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Predicting inclusive teaching using the Transtheoretical Model of behavior change and the Theory of Planned Behavior

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PREDICTING INCLUSIVE TEACHING USING THE TRANSTHEORETICAL MODEL OF BEHAVIOR CHANGE AND THE THEORY OF PLANNED BEHAVIOR

BY

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ABSTRACT

PREDICTING INCLUSIVE TEACHING USING THE TRANSTHEORETICAL MODEL OF BEHAVIOR CHANGE AND THE THEORY OF PLANNED BEHAVIOR

By

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The diversity related materials in many university and college courses do not reflect the extent of diversity in society (Banks, 2002). Attempts to diversify curriculum have been made (Montgomery, 2001; Richards, Brown, & Forde, 2007), but further work is needed to prepare students to thrive in a culturally diverse society (Banks, 2002; Marshall, 2002). Research regarding faculty views toward diversity on campus and in the curriculum is limited (Brunner, 2006; Piland, Hess, & Piland, 2000; Wasonga & Piveral, 2004). Although a majority of faculty believe that a diversified institution and curriculum is positive, little research has examined the types of faculty likely to include diversity in their curriculum (American Association of University Professors (AAUP) & American Council on Education (ACE), 2000; Maruyama & Moreno, 2000; Mayhew & Grunwald, 2006). The current study used two behavioral models, the Transtheoretical Model (TTM) of behavior change and the Theory of Planned Behavior (TPB) to understand and predict inclusive teaching. Specifically, faculty attitudes, perceived norms, and efficacy related to inclusive teaching as well as their levels of intent to teach inclusively were examined. Results suggest that inclusive teaching behaviors vary as a function of stage of change within the TTM, with the greatest differences occurring between those in the earlier and later stages of change. Furthermore, the TPB results

suggest that faculty attitudes and efficacy are the strongest predictors of inclusive teaching. Implications of these findings to inform workshops to aid faculty in becoming more inclusive are discussed.

INTRODUCTION

Current Curriculum Issues

The need for a diversified education has increased with the growing multicultural society (Huang, 2002; Vaughan, 2005). The amount of diversity that has been incorporated into many professors' curricula does not reflect the amount of diversity in the classroom and/or society (Banks, 2002). As will be discussed further, diversity in the current study includes all historically underrepresented groups, which faculty and "students can no longer afford to be ignorant of" due to the diverse society students will enter after college (Morey, 2000, p. 25). It is expected that by 2015, 1 to 2 million individuals will seek some sort of higher education; many of them members of a number of minority groups (Association of American Colleges and Universities, 2002). College and university students will no longer be mostly middle to upper class White males (Levine & Cureton, 1998), and a curriculum that reflects such a population often hurts minority (Weiher, 2000), as well as majority students (Mahoney & Schamber, 2004). Although attempts to diversify curriculum have been made through culturally responsive classrooms and pedagogy (Montgomery, 2001; Richards et al., 2007) as well as the contributions, additive, and transformative approaches (Banks, 2002; Hussy, Fleck, & Warner, in press), much work is needed to better educate students and prepare them for a culturally diverse society (Banks, 2002; Mahoney & Schamber, 2004; Marshall, 2002). However, before further change can be implemented, it is important to understand the factors influencing faculty behaviors regarding their inclusive teaching.

Much of the current curriculum in the United States is comprised of Anglo American concepts and offers little to no consideration of minority students (Banks, 2002; Brown, 2007; Feagin & Sikes, 1995; Hurtado, Carter, & Kardia, 1998; Montgomery, 2001), which is inconsistent with the needs of the ever growing population of minority students (Banks, 1994; Wlodkowski, 1999). This lack of multicultural perspectives has shown to cause stress to minority students by affecting their involvement on campus, feelings of rejection, academic performance, and overall satisfaction with college (Hurtado et al., 1998; Richards et al., 2007). Feagin and Sikes (1995) note that the "Anglocentric" (Banks, 2002), or "Euro-American bias[ed]" (Feagin & Sikes, 1995) ways of many institutions pressure minority students to disavow their identities and adopt the ideas and beliefs of the mainstream culture, which can be viewed as a form of discrimination by many minority students. It is unfair to ask some students to "check their cultures at the school or classroom door and learn according to the norms of European Americans" (Brown, 2007, p. 61). Not only are minority students "denied an equal opportunity to learn" (Richards et al., 2007, pp. 67-68), the students who refuse to conform to the mainstream often report feeling alienated and dissatisfied with college (Feagin & Sikes, 1995). These feelings can be a result of not being accepted by the majority population and/or lack of cultural sensitivity in classroom activities and materials. Although "learning is a naturally active and normally volitional process...that process cannot be separated from the cultural context of the classroom or from the background of the learner" (Wlodkowski, 1999, p. 7). Something as simple as icebreakers, which are often used as a means of decreasing social anxiety in a classroom

can actually have the opposite effect depending on the cultural backgrounds of the students. For example, icebreaker activities that ask students to share personal information can be extremely anxiety provoking for Latino/a students who believe sharing intimate information should be limited to the family (Wlodkowski, 1999).

Campus Climate of Inclusion

Many minority students coming to educational institutions (particularly, predominantly White institutions) report a "chilly climate" from students as well as faculty (Gurin, Matlock, Wade-Golden, & Gurin, 2004). Mayhew, Grunwald, and Dey's (2005) study of students' perceptions about their institution's achievement of a positive climate for diversity points to a diversified curriculum as the number one indicator of success. These authors suggest that faculty commitment of diversity through the use of diversity related materials, activities, etc. can greatly affect students, especially students of color. Academic institutions that lack diversity courses and/or courses with diversity content signal to students that diversity is not important. "In short, if the institution wants to be perceived by students as a community that welcomes diversity, it needs to include diversity within its curriculum" (Mayhew et al., 2005, p. 408). Despite multiple efforts made by many parties involved in education to better meet the needs of diversity for minority and non-minority individuals, one of the widest sampling studies in this area suggests that there are still more efforts to be made (Levine & Cureton, 1998; Stevens & Charles, 2005). Levine and Cureton (1998) sampled 30 four-year college campuses and found that the majority of deans believed that, "diversity issues are the main cause of conflict between students" (p. 6). The deans of these schools reported their campus climate to be at best politically correct, which is most likely due to reports that students

do not feel comfortable expressing controversial views. Most deans also reported racial balkanization on their campuses, which means that students are self-segregating. Inclusive teaching is one way faculty could aid in decreasing these tensions and conflicts. However, in order for there to be open dialogue about diversity issues, professors must be ready for any potential conflicts that may arise (Khan, 2000).

Classroom Climate of Inclusion

Faculty must desire to teach unbiased material and believe in the importance of a diversified education for inclusive education implementations to be effective (Stevens & Charles, 2005). There must be a climate for diversity where all social groups feel included and welcome (Richards et al., 2007) before an inclusive curriculum can be effectively implemented. Faculty, "must provide safe and supportive contexts for students to examine their own culture, race, and beliefs, as well as to express frustration and socially unacceptable opinions during the process of growth and change" (Whitt, Edison, Pascarella, Terenzini, & Nora, 2001, p. 199). Organista, Chun, and Marin (2000) note that one of the greatest challenges to teaching diversity is creating a climate in which a multicultural education can be taught. Professors must ensure that students are open to hearing and reflecting upon others' perspectives and willing to confront their own underlying biases (Higginbotham, 1996; Mahoney & Schamber, 2004; Richards et al., 2007; Sheldon, 1999). Although it might be awkward, potentially embarrassing, and uncomfortable for many faculty to believe they may have some underlying prejudices, they still need to confront and address such issues before they can be competent and effective multicultural professors (Montgomery, 2001; Richards et al., 2007). Once this is accomplished, faculty can focus on creating an inclusive classroom climate. White

(1994), Khan (2000), and Organista and colleagues (2000) suggest guidelines to follow in creating a comfortable classroom atmosphere, such as setting the climate the first day of class. Khan (2000) and Organista and colleagues (2000) stress the importance of establishing comfort and respect in the classroom within the first two classes before any formal learning begins. Other guidelines include emphasizing that everyone has something to teach and something to learn, and that disagreements are inevitable in this process. In other words, all viewpoints are valuable and students should be encouraged to express them in a respectful manner (e.g., without inflammatory language). In addition, when there is a question about something said, that individual should be respectful and ask that student directly instead of going through the teacher. These are broad guidelines that include all students and could be adapted for any curriculum. These aspects, as well as those mentioned above, are central not only to minority students, but to non-minority students as well. Many of the current methods of teaching, which lack student-to-student interaction and other ways of challenging students' beliefs, are inadequate for promoting personal growth and awareness and acceptance of different groups of people (Eldridge, 2001) and do not foster an inclusive climate for learning about diversity. Due to an increase in minority student populations and related conflicts (Levine & Cureton, 1998), many academic institutions have implemented campus wide climate surveys assessing the experiences and perceptions of minority and non-minority students on campus (Hurtado et al., 1998).

