are associated with higher levels of satisfaction with diversity, overall satisfaction, cultural awareness, belongingness, identification, and participation in Organizational Citizenship Behaviors (OCB). Also, as expected, the more favorable the climate, the less likely students are to leave the school.

Although specific hypotheses were not offered regarding the weighting of the dimensional climate ratings, regression analyses were conducted to explore the significance of each dimension for predicting the set of outcomes, as further examinations of the construct validity of the measure. Regression results indicate that each of the dimensional climate ratings explain a significant amount of variance in each of the outcomes. Similarly, global climate ratings can also be used to predict a significant amount of variance in the set of outcomes.

When compared to the dimensional ratings, global climate ratings also have the highest correlations with the various outcomes, and predict a significant amount of variance in each outcome. The correlational and regression results can jointly be applied toward inferences about the validity of the instrument. It

has been demonstrated that each of the dimensional climate ratings is related to each of the outcomes. Given that the global scale measures climate at a molar level, and global ratings explain substantially more variance in the outcomes than the various dimensions, it can be inferred that the various dimensional climate ratings culminate into assessments of the diversity climate, as represented by the global scale. Collectively, these findings contribute to establishing the construct validity of both the dimensional and global approaches to measurement of climate for diversity.

Importance of top management support. Within this setting, top management support is an important component of climate for diversity, both in terms of predicting outcomes and explaining a significant amount of variance in global climate ratings. In terms of construct validation, these results fit logically together, to allow a conclusion to be drawn that top management support is an important dimension for global climate ratings, and both scales (top management support and global) are useful in assessment of the diversity climate and prediction of scores on relevant outcomes. Thus, further evidence is added to establishing the construct validity of the measure for assessing climate for diversity.

Satisfaction with diversity. Given its direct content and domain relevance, amongst all the outcome variables, satisfaction with diversity was posited to have the strongest relationships with the climate scales. Empirical data firmly supports this notion, as the correlations between the dimensional and global climate ratings with satisfaction with diversity were larger than the correlations with the

remaining dependent variables. Similarly, regression results indicate that increases in each of the dimensional climate ratings is associated with increases in satisfaction with diversity, and predict a significant portion of the variance in satisfaction with diversity. In fact, five of the six dimensional climate ratings explain the most variance in satisfaction with diversity, as compared to the remaining outcomes. A unit increase in global climate ratings is also associated with a strong, parallel unit increase in satisfaction with diversity, and global climate ratings explain a substantial portion of the variance in satisfaction with diversity.

Overall, empirical results indicate that the scales are most strongly related to, and explain the most amount of variance in the most content- and domain-relevant outcome of satisfaction with diversity. These empirical results support the nomological network of relationships and fit logically together. Given that the author's intent was to develop items that tapped a specific climate, climate for diversity, as opposed to a broader, molar organizational climate, and the strongest relationships were found for the most-relevant and specific outcome, it can be inferred that the scales have construct validity for assessing organizational climate for diversity.

Thus far, linkages 1 to 5 set forth in the model have been supported. Following the classic logic of construct validation, empirical evidence has been established that the scores derived from the instrument are reliable and valid for measurement of organizational climate for diversity.

Moderation Findings

In addition to the classic methods for establishing construct validity, individuals' attitudes about diversity were examined as a potential moderator of the relationships. The logic for the introduction of the moderator was to more accurately specify the relationships between the predictors and criteria and to gather further evidence that the measure would behave in theoretically-predictable manners.

Satisfaction with Diversity

Results of tests for moderation indicate that students' attitudes about diversity significantly moderated the relationships between their ratings of the diversity climate and levels of satisfaction with diversity. As indicated by the plots of significant interactions, when the global climate and five of the six dimensional ratings (top management support, teaching equity and fairness, other students' behaviors in classrooms, organizational resources and support, and personal experiences) are low (i.e. unfavorable climate), students report low ratings for satisfaction with diversity. As ratings for these climate dimensions improve, students report higher ratings for satisfaction with diversity, regardless of their attitudes. These plots of positive relations are aligned with correlational and regression results, and provide support for the construct validity of the measure as it can be expected that as climate ratings improve, respondents' ratings of their satisfaction with diversity should correspondingly improve.

As the plots further elucidate, underlying these generally positive relationships between climate ratings and satisfaction with diversity is the role of

individuals' attitudes in moderating the relationships. Specifically, individuals with favorable attitudes rate their satisfaction with diversity significantly higher, than individuals with less favorable attitudes, when ratings for the above-mentioned dimensions are high (i.e. favorable climate). In effect, the highest levels of satisfaction with diversity are reported by students with favorable attitudes toward diversity and perceive that the school's climate is favorable for diversity. Similarly, the highest levels of belongingness to the school are reported by the students who hold favorable attitudes and perceive that teaching practices are equitable and fair. These results provide support for the moderation hypothesis that there should be compatibility between respondents' attitudes and the climate for reports of favorable outcomes.

Conversely, when ratings on these climate dimensions are low, students with favorable attitudes toward diversity consistently rated their satisfaction with diversity as being lower than students with less favorable attitudes. Similarly, these students with favorable attitudes report lower feelings of belongingness when they perceive teaching practices to be low on equitability and fairness. These findings also address the importance of correspondence between one's attitudes and the climate, as individuals who value diversity report the lowest levels of satisfaction with diversity and belongingness when various dimensions of the climate are seen as unfavorable for diversity (i.e. low climate ratings).

As theoretically exposited and empirically demonstrated, the climate scales are most strongly related to the outcome of satisfaction with diversity, when compared to the remaining outcomes. Conceptually, it can be expected

that as dimensions of the climate improve, individuals who hold favorable attitudes toward diversity should report higher levels of positive outcomes, than individuals who held less favorable attitudes. Moderation results indicate that attitudes indeed moderated relationships between numerous dimensions of climate and the most relevant outcome, satisfaction with diversity. On a whole, inclusion of attitudes as a moderator further strengthened the relations between climate ratings and satisfaction with diversity, such that individuals with favorable attitudes reported the highest levels of positive outcomes. These significant interaction effects for the most relevant outcome within the nomological network of variables contribute toward establishing further evidence of the construct validity of the measures.

Teaching Equity and Fairness

Students' attitudes about diversity also moderated the relationships between their perceptions of teaching equity and fairness and six of the seven outcomes. The highest levels of satisfaction with diversity, overall satisfaction, cultural awareness, belongingness, identification, and OCB are reported by students who hold favorable attitudes toward diversity and perceive that teaching practices are equitable and fair. Conversely, the plots depict that for students with less favorable attitudes toward diversity, the equitability and fairness of teaching practices are less important. Students with less favorable attitudes report lower levels of overall satisfaction, cultural awareness, identification, and OCB, than students with favorable attitudes toward diversity.

These findings jointly point toward the conclusion that as teaching equity and fairness improves, students with favorable attitudes report much higher levels of positive outcomes, without effecting much change for students with less favorable attitudes. These findings address the importance of correspondence between students' favorable attitudes and their perceptions of equitable and fair teaching practices with resultant reports of highest levels of positive outcomes, and collectively speak to the importance of this dimension for creation of a climate favorable toward diversity. In other words, equity and fairness is an important dimension for assessing the diversity climate, as it is important (i.e. lead to favorable outcomes) for students with favorable attitudes toward diversity.

Of note, equity was the only climate dimension that was not significant for predicting variance in global climate ratings. The reason for the insignificant predictor in the regression model is elucidated by the numerous significant interactions between this dimension with attitudes. Given the interaction findings, it can be concluded that the effect of the dimension of teaching equity and fairness (X_1) on various climate ratings (Y) is dependent on the level of individuals' attitudes about diversity (X_2). Hence, it is necessary to take into account the effect of the moderator, attitudes about diversity, in the regression model; the effect of equity on climate ratings cannot be directly assessed as it depends on individual's attitudes about diversity.

Further, compared to the rest of the climate scales, the equity scale has the highest mean and its variance is not high, indicating potential range restriction in scale scores. Presence of potential range restriction effects affects

the ability to detect moderation effects (Aguinis, 1995). Despite of the impact of range restriction, numerous significant interactions were found for equity and various climate dimensions. The collective evidence points to the importance of including teaching equity and fairness for a multidimensional approach to assessment of climate for diversity.

Students with favorable attitudes also report the highest levels of identification with the school when their personal experiences with diversity match their needs in valuing diversity. This significant interaction suggests that students' personal experiences as related to diversity are an important determinant of whether students identify with the school; students who value diversity and report experiencing behaviors that are supportive of diversity correspondingly report being more identified with the school.

Overall, the moderation findings support the importance of inclusion of attitudes about diversity in the model as a moderator. Across the plots, it is evident that for students with favorable attitudes, the rate of increase in reports of positive outcomes is greater as climate ratings improve. Students with favorable attitudes toward diversity report the highest levels of satisfaction with diversity, overall satisfaction, cultural awareness, identification, belongingness, and/or OCB when various dimensions of the climate (global, top management, students' behaviors, resources and support, personal experiences) are seen as supportive of diversity. Conceptually, if the measures developed are valid for assessing climate for diversity, when the climate ratings improve, students with favorable attitudes should report the highest levels of various outcomes. Findings indicate

that in total, when students hold favorable attitudes about diversity, many of the linkages presented in the model are strengthened. These collective interaction findings in theoretically-consistent manners lend support to the assertion that the various dimensions assessed represent the construct of climate for diversity.

Implications of Findings

Theoretical Implications

In scientific research, psychometrically sound measures are necessary as a precursor to model-building and theory testing. In order for researchers to conduct valid research, adequate measures are necessary, as “poor measurement imposes an absolute limit on the validity of the conclusions one can reach” (DeVellis, 2003, p. 12). Despite the crucial importance of this aspect of the scientific process, Organizational Behavior researchers have not given as much attention to examinations of the relationships between constructs and empirical indicators, as they have to the examinations of the relationships between constructs (Schwab, 1980). This research directly addresses the deficiency in this area of research by development and analysis of empirical indicators to allow inferences to be made about the underlying constructs.

By applying the logic of construct validation, the evidence to date is consistent with the interpretation that use of the instrument produces reliable scores and exhibits content, convergent, and construct validities. Notably, all the dimensional climate ratings are related to each other and to global climate ratings, and collectively explain a substantial portion of the variance in global ratings. In contrast to the narrow conceptualizations of past research, this

research represents a step toward a more comprehensive conceptualization of organizational climate for diversity, and has furthered our conceptual understanding of the multidimensional nature of the construct.

Further evidence for the construct validity of the measure is gathered by findings of the strongest relationships between dimensional and global climate ratings with the most domain-relevant outcome, satisfaction with diversity; and the significant interactions of attitudes on these relationships. The collective findings for satisfaction with diversity lend support to the utility of using a specific referent for organizational climate measures. Of all the outcome measures, in addition to being most directly relevant, satisfaction with diversity also has the narrowest focus, in terms of breadth. Thus, the significant findings for both the dimensional and global approaches for this specific outcome support the importance of matching the breadth of foci of predictors and criteria. These findings are also in line with applications of other specific climate measures in the literature (e.g., service, support, implementation, safety), that climate is best construed with a specific referent (Schneider, 1990).

Collectively, these findings suggest the utility of both dimensional and global approaches to measurement of organizational climate for diversity. Construct validity of the measure is demonstrated by empirical support for the proposed relations within a nomological network of relationships, for both the dimensional and global approaches. These dual approaches to measuring diversity climate yielded a measure for global evaluations, which addresses may of the same issues of the dimensional scales, but is not a composite of the

dimensional scales. Rather, the global scale is its own distinct scale designed to tap “molar” aspects of the diversity climate. In addition, dimensional measures are useful for specifying facets of organizational practices and procedures that, if attended to, may enhance incumbents’ perceptions of the diversity climate.