Based on the findings from such studies, campus officials may institute policies that further aid students with disabilities or offer more support for females in the hard sciences. However, this is not sufficient alone. The majority of students' time spent with

campus officials is extremely little in comparison to the time they spend in classrooms with faculty and professors. Campus officials can implement policies in support of an inclusive environment, but in order for these policies to be effective they must have the practical support of the faculty (Feagin & Sikes, 1995; Laird, Engberg, & Hurtado, 2005; Mayhew & Grunwald, 2006; Morey, 2000). Policies at academic institutions that require students to take a diversity course have shown to have weak correlations with inclusive teaching behaviors (Simoni, Sexton-Radek, Yescavage, Richard, & Lundquist, 1999), perhaps because faculty feel they do not need to be inclusive in their general courses if students are learning about diversity topics and issues in these mandated courses. Trying to force faculty to be inclusive in all the courses they teach, "may produce teachers that are less culturally sensitive" (Wasonga & Piveral, 2004, p. 42) and not prepared to teach an inclusive education. The current study suggests there are certain factors related to inclusive teaching that need to be examined and then addressed in order to get faculty teaching more inclusively without coercion from campus officials.

Students' Attitudes toward Inclusive Teaching

Although research is still needed to understand students' attitudes and perceptions toward inclusive teaching (Mayhew et al., 2005; Piland et al., 2000), there is research to suggest that students believe in the importance of a diversified education. As mentioned earlier, students' perceptions about their institution's achievement of a positive climate for diversity points to a diversified curriculum as the number one indicator of success (Mayhew et al., 2005). However, as discussed below, many students feel as though their academic institutions have not been successful in achieving an inclusive climate.

Brunner (2006) used student focus groups at a large Southeastern university to examine students' perceptions of diversity on college campuses. There was a sentiment within Brunner's (2006) sample that, "campus diversity can be seen but not felt" (p. 313). In other words, students were aware of the organizations on campus that promote diversity issues such as the Black Student Government, and believed they were positive steps, but not enough to produce an inclusive climate on campus. Regardless of the organizations on campus and other diversity promoting events, students could still see racial self-segregation on campus. These findings echo those of other researchers (Gurin et al., 2004). For example, Antonio (2001) found similar patterns at UCLA where students believed that groups on campus were divided by race and that few ever socialized across racial lines. These findings could be due to the fact that most individuals will not seek out knowledge about, and contact with, diverse others on their own. Fiske's (1998) review of stereotyping, prejudice, and discrimination suggests that people prefer and seek out information consistent with their preconceived notions about outgroups. A growing body of research suggests that classroom education about minority groups is effective in reducing stereotyping as well as explicit and implicit prejudice and discrimination (Fiske 1998; Harris 2003; Hussey et al., in press; Kernahan & Davis 2007; Pettijohn & Walzer 2008; Rudman, Ashmore, & Gary 2001). A major issue is that certain individuals are more open to this type of education than others (Laird et al., 2005; Whitt et al., 2001).

Whitt and colleagues (2001) examined a number of factors related to students' openness to diversity as well as challenges to their beliefs and values. They sampled students over three years (i.e., 1st year through 3rd year) from 18 four-year colleges and

universities from 15 states. They found that women were more likely to be open to diversity and challenge than men across all three years. Additionally, older students (i.e., 27 and older) were more likely to be open to diversity than younger students. The one environmental factor that had a significant impact upon students' openness to diversity was the institution's climate for inclusion measured with the Nondiscriminatory Racial Environment scale developed for their study. More specifically, a positive climate of racial inclusion (e.g., strong agreement on items such as, "Overall, course content at this institution reflects the experiences of minorities") was positively related to students' openness to diversity as well as challenges to their beliefs and values. It is also worth noting that the more mathematics courses taken by students, the less likely they were to be open to diversity and their beliefs and values being challenged; whereas the more diversity related workshops students attended, the more likely they were to be open to diversity. In addition, the more minority acquaintances students had and the more conversations had about challenging their views, the more likely students were to be open to diversity and challenge. It should be noted that these findings are somewhat limited due to the focus of the study. More specifically, perceptions of campus climate focused primarily on racial social groups.

Mayhew and colleagues (2005) performed one of the first studies to examine student perceptions as an outcome factor as criteria for whether an academic institution had achieved a positive climate for diversity. They sampled students from a predominantly White public university from the Midwest. Precollege interaction with diverse peers, current interaction with diverse peers, involvement with campus activities, participation in diversity-related course learning, and overall views about campus

diversity were assessed. In addition, students' perceptions of institutional commitment to diversity, interactions with diverse faculty, and curricular diversity were examined. Mayhew and colleagues (2005) also expanded on past research by including the gay and lesbian community in addition to race and ethnicity in their definition of a positive climate for diversity. They found that students who perceived their curriculum to include diverse material were more likely to believe their institution had succeeded in achieving a positive climate. Conversely, students who had participated in more courses focused on the education of minority groups (e.g., Women's Studies), and who had more precollege interactions with minorities, were less likely to believe the institution had achieved a positive climate for diversity. In addition, students less involved with activities on campus and those who viewed interaction with diverse faculty as unimportant were more likely to believe their institution had achieved a positive climate. In other words, the more students were involved on campus and the more diversity education they received, the less likely they perceived their institution as having achieved a positive climate for diversity. In addition, two interactions were found between gender and race. Women reporting more precollege interaction with minorities perceived their institution as achieving a positive climate, whereas men with more precollege interaction with minorities believed their institution had failed. Students of color as opposed to White students were also more likely to believe their institution had achieved a positive climate when the curriculum was successfully integrated with diversity content.

Piland and colleagues (2000) studied the perceptions of community college students in regards to multiculturalism and diversity. In this study, multiculturalism was defined as, "learning about people of color, their cultures, and their contributions to the

fields covered in college courses"; and diversity was defined as, "learning about the special circumstances of women, gays and lesbians, and people with disabilities" (p. 533). They sampled students from seven southern California community colleges. Out of this sample, approximately equal numbers of males and females as well as minority and non-minority students reported learning about racial and cultural issues in the courses they had taken, but not all students reported the same perceptions of these courses. The majority of students felt that they learned more in courses that included multicultural and diversity content. However, this was more so for females than males and for White students than minority students. In addition, the students most likely to seek out courses with multicultural and diversity content were females over males and minority students over White students. In other words, it appears as though minorities desire inclusive courses, but that majority students are the ones more likely to benefit from them. A possible reason for this could be that faculty are equipped to challenge White students' understanding of diversity topics and issues but not students of color. A closer examination of students receiving multicultural and diversity content in their courses reveals that students learned to respect people of any background and to be nonjudgmental. In addition, students reported seeing the content through multiple perspectives and gaining new knowledge of a number of different groups. It could be that minority students are predisposed to these multiple perspectives due to their social status and therefore are not reporting the same educational gains as majority students.

Overall, these findings suggest that many students believe in the importance of inclusive teaching and seek out this education. Perhaps more importantly are the students who do not believe in the importance of inclusive teaching and do not purposefully enroll

in diversity related courses. As mentioned above, research suggests White males are the least likely to take a diversity course or value the importance of such a course (Piland et al., 2000). Expanding on these findings, Antonio (2001) found that students who commuted to school as well as students involved in Greek organizations were less likely to interact with minorities and be less committed to racial understanding. In other words, these students are the least likely to enroll in courses such as the Psychology of Disability, African Sexuality and AIDS, Social Work Practice with Gay, Lesbian, and Bisexual Clients, and so on. Furthermore, such courses could be considered tokenistic at campuses were inclusive teaching is not the norm. This further highlights the importance of understanding the inclusive teaching behaviors of faculty in order to understand the factors related to why it is or not being done in all courses. Knowledge of these factors would provide invaluable insight into how inclusive teaching can be increased at academic institutions in order to reach all students.

Although the majority of professors do not include diversity into their curriculum (AAUP & ACE, 2000), there are a number of faculty who *feel* as though such an education is beneficial (Maruyama & Moreno, 2000). Nevertheless, many faculty are still hesitant to teach about diversity. The current study aimed to examine faculty attitudes, perceived norms, efficacy, and intentions regarding inclusive teaching, which research suggest could influence their teaching behaviors. Although programs and policies have been implemented over the past 40 years to provide this needed inclusive education, there is a lack of research about who is teaching these classes, who is not, and the possible reasons associated with each (Mayhew et al., 2005). Behavioral models such as the Transtheorectical Model (TTM) of behavior change and the Theory of Planned

Behavior (TPB) have been successfully used in a variety of domains to understand and predict behaviors (Ajzen, 2001; Prochaska, DiClemente, & Norcross, 1992). Although these models are most commonly used separately, research has begun to use these models in conjunction due to their complementary nature to better understand behaviors (Armitage, 2006). The TTM focuses on behavior change by stages, whereas the TPB focuses on understanding the behavior. A more specific aim of the current study was to examine inclusive teaching behaviors by stage (e.g., not teaching inclusively to inclusively teaching) and to use the constructs of the TPB (e.g., attitudes toward the behavior) to better understand the factors influencing behaviors with each stage.

Defining Diversity, Multicultural Education, and an Inclusive Curriculum

There is a lack of consensus about exactly what diversity means (Chang, 2001), the concepts (e.g., race) surrounding diversity (Trimble, 2007), and how to incorporate diversity in an inclusive educational setting (Chan, 2006). Trimble (2007) suggests that the definitions of many of the terms involved in diversity lack consensus in the psychological literature. For example, in Chang's (2001) study on the effects of physical diversity on students, diversity was defined as, "an institution's ability to offer opportunities for maximizing cross-racial interaction for all students" (p. 5). Piland and colleagues (2000) examined students' perceptions of diversity as it related to, "learning about the special circumstances of women, gays and lesbians, and people with disabilities" (p. 533), but argue that future research should include other minority groups involving age, socioeconomic status, and gender. Additionally, when asked to define diversity, Brunner (2006) found that many students differed in their definitions of the term. More specifically, most White students spoke only of cultural issues, Hispanic

students mentioned more qualities unique to different individuals, Asian-American students mentioned the uniting and interaction between different races and cultures, and African-American students talked about intercultural interaction, need for open-mindedness, and the removal of stereotypes. Only one student mentioned other statuses such as socioeconomic status and sexual orientation. None of the students mentioned other groups in regards to disability, weight, political affiliation, or religion. For the purposes of this study, a broader definition of diversity, as well as the term inclusive, will be used to refer to all social groups including, race, social class, ethnicity, sexual orientation, (dis)ability, weight, political affiliation, religion, and many other historically underrepresented groups (Banks, 2002). Because the term diversity holds different meanings for different individuals, the term inclusive is also used to emphasize the inclusion of all groups regardless of social status as well as majority or minority membership within a status.

Gurin, Dey, Gurin, and Hurtado (2003) suggest that diversity is composed of three levels: structural, interactional, and educational. Structural diversity is the actual number of minority individuals at the educational institution; interactional diversity is the more informal interactions individuals have with minority members on campus; and educational diversity consists of formal classroom learning of minority topics and issues. Although physical diversity has shown to positively affect students in the classroom (Kowalski, 2000; Maruyama & Moreno, 2000) by confronting stereotypes (Goldstein, 1995), challenging one's own prejudices (Ford, Grossman, & Jordan, 1997), increasing complex thinking in students (Antonio et al., 2004), building empathy and understanding of minority groups (Battle, 2004; Wurst & Wolford, 1994), and better preparing students

to thrive in a diverse world (Craig, 2000; Igwebuike, 2006; Kowalski, 2000), other research suggests that mere contact with diverse individuals is not enough (Chan, 2006; Gurin et al., 2003; Marshall, 2002). For example, many African American and Hispanic students still report feelings of alienation and loneliness (Simoni et al., 1999). Levine and Cureton (1998) go as far as to say that "multiculturalism is a heated [and even] painful topic on the nation's college campuses" (p. 6). In other words, academic institutions cannot rely on interactions between social groups for an inclusive education. In addition, a number of campuses across the Nation are still predominately White, middle-class individuals (Renner & Moore, 2004), which does not allow for much structural and in turn, interactional diversity. This places the onus of preparing students to thrive in a diverse society on the education they receive about the multicultural individuals with whom they may work, socialize, live, etc. (Laird et al., 2005; Marshall, 2002).

There is also confusion over what constitutes an inclusive education, which is often referred to in the literature as a multicultural education (Morey, 2000). Laird and colleagues (2005) defined diversity courses as, "those courses that have content and methods of instruction that are inclusive of the diversity found in a society" (p. 450). Piland and colleagues (2000) defined multiculturalism as, "learning about people of color, their cultures, and their contributions to the fields covered in college courses" (p. 533). Banks (2002) suggests that a multicultural education includes all social groups and is meant to benefit all students (Morey, 2000).

Banks (2002) further offers what he believes to be the five dimensions of multicultural education. The first is content integration in which professors use materials that teach the main concepts of the class through a number of cultural perspectives. For

example, the norm in teaching language development in the US is to offer the stages of language development seen in verbal infants. What about language development in the deaf culture? The structure of development is similar enough so that the concepts from the verbal example could be replaced with the language developmental concepts from the deaf infants (Herman, 2002). The second dimension of multicultural education is the knowledge construction process. In this dimension, professors are encouraged to foster skepticism, criticism, and critical inquiry into the sources from which their education is taught. For example, Guthrie's (1998) *Even the rat was white: A historical view of psychology,* examines psychology's history of biased measures and findings, which are used in many textbooks. Faculty need to be aware that, "the group who 'owns' history also controls the gateway to knowledge construction, truth and falsity, problem definition, what constitutes normality and abnormality, and ultimately, the nature of reality" (Sue, 2004, p. 766). Multicultural education teaches students to look for the limitations in past research and analyze how such flawed findings may have contributed to the field's construction of knowledge. The focus of the third dimension, prejudice reduction, is students' own biases, how they can be confronted, and changed for the better. Educational interventions that fit into the classroom content could be devised to confront illusory correlations, heuristics, and the like that have shown to be related to the development of prejudice (Mio, Barker-Hackett, & Tumambing, 2006). Banks (2002) fourth dimension is empowering school culture and social structure. This dimension requires the school to assess its social inequalities through such things as campus climate surveys (Hurtado et al., 1998). Another way is to examine the demographics of students' academic disciplines, clubs, athletics, and organizations in order to assess disparities and

then evaluate ways in which to lessen the gaps between groups on campus. The last element of a multicultural education consists of equity pedagogy. Such pedagogy uses materials and methods that take into account all students' backgrounds and learning abilities and fosters a cooperative learning environment. Again, the focus is on all students: minority as well as majority. Professors focusing their curriculum changes on only minority students are not implementing a true multicultural education (Banks, 2002).

Banks (2002) suggests that there are some basic assumptions associated with a multicultural education. For example, all aspects related to culture (e.g., race, ethnicity, SES, age, gender, etc.) are assumed to be significant factors in U.S. society. Second, it is assumed that multicultural education improves people's lives by aiding them in social interactions and ways of solving social dilemmas. Third, multicultural education offers students the ability to become more rounded persons in the diverse society we live. Fourth, it is believed that such knowledge and interactions with people of different cultures is truly part of being human and something to relish. Curriculum that is limited by including only a single minority status (e.g., gender) deprives students of the knowledge of other minority statuses in society with which they may come to interact.

> When students' understanding of intolerance and discrimination expands beyond women and African Americans, they gain a greater depth of awareness of the systematic institutional discrimination of all minorities. This is particularly valuable for those students who have had limited exposure to others (Stevens & Charles, 2005, p. 22).

In other words, it is particularly important to provide students with a multicultural education especially when there is a lack of physical diversity.

Efforts toward a Multicultural Education

Many educators agree with the benefits of incorporating diversity (Maruyama & Moreno, 2000; Mayhew & Grunwald, 2006), but argument still ensues over the best methods of achieving a quality multicultural education (Kowalski, 2000). One of the largest attempts to increase diversity on campus began in the mid 1960's with Affirmative Action (AA) policies and programs (Renner & Moore, 2004). Although such programs were effective in increasing the numbers of minority faculty, staff, and students at many educational institutions, the implementations and fulfillment of many AA programs' goals often fell short (e.g., Igwebuike, 2006; Niemann & Maruyama, 2005; Renner & Moore, 2004). Instead of enriching education through diverse opinions, experiences, and opportunities of cooperative contact, many AA programs were used to fill minority quotas (Igwebuike, 2006; Niemann & Maruyama, 2005). This is not to say that diversity at universities is not beneficial, because research has shown that physical diversity at schools is related to outcomes such as greater likelihood of interracial friendships (Chang, 2001), greater intellectual self-confidence, increased cultural awareness and satisfaction with college (Antonio, 2001; Astin, 1993; Chang, 2001; Gurin et al., 2003). However, other research suggests that mere contact is not enough (Chan 2006; Gurin et al., 2003; Marshall, 2002) and that many students avoid these interactions due to expected discomfort, false beliefs, and fear of stigmatization by association (Mohr & Sedlacek, 2000; Swim, Ferguson, & Hyers, 1999). In addition, many deans are still reporting racial balkanization on campus, suggesting the diverse students are not interacting (Levine & Cureton, 1998).