Evidence is accumulated that organizational climate for diversity is an important construct of study, both with theoretical and practical implications for respondents’ affective outcomes and behavioral tendencies. On a conceptual level, these findings also attest to the utility of operationally defining the climate construct as perceptions and provide support to the theoretical notion that incumbents’ perceptions of climate and subsequent reactions can be influenced through appropriate configurations of features of the organizational context (Kozlowski & Hults, 1987).

By applying construct validation principles, this research addresses some shortcomings of past conceptualizations and measurement of climate for diversity. For instance, although Kossek and Zonia (1993) adopted Schneider’s conceptualization of climate and sought to examine the “current organizational climate regarding diversity and pluralism”, the authors were mostly interested in comparisons of perceptions between majority and minority groups, rather than on an assessment of the organizational dimensions of diversity climate. In contrast to past researchers’ confounding of theories and measures, this research sought to explain and define clear rationale for the proposed dimensions, and examined expected relationships within a nomological network. An instrument that can

reliably measure student's perceptions of the organizational climate for diversity, with evidence for its validity, is contributed to the extant literature.

Finally, I offer some general comments about the detection of interaction effects. Although hierarchical multiple regression is the preferred method for examining moderator effects for continuous variables, there are concerns in the literature about the lower power of this method in detecting true interaction effects. Low power for detecting interaction effects is a particular problem with survey studies (McClelland & Judd, 1993). To increase power, a large sample size is needed to detect even a relatively small interaction effect, reliable measures must be employed, and there should be no problems with range restriction (Frazier et al., 2004). Despite being a survey study, significant interaction effects were able to be detected because there was a relatively large sample ($\underline{n}$ = 467), test scores were reliable (above α = .65) were used, and there were no problems with range restriction in responses.

Additionally, it should be noted that there was potential for range restriction in the current sample, as the mean score for attitudes was high and standard deviation was low. Results of monte carlo simulations (Aguinis & Stone-Romero, 1994; McClelland & Judd, 1993, as cited in Aguinis, 1995) have shown that when the variance of interaction terms in a range-restricted sample was lower than the variance of interaction terms in the non-restricted population, affecting the ability of using hierarchical moderated regression to detect moderator effects. Even when there is a mild degree of range restriction, loss of power poses a significant threat to the validity of conclusions from moderation

analyses (Aguinis, 1995). In the current study, even though there was potential range restriction in moderator scores, there were still many significant interaction effects found. The interaction findings may actually be understated, whereby if another sample of participants is used with more variability in attitudes scores, even more interaction effects may be detected.

Thus, although the magnitude of the interaction effects in this study were modest, this study represents a first step toward building a more accurate description and understanding of the relationships that exist between individuals' attitudes, their climate perceptions and reports of outcomes. Results indicate that the relationships between climate ratings and outcomes are qualitatively different, depending on individuals' attitudes about diversity. In contrast to past researchers' confounding of attitudes with perceptions as cumulative dimensions of climate for diversity (e.g., Kossek & Zonia, 1993; Mor Barak et al., 1998), this research provides theoretical and empirical evidence that individuals' attitudes are better cast as moderators of the relationship between climate and outcomes.

Practical Implications

Recent diversity researchers have surmised that immediately launching into diversity training without assessments cannot produce desired results. The measure developed may be used by practitioners as an assessment tool for organizational diagnosis, to formulate strategies for improving organizational climate for diversity and identify specific goals and purposes of diversity training and initiatives.

As shown, both the dimensional and global approaches are construct-valid approaches to measuring the climate. A dimensional approach can be adopted for the practical purpose of organizational diagnosis. Practitioners can employ the instrument as an assessment tool to identify areas of strength and needed improvement, in order to enhance participants' perceptions of the organization's support for diversity. Alternatively, the global measure may be an acceptable substitute for the longer scale in situations where survey length is a consideration. Initial empirical evidence has been provided that the global measure demonstrates reliability and validity for assessing incumbents' overall perceptions of the diversity climates.

The measures developed in this study provide a means to Thomas' (1991) call for organizations to perform an audit before beginning diversity efforts. The measure can be applied to other school settings, and results used to inform action plans for organizational interventions. This research has established the reliability of the scales and demonstrated its utility and validity. Before proceeding with diversity training, these instruments can be used by practitioners to gather baseline information about the existing climate of their schools, and to identify specific areas of need for improvement.

For dissertation analyses purposes, responses of Don't Know were disregarded to maximize the valid sample sizes for each measure for hypothesis testing and, in general, construct validation purposes. Nonetheless, it should be noted that for organizational diagnosis purposes, Don't Know responses may be valuable and informative. For instance, imagine a scenario when an organization

has spent considerable resources to form minority student organizations, but students report a high number of Don't Know to one of the organizational resources and support item: "At this school, there are organizations and clubs that appeal to students' varied interests". This pattern of response signals that the organization needs to spend more time and effort promoting the student organizations, so that students' awareness of their availability can be increased.

Results from this new measure can also be used to track improvements in the organizational climate over time. As an example, the information gathered from the survey was used by the current client organization to assess its current diversity climate, as a baseline measure, before implementation of specific diversity initiatives. Through careful survey development procedures, as reviewed, the survey was tailored to the organization's needs. Thus, the cross-sectional nature of the quantitative survey was accompanied by gathering of qualitative information at preceding points in time. The survey could also be potentially applied toward assessing improvements in the diversity climate in the future, after strategic diversity initiatives have been implemented.

This research has also demonstrated that proper management of the organizational climate for diversity has implications for the reported outcomes of participants. When various dimensions of the climate are well-managed, participants report higher levels of satisfaction with diversity, overall satisfaction, cultural awareness, belongingness, identification, participation in OCB, and are less likely to consider leaving the organization. In particular, interaction results depict that the highest levels of positive outcomes are reported when individuals

with favorable attitudes toward diversity rate the various climate dimensions as high. These findings lend empirical support to the benefits of diversity training, in increasing participants' awareness and understanding of multicultural issues and valuing of differences, as a potential avenue for organization interventions through diversity initiatives.

This research also lends support to the mounting literature on the importance of top management support in order for diversity initiatives to succeed. Results of both correlational and regression analyses indicate that administrators play a vital role in participants' perceptions of the true levels of support awarded to diversity initiatives. Quantitative support is offered to complement the conclusion that Datnow and Cooper (2000) drew from their case study of nine independent schools that "the impact of a school head's philosophy is clearly important in shaping the institution's overall philosophical commitment to creating and nurturing a multiracial student population" (p. 218).

The strong empirical patterns that emerged for top management support in this setting further lends support to Cox's (1993) assertion that organizational leaders should make the planning and implementation of systems and practices to manage diversity a high priority. Given their central roles, administrators' involvement should not only consist of periodic statements of support for minority groups. Instead, administrators are urged to be actively involved, to understand the value of diversity, to direct the necessary strategies to support diversity, and to model appropriate behaviors.

Finally, given the results, it can be seen that creation of a multicultural and diverse campus requires the commitments and efforts of its organizational members, from all fronts, with accompanying organizational resources and support. Although it is tempting to delegate responsibility for promoting diversity to specific programs, officers, or faculty, such an approach in effect absolves other institutional agents of responsibility for even basic individual awareness and change, and militates against a shared institutional commitment necessary for creation of a favorable climate (Stage & Hamrick, 1994). To create and foster a diverse climate requires widespread organizational support and commitment, targeted at multiple levels and entities.

Limitations

There are several limitations to the methodology employed in the current research, which could limit the generalizability of results. First, the research was cross-sectional. Use of survey data only allowed the examination of the direction and strength of associations between variables. Results are based on respondents' perceptions at a single point in time. Unlike the conditions of a controlled experiment, examinations of the direction and nature of causation were not possible, and extraneous variables could not be controlled.

Second, the results from this study were based on a single sample of private school students. Due to the target sample, most of the items developed in this instrument are pertinent for students in a school setting only. A different instrument would be necessary to tap employees' and/or staff's views. Further, the items on the measure were tailored to a private school's environment. Thus,

this new measure is site-specific and respondent-specific, and is not the best instrument for all groups of respondents within school settings. Therefore, results are contextualized and caution should be exercised in generalizing the findings to other schools.

Third, since the author's intent was to construct clear and concise items, the intent of the items were not disguised. Consequently, respondents may intentionally manipulate their scores. In this regard, the results of future administrations of the measure are likely to be dependent upon the circumstances of administration. Researchers interested in applying this new measure should be aware of the possibility that respondents may distort their responses if they feel, for example, threatened by answering the survey or are unsure how their responses will be incorporated. In short, it is important to exercise caution in administrating the topic-sensitive survey and to have detailed plans and instructions for implementing the survey.

A fourth possible limitation of this research was common method variance, as the quantitative data was collected solely through use of a Likert-rating scale. This limitation raises the potential concern of effect size inflation due to same source bias. It was impossible to determine whether the extent to which the relationships found among the variables can be attributed to true effects, or to bias resulting from the use of a common method of data collection (Sackett & Larson, 1990).

Directions for Future Research

A new measure of organizational climate for diversity was developed in this dissertation, with evidence for the scales' internal consistency and validities. However, construct validation is a lengthy, ongoing, even endless process (Cronbach, 1989). As with any new measure, further research is needed to refine construct validity, since scale development is an iterative process.

Future research that applies the instrument to other schools, to examine if the same pattern of relationships holds, would be beneficial. For instance, future researchers could administer the instrument to students from another independent school. Reproduction of the reliability and structure of the measure for different samples of students will provide support for its generalizability. By using multiple samples, the relative importance of the various dimensions in predicting outcomes can also be assessed. Longitudinal studies could also be conducted, to examine the test-retest stability of the measure.

Contextual differences between different types of schools, such as private versus public schools, or schools with and without a history of implementing diversity initiatives might also be examined. These samples can be used to establish another type of validity – known-groups validity (Spector, 1992). This form of validity is based on examination of hypothesized differences in scores from different groups of respondents. For example, it is logical to expect that a school with diverse subpopulations of students (race, ethnicity, gender) and diversity initiatives in place would have higher scores on a valid climate for diversity scale than a school with students of the same-gender, and mostly of the

same race (example, an all-boys boarding school) without a history of implementing diversity initiatives. Following this approach, if hypothesized differences were found between the schools, another piece of evidence would be added toward the construct validity of the measure.

In order to overcome the potential pitfalls of common method variance, other means of data collection should be utilized, such as collecting qualitative information through interviews with key personnel, review of relevant documents, and behavioral observations. Future researchers are urged to use a triangulation of methods for assessing organizational climate for diversity. Use of different forms of measurement allows the measure to be validated using a multitrait-multimethod matrix (Campbell & Fiske, 1959). Application of the matrix requires very rigorous standards for establishing the reliability and validity of a measurement instrument, constructed based upon a study or studies using several different methods of measurement and measuring both similar and dissimilar organizational climate constructs.

Originally, this dissertation was construed as incorporating the perspectives of various respondent groups by using items tailored to subgroups of students, faculty, and staff. Due to time and resource constraints, this research focused only on students' responses. The original conceptualization was analogous to attaining 360^{o} inputs from all major participant groups, which aimed to achieve a complete assessment of the organizational climate for diversity. From a methodological standpoint, a benefit of using multiple perspectives is to reduce singe source response bias, thereby increasing confidence in the validity

of the results. If the relationships and importance of both the dimensional and global approaches for measurement of climate for diversity are found to hold for different subgroups, there would be further support for the construct validity of this new measure. Such an approach extends upon Schneider et al.'s (1980) use of employees and customers in assessing the service climate of bank branches. Within school settings, a multi-perspective approach permits examination of relationships between process evaluations of organizational practices and procedures by employees (such as students admissions policies) and the outcome evaluations by students, experienced as the diversity climate.