Furthermore, some AA programs had unintended negative effects such as provoking anxiety for many minority faculty and students who felt the need to prove their ability and merit for being hired/accepted to the university (Brown, Charnsangavej, Keough, Newman, & Rentfrow, 2000). In addition, curricula remained relatively unchanged even though the demographics of those attending educational institutions increasingly diversified (Renner & Moore, 2004). It appears as though minority faculty carry the responsibility of teaching diversity issues (Mayhew & Grunwald, 2006; Mio et al., 2006), and many majority faculty do not see a need to integrate diversity materials (Brunner, 2006), which is problematic given that the number of minority faculty increases only by single percentage points a year (Niemann & Maruyama, 2005; Vaughan, 2005). It is also worth noting that color of skin alone does not indicate one's preparedness to teach diversity. "An instructor's ethnicity is not a valid indicator of competence (or incompetence) to teach these topics: All professors must be educated and contribute to this important work" (Simoni et al., 1999, p. 94). In sum, structural and interactional diversity may not be the most effective tools to use when preparing students to thrive in a diverse society. Rather, education about diverse social groups is needed to foster more positive interactions had between groups, which in turn would lead to greater diversity education and achievements of campus climates of inclusion. Below is a discussion about the theories as to how faculty can provide an inclusive education.

CHAPTER I

THEORIES ABOUT CONTENT OF INCLUSIVE CURRICULUM

Some professors are blind to the influence of the dominant culture on educational materials and practices that offers mainly majority dominated theories as evidence (Simoni et al., 1999), whereas other professors continue to work on diversifying their curriculum. Faculty relying on many current teaching materials to include diversity may not realize the lack of multicultural education they provide (Stevens & Charles, 2005). Ocampo and colleagues (2003) examined over 2,000 articles published in the *Teaching of Psychology* from 1974-2002 and found that only 9% at least mentioned a diversity issue. A smaller proportion of that 9% was said to "substantially" address a diversity issue, with gender being the greatest diversity status covered. Similarly, many textbooks fail to adequately cover minorities (Hogben & Waterman, 1997), possibly resulting in "ethnocentric views of healthy human functioning" (Enns, 1994, p. 205). This is a potential problem when considering that Simoni and colleagues (1999) found that 60% of their sample from The Society for the Teaching of Psychology relied on textbooks to teach about diversity. Faculty need to be aware of these deficits and competent to teach beyond the shortcomings of many textbooks (Stevens & Charles, 2005). In other words, this requires faculty to first be aware of the lack of inclusive materials that are readily available to them and second, to deliberately search and include diversity related materials into their curriculum.

Culturally Responsive Approach to Curriculum

Richards and colleagues (2007) assert that culturally responsive pedagogy is meant to benefit all students, but much of the culturally responsive literature is aimed at identifying minority students in the classroom and adjusting instruction and curriculum so that it is more reflective of these students' cultures (Brown, 2007; Montgomery, 2001). This method, "specifically acknowledges the presence of culturally diverse students and the need for these students to find relevant connections among themselves and with the subject matter and the tasks teachers ask them to perform" (Montgomery, 2001, p. 4). It is believed that minority students will have a better chance at succeeding academically if classroom methods and materials are more reflective of their cultures (Brown, 2007). Montgomery (2001) suggests that creating a culturally responsive and inclusive classroom includes using a variety of teaching methods and materials that are culturally sensitive. This includes more teacher directed methods such as explicit instruction that gives the students the who, what, where, when, why, and how of the course content; as well as methods requiring more student participation such as instructional scaffolding in which professors model successful completion of the course content, but only as much as students cannot do own their own. Culturally responsive professors also employ cooperative learning groups (e.g., jigsaw classroom) in order to demonstrate the positive learning experiences to be had with the interaction of diverse people. Montgomery (2001) also suggests using journaling assignments to allow students to reflect on their multicultural education and draw possible connections to their personal lives and other areas of knowledge. Open-ended projects give students the opportunity to complete an assignment that is best suited to their learning styles and interests, whether it be a written

report or a poster presentation. One important element to all of these strategies is the variety of learning opportunities that each provide. For example, power dynamics can play a large role in student participation, with those in power being the ones to participate (Higginbotham, 1996). Some students are intimidated to speak in front of a large class, but are very comfortable holding discussions in small groups (Fassinger, 1995). This is often due to minority students' lack of confidence in knowledge and sense of alienation from the Anglocentric curriculum (Gallos, 1995). The multicultural educational aspect of this model often comes in the form of interdisciplinary units that consist of cross-curricular readings focused on diversity topics. In addition to this, Montgomery (2001) suggests inviting culturally diverse speakers to the classroom. All of these efforts are meant to foster a more comfortable environment conducive to learning for minority students, which could potentially help some and inhibit others if the correct objectives are not set in place.

In other words, if an objective of multicultural education is to educate *all* students (Banks, 2002), and if an objective of education in general is to prepare students to be productive and responsible citizens (Association of American Colleges & Universities, 2002), then it is not enough to simply push for curriculum change that emphasizes the learning styles and growth of minority students. Marshall (1995) notes that one of, "the most insidious misconceptions about multicultural education rests on the belief that learning style is the major explanation for the vast differences in school achievement among different racial/cultural populations" (p. 58). Furthermore, what if there are few to no diverse students in the classroom to reflect in the curriculum and how do faculty identify diversity that is not always apparent (e.g., sexual orientation)? This is

especially an issue at majority populated schools where some faculty and students feel as though if most students in the class are Euro-American, than there is no need to include multicultural education (Marshall, 1995). This is not to say that these efforts to accommodate minority students are not warranted. Minority student enrollment is on the rise (Causey, Thomas, & Armento, 2000), many curricula in place are not multicultural (Banks, 2002), minority students' educational needs are not being taken into consideration (Brown, 2007; Causey et al., 2000), and as a result minority students, "frequently leave school before graduating" (Montgomery, 2001, p.5). Nevertheless, the focus should be on teaching methods and materials that foster an inclusive classroom climate as well as an inclusive education for *every* student regardless of classroom composition.

Reasons such as these may be why many faculty do not use this approach to teaching inclusively. Maruyama and Moreno (2000) asked faculty questions regarding whether diverse students or faculty have affected their teaching. The majority of the faculty (46%-75%) reported that diverse students and faculty did not affect the issues they raised in class, prompt them to adjust their course syllabus to include racial issues, or induce them to develop new course offerings. Faculty also did not reexamine the way they evaluated these diverse students, nor did they change their teaching methods to encourage discussion among students in the classroom, suggesting that faculty are less likely to adopt a culturally responsive approach to inclusive teaching.

Contributions Approach to Curriculum

Banks (2002) proposes there are multiple levels in which a professor may deliver a multicultural education regardless of the structural diversity at an academic institution.

The first level is the contributions approach, which can be considered somewhat of a first step to inclusive teaching. The inclusion of contributions comes in the form of covering holidays celebrated by different cultures. For example, professors might include National Coming Out Day when discussing holidays and/or special days of celebration. Little preparation is involved and there is little to no change in the overall curriculum of the course.

Similar models of curriculum change suggest there are a number of limited classroom components in this first level approach. For example, Kitano (1997) suggests that professors in this first level of diversity inclusion are not only limited in their content, but in their instructional strategies, student assessment, and classroom dynamics as well. For example, professors in this stage are most likely to use mostly lecture as a means of conveying knowledge. Assessments are limited to tests and papers, and the focus of the class is covering the course content. In other words, discussions of the "other" are omitted and student participation is not encouraged.

Additive Approach to Curriculum

Banks' (2002) next level of inclusive teaching is the additive approach. Although the additive level requires more preparation and work than the contributions level, the overall structure and content of most of the curriculum remains unchanged. Here, professors may add an entire unit or module about a diversity related topic or issue. Simoni and colleagues (1999) surveyed members of the American Psychological Association's Division 2: The Society for the Teaching of Psychology about their actions and attitudes toward teaching diversity. They found that out of 703 participants, a majority reported spending a few classes discussing diversity issues. However, research

has shown that the contributions and additive approaches do little to nothing in regards to increasing multicultural sensitivity (Mahoney & Schamber, 2004).

For example, Ford and colleagues (1997) developed a teaching unit devoted to unintentional racism for an introductory psychology course. This unit consisted of three 50 minute class periods, and was aimed at increasing students' education about racism and in turn, their appreciation of diversity. On the first day of the unit, groups of 20 students discussed their reactions to a scenario of a White professor's unintentional racist behavior toward the only Black student in the class. The next class, students received a 50 minute lecture on unintentional racism, covering concepts such as overt hatred, aversive racism, and the fundamental attribution error. The last class of this unit was devoted to making the connections between the concepts learned and their reactions to the scenario they had read and discussed the first class. Following this unit, students completed a questionnaire about their attitudes toward African Americans. Ford and colleagues (1997) found that the teaching unit on unintentional racism was effective in reducing negative attitudes toward Blacks, but not in increasing positive attitudes. It is interesting to note that this teaching unit was effective in attitude change, but not in the way it was originally intended. These results could be due to a number of reasons such as class climate, the way the material was taught as a separate entity rather than infused into the core curriculum, the level at which the material was analyzed, and/or student resistance due to their beliefs about the necessity of such a unit.

Transformation Approach to Curriculum

The third level of Banks' (2002) multicultural curriculum reform is the transformation approach. This approach is similar to Kitano's (1997) transformed level

of multicultural course change. This third level differs vastly from the first two in terms of classroom components. Banks (2002) and Kitano (1997) suggest that in the transformation approach, professors rework the entire curriculum to offer each course topic through multiple, non-dominant perspectives. As the title suggests, a complete transformation has to take place in the curriculum as well as in the instructor to ensure cultural competence (Brown, 2007). Here, the teaching methods and materials foster understanding and tolerance of other cultures as well as the critical evaluation of single perspectives. Students are encouraged to think for themselves, and to come to their own educated conclusions. In this level of curriculum, faculty and students also learn from each other. Kitano (1997) suggests that professors' forms of student assessment also vary at this level. In this stage, faculty use methods such as self-assessment that focus on student growth, instead of tests and papers like those used in the lower stages of diversity inclusion. Many educators have already begun this work such as Enns (1994) in her multicultural strategies to teaching personality psychology and Goldstein (1995) in her recommendations as to how any instructor can transform his/her curriculum.

Somewhat similar to Banks' (1994, 2002) transformation approach, Sheldon (1999) examines diversity issues in each course topic as a secondary agenda as a means of raising awareness and decreasing biases through critical analyses of assumptions and self-reflection. It has been Sheldon's experience that students are often unwilling to admit to their own prejudices. Therefore, an educational unit devoted to an issue such as heterosexism may shut the students off and leave the topic under explored. One way of getting around these types of consequences for sensitive topics is to make it a part of the curriculum rather than the focus. For example, Sheldon (1999) had students apply their

knowledge of persuasion through writing proposals arguing why public displays of affection should be allowed on campus. Following this, she informed the students that their arguments were for the gay and lesbian community and not the heterosexual community. She notes that, "students unknowingly reveal their assumptions", which they normally would not profess to prior (p. 210). The main concept was persuasion, but students also learned about their own biases and classroom discussion was used to reflect on these revelations.

Banks (2002) suggests also using critical thinking questions to aid students in viewing the course topic from a different perspective. For example, in teaching students about "The Westward Movement", he asked students what they thought the movement meant, who was moving, to what region, and why. The purpose of such questions was to enable students to see that the, "Westward Movement is a Eurocentric term because the Lakota Sioux were already living in the West and consequently were not moving" (p. 31). Once students realize the course topic is from a dominant perspective, Banks (2002) suggests having students describe the topic through the non-dominant perspective as well as renaming the topic to be more inclusive.

Social Action Approach to Curriculum

Banks' (2002) fourth level of inclusion is the social action approach. This level expands on the transformation approach by offering opportunities for action along with multicultural knowledge. In this approach, faculty provide opportunities to participate in cultural awareness events and assign projects that require social action. Banks (2002) believes, "to help our nation and world become more culturally democratic, students must also develop a commitment to personal, social and civic action, as well as knowledge and

skills needed to participate in effective civic action" (Banks, 2002, p. 32). Many students are interested in learning about and befriending individuals different from them, but avoid these interactions due to expected discomfort, false beliefs, and fear of stigmatization by association (Mohr & Sedlacek, 2000; Swim et al., 1999). Nevertheless, positive structured contact with diverse individuals has been shown to decrease prejudice and stereotypes (Berryman-Fink, 2006; Chang, 2001; Meaney, Bohler, Kopf, Hernandez, & Scott, 2008) and to increase awareness, positive attitudes, and compassion toward minority groups (Meaney et al., 2008). However, such conditions do not happen often in natural settings (Dixon, Durrheim, & Tredoux, 2005), are not guaranteed to lead to generalized positive attitudes toward members outside of the contact group (Hewstone & Greenland, 2000), and can lead to increased hostility if group inequalities are made salient (Hewstone & Greenland, 2000). Nevertheless, educators need to foster positive group contact if they are to promote further contact and reduce prejudices, false beliefs, and contact anxiety (Hewstone & Greenland, 2000).

For example, Paoletti, Segal, and Totino (2007) describe a humanities course in which mostly White, affluent students volunteered at a Boys and Girls Club with mostly Black and Latino, lower-class high school students. Learning outcomes were assessed through minute papers, journals, and portfolios. Although these qualitative methods gave students a greater opportunity to express understanding, the authors note the difficulty in assessing positive change in multicultural learning due to the students' different starting and ending levels of diversity related knowledge. Nevertheless, there were notable differences in student writing. Students were more comfortable and likely to write about their initial racial and class stereotypes in their assessments, which could be a result of

positive interaction with these groups in conjunction with the inclusive teaching of that class (Berryman-Fink, 2006).

In sum, inclusive teaching can happen in stages from not very inclusive to fully inclusive. Faculty teaching within the minimal stages have the potential to harm students more than help them. The focus of the current study is on the later stages of inclusive teaching, which have shown to benefit minority and majority students. However, research has yet to fully define inclusive teaching. Instead, previous research has used general, and even vague, definitions of diversity and what it means to include diversity in the curriculum. What have been discussed thus far are examples and theories of inclusive teaching, but questions still remain regarding the actual set of behaviors faculty engage in to be inclusive. A lack of this knowledge makes attempts to change faculty behaviors to be more inclusive fruitless. The current study adds to this literature by identifying a number of inclusive teaching behaviors common to teaching elements of all courses (e.g., readings, content, and delivery). Furthermore, to better understand these behaviors, it is important to examine possible factors related to inclusive teaching. Previous research that has examined this general idea of diversity in the curriculum has identified a number of possible factors that would most likely also be related to specific inclusive teaching behaviors.

CHAPTER II

FACTORS RELATED TO INCLUSIVE TEACHING

Research regarding faculty views toward diversity on campus and in the curriculum is lacking in many areas (Brunner, 2006; Piland et al., 2000; Wasonga & Piveral, 2004). Researchers such as Wasonga & Piveral (2004) call for a, "re-evaluation of the curriculum and the presentation thereof to reflect the diversity as expected and as it exists in the wider population" (p. 47). In order to thrive in a diverse community, students need to be armed with the knowledge of and experience with minority individuals with which they will most likely interact (Banks, 2002), but there is a lack of research into whether this is being accomplished (Antonio, 2001). As will be discussed further, the majority of faculty believe that a diversified institution and curriculum is positive; however, very little research has examined whether this is happening, who is likely to include diversity into their curriculum or teach diversity specific classes (AAUP & ACE, 2000; Maruyama & Moreno, 2000, Mayhew & Grunwald, 2006), and what barriers faculty face in doing so (Kowalski, 2000).

Although more and more universities have adopted positive beliefs toward diversity, there are still questions as to whether faculty at these institutions have also internalized the values their institutions endorse (Maruyama & Moreno, 2000). Although research suggests that faculty are more likely to support the idea of inclusive teaching, their teaching behaviors are more likely to reflect the lower levels of Banks' (2002)

approaches to multicultural education. Mayhew and Grunwald (2006) believe that, "nowhere should an institution's commitment to diversity be more evident than in the curriculum" (p. 149); yet faculty still seem to be hesitant about including diversity materials for a number of reasons (Kowalski, 2000; Maruyama & Moreno, 2000).

The American Association of University Professors (AAUP) and the American Council on Education (ACE) (2000) report that roughly 70% of faculty believe in the importance of incorporating diversity in the classroom, but only about 34% report that they actually include diversity materials. A number of researchers have proposed reasons for this contrast in numbers. Brunner (2006) suggests this could be because, "the lesson about the importance of diversity has not been learned by the faculty" (p. 315). Sue (2004) believes it is because faculty, "are, in essence, trapped in a Euro American worldview that only allows them to see the world from one perspective" (p. 762). Other possible reasons for such disconnect could be professors' perceived norms and support of inclusive teaching, their attitudes and evaluations of inclusive teaching, as well as their ability to teach inclusively. However, it should be noted that most research has focused on faculty attitudes and evaluations toward inclusive teaching.