Although the hypothesized relationships have generally been supported by the empirical data, the model needs to be further developed. Future research could elaborate upon and refine the model. A key finding of this research using cross-sectional data is that students' perceptions of the diversity climate are related to their levels of satisfaction with diversity and other outcomes; thus climate was cast as an independent variable. Future researchers can alternatively investigate the conditions or antecedents leading to creation of a climate supportive of diversity.

Climates, at various times, can be construed as independent, mediating, or dependent variables (Schneider et al., 1980). Conceptually, fostering a climate conducive for diversity rests on a foundation of internal structures, processes, goals, and rewards which yield behaviors supportive of a diverse climate (Schneider, White, & Paul, 1998). Organizational foundations or conditions can facilitate a climate supportive of diversity, which in turn lead to various outcomes.

To augment the current findings, future researchers can use longitudinal designs and causal modeling techniques to examine the causal directions between antecedents and creation of the diversity climate.

For instance, some of the variables examined in the current research – organizational resources and support and top management support – can be recast as antecedents or conditions for creating and fostering a diversity climate. Another potential antecedent is diversity training, which the literature points to as being a key component to creation of a diversity climate. Training provides individuals with the necessary competencies to understand, accept and embrace group differences. The presence of these organizational conditions potentially provides the basis for the development of a climate welcoming of diversity. In turn, the global climate scale developed in the current research (with demonstrated psychometric properties) can be applied toward measuring the climate construct.

Lastly, in order to explicate the construct and identify it as a unique variable worthy of investigation, acceptable levels of discriminant validity must be demonstrated. Future researchers could compare the correlations obtained from the current measure with a measure of social desirability. Sufficiently low correlations would provide indication of an acceptable level of discriminant validity, as organizational climate for diversity should not be related to individuals' tendencies to respond in a socially acceptable manner.

Contributions of Study

Despite the overwhelming amount of applied interest in the subject area of diversity, there is a lack of extensive conceptual examination of the construct of organizational climate for diversity. An extensive review of the literature established the need for a reliable and instrument that provides a more comprehensive measurement of the construct. Instruments in the existing literature, for the most part, were formulated to measure one or more characteristics of diversity and not to identify and measure the multidimensional nature of the construct. Part of this lack of theoretical progress may perhaps be attributed to the difficulty of making the construct operational and of deriving scales amenable to empirical testing and validation.

This study represents a first step toward creation of an instrument that provides a more comprehensive and psychometrically sound assessment of climate for diversity. Before models and theories can be built to examine the relationships between organizational climate for diversity and other constructs, it is essential that the nature of the construct itself be thoroughly defined. By adopting a construct validation approach, this research carefully explicated the expected relationships and demonstrated the utility of the instrument in predicting various outcomes. In so doing, this study contributes to our understanding of the underlying dimensions of the construct of climate for diversity, its outcomes, and the role of individuals' attitudes in moderating the relationships. Theoretical theory and knowledge is advanced in the field.

This study sought to demonstrate construct validity of a new measure of climate for diversity through careful analyses of its empirical indicators and to demonstrate convergent validity of the climate dimensions with global ratings of the climate for diversity. Reasonably strong evidence was presented for the internal consistency of the scales. Evidence was also presented for construct, content, and criterion-related validities.

Further, the instrument has practical utility for the client organization as a means of implementing organizational development. As an assessment tool, information gained from the surveys can be applied toward a diagnostic review of the current organizational climate for diversity, which can be applied toward insightful and meaningful formulation of strategies to target areas of needed improvement.

In conclusion, from a theoretical platform, this study provides a more comprehensive conceptualization and measurement of organizational climate for diversity and advances our theoretical and empirical understanding of the construct. Findings are presented with hope to stimulate further developmental work in the area, so that more accurate indicators of organizational climate for diversity can be derived. On a practical front, the findings point to the necessity for organizations to adopt a broad, integrative approach in building and reinforcing its commitment to diversity and multiculturalism. Organizational members are urged to commit to learning and working together, in building a community that is multicultural, caring, open, and just.

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APPENDIX A

SURVEY ADMINISTERED

SCHOOL CLIMATE SURVEY
MIDDLE AND UPPER SCHOOL STUDENTS

SURVEY INFORMATION

Purpose

The purpose of this survey is to gather impressions about the school, as seen by students in the Middle and Upper Schools. Please take advantage of this opportunity to voice your thoughts and opinions. The valuable information you provide will be considered in developing the school's long-term plans.

Confidentiality

Responses to this survey are anonymous: you are not asked to provide your name. School personnel will not know the answers of any individual student. However, we request background information, such as your age and gender, so that findings can be reported for different groups such as females. Completed surveys, which you will seal in the envelopes provided to you, will be given to external consultants to be analyzed and summarized.

Voluntary

Participation in this survey is voluntary: you can choose not to participate. In addition, if you choose to participate, feel free to skip any questions you do not want to answer.

GENERAL INSTRUCTIONS

This survey is expected to take about 30 to 45 minutes to complete. Although some questions may appear to be repetitive, the questions are necessary for building confidence in the results of the survey.

This is an opinion survey. It is not a test. There are no "right" or "wrong" answers to the questions on this survey. Answer the questions quickly, based on what you know or what you think, without puzzling or worrying about individual questions. Use the "don't know" option as needed, such as when you do not understand a question.

Please be aware that questions appear on both sides of most survey pages. Be sure to continue on to the back side of those pages. When you have completed the survey, please seal it in the envelope provided.

DEFINITIONS OF TERMS FREQUENTLY USED IN THE SURVEY

"**Administrative leadership**" – Leaders of the school such as the Headmaster, the Heads of School, and other school personnel such as the Director of Admissions who are involved in managing school business.

"**Diversity**" – The state of being varied, for example the extent to which the school community is made up of people from a variety of backgrounds (e.g., racial, income), with a variety of preferences (e.g., religion, interests, lifestyles), and with differing needs (e.g., disabilities).

"**Minority group**" – A group of people within a community with relatively fewer members, compared to other groups in the community. For example, in many schools, the sub-group of students with English as a second language is often a minority group within the school community.

SCHOOL CLIMATE SURVEY

BACKGROUND INFORMATION

The following background information is requested so that we can describe who responds to the survey.

Please circle, check **(✓)**, or write in the information that best describes you.
Please keep in mind that all of your answers are strictly confidential and in no way be will traced to you.

What grade are you in? Grade: _____

How many years have you have been attending this school? _____ years

Do you have siblings (brothers and/or sisters) currently attending this school? (please circle):

Yes No

If yes, circle the division(s) in which your sibling(s)' is (are) enrolled :

Lower Middle Upper

Do you have siblings who have graduated from this school? (please circle): Yes No

Is either of your parents an alumnus (graduate) of this school? Yes No

What is the zip code where you live? _____

BACKGROUND INFORMATION

(CONTINUED)

Your Gender: ____ Female ____ Male

Your Race/ Ethnicity: ____ Caucasian/White ____ African American/Black ____ American Indian/Alaskan ____ Asian/Pacific Islander ____ Hispanic ____ Other

(List: _____)

Your Religion: ____ Buddhist ____ Christian ____ Hindu ____ Islam/ Muslim ____ Judaist ____ Non-Religious

Is English your primary language?

____ Yes ____ No

Are you a U. S. Citizen or Permanent Resident?

____ Yes ____ No

How does your family's income compare to the family incomes of other students from this school?

____ Below Average
____ Average
____ Above Average
____ Don't Know

When you think about the report cards you have gotten this year, what grade (A, A-, B+, C etc.) best describes your academic performance? Grade _____

Have you been diagnosed as having a physical disability?

____ Yes ____ No

Have you been diagnosed as having a learning disability?

____ Yes ____ No

Do you want to be recognized as a member of any particular group (e.g. chess club, single parent family), including the groups listed on this page (e.g., Muslim)?

If you do, list up to 4 groups that you want to be "known by":

1. _____
2. _____
3. _____
4. _____

INSTRUCTIONS: Please indicate how much you agree or disagree with each of the statements in this survey. Use a number between 1 and 7 from the scale shown below to indicate your answer. Note that "1" means that you "strongly disagree", and "7" means that you "strongly agree" with the statement. Enter the number that most closely reflects your response to each statement by writing that number on the blank line to the right of the statement. Remember, you may use 1, 7, or any number in between.

If you "don't know" the answer to a question, write "DK" in the space provided. Note that "don't know" is a legitimate and important response. If the question does not apply to you, write "NA".

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree	**Please Answer: From "1" to "7"** "DK" if you don't know "NA" if not applicable
1	2	3	4	5	6	7	

1. This school provides a supportive environment for people from minority groups (such as African American students, and students with disabilities). ___
2. This school encourages the free and open expression of viewpoints, ideas, and beliefs. ___
3. Administrative leadership (which refers to Headmaster, Division Heads, and other school management personnel) encourages appreciation of group differences at this school. ___
4. This school's mission statement refers specifically to the value of having a culturally diverse school community. ___
5. The school seeks to attract and admit students from diverse cultural backgrounds. ___
6. In classes, teachers encourage students to express different views and perspectives. ___
7. When given a choice, students tend to form groups with students of similar backgrounds. ___
8. This school regularly organizes themed events and activities to promote understanding of people from different backgrounds and cultures. ___
9. I am treated with respect at this school. ___
10. I get more personal attention from teachers and staff who are similar to me (for example, same race). ___
11. Textbooks include examples and pictures of people from diverse backgrounds, in a variety of roles. ___
12. Accepting many different ways of life in America will strengthen us as a country. ___
13. This school is a good school for students from minority groups. ___
14. I am willing to put in extra effort to help this school be successful. ___
15. This school promotes understanding among people of different backgrounds and cultures. ___
16. Administrative leadership is committed to creating a school environment that welcomes all students. ___
17. This school has a formal statement about the value of diversity. ___
18. I feel exhausted because of the demands I have at school. ___
19. The school makes an effort to admit students from a variety of economic backgrounds (from families with low, middle and upper income families). ___

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree	**Please Answer:** **From "1" to "7"** "DK" if you don't know "NA" if not applicable
1	2	3	4	5	6	7	

20. In classes, teachers have lower standards (example, they grade easier) for students from minority groups. ___

21. At this school, there are organizations and clubs that appeal to students' varied interests. ___

22. The school often invites guest speakers from minority groups, such as African American women, Hispanic men, or disability awareness speakers. ___

23. In classes, students' verbal comments sometimes indicate a lack of respect for minority group members. ___

24. I have been treated differently at this school because of my race, sex, religion, or personal preferences. ___

25. In math and science classes, names used in examples and problems are usually male. ___

26. All cultural groups make positive contributions to American society. ___

27. Overall, I am satisfied with this school. ___

28. I feel as though I belong in the school community. ___

29. The environment at this school is welcoming to all students. ___

30. Administrative leadership emphasizes the importance of attracting a diverse student body. ___

31. This school has clear disciplinary procedures to address issues of harassment or discrimination. ___

32. This school's advertising is designed to appeal to students from minority groups. ___

33. In classes, teachers treat minority students more negatively (example, less eye contact). ___

34. In classes, teachers make students aware of the harm of stereotyping people. ___

35. In classes, students use appropriate language when referring to minority groups. ___

36. In classes, teachers are willing to allow students to challenge popular ideas. ___

37. At this school, I have observed conflict among people of different backgrounds. ___

38. In my experience, teachers at this school are easily approachable. ___

39. This school's library materials reflect a wide variety of perspectives. ___

40. We should have a basic understanding of different religions. ___

41. I am satisfied with the way this school values everyone, regardless of the person's race, gender, or social background. ___