Demographic Variables Related to Inclusive Teaching

Researchers examining teaching behaviors have found a number of demographic variables related to inclusive teaching behaviors. For example, Mayhew and Grunwald (2006) sampled 336 faculty from a large, Midwestern university about the factors contributing to whether they incorporated diversity related content into their courses. The majority of faculty at this institution were tenured, White males. They found that 69% of the faculty surveyed included diversity content in their courses, however it is

unclear what exactly that meant. Those comprising that 69% were more likely to be female and male faculty members of color, with White males being the least likely to incorporate diversity into their curriculum. Maruyama and Moreno (2000) found similar results; further supporting earlier suggestions that minority faculty appear to be the ones teaching about diversity (Mio et al., 2006). Sexual orientation of faculty has not been found to be related to inclusive teaching (Mayhew & Grunwald, 2006). Results regarding tenure status and time at the institution are mixed. Mayhew and Grunwald (2006) found these variables were not significant factors related to faculty incorporating diversity into their curricula, whereas Maruyama and Moreno (2000) found that those who had been teaching longer were less likely include diversity. Inclusive teaching was also found to be related to which field faculty taught, with faculty in engineering more likely to include diversity content in their courses than faculty in arts and sciences, business and administration, and fine arts, and education (Mayhew & Grunwald, 2006). This is a surprising finding given that most students report receiving diversity education in social science courses (Piland et al., 2000).

Perceived Support and Norms for Inclusive Teaching

Whether faculty have support for inclusive teaching and believe others are also teaching inclusively appears to influence teaching behaviors. Maruyama and Moreno (2000) examined faculty's views about the value of diversity on their campus as well as in their classroom. Their sample consisted of 1,500 faculty drawn from five Research-I universities, with a majority sample of White (85%) and male (63%) faculty. They found that most faculty at these institutions believed their academic institutions valued diversity, with only 13% disagreeing. A much larger percent (27.2%) believed that their

departments did not value diversity; but 69% were still personally committed to enhancing the campus climate for students. In other words, faculty believed they were teaching inclusively even though their colleagues were not. Conversely, Mayhew and Grunwald (2006) found that greater perception of department support and norms for inclusive teaching was positively related to teaching about diversity more than institutional support. The only positive relation with perceived institutional support was with perceptions of top campus administrators' support for diversity. Overall, it appears as though the behaviors and beliefs of others regarding inclusive teaching is a factor, but more research is needed to assess whether top campus administrators or fellow colleagues have a greater influence on inclusive teaching.

Experience and Efficacy Related to Inclusive Teaching

Direct experience with a particular behavior has shown to improve prediction of later engagement with that behavior (Doll & Ajzen, 1992). This is related to Mayhew and Grunwald's (2006) findings that the most powerful predictor of which faculty would include diversity into their curriculum was whether they had participated in some sort of workshop or conference that raised their awareness and sensitivity toward diversity issues. This is also similar to Simoni and colleagues' (1999) findings that members of the Society for the Teaching of Psychology who reported some sort of support for inclusive teaching (e.g., workshops, multicultural center, etc.) were the most likely to teach about diverse topics. Therefore, the current study also assessed whether faculty had participated in a diversity related training or workshop.

One's ability to perform a behavior, or self-efficacy, has also been shown to influence engagement in that behavior (Armitage & Conner, 2001). However,

perceptions of efficacy tend to differ by questions asked for inclusive teaching. Maruyama and Moreno (2000) found that 71% of faculty believed they were prepared to teach/work in a diverse environment and 86% reported being comfortable teaching/working in a diverse environment. In other words, faculty felt prepared and comfortable to perform these vaguely defined behaviors. When asked about specific behaviors, 42% said they were not prepared to initiate discussion of race in their classes and 45% reported not having their students work in diverse groups. It appears as though individuals seem to agree more with vague generalizations regarding diversity than with specific actions (AAUP & ACE, 2000). In other words, faculty may believe in their ability to teach inclusively, which is a vague term, but their beliefs may differ when asked about their ability regarding specific inclusive teaching behaviors (Guyton & Wesche, 2005). Furthermore, one's ability to teach inclusively may be difficult to assess when very few faculty are willing to admit their teaching inadequacies (Simoni et al., 1999). The current study attempts to build on this literature by assessing a number of specific inclusive teaching behaviors and how confident faculty are in performing a number of these behaviors.

Attitudes and Evaluations of Inclusive Teaching

Positive. Perhaps the most widely examined factor related to inclusive teaching is professors' attitudes and evaluations toward inclusive teaching. Overall, it would appear that faculty believe that diversity has a positive effect on campus and in the classroom. For example, Maruyama and Moreno (2000) found that 70% of the faculty they surveyed believed that diversity on campus gives students the opportunity to explore new perspectives. When asked about the effects of diversity in their classes, half of the

faculty believed that diversity broadened the variety of experiences shared. Faculty were also more likely to report that diversity in the classroom allows students to confront stereotypes on social, political, racial, and ethnic issues and personal experiences. Other faculty have reported positive outcomes and reasons for teaching about diversity, such as to increase awareness, education, and tolerance for all humans (Simoni et al., 1999). However, much more attention has been given to professors' negative attitudes and evaluations of inclusive teaching.

Negative. Even though the majority of faculty believes that inclusive teaching is positive and important, many do not teach inclusively. A possible reason for this could be the number of negative attitudes and evaluations held by many faculty regarding inclusive teaching. Kowalski (2000) lists what she believes to be the six primary negative attitudes and evaluations faculty have about teaching inclusively. The first is that adding diversity to the curriculum takes time away from core content, which also raises questions as to how much time should be given to diversity topics (Aveling, 2002; Madden & Hyde, 1998; Marshall, 2002; Simoni et al., 1999). The Association of American Colleges and Universities (2002) reported that approximately 28% of college students are considered to belong to a minority group. Does this mean that 28% of the curriculum, classroom time, etc. should be devoted to multicultural education? Some faculty believe that certain topics do not deal with education about people (e.g., math) and so diversity issues are irrelevant and not worth the time (Banks, 2002; Simoni et al., 1999).

Other negative evaluations of inclusive teaching have to do with the way social statuses are covered and how coverage could offend students (Kowalski, 2000; Simoni et

al., 1999). Professors often opt to mention only the one or two groups about which they know the most (Kowalski, 2000) and teach the statuses as independent identities when in reality they interact (e.g., race and gender) (Madden & Hyde, 1998; Cole, 2009). In addition, due to a number of possible reasons, many faculty currently choose to keep diversity coverage rather shallow as in the contributions and additive approaches. The diversity information given is often descriptive in nature and lacks any connection to other concepts covered in class. Kowalski (2000) notes that this can be more harmful than not mentioning any groups due to the way the information about the minority group is often presented. Teaching about minority groups in a tokenistic and simplistic fashion, where differences are emphasized over similarities, fosters feelings of alienation from minority students and prejudice from majority students (Aboud & Fenwick, 1999; Higginbotham, 1996). This is also not to say that professors should cover every single minority group (Marshall, 1995), but it is important to note that no coverage at all can signal to students prejudice toward these uncovered groups (Katz, 2003). Furthermore, downplaying differences and emphasizing sameness can also be potentially harmful. Sue (2004) notes that professors adopting a color blind view about their diversity material also perpetuate prejudice. Sue (2004) believes that denying groups of their differences "is really a denial of the unfair power imbalance that exists in society", which in turn, "allows Whites to deny their unearned privilege and advantage in society" (p. 763). These White privileges and unfair advantages are also most prevalent to minority students when they are denied (Sue, 2004). Somewhere in between these extremes is a balance of adequate coverage of minority groups that allows for students and faculty to

elaborate, process, and even apply the information. The goal is not to give every possible perspective, but rather a reasonable number of multiple perspectives (Marshall, 1995).

Kowalski's (2000) last two negative evaluations of inclusive teaching deal with issues of resistance. Students who value a diversified education view inclusive professors as more knowledgeable, enthusiastic about the material, and open-minded; whereas students who do not value this education view their inclusive faculty as biased (Piland et al., 2000). Many professors believe these students will resist coverage of diversity issues (Simoni et al., 1999) in the form of silence, absenteeism, or verbal and written complaints (Higginbotham, 1996). It is also worth noting that these behaviors are not limited to White, straight, upper class, able males as many might suspect (Higginbotham, 1996). Depending on how material is presented, it could create an impression to all students that the instructor is trying to push an agenda to which students quickly tune out (Piland et al., 2000). This is especially the case for minority faculty who are often the ones teaching inclusively in the first place (Mayhew & Grunwald, 2006). It may also be the case that when diversity topics are covered in a shallow manner, students may question the overall credibility of the instructor (Kowalski, 2000). In addition, Aveling (2002) found that students began to feel, "uncomfortable when the 'natural' order of how much time [was] spent on what or whom, became unbalanced" (p. 126-127). However, it should be noted that the curriculum was balanced so that an equal amount of time was given to majority and minority topics. Nevertheless, researchers have found that many majority students are sensitive to how minority topics are covered and often feel defensive and portrayed in a negative light during these discussions (Khan, 2000; Organista et al., 2000), often leading to student resistance.

The other source of resistance faculty often face is themselves (Kowalski, 2000). One of the first steps to becoming a multicultural educator is self-assessment of one's own biases and prejudices toward any number of social groups (Montgomery, 2001; Richards et al., 2007). This can be the most difficult step for many professors. Should only sexism and racism be reflected upon by faculty because those are the only two minority groups covered in their courses; or should every minority group be included in the professors' assessments? This is an extremely important question, yet a difficult and complicated one to answer (Simoni et al., 1999). People can be reluctant to admit prejudicial beliefs to others and even themselves (Paulhus, 1988), making it difficult to assess stereotypical and/or prejudicial beliefs accurately. "Often teachers are resistant to the notion that their values might reflect prejudices or even racism towards certain groups" (Richards et al., 2007, p. 65). Causey and colleagues (2000) work suggests that many White, middle-class professors' beliefs about other people are often resistant to change. Many faculty believing in optimistic individualism, absolute democracy, and naïve egalitarianism are oblivious to the privileges they receive that minorities often have to fight for and overlook the effects of prejudice and discrimination. "To challenge that worldview as being only partially accurate, to entertain the notion that it may represent a false illusion, and to realize that it may have resulted in injustice to others make seeing an alternative reality frightening and difficult" (Sue, 2004, p. 762). This is a potential problem because prospective faculty continue to show little to no increase in diversity whereas the student population continues to diversify (Causey et al., 2000; Niemann & Maruyama, 2005).

Overall, these results suggest that there are faculty who are more likely, perhaps even willing, to incorporate diversity into their curriculum than others. These studies also lend support to the fact that a variety of factors need to be taken into consideration when predicting who is teaching inclusively. More specifically, demographic variables, perceived norms, efficacy, and attitudes of faculty should be taken into consideration when examining inclusive teaching behaviors. What follows is a discussion of two behavioral models that research suggests could be used to predict inclusive teaching behaviors.

CHAPTER III

PREDICTING INCLUSIVE TEACHING FROM TWO BEHAVIORAL MODELS

One purpose of the current study was to elaborate on the foundational research aimed at understanding and predicting inclusive teaching behaviors. This knowledge could then inform the development and employment of faculty workshops meant to increase inclusive teaching behaviors. In other words, the current research begins the groundwork for future research examining inclusive teaching behavior change. This is inspired by the use of behavioral models in other fields, such as health psychology, where the primary focus is on behavior change (e.g., quitting smoking, getting mammogram, beginning exercise program, etc.). Two of the most widely used behavioral models in this field are the Transtheoretical Model of Behavior Change (TTM) and the Theory of Planned Behavior (TPB) (Armitage, 2006). As discussed further below, the first is a stage model with a focus on behavior change (Armitage, 2006; Lippke, Nigg, & Maddock, 2007), and there are individual workshops that should be employed for each stage of change within the TTM (Prochaska et al., 1992). Conversely, the TPB is a continuous model with a focus on understanding the behavior (Armitage, 2006; Lippke et al., 2007). Although more research is needed in examining behaviors with both models in conjunction, current research suggests the TPB could be used to better understand the behaviors within each stage of change in the TTM (Armitage, Sheeran, Conner, & Arden, 2004), which would better inform stage specific workshops (Lippke et al., 2007). Each

behavioral model is discussed further below as well as the applications of each model and how they compare and contrast.

Transtheoretical Model of Behavior Change

Over 20 years of research into how people intentionally change problem behaviors (e.g., quitting smoking) has produced the Transtheoretical Model (TTM) of behavior change, which maps individuals' progress through a series of stages (i.e., precontemplation, contemplation, preparation, action, maintenance, and termination), culminating in lasting positive behavioral change (Prochaska et al., 1992; Prochaska & Norcross, 2001). There are four main constructs of the TTM including stage of change, decisional balance of pros and cons, self-efficacy, and experiential and behavioral processes of change. Research suggests that decisional balance, efficacy, and processes of change differ by stage of change, but the influence of each construct on each stage has been found to vary (Lippke & Plotnikoff, 2006; Prochaska, 1994; Rhodes & Plotnikoff, 2006). Nevertheless, there appears to be a general consensus that as individuals progress through stages, they perceive more pros, efficacy, use more behavioral processes, and perceive less cons (Lippke & Plotnikoff, 2006). Additional research has found demographic differences by stage (e.g., Gatersleben & Appleton, 2007), but most TTM research does not focus on these differences. In addition, the TTM has been most widely applied to health behaviors (Armitage, 2006), but it is feasible to suggest this behavioral model could apply to professors' willingness to teach inclusively. Although inclusive teaching behaviors are not problem behaviors, they are still behaviors of increasing importance (Levine & Cureton, 1998), acted out at different levels (Banks, 2002; Kitano, 1997), and susceptible to change (Prochaska et al., 1992).

Precontemplation. The first stage of change (SOC) is the precontemplation stage. In the TTM Literature, about 50% of populations with problem behaviors are in this stage (Prochaska, 1994), but other research has found greater percentages of individuals in later stages for certain behaviors (Armitage et al., 2004). Prochaska and colleagues (1992; Prochaska & Norcross, 2001) note that individuals in this stage are often unaware that they exhibit a problem behavior. They may even deny they have a problem even though those around the individuals (e.g., family and friends) are well aware that something is wrong. This suggests that the faculty who feel as though there is no need to include multicultural education if most in the class are Euro-American (Marshall, 1995), may also be in this stage of change. Behavior change in these individuals is highly unlikely unless they are under extreme pressure by others. The authors note, "overt action without insight is likely to lead to temporary change" (Prochaska et al., 1992, p. 1111). For example, an alcoholic threatened with divorce from his/her partner may quit drinking under coercion, but once the pressure is gone the drinking would resume. In other words, people in this stage do not see a need to change their behaviors and lack internal motivation to change as a result. Analogously, campus officials can implement any number of policies in support of an inclusive environment, but in order for these policies to be effective they must have the support of the faculty (Feagin & Sikes, 1995; Mayhew & Grunwald, 2006).

Because individuals in this stage do not believe they need to change their behavior, they are the least likely to engage in any processes of change (Prochaska et al., 1992). For those who do move past this stage, Prochaska and colleagues (1992) note the three most commonly employed methods and techniques people use to progress out of

this stage. These cognitive processes can be used by individuals and/or professionals hired to help change a behavior. The first is consciousness raising, which consists of increasing awareness about the behavior in focus. Dramatic relief is another technique employed to change behaviors by allowing individuals to emote over their problems associated with their behavior. Third, individuals may also assess how their past behavior affected their surroundings and those close to them in environmental reevaluation. Although these are all cognitive processes of change, research suggests that individuals in this stage can also use behavioral processes (Lippke & Plotnikoff, 2006; Plotnikoff, Hotz, Birkett, & Courneya, 2001).

Additional constructs of the TTM have also been found to influence progression out of this stage. Although the results are mixed on which constructs have the most influence on stage change, it appears as though efficacy is the best predictor of the constructs. Plotnikoff and colleagues (2001) compared the constructs of the TTM over three different assessments and found none of the constructs to predict progression from time 1 to time 2, whereas self-efficacy and behavioral processes predicted progression from time 2 to time 3. Lippke and Plotnikoff (2006) found efficacy to influence progression out of precontemplation, but they also found the decisional balance of pros (e.g., positive attitudes toward the behavior) to predict progression. Similarly, Prochaska (1994) found those in this stage to have the least positive attitudes toward the behavior and that an increase in positive behavior could aid individuals to progress out of this stage more than a decrease in negative attitudes. Additional variables, such as social support, have also been found to influence progression out of this stage (Lippke & Plotnikoff, 2006).