42. My experiences at this school have contributed to my understanding of different cultural heritages. ___

43. When someone criticizes this school, it feels like a personal insult. ___

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree	**Please Answer:** **From "1" to "7"** "DK" if you don't know "NA" if not applicable
1	2	3	4	5	6	7	

44. On most mornings, I do not look forward to coming to school. ___

45. I frequently say positive things about this school to other people outside of the school. ___

46. This school provides appropriate accommodations for persons with disabilities. ___

47. In classes, teachers have the same expectations for all students, regardless of their backgrounds. ___

48. Administrative leadership talks about the value of having a diverse campus. ___

49. Siblings (brothers/sisters) of current students are given preference for admission to this school. ___

50. In classes, teachers ask simpler questions to students from minority groups. ___

51. In classes, teachers highlight the obstacles that are often faced by members of minority groups. ___

52. Discrimination (example, physical disability discrimination) against any person is formally not allowed on campus. ___

53. Students of different racial/ethnic backgrounds participate equally in classroom discussion. ___

54. Special events are planned with the goal of including all the cultures in the school (example, Holiday concert music selection). ___

55. At this school, I often hear students engage in humor that may be rude or offensive to people from minority groups. ___

56. I have experienced racial discrimination at this school. ___

57. I have been treated unfairly by a teacher or staff member. ___

58. People should develop meaningful friendships with people from different backgrounds. ___

59. In general, I like being a student here. ___

60. Sometimes, I feel out of place at this school. ___

61. Individuals from minority groups are often excluded from social gatherings at this school. ___

62. Administrative leadership is concerned with making this school a school that welcomes students from different cultural groups. ___

63. This school has clear procedures for anyone to report prejudiced or discriminatory experiences. ___

64. The school celebrates differences among students. ___

65. When contact is made with prospective students (example, during school tours), information is provided about the diversity of the school community. ___

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree	**Please Answer: From "1" to "7"** "DK" if you don't know "NA" if not applicable
1	2	3	4	5	6	7	

66. In classes, teachers pay the same amount of attention to all students, regardless of their backgrounds. ___

67. When assigning groups, teachers place students with mixed backgrounds together. ___

68. In math classes, female students participate as often as male students. ___

69. Within the school's buildings, such as classrooms or hallways, there are displays and images of people from different cultural and racial groups. ___

70. It is very important that all public facilities are accessible to the disabled. ___

71. I feel burned out from school. ___

72. I am glad I attend this school, rather than another school. ___

73. My experiences at this school have taught me to appreciate the differences between people. ___

74. In schools, it is good to have a mix of students with different religious beliefs. ___

75. I really care about this school's future. ___

76. I tell my friends that this school is a good school to attend. ___

77. At this school, students from different cultural groups socialize with one another. ___

78. In classes, students who voice minority opinions are accepted by fellow classmates. ___

79. Adequate attention is given to important festivals and holidays of all the cultures in the school. ___

80. In classes, teachers are sensitive to the needs of students from minority groups (example, religious fasting periods). ___

81. Food services provide culturally diverse food selections. ___

82. At this school, I have heard teachers and/or staff engage in humor that may be rude or offensive to people from minority groups. ___

83. I would like to leave this school for another school. ___

84. It is very important that society is respectful of gay and lesbian individuals. ___

85. I am comfortable with how people from minority groups are treated at this school. ___

86. Since attending this school, I have learned to value the ideas of people from different backgrounds. ___

87. I feel like "part of the family" at this school. ___

88. My values are very similar to the school's values. ___

89. I am willing to put in extra effort when the school needs help. ___

90. This school places a high value on fairness, respect, and appreciation of individual differences. ___

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree	**Please Answer: From "1" to "7"** "DK" if you don't know "NA" if not applicable
1	2	3	4	5	6	7	

91. Children of alumni are given preference for admission to this school. ___

92. In classes, teachers instruct us on good ways to communicate across gender, ethnic, racial, and social differences. ___

93. I am glad to be a student at this school. ___

94. I have a lot in common with other students attending this school. ___

95. The school has funds available to assist all students to participate in school-related activities, such as field trips. ___

96. At this school, important leadership positions (example, Class Officers or Team Captains) are held by students from different backgrounds. ___

97. In classes, teachers welcome the introduction of ideas, games, or sports from other countries. ___

98. In science classes, female students participate as often as male students. ___

99. In school, I have friends from different cultural groups. ___

100. Current students at this school are provided with information about the diversity of the school community. ___

101. Spending the day at this school stresses me out. ___

102. Racial and ethnic diversity is good for schools. ___

103. I am satisfied with the overall quality of education I receive at this school. ___

104. I am ready to transfer to a different school. ___

105. I am willing to volunteer my time for school projects. ___

106. At this school, there are adults from different backgrounds that students can look up to. ___

107. In school, I often study with students from different backgrounds. ___

109. Teachers have made embarrassing comments about my background in class. ___

110. Being a student at this school wears me out. ___

111. At this school, I sometimes hear offensive jokes and stories about people from minority groups. ___

112. I often think about leaving this school. ___

113. Since attending this school, I have learned how to communicate with others from different backgrounds. ___

114. When someone praises this school, it feels like a personal compliment. ___

115. I would be willing to encourage students from minority groups to attend this school. ___

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

Please Answer:
From "1" to "7"
"DK" if you don't know
"NA" if not applicable

116. In schools, it is good to have a mix of students from families with different income levels. ___

117. Teachers at this school have difficulty pronouncing non-American names. ___

118. I feel like I am an accepted member of the school community. ___

119. I feel a strong sense of "belonging" to this school. ___

120. Being a student at this school sets me apart, in a positive way, from students who attend other schools. ___

121. I am very fortunate to be a student at this school. ___

Do you have any additional comments or observations about the environment at the school that you would like to share with us? Please be mature in providing your response.

Please place the survey in the envelope and seal it.. Place the envelope in the box provided as you leave.

THANK YOU FOR YOUR PARTICIPATION IN THIS SURVEY.

APPENDIX B

INSTRUCTIONS FOR ITEM REVIEW SESSIONS

SCHOOL CLIMATE SURVEY
Survey Items Review Groups
Information for Facilitators

Thank you for your time and effort in facilitating the survey items review sessions. Here are some guidelines for conducting the sessions. Please follow these guidelines in order to ensure uniformity in the processes across groups. Each session should take about 1.5 to 2 hours.

Please read the following to your group:

The school is conducting a survey to collect information about perceptions of the school's environment. This information will be used for the school's strategic planning purposes. Different versions of this survey will be distributed to various respondent groups – students, teachers, staff, and parents.

You have been invited to review the clarity of the items of a new scale. These items were developed and selected based on scientific literature. Our goal today is to make sure that the items are clear and easily understood for the group of students that you are representing.

It is **VERY IMPORTANT** that you do not discuss the survey, or any part of it, once you leave this review session. We trust that you will not share the survey with anyone outside of this session.

Recommended Procedures:

A. As a group, spend 10 to 15 minutes to review the "Survey Instructions", including "Terms" and "Background Information" sections. Invite participants to comment.

B. For the rest of the survey, participants will individually go through the survey and:
   1. Answer each item;
   2. Circle any unclear or ambiguous items;
   3. Write notes or comments on the survey itself, as needed.

C. When all participants have completed the survey, review the survey with the entire group, section by section. Ask participants to:
   1. Indicate the items that are unclear or ambiguous.
   2. Discuss reasons for confusion or ambiguity, and perhaps suggestions for re-wording.

At the end of the session, please collect and return all surveys to Sheau-yuen.

THANK YOU!

APPENDIX C

SURVEY ARRANGED BY DIMENSIONS AND ITEMS

Item number in survey		Variable Name
	Global ratings of climate for diversity	
1.	This school provides a supportive environment for people from minority groups (such as, African American students and students with disabilities).	Glob1
2.	This school encourages the free and open expression of viewpoints, ideas, and beliefs.	Glob2
15.	This school promotes understanding among people of different backgrounds and cultures.	Glob3
29.	The environment at this school is welcoming to all students.	Glob4
61.	Individuals from minority groups are often excluded from social gatherings at this school.	Glob5 R
64.	The school celebrates differences among students.	Glob6
77.	At this school, students from different cultural groups socialize with one another.	Glob7
90.	This school places a high value on fairness, respect, and appreciation of individual differences.	Glob9
100.	Current students at this school are provided with information about the diversity of the school community.	Glob11
106.	At this school, there are adults from different backgrounds that students can look up to.	Glob12
	Eliminated items:	
46.	This school provides appropriate accommodations for persons with disabilities.	Glob8
96.	At this school, important leadership positions (example, Class Officers or Team Captains) are held by students from different backgrounds.	Glob10
	Top management support	
3.	Administrative leadership (which refers to Headmaster, Division Heads, and other school management personnel) encourages appreciation of group differences at this school.	Top1
16.	Administrative leadership is committed to creating a school environment that welcomes all students.	Top2
30.	Administrative leadership emphasizes the importance of attracting a diverse student body.	Top3
48.	Administrative leadership talks about the value of having a diverse campus.	Top4
	Eliminated item:	
62.	Administrative leadership is concerned with making this school a school that welcomes students from different cultural groups.	Top5

Formal institutional policies

– SCALE EXCLUDED FROM ANALYSES

4.	This school's mission statement refers specifically to the value of having a culturally diverse school community.	Formp1
17.	This school has a formal statement about the value of diversity.	Formp2
31.	CA has clear disciplinary procedures to address issues of harassment or discrimination.	Formp3
63.	This school has clear procedures for anyone to report prejudiced or discriminatory experiences.	Formp4
52.	Discrimination (example, physical disability discrimination) against any person is formally not allowed on campus.	Formp5

Student admissions policies

– SCALE EXCLUDED FROM ANALYSES

5.	The school seeks to attract and admit students from diverse cultural backgrounds.	Adm1
19.	The school makes an effort to admit students from a variety of economic backgrounds (from families with lower, middle, and upper income families).	Adm2
32.	This school's advertising is designed to appeal to students from minority groups.	Adm3
49.	Siblings (brothers/sisters) of current students are given preference for admission to this school.	Adm4R
91.	Children of alumni are given preference for admission to this school.	Adm5R
65.	When contact is made with prospective students (example, during school tours), information is provided about the diversity of the school community.	Adm6

Teaching equity and fairness

47.	In classes, teachers have the same expectations for all students, regardless of their backgrounds.	Equity1
20.	In classes, teachers have lower standards (example, they grade easier) for students from minority groups.	Equity2R
33.	In classes, teachers treat minority students more negatively (example, less eye contact).	Equity3R
50.	In classes, teachers ask simpler questions to students from minority groups.	Equity4R
66.	In classes, teachers pay the same amount of attention to all students, regardless of their backgrounds.	Equity5

Classroom practices: Teachers' behaviors

6.	In classes, teachers encourage students to express different views and perspectives.	Tobs1
36.	In classes, teachers are willing to allow students to challenge popular ideas.	Tobs2
34.	In classes, teachers make students aware of the harm of stereotyping people.	Tobs3
92.	In classes, teachers instruct us on good ways to communicate across gender, ethnic, racial, and social differences.	Tobs5
80.	In classes, teachers are sensitive to the needs of students from minority groups (example, religious fasting periods).	Tobs6

Eliminated items:

51.	In classes, teachers highlight the obstacles that are often faced by members of minority groups.	Tobs4
67.	When assigning groups, teachers place students with mixed backgrounds together.	Tobs7
97.	In classes, teachers welcome the introduction of ideas, games, or sports from other countries.	Tobs8

Classroom practices: Students' behaviors

23.	In classes, students' verbal comments sometimes indicate a lack of respect for minority group members.	Sobs2R
35.	In classes, students use appropriate language when referring to minority groups.	Sobs3
53.	Students of different racial/ethnic backgrounds participate equally in classroom discussion.	Sobs4
78.	In classes, students who voice minority opinions are accepted by fellow classmates.	Sobs7

Eliminated items:

7.	When given a choice, students tend to form groups with students of similar backgrounds.	Sobs1R
98.	In science classes, female students participate as often as male students.	Sobs5
68.	In math classes, female students participate as often as male students.	Sobs6

Organizational resources and support

8.	This school regularly organizes themed events and activities to promote understanding of people from different backgrounds and cultures.	Res1
21.	At this school, there are organizations and clubs that appeal to students' varied interests.	Res2
22.	The school often invites guest speakers from minority groups, such as African American women, Hispanic men, or disability awareness speakers.	Res3
54.	Special events are planned with the goal of including all the cultures in the school (example, Holiday concert music selection).	Res4
79.	Adequate attention is given to important festivals and holidays of all the cultures in the school.	Res5
69.	Within the school's buildings, such as classrooms or hallways, there are displays and images of people from different cultural and racial groups.	Res7
81.	Food services provide culturally diverse food selections.	Res8

Eliminated items:

95.	The school has funds available to assist all students to participate in school-related activities, such as field trips.	Res6

Personal diversity experiences

24.	I have been treated differently at this school because of my race, sex, religion, or personal preferences.	Pexp2R
56.	I have experienced racial discrimination at this school.	Pexp3R
37.	At this school, I have observed conflict among people of different backgrounds.	Pexp6R
111.	At this school, I sometimes hear offensive jokes and stories about people from minority groups.	Pexp7R
55.	At this school, I often hear students engage in humor that may be rude or offensive to people from minority groups.	Pexp8R
82.	At this school, I have heard teachers and/or staff engage in humor that may be rude or offensive to people from minority groups.	Pexp9R
57.	I have been treated unfairly by a teacher or staff member.	PexpFS2R
109.	Teachers have made embarrassing comments about my background in class.	PexpFS5R

Eliminated items:

9.	I am treated with respect at this school.	Pexp1
99.	In school, I have friends from different cultural groups.	Pexp4
107.	In school, I often study with students from different backgrounds.	Pexp5
10.	I get more personal attention from teachers and staff who are similar to me (for example, same race).	PexpFS1R
38.	In my experience, teachers at this school are easily approachable.	PexpFS3
117.	Teachers at this school have difficulty pronouncing non-American names.	PexpFS4R

Curriculum

– SCALE EXCLUDED FROM ANALYSES

11.	Textbooks include examples and pictures of people from diverse backgrounds, in a variety of roles.	Curr1
108.	Supplementary learning materials in classes, such as videos, include examples and pictures of people from diverse backgrounds, in a variety of roles.	Curr2
25.	In math and science classes, names used in examples and problems are usually male.	Curr3R
39.	This school's library materials reflect a wide variety of perspectives.	Curr4

Attitudes about diversity

12.	Accepting many different ways of life in America will strengthen us as a country.	Att1
26.	All cultural groups make positive contributions to American society.	Att2
58.	People should develop meaningful friendships with people from different backgrounds.	Att3
40.	We should have a basic understanding of different religions.	Att4
70.	It is very important that all public facilities are accessible to the disabled.	Att5
84.	It is very important that society is respectful of gay and lesbian individuals.	Att6
102.	Racial and ethnic diversity is good for schools.	Att7
116.	In schools, it is good to have a mix of students from families with different income levels.	Att8
74.	In schools, it is good to have a mix of students with different religious beliefs.	Att9

Satisfaction with diversity

13.	This school is a good school for students from minority groups.	DVSatdiv1
41.	I am satisfied with the way this school values everyone, regardless of the person's race, gender, or social background.	DVSatdiv2
85.	I am comfortable with how people from minority groups are treated at this school.	DVSatdiv3

Overall satisfaction

27.	Overall, I am satisfied with this school.	DVSat1
59.	In general, I like being a student here.	DVSat2
93.	I am glad to be a student at this school.	DVSat3
72.	I am glad I attend this school, rather than another school.	DVSat4
103.	I am satisfied with the overall quality of education I receive at this school.	DVSat5
121.	I am very fortunate to be a student at this school.	DVSat6

Intent to leave

112.	I often think about leaving this school.	DVLeave1
104.	I am ready to transfer to a different school.	DVLeave2
83.	I would like to leave this school for another school.	DVLeave3

Cultural awareness

42.	My experiences at this school have contributed to my understanding of different cultural heritages.	DVCult1
73.	My experiences at this school have taught me to appreciate the differences between people.	DVCult2
86.	Since attending this school, I have learned to value the ideas of people from different backgrounds.	DVCult3
113.	Since attending this school, I have learned how to communicate with others from different backgrounds.	DVCult4

Feelings of belongingness

28.	I feel as though I belong in the school community.	DVBelong1
118.	I feel like I am an accepted member of this school's community.	DVBelong2
87.	I feel like "part of the family" at this school.	DVBelong3
119.	I feel a strong sense of "belonging" to this school.	DVBelong4
60.	Sometimes, I feel out of place at this school.	DVBelong5R

Identification

43.	When someone criticizes this school, it feels like a personal insult.	DVIden1
114.	When someone praises this school, it feels like a personal compliment.	DVIden2
88.	My values are very similar to the school's values.	DVIden3
94.	I have a lot in common with other students attending this school.	DVIden4
75.	I really care about this school's future.	DVIden5
120.	Being a student at this school sets me apart, in a positive way, from students who attend other schools.	DVIden6

Organizational citizenship behaviors

14.	I am willing to put in extra effort to help this school be successful.	DVOCB1
105.	I am willing to volunteer my time for school projects.	DVOCB2
89.	I am willing to put in extra effort when the school needs help.	DVOCB3
115.	I would be willing to encourage students from minority groups to attend this school.	DVOCB4
76.	I tell my friends that this is a good school to attend.	DVOCB5
45.	I frequently say positive things about this school to other people outside of the school.	DVOCB6

APPENDIX D

SURVEY ADMINISTRATION INSTRUCTIONS

The School Climate Survey:
Step-by-Step Instructions for Survey Administrators

Purpose Of These Instructions:

These instructions are designed to serve as a step-by-step guide to teachers, staff or other adults who are administering *the School Climate Survey* in a classroom, or classroom-like setting.

Thank you in advance for taking on this important role. The information gathered from students will be important to consider in the process of developing the school's next long range plan.

STEP 1: "THINGS TO DO" The Day Before Administering The Survey

1. Read this document, "**Step-by-Step Instructions for Survey Administrators**", the day before the survey is to be administered.

2. Also, read the cover page of the survey (page 1) to familiarize yourself with the instructions. You will be asked to read this page aloud to students (see STEP 4) before they begin the survey.

3. Also, review a) page 2 of the survey which requests background information from students, and b) the instructions at the top of page 3 – which explain the 7-point Agree-Disagree Response Scale to be used by students in answering survey questions. These are portions of the survey that are likely to elicit questions or requests for clarification from students.

4. Make sure you have been given enough copies of the survey/envelope packets for the size of the group you will be working with, plus an additional copy of the survey for your refererence.

5. Determine where you will ask students to place their surveys (which are to be sealed in the envelope provided) at the end of the class period (e.g., have students place surveys in a box which you provide at the front of the room)

STEP 2: "THINGS TO DO" Just Prior To Administering The Survey

1. **Bring a copy of these "Step-by-Step Instructions for Survey Administrators" and the appropriate number of surveys & envelopes** (plus one extra copy of the survey for your reference) to the room where you will be administering the School Climate Survey.

2. **Please arrive early.** In order for students to have adequate time to complete the survey without feeling rushed, it is very important to begin administering the survey soon after students arrive in the classroom. This will only be possible if you arrive a few minutes early so you can direct students to be seated immediately upon arrival to the classroom.

3. **Keep one copy of the survey for your use**. As indicated on the next page, you are asked to
   read the cover page (page 1) of the survey aloud to the students, and also to read the instructions at the top of page 3 of the survey.

STEP 3: "THINGS TO DO" When The Students Arrive BUT Before They Begin The Survey

1. **Instruct students to take their seats immediately** and to place a pen or pencil on the desk top.

2. Once the students are seated, ***Please read the following statement verbatim:***

On February 15, all families received a letter from the Headmaster explaining that members of the school community such as faculty and students would be asked to "give" a different type of gift to the school in the coming months – a gift of opinion and ideas. That is what we are asking of you today.

In order to be successful, schools must look ahead and create long-range plans for the future. For those plans to be effective, they must take into account the opinions, and ideas of a wide range of people who are involved with the school. Today we are seeking students' views about a range of topics that are very important to the development of the school's next long range plan.

We are inviting you to participate in a survey so that we can understand your views about these topics. I want to strongly emphasize that your participation in the survey is voluntary but we hope you choose to participate so that your opinions can be considered.

Let's take a few minutes to review some important information about the survey and to review the instructions for completing the survey. Do not begin completing the survey until I say 'Begin now."

3. Pause now to **distribute copies of the survey/envelope packets** to students.

STEP 4: "THINGS TO DO" After Surveys Have Been Distributed To Students

1. Please say the following to students: ***"Read along with me as I review the cover page, page 1, of the survey." (Begin reading the cover page aloud now.)*** *Answer questions as needed.*

2. **Ask students to turn to page 3**. Read the instructions at the top of that page aloud to make sure that students understand how to use the 7-point Agree-Disagree scale, and the "don't know" and "not applicable" response options.

3. Again, **remind students that participation is voluntary** but, once more, encourage all students to participate.

4. Explain to the students that they **must remain in the class for the entire class period**.
5. Explain that <u>all students will be expected to turn-in a survey</u> (completed or blank) sealed in the envelope provided at the end of the class period. Indicate where surveys should be placed.

STEP 5: "THINGS TO DO" During the Survey Period

1. Tell students to "**Begin Now**" and to remain in their seats until the end of the class period.

2. **Monitor Students** - To insure privacy, confidentiality, and to promote honest responses, please do not wander around the room while students complete the survey – unless you observe or suspect inappropriate behavior. Handle these situations consistent with school policy.

3. **Inform students of the time about 10 minutes before the end of the class period**.

STEP 6: "THINGS TO DO" at the End of Class Period

1. Tell students that the class period has come to an end and thank them for their participation.

2. Remind students to seal their surveys, completed or not, in the envelopes provided and to place the envelope in the location you have indicated as they leave the classroom.

3. Return sealed envelopes and any unused surveys or envelopes to either the Middle School Office or the Upper School Office. *** **Please be sure that no student leaves the room with a copy of a survey.**

APPENDIX E

ITEM NON-RESPONSE FREQUENCIES

Dimension: Global ratings of climate for diversity

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
Glob1	547	5.30	1.36	20	15	2	37	6.3%
Glob2	581	5.10	1.48	1	-	2	3	0.5%
Glob3	545	5.14	1.27	31	-	8	39	6.7%
Glob4	565	5.06	1.58	7	1	11	19	3.3%
Glob5 (R)	507	2.50	1.65	62	2	13	77	13.2%
Glob6	499	4.71	1.53	63	1	21	85	14.6%
Glob7	546	5.61	1.30	20	1	17	38	6.5%
Glob8 *	446	4.79	1.64	105	18	15	138	23.6%
Glob9	540	5.34	1.40	21	-	23	44	7.5%
Glob10 *	443	5.11	1.57	103	18	20	141	24.1%
Glob11 *	457	4.43	1.59	95	3	29	127	21.7%
Glob12	496	4.81	1.57	57	2	29	88	15.1%
SCALE	561	5.10	0.91					
Missing	23							

Note. * Items with large numbers of non-response (contributing to >20% total).

Dimension: Top management support

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
Top1	543	5.40	1.34	34	3	4	41	7.0%
Top2	532	5.37	1.37	45	-	7	52	8.9%
Top3 *	466	5.16	1.39	99	5	14	118	20.2%
Top4 *	452	5.03	1.47	108	8	16	132	22.6%
Top5 *	437	5.24	1.43	118	8	21	147	25.2%
Scale	504	5.25	1.08					
Missing	80							

Dimension: Formal institutional policies

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
Formp1 *	426	4.95	1.49	147	1	10	158	27.1%
Formp2 *	390	5.04	1.48	179	3	12	194	33.2%
Formp3	490	5.04	1.65	78	4	12	94	16.1%
Formp4 *	402	4.06	1.88	151	9	22	182	31.2%
Formp5	527	5.72	1.40	37	5	15	57	9.8%
Scale	481	4.99	1.18					
Missing *	103							

Dimension: Student admissions policies

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
Adm1	517	5.42	1.36	62	-	5	67	11.5%
Adm2	505	4.65	1.71	69	1	9	79	13.5%
Adm3 *	381	4.27	1.58	173	14	16	203	34.8%
Adm4 (R) *	335	5.23	1.64	197	41	11	249	42.6%
Adm5 (R) *	364	5.46	1.59	182	18	20	220	37.7%
Adm6 *	294	4.37	1.74	254	16	20	290	49.7%
Scale	471	4.12	1.03					
Missing *	113							

Dimension: Teaching equity and fairness

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
Equity1	543	5.72	1.40	27	3	11	41	7.0%
Equity2 (R)	479	2.37	1.61	93	3	9	105	18.0%
Equity3 (R)	495	2.06	1.44	75	4	10	89	15.2%
Equity4 (R)	499	2.21	1.45	64	9	12	85	14.6%
Equity5	543	5.87	1.30	26	1	14	41	7.0%
Scale	537	5.79	1.05					
Missing	47							

Dimension: Classroom practices – Teachers' Behaviors

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
Tobs1	577	5.24	1.39	2	1	4	7	1.2%
Tobs2	527	5.22	1.41	45	1	11	57	9.8%
Tobs3	523	4.81	1.53	43	7	11	61	10.4%
Tobs4 *	459	3.90	1.66	100	6	19	125	21.4%
Tobs5	488	4.28	1.60	58	10	28	96	16.4%
Tobs6	497	5.30	1.51	61	7	19	87	14.9%
Tobs7 *	473	4.57	1.85	90	6	15	111	19.0%
Tobs8 *	464	4.74	1.54	89	8	23	120	20.5%
Scale	557	4.78	0.91					
Missing	27							

Dimension: Classroom practices – Students' Behaviors

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
Sobs1 (R)	557	4.91	1.68	21	2	4	27	4.6%
Sobs2 (R)	534	3.96	1.83	36	2	12	50	8.6%
Sobs3	545	5.26	1.52	28	1	10	39	6.7%
Sobs4	537	5.64	1.34	33	2	12	47	8.0%
Sobs5	524	5.70	1.41	34	4	22	60	10.3%
Sobs6	535	5.90	1.31	33	2	14	49	8.4%
Sobs7	492	5.03	1.54	66	6	20	92	15.8%
Scale	562	4.94	0.92					
Missing	22							

Dimension: Organizational resources and support

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
Res1	531	3.87	1.60	44	3	6	53	9.1%
Res2	560	5.65	1.37	12	6	6	24	4.1%
Res3	550	5.18	1.42	24	1	9	34	5.8%
Res4	521	4.61	1.75	43	5	15	63	10.8%
Res5	507	4.60	1.65	52	6	19	77	13.2%
Res6 *	410	5.51	1.41	150	3	21	174	29.8%
Res7	497	4.91	1.64	64	6	17	87	14.9%
Res8	543	4.77	1.80	22	2	17	41	7.0%
Scale	567	4.88	0.98					
Mean	17							

Dimension: Personal diversity experiences

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
Pexp1	579	5.74	1.30	2	-	3	5	0.9%
Pexp2 (R)	556	3.22	1.99	9	11	8	28	4.8%
Pexp3 (R)	508	2.73	2.01	17	40	19	76	13.0%
Pexp4	560	6.03	1.15	5	2	17	24	4.1%
Pexp5	505	5.08	1.49	37	14	28	79	13.5%
Pexp6 (R)	538	4.31	1.92	26	10	10	46	7.9%
Pexp7 (R)	542	4.32	1.92	19	3	20	42	7.2%
Pexp8 (R)	541	4.70	1.78	22	4	17	43	7.5%
Pexp9 (R)	498	2.34	1.63	52	10	24	86	14.7%
Pexp10 (R)	518	2.97	1.69	43	16	7	66	11.3%
Pexp11 (R)	553	3.69	2.21	11	7	13	31	5.3%
Pexp12	567	5.37	1.39	7	3	7	17	2.9%
Pexp13 (R)	505	4.68	1.69	47	5	27	79	13.5%
Pexp14 (R)	522	2.35	1.69	20	16	26	62	10.6%
Scale	569	4.79	0.97					
Missing	15							

Dimension: Curriculum

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
Curr1	529	5.57	1.30	44	3	8	55	9.4%
Curr2	479	5.37	1.33	69	2	34	105	18.0%
Curr3 (R) *	440	3.47	1.70	122	8	14	144	24.7%
Curr4	509	5.94	1.14	61	2	12	75	12.8%
Scale	550	5.39	0.93					
Missing	34							

Attitudes about diversity

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
Att1	527	6.07	1.25	42	6	9	57	9.8%
Att2	514	5.79	1.44	52	8	10	70	12.0%
Att3	547	5.90	1.28	20	1	16	37	6.3%
Att4	553	5.96	1.32	16	4	11	31	5.3%
Att5	534	6.07	1.20	30	7	13	50	8.6%
Att6	534	5.21	1.82	19	12	19	50	8.6%
Att7	519	6.01	1.23	35	5	25	65	11.1%
Att8	524	5.73	1.38	31	1	28	60	10.3%
Att9	548	6.02	1.15	17	2	17	36	6.2%
Scale	558	5.86	0.88					
Missing	26							

Outcome: Satisfaction with diversity

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
DVSatdiv1	515	4.88	1.53	55	7	7	69	11.8%
DVSatdiv2	556	5.23	1.55	14	1	13	28	4.8%
DVSatdiv3	534	5.23	1.51	24	5	21	50	8.6%
Scale	551	5.13	1.23					
Missing	33							

Outcome: Overall satisfaction

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
DVSat1	575	5.49	1.47	3	1	5	9	1.5%
DVSat2	567	5.65	1.46	2	3	12	17	2.9%
DVSat3	563	5.67	1.47	2	2	17	21	3.6%
DVSat4	552	5.75	1.55	10	6	16	32	5.5%
DVSat5	559	6.06	1.20	3	3	19	25	4.3%
DVSat6	561	6.18	1.21	2	2	19	23	3.9%
Scale	572	5.79	1.17					
Missing	12							

Outcome: Intent to leave

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
DVLeave1	559	2.57	1.89	1	1	23	25	4.3%
DVLeave2	545	2.16	1.68	9	9	21	39	6.7%
DVLeave3	551	2.19	1.64	10	4	19	33	5.7%
Scale	558	2.32	1.57					
Missing	26							

Outcome: Increased cultural awareness

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
DVCult1	533	4.82	1.60	30	5	16	51	8.7%
DVCult2	537	4.99	1.52	27	4	16	47	8.0%
DVCult3	527	5.13	1.44	23	6	28	57	9.8%
DVCult4	516	4.67	1.52	29	12	27	68	11.6%
Scale	551	4.89	1.27					
Missing	33							

Outcome: Belongingness

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
DVBelong1	574	5.53	1.48	2	1	7	10	1.7%
DVBelong2	561	5.46	1.39	-	-	23	23	3.9%
DVBelong3	548	4.86	1.69	16	1	19	36	6.2%
DVBelong4	557	5.14	1.58	6	1	20	27	4.6%
DVBelong5 (R)	561	3.73	2.00	7	1	15	23	3.9%
Scale	572	5.06	1.38					
Missing	12							

Outcome: Identification

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
DVIden1	554	4.14	2.07	17	3	10	30	5.1%
DVIden2	536	4.46	1.80	17	6	25	48	8.2%
DVIden3	483	4.53	1.60	77	1	23	101	17.3%
DVIden4	554	5.25	1.43	11	2	17	30	5.1%
DVIden5	557	5.08	1.64	12	1	14	27	4.6%
DVIden6	529	5.19	1.54	27	3	25	55	9.4%
Scale	563	4.78	1.22					
Missing	21							

Outcome: Organizational citizenship behaviors

Item statistics				Answered		Unanswered		
Item	Valid N	Mean	SD	Don't Know	N/A	No answer	Total	Percentage
DVOCB1	561	5.27	1.43	14	-	9	23	3.9%
DVOCB2	548	4.84	1.55	11	3	22	36	6.2%
DVOCB3	544	4.73	1.55	15	2	23	40	6.8%
DVOCB4	513	5.16	1.50	37	4	30	71	12.2%
DVOCB5	542	5.17	1.65	12	13	17	42	7.2%
DVOCB6	557	4.92	1.66	9	6	12	27	4.6%
Scale	566	5.01	1.22					
Missing	18							

APPENDIX F

PRINCIPAL COMPONENTS ANALYSIS FOR REVISED SCALES WITH DELETED ITEMS

Global Ratings of Climate for Diversity

ORIGINAL ITEMS			REVISED with DECISION RULES: (a) >20% UNANSWERED (DK, N/A) ITEMS DELETED And (b) PC COMPONENTS				
No.of items	Valid N (Alpha)	Unst. Alpha	No. of items	Valid N	Unst. Alpha	Excluded items	No. of Components
12	278	.84	8	407	.81	8, 10, 11, 12	1
			9	378	.815	8, 10, 11	1
	N	**Missing**	9	361	.83	8, 10, 12	1
	561	23	9	349	.80	10, 11, 12	1
			*** 10**	**344**	**.831**	**8, 10**	**1**
			10	338	.83	8, 11	2
			10	326	.81	10, 11	2
			11	298	.83	10	2
			11	312	.84	8	2
			11	298	.82	11	2
			11	285	.84	12	2

Note. * = Decision for items to be excluded from scale for analyses.

Top Management Support

ORIGINAL ITEMS			REVISED with DECISION RULES: (a) >20% UNANSWERED (DK, N/A) ITEMS DELETED And (b) PC COMPONENTS				
No.of items	Valid N (Alpha)	Unst. Alpha	No. of items	Valid N	Unst. Alpha	Excluded items	No. of Components
5	358	.84	3	433	.78	4, 5	1
			4	371	.78	3	1
	N	**Missing**	4	378	.81	4	1
	504	80	*** 4**	**398**	**.81**	**5**	**1**

Classroom Practices: Teachers' Behaviors

ORIGINAL ITEMS			REVISED with DECISION RULES: (a) >20% UNANSWERED (DK, N/A) ITEMS DELETED And (b) PC COMPONENTS				
No.of items	Valid N (Alpha)	Unst. Alpha	No. of items	Valid N	Unst. Alpha	Excluded items	No. of Components
8	265	.67	*** 5**	**383**	**.68**	**4, 7, 8**	**1**
	N	**Missing**	6	333	.65	4, 8	1
	557	27	6	338	.71	4, 7	2
			6	335	.65	7, 8	2
			7	297	.69	4	2
			7	292	.64	8	2
			7	302	.68	7	2

Classroom Practices: Students' Behaviors

ORIGINAL ITEMS			REVISED with DECISION RULES: (a) >20% UNANSWERED (DK, N/A) ITEMS DELETED And (b) PC COMPONENTS				
No.of items	Valid N (Alpha)	Unst. Alpha	No. of items	Valid N	Unst. Alpha	Excluded items	No. of Components
7	396	.67	6	407	.70	1_R	2
	N	**Missing**	6	437	.62	7	2
	562	22	6	412	.65	2_R	2
			6	406	.63	3	2
			6	407	.62	4	2
			6	405	.64	5	2
			6	400	.63	6	2
			5	449	.64	1_R, 7	2
			5	419	.60	5, 6	1
			*** 4**	**432**	**.65**	**1_R, 5, 6**	**1**
			4	423	.68	1_R, 2_R	2
			4	449	.56	5, 7	2

Organizational resources and support

ORIGINAL ITEMS			REVISED with DECISION RULES: (a) >20% UNANSWERED (DK, N/A) ITEMS DELETED And (b) PC COMPONENTS				
No.of items	Valid N (Alpha)	Unst. Alpha	No. of items	Valid N	Unst. Alpha	Excluded items	No. of Components
8	288	.70	*** 7**	**372**	**.73**	**6**	**1**
	N	**Missing**					
	567	17					

Personal diversity experiences

ORIGINAL ITEMS			REVISED with DECISION RULES: (a) >20% UNANSWERED (DK, N/A) ITEMS DELETED And (b) PC COMPONENTS				
No.of items	Valid N (Alpha)	Unst. Alpha	No. of items	Valid N	Unst. Alpha	Excluded items	No. of Components
14	330	.83		Both scales combined:			
	N	**Missing**	*** 8**	**392**	**.81**	**1, 4, 5,10, 11**	**2**
	569	15		Separate: Students only:			
			8	418	.77	-	2
			6	450	.79	4, 5	1
			5	451	.80	1, 4, 5	1
				Separate: Faculty/staff only:			
			6	385	.66	-	1
			3	456	.62	10, 12, 13	1

APPENDIX G

MULTIVARIATE REGRESSION OF SET OF DEPENDENT VARIABLES ON GLOBAL CLIMATE RATINGS

Multivariate Tests(c)									
Effect		**Value**	**F**	**Hypothesis df**	**Error df**	**Sig.**	**Partial Eta Squared**	**Noncent. Parameter**	**Observed Power(a)**
Intercept	**Pillai's Trace**	.70	151.03(b)	7.00	459.00	.00	.70	1057.22	1.00
	Wilks' Lambda	.30	151.03(b)	7.00	459.00	.00	.70	1057.22	1.00
	Hotelling's Trace	2.30	151.03(b)	7.00	459.00	.00	.70	1057.22	1.00
	Roy's Largest Root	2.30	151.03(b)	7.00	459.00	.00	.70	1057.22	1.00
Global	**Pillai's Trace**	.69	142.72(b)	7.00	459.00	.00	.69	999.02	1.00
	Wilks' Lambda	.32	142.72(b)	7.00	459.00	.00	.69	999.02	1.00
	Hotelling's Trace	2.18	142.72(b)	7.00	459.00	.00	.69	999.02	1.00
	Roy's Largest Root	2.18	142.72(b)	7.00	459.00	.00	.69	999.02	1.00
a Computed using alpha = .05									
b Exact statistic									
c Design: Intercept+NewGlobal_MN									

APPENDIX H

MULTIVARIATE REGRESSION OF SET OF DEPENDENT VARIABLES ON DIMENSIONAL CLIMATE RATINGS

Scale: Top Management Support

Multivariate Tests(c)									
Effect		**Value**	**F**	**Hypothesis df**	**Error df**	**Sig.**	**Partial Eta Squared**	**Noncent. Parameter**	**Observed Power(a)**
Intercept	**Pillai's Trace**	.75	200.15(b)	7.00	459.00	.00	.75	1401.04	1.00
	Wilks' Lambda	.25	200.15(b)	7.00	459.00	.00	.75	1401.04	1.00
	Hotelling's Trace	3.05	200.15(b)	7.00	459.00	.00	.75	1401.04	1.00
	Roy's Largest Root	3.05	200.15(b)	7.00	459.00	.00	.75	1401.04	1.00
Topmgmt	**Pillai's Trace**	.51	68.87(b)	7.00	459.00	.00	.51	482.11	1.00
	Wilks' Lambda	.49	68.87(b)	7.00	459.00	.00	.51	482.11	1.00
	Hotelling's Trace	1.05	68.87(b)	7.00	459.00	.00	.51	482.11	1.00
	Roy's Largest Root	1.05	68.87(b)	7.00	459.00	.00	.51	482.11	1.00
a Computed using alpha = .05									
b Exact statistic									
c Design: Intercept+NewTopmgmt_MN									

Scale: Teaching equity and fairness

Multivariate Tests(c)									
Effect		**Value**	**F**	**Hypothesis df**	**Error df**	**Sig.**	**Partial Eta Squared**	**Noncent. Parameter**	**Observed Power(a)**
Intercept	**Pillai's Trace**	0.73	175.76(b)	7.00	459.00	.00	.73	1230.31	1.00
	Wilks' Lambda	0.27	175.76(b)	7.00	459.00	.00	.73	1230.31	1.00
	Hotelling's Trace	2.68	175.76(b)	7.00	459.00	.00	.73	1230.31	1.00
	Roy's Largest Root	2.68	175.76(b)	7.00	459.00	.00	.73	1230.31	1.00
Equity	**Pillai's Trace**	0.14	10.95(b)	7.00	459.00	.00	.14	76.65	1.00
	Wilks' Lambda	0.86	10.95(b)	7.00	459.00	.00	.14	76.65	1.00
	Hotelling's Trace	0.17	10.95(b)	7.00	459.00	.00	.14	76.65	1.00
	Roy's Largest Root	0.17	10.95(b)	7.00	459.00	.00	.14	76.65	1.00
a Computed using alpha = .05									
b Exact statistic									
c Design: Intercept+NewEquity_MN									

Scale: Observations of Teachers' Behaviors in Classrooms

Multivariate Tests(c)

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Intercept	Pillai's Trace	.731	178.562(b)	7.000	459.000	.000	.731	1249.936	1.000
	Wilks' Lambda	.269	178.562(b)	7.000	459.000	.000	.731	1249.936	1.000
	Hotelling's Trace	2.723	178.562(b)	7.000	459.000	.000	.731	1249.936	1.000
	Roy's Largest Root	2.723	178.562(b)	7.000	459.000	.000	.731	1249.936	1.000
Tobs	Pillai's Trace	.373	39.022(b)	7.000	459.000	.000	.373	273.154	1.000
	Wilks' Lambda	.627	39.022(b)	7.000	459.000	.000	.373	273.154	1.000
	Hotelling's Trace	.595	39.022(b)	7.000	459.000	.000	.373	273.154	1.000
	Roy's Largest Root	.595	39.022(b)	7.000	459.000	.000	.373	273.154	1.000

a Computed using alpha = .05

b Exact statistic

c Design: Intercept+NewTobs_MN

Scale: Observations of Students' Behaviors in Classrooms

Multivariate Tests(c)

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Intercept	Pillai's Trace	.79	250.83(b)	7.00	459.00	.00	.79	1755.80	1.000
	Wilks' Lambda	.21	250.83(b)	7.00	459.00	.00	.79	1755.80	1.000
	Hotelling's Trace	3.83	250.83(b)	7.00	459.00	.00	.79	1755.80	1.000
	Roy's Largest Root	3.83	250.83(b)	7.00	459.00	.00	.79	1755.80	1.000
Sobs	Pillai's Trace	.33	32.34(b)	7.00	459.00	.00	.33	226.35	1.000
	Wilks' Lambda	.67	32.34(b)	7.00	459.00	.00	.33	226.35	1.000
	Hotelling's Trace	.49	32.34(b)	7.00	459.00	.00	.33	226.35	1.000
	Roy's Largest Root	.49	32.34(b)	7.00	459.00	.00	.33	226.35	1.000

a Computed using alpha = .05

b Exact statistic

c Design: Intercept+NewSobs_MN

Scale: Organizational Resources and Support

Multivariate Tests(c)

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Intercept	Pillai's Trace	.75	198.13(b)	7.00	459.00	.00	.75	1386.88	1.00
	Wilks' Lambda	.25	198.13(b)	7.00	459.00	.00	.75	1386.88	1.00
	Hotelling's Trace	3.02	198.13(b)	7.00	459.00	.00	.75	1386.88	1.00
	Roy's Largest Root	3.02	198.13(b)	7.00	459.00	.00	.75	1386.88	1.00
Res	Pillai's Trace	.34	33.66(b)	7.00	459.00	.00	.34	235.63	1.00
	Wilks' Lambda	.66	33.66(b)	7.00	459.00	.00	.34	235.63	1.00
	Hotelling's Trace	.51	33.66(b)	7.00	459.00	.00	.34	235.63	1.00
	Roy's Largest Root	.51	33.66(b)	7.00	459.00	.00	.34	235.63	1.00

a Computed using alpha = .05

b Exact statistic

c Design: Intercept+NewRes_MN

Scale: Personal Diversity Experiences

Multivariate Tests(c)

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Intercept	Pillai's Trace	.87	442.96(b)	7.00	459.00	.00	.87	3100.74	1.00
	Wilks' Lambda	.13	442.96(b)	7.00	459.00	.00	.87	3100.74	1.00
	Hotelling's Trace	6.76	442.96(b)	7.00	459.00	.00	.87	3100.74	1.00
	Roy's Largest Root	6.76	442.96(b)	7.00	459.00	.00	.87	3100.74	1.00
Pexp	Pillai's Trace	.31	29.26(b)	7.00	459.00	.00	.31	204.82	1.00
	Wilks' Lambda	.69	29.26(b)	7.00	459.00	.00	.31	204.82	1.00
	Hotelling's Trace	.45	29.26(b)	7.00	459.00	.00	.31	204.82	1.00
	Roy's Largest Root	.45	29.26(b)	7.00	459.00	.00	.31	204.82	1.00

a Computed using alpha = .05

b Exact statistic

c Design: Intercept+NewALLPexp_MN

APPENDIX I

TESTS OF INTERACTION FOR ALL STUDY VARIABLES

IV = Global ratings of climate for diversity

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Global ratings	.92 ***	.04			
	Attitudes	.01	.04	.60 ***		340.92
2	Global x Attitudes	.13 ***	.04	.61 ***	.01	13.58

Note. Dependent variable = Satisfaction with diversity.

For all analyses, N = 467. B = unstandardized regression coefficient for the variable in the step in which it was entered. SE(B) = standard error of the regression coefficient. R^2 = proportion of variance in the dependent variable accounted for by all the predictors in the regression equation. ΔR^2 = incremental variance accounted for by all the predictor variables entered at each step.
* p < .05. ** p < .01. *** p < .001.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Global ratings	.60 ***	.05			
	Attitudes	.18 ***	.05	.31 ***		102.38
2	Global x Attitudes	.04	.05	.31	.00	.93

Note. Dependent variable = Overall satisfaction.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Global ratings	-.66 ***	.07			
	Attitudes	-.12	.07	.19 ***		55.34
2	Global x Attitudes	-.09	.07	.20	.01	1.92

Note. Dependent variable = Intent to leave.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Global ratings	.64 ***	.05			
	Attitudes	.24 ***	.05	.33 ***		114.18
2	Global x Attitudes	.06	.05	.33	.00	1.72

Note. Dependent variable = Increased cultural awareness.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Global ratings	.84 ***	.05			
	Attitudes	-.03	.06	.37 ***		133.68
2	Global x Attitudes	.06	.05	.37	.00	1.57

Note. Dependent variable = Belongingness.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Global ratings	.62 ***	.05			
	Attitudes	.21 ***	.05	.31 ***		106.06
2	Global x Attitudes	.03	.05	.31	.00	.37

Note. Dependent variable = Identification.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Global ratings	.54 ***	.05			
	Attitudes	.36 ***	.05	.32 ***		107.81
2	Global x Attitudes	.00	.05	.32	.00	.01

Note. Dependent variable = Organizational citizenship behaviors.

IV = Top Management Support

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Top mgmt support	.78 ***	.04			
	Attitudes	.05	.04	.44 ***		179.37
2	Top x Attitudes	.14 ***	.04	.45 ***	.01	12.35

Note. Dependent variable = Satisfaction with diversity.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Top mgmt support	.54 ***	.05			
	Attitudes	.20 ***	.05	.25 ***		77.58
2	Top x Attitudes	-.01	.05	.25	.00	.09

Note. Dependent variable = Overall satisfaction.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Top mgmt support	-.57 ***	.07			
	Attitudes	-.15 *	.07	.14 ***		38.30
2	Top x Attitudes	-.01	.07	.14	.00	.02

Note. Dependent variable = Intent to leave.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Top mgmt support	.60 ***	.05			
	Attitudes	.26 ***	.05	.30 ***		99.75
2	Top x Attitudes	.05	.05	.30	.00	1.00

Note. Dependent variable = Increased cultural awareness.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Top mgmt support	.66 ***	.06			
	Attitudes	.03	.06	.23 ***		70.83
2	Top x Attitudes	.10	.06	.24	.01	3.06

Note. Dependent variable = Belongingness.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Top mgmt support	.55 ***	.05			
	Attitudes	.24 ***	.05	.26 ***		83.00
2	Top x Attitudes	.03	.05	.26	.00	.38

Note. Dependent variable = Identification.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Top mgmt support	.48 ***	.05			
	Attitudes	.39 ***	.05	.28 ***		91.30
2	Top x Attitudes	-.03	.05	.28	.00	.43

Note. Dependent variable = Organizational citizenship behaviors.

IV = Teaching Equity and Fairness

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Equity	.44 ***	.06			
	Attitudes	.04	.06	.11 ***		29.43
2	Equity x Attitudes	.14 **	.05	.13 **	.02	8.73

Note. Dependent variable = Satisfaction with diversity.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Equity	.25 ***	.06			
	Attitudes	.24 ***	.06	.09 ***		21.78
2	Equity x Attitudes	.12 **	.05	.10 **	.01	6.54

Note. Dependent variable = Overall satisfaction.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Equity	-.37 ***	.08			
	Attitudes	-.14	.08	.06 ***		14.69
2	Equity x Attitudes	-.12	.06	.07	.01	3.56

Note. Dependent variable = Intent to leave.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Equity	.17 **	.06			
	Attitudes	.32 ***	.06	.08 ***		21.23
2	Equity x Attitudes	.12 *	.05	.09 *	.01	5.80

Note. Dependent variable = Increased cultural awareness.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Equity	.44 ***	.07			
	Attitudes	.01	.07	.08 ***		21.22
2	Equity x Attitudes	.15 **	.05	.10 **	.02	7.86

Note. Dependent variable = Belongingness.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Equity	.19 ***	.06			
	Attitudes	.28 ***	.06	.08 ***		20.73
2	Equity x Attitudes	.09 *	.05	.09 *	.01	3.86

Note. Dependent variable = Identification.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Equity	.16 **	.06			
	Attitudes	.45 ***	.06	.15 ***		39.45
2	Equity x Attitudes	.13 **	.05	.16 **	.01	7.74

Note. Dependent variable = Organizational citizenship behaviors.

IV = Classroom Practices: Teachers' Behaviors

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Teachers' Behaviors	.59 ***	.05			
	Attitudes	.03	.05	.24 ***		73.97
2	Teachers' Behaviors x Attitudes	.07	.04	.25	.01	2.62

Note. Dependent variable = Satisfaction with diversity.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Teachers' Behaviors	.47 ***	.05			
	Attitudes	.18 ***	.05	.21 ***		59.99
2	Teachers' Behaviors x Attitudes	.03	.04	.21	.00	.44

Note. Dependent variable = Overall satisfaction.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Teachers' Behaviors	-.43 ***	.07			
	Attitudes	-.14	.08	.09 ***		21.99
2	Teachers' Behaviors x Attitudes	-.04	.06	.09	.00	.42

Note. Dependent variable = Intent to leave.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Teachers' Behaviors	.59 ***	.05			
	Attitudes	.23 ***	.05	.28 ***		91.96
2	Teachers' Behaviors x Attitudes	.06	.04	.29	.01	1.74

Note. Dependent variable = Increased cultural awareness.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Teachers' Behaviors	.61 ***	.06			
	Attitudes	-.02	.06	.19 ***		54.51
2	Teachers' Behaviors x Attitudes	.03	.05	.19	.00	.36

Note. Dependent variable = Belongingness.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Teachers' Behaviors	.48 ***	.05			
	Attitudes	.20 ***	.06	.21 ***		60.83
2	Teachers' Behaviors x Attitudes	-.01	.05	.21	.00	.03

Note. Dependent variable = Identification.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Teachers' Behaviors	.42 ***	.05			
	Attitudes	.35 ***	.05	.24 ***		74.43
2	Teachers' Behaviors x Attitudes	-.01	.04	.24	.00	.09

Note. Dependent variable = Organizational citizenship behaviors.

IV = Classroom Practices: Students' Behaviors

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Students' Behaviors	.68 ***	.05			
	Attitudes	.07	.05	.32 ***		110.61
2	Students' Behaviors x Attitudes	.13 **	.05	.33 **	.01	8.48

Note. Dependent variable = Satisfaction with diversity.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Students' Behaviors	.26 ***	.05			
	Attitudes	.25 ***	.05	.10 ***		26.27
2	Students' Behaviors x Attitudes	.02	.05	.10	.00	.18

Note. Dependent variable = Overall satisfaction.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Students' Behaviors	-.31 ***	.07			
	Attitudes	-.19 **	.08	.06 ***		13.94
2	Students' Behaviors x Attitudes	-.08	.07	.06	.00	1.26

Note. Dependent variable = Intent to leave.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Students' Behaviors	.29 ***	.06			
	Attitudes	.31 ***	.06	.13 ***		33.67
2	Students' Behaviors x Attitudes	.07	.05	.13	.00	1.59

Note. Dependent variable = Increased cultural awareness.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Students' Behaviors	.47 ***	.06			
	Attitudes	.06	.06	.12 ***		31.33
2	Students' Behaviors x Attitudes	.07	.06	.12	.00	1.24

Note. Dependent variable = Belongingness.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Students' Behaviors	.27 ***	.05			
	Attitudes	.28 ***	.06	.11 ***		29.84
2	Students' Behaviors x Attitudes	.04	.05	.11	.00	.58

Note. Dependent variable = Identification.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Students' Behaviors	.22 ***	.05			
	Attitudes	.42 ***	.05	.16 ***		45.48
2	Students' Behaviors x Attitudes	-.03	.05	.16	.00	.40

Note. Dependent variable = Organizational citizenship behaviors.

IV = Organizational Resources and Support

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Resources	.62 ***	.05			
	Attitudes	.08	.05	.28 ***		89.05
2	Resources x Attitudes	.13 **	.05	.29 **	.01	7.23

Note. Dependent variable = Satisfaction with diversity.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Resources	.34 ***	.05			
	Attitudes	.24 ***	.05	.13 ***		36.02
2	Resources x Attitudes	.03	.05	.13	.00	.41

Note. Dependent variable = Overall satisfaction.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Resources	-.37 ***	.07			
	Attitudes	-.18 **	.07	.07 ***		18.68
2	Resources x Attitudes	-.07	.07	.07	.00	1.00

Note. Dependent variable = Intent to leave.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Resources	.51 ***	.05			
	Attitudes	.28 ***	.05	.24 ***		71.79
2	Resources x Attitudes	.04	.05	.24	.00	.68

Note. Dependent variable = Increased cultural awareness.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Resources	.53 ***	.06			
	Attitudes	.05	.06	.15 ***		41.85
2	Resources x Attitudes	.08	.06	.15	.00	1.82

Note. Dependent variable = Belongingness.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Resources	.40 ***	.05			
	Attitudes	.27 ***	.05	.17 ***		49.13
2	Resources x Attitudes	.09	.05	.18	.01	3.06

Note. Dependent variable = Identification.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Resources	.36 ***	.05			
	Attitudes	.41 ***	.05	.22 ***		65.32
2	Resources x Attitudes	.03	.05	.22	.00	.30

Note. Dependent variable = Organizational citizenship behaviors.

IV = Personal Diversity Experiences

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Personal experiences	.58 ***	.05			
	Attitudes	.11 *	.05	.25 ***		75.92
2	P.exp x Attitudes	.19 ***	.05	.27 ***	.02	16.44

Note. Dependent variable = Satisfaction with diversity.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Personal experiences	.34 ***	.05			
	Attitudes	.25 ***	.05	.14 ***		36.54
2	P.exp x Attitudes	.04	.05	.14	.00	.48

Note. Dependent variable = Overall satisfaction.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Personal experiences	-.53 ***	.07			
	Attitudes	-.18 **	.07	.13 ***		33.87
2	P.exp x Attitudes	-.02	.07	.13	.00	.11

Note. Dependent variable = Intent to leave.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Personal experiences	.21 ***	.06			
	Attitudes	.33 ***	.06	.10 ***		25.77
2	P.exp x Attitudes	.08	.05	.10	.00	2.09

Note. Dependent variable = Increased cultural awareness.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Personal experiences	.57 ***	.06			
	Attitudes	.07	.06	.18 ***		49.52
2	P.exp x Attitudes	.05	.06	.18	.00	.81

Note. Dependent variable = Belongingness.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Personal experiences	.31 ***	.05			
	Attitudes	.30 ***	.05	.13 ***		35.45
2	P.exp x Attitudes	.13 **	.05	.14 **	.01	6.04

Note. Dependent variable = Identification.

Step	Variable entered	B	SE (B)	R^2	ΔR^2	F Change in R^2
1	Personal experiences	.24 ***	.05			
	Attitudes	.44 ***	.05	.17 ***		48.48
2	P.exp x Attitudes	.07	.05	.17	.00	2.05

Note. Dependent variable = Organizational citizenship behaviors.