Contemplation. Individuals in the second SOC, contemplation, realize they need to change their behavior but are not ready to make the necessary changes (Prochaska & Norcross, 2001). Relating this back to professors' attitudes and beliefs toward diversity in the curriculum, it may be that faculty realize the importance of a multicultural education, but are hesitant to teach inclusively (AAUP & ACE, 2000; Maruyama & Moreno, 2000). Prochaska and colleagues (1992) note that individuals in this stage strongly consider changing their behavior, yet do not change for one reason or another. It is not unusual for individuals to remain stagnant in this stage for years. "Insight alone does not necessarily bring about behavior change" (Prochaska et al., 1992, p. 1110). One possible reason for this is how individuals view the pros and cons of their behavior. Individuals in this stage still view their current behavior positively. They believe there are more benefits to continuing their current behavior at this juncture than making a behavior change (Prochaska et al., 1992). In other words, the costs of changing are too high for individuals in the contemplation stage. In an educational setting, it might be that faculty have too many negative attitudes and evaluations to including diversity and/or that it is just easier to continue with the materials and methods with which they are comfortable. Although this is a key element of the contemplation stage, the weighing of pros and cons is significant in the progress through the first four stages of the TTM (Prochaska, 1994). However, it is unclear as to whether raising the pros of positive behavior change or the cons of the problem behavior will aid in progressing individuals from one stage to the next (Prochaska, 1994).

Although there is little to no change in contemplation, Prochaska and colleagues (1992) suggest that individuals in this stage are often willing to participate in some of the

processes of change, many of which are similar to those used in the precontemplation stage. For example, these authors note that contemplators are open to information about their behavior (i.e., consciousness raising), expressing feelings about their problems with their behavior change (i.e., dramatic relief), and assessing how their problem behavior(s) has affected themselves, their environment, and those close to them (i.e., environmental reevaluation). The unique process of change for those in this stage is self-reevaluation where individuals assess how they feel about themselves in regards to their behavior. Although these are all experiential processes of change, individuals in this stage as well as the previous stage have been shown to use behavioral processes as well (Lippke & Plotnikoff, 2006; Plotnikoff et al., 2001).

Research examining the remaining constructs of the TTM has, again, been mixed. Lippke and Plotnikoff (2006) did not find pros, cons, or efficacy to influence progression out of this stage. Instead, only behavioral processes of change were a significant predictor. Conversely, other findings lend support to self-efficacy and pros influencing progression out of this stage (Plotnikoff et al., 2001).

Preparation. Individuals in the preparation stage of change are more likely to have made some sort of strides in changing their behavior (Prochaska & Norcross, 2001). For example, a teacher may be using the contributions or additive approaches to teaching a multicultural education. Prochaska and colleagues (1992) suggest that individuals in this stage are markedly different from those in the first two stages in that they seriously intend to take action in the near future to change their behavior. Many individuals will also show a reduction in their past behavior. For example, a smoker may cut down from smoking 20 cigarettes a day to 5, or an alcoholic might stop drinking on workdays. It is

important to note that these small behavior changes are not enough to constitute a successful behavior change due to the fact that the behavior still persists. Similarly, the contribution and additive approaches consist of minimal inclusive teaching behaviors and do not constitute fully inclusive teaching as is found in the transformation and social action approaches (Banks, 2002).

Movement through the first two stages, as well as the current stage, requires constant assessment of one's affective, behavioral, and cognitive processes associated with the behavior (Prochaska et al., 1992). In this stage, processes of change move from cognitive to behavioral. Processes such as self-reevaluation are often employed from the contemplation stage and used through the preparation stage. Here, faculty might report reexamining their curriculum for lack of diversity and look to resources for inclusion techniques. Prochaska and colleagues (1992) note that other strategies used to progress out of the preparation stage include self-liberation (i.e., believing one can change) as these individuals begin to make small changes in the positive direction. In addition, those in this stage begin to employ behavioral processes such as social liberation in examining the norms of behaviors of those around them and in society. Research suggests that cognitive and behavioral processes are the only significant predictors of progression out of this stage (Lippke & Plotnikoff, 2006), but others have found support for efficacy and cons as well (Plotnikoff et al., 2001).

Action. The action stage is marked by full behavior change, which means an absence of past behaviors (Prochaska & Norcross, 2001). This period of new behaviors can range from one day to six months in order to qualify the person as being in the action stage. However, research suggests this time frame can be changed to better match the

behavior (Donovan, Jones, Holman, & Corti, 1998; Herzog, 2007). Therefore, in order to better match the behavior of the current sample, time frames in regards to semesters instead of six months was used. Prochaska and colleagues (1992) note that this stage requires the most energy expenditure by individuals; they have to not only change their behaviors, but also change their surroundings to be more supportive of their behavior change. This may include an alcoholic having to find an alternative walking route that does not pass by any bars so as to forestall any temptations. For the purposes of this study, this intention to change involves faculty including diversity content into their curriculum and teaching through multiple perspectives. As a result, this stage is usually the most noticeable to students and colleagues.

Besides all of the pressures associated with changes in one's behavior, another reason this stage might be most taxing to the individual is the amount of techniques and resources often used to make it through this stage. Individuals continue to work to increase behavior options so as to provide greater alternatives of positive behaviors that can be swapped for their past behavior. Prochaska and colleagues (1992) note the processes of change most noticeable in the action stage include greater use of self and social-liberation as well as past processes of change. New processes of change to this stage are reinforcement management (i.e., rewarding oneself for behavior change) and helping relationships, where individuals turn to supportive others they can trust to aid them in their behavior change. For example, professors may report developing positive associations with helpful others on campus that foster inclusion (e.g., Office of Multicultural Student Affairs). Counterconditioning is another process used in this stage and includes replacing problem behaviors and temptations with new behaviors (e.g.,

relaxation techniques). For example, faculty would continue to attend diversity workshops to increase their multicultural competency and seek out diversity materials that can be used in their courses. The final process of change is stimulus control, where individuals remove stimuli in their environment that may tempt them to relapse to a previous stage of change. It is feasible to suggest that some diversity activities may completely fail, which may tempt faculty to avoid such material altogether and resort back to their previous teaching methods and materials. People in this stage have to constantly be vigilant for any cues that may tempt them into relapse, all the while convincing themselves that they can change for the better, and turning to others for support when they are in trouble or having doubts.

Research is also mixed about the progression from the action to maintenance stages. Lippke and Plotnikoff (2006) found that efficacy and a decrease in perceived cons predicted progression, whereas Plotnikoff and colleagues' (2001) findings suggest there may be more variables involved. However, it should be noted that Plotnikoff and colleagues (2001) had to combine the action and maintenance stages due to small numbers of those in these stages and therefore only examined retention in these stages. Nevertheless, they found efficacy and behavioral processes to predict retention at time 1 to 2 of assessment; and self-efficacy, pros, cons, experiential processes, and behavioral processes to predict retention at time 2 to 3 of assessment.

Maintenance. The fifth stage of the TTM is maintenance. Prochaska and colleagues (1992; Prochaska & Norcross, 2001) mark this stage as a continuation of change. Individuals must work to remain free of their past behavior for over six months, in order to be considered in the maintenance stage of change. As mentioned previously,

the time limit more applicable to professors at many academic universities is a semester (e.g., about 15 weeks). Therefore, faculty must teach inclusively for an entire course. This stage is also work intensive as individuals strive to replace their past behaviors with more positive behaviors (Prochaska et al., 1992). This still includes avoiding environmental cues that may tempt the individuals to regress in the progress they have made. Professors may find themselves having to throw away old materials and lectures so as to avoid temptation of their use.

Individuals in the maintenance stage often draw upon successful methods of change used in the previous stages in order to sustain the maintenance stage (Prochaska et al., 1992). The use of the previous techniques should have enabled faculty to build a healthy image of the education they should give in order for students to thrive in a global community. Once this vision is brought to fruition, processes such as counterconditioning and stimulus control aid individuals to maintain the positive behaviors and the healthy people they have become (Prochaska et al., 1992).

It is unknown which factors influence progression from the maintenance stage to the termination stage. An extensive literature review failed to reveal a study that included the termination stage in their use of the TTM. The lack of this stage in the literature could be due to a number of reasons. For example, Prochaska and colleagues (1992) note that, "for some behaviors maintenance can be considered to last a lifetime" (p. 1104). Similarly, due to the small number of individuals in the later stages for many behaviors, it may be difficult to include them in analyses. As noted earlier, Plotnikoff and colleagues (2001) had to combine those in the action and maintenance stages due to small subgroups. Nevertheless, variables such as self-efficacy, which have been shown

to predict retention in the maintenance stage could also predict progression to termination as this stage is marked by complete self-efficacy (Prochaska & Norcross, 2001).

Termination. Once individuals no longer have to work to remain free of their past behavior, they are considered to be in the termination stage (Prochaska & Norcross, 2001). Prochaska and Norcorss (2001) categorize this stage as "total confidence or self-efficacy across all high-risk situations and zero temptation to relapse" (p. 444). In other words, individuals no longer have to rework their lives around avoiding their past behavior. For example, a heroin user can see a needle without fear of regressing to previous stages. Professors can have a diversity activity fail and not feel the need to resort back to their Anglocentric curriculum. It is worth noting that Banks (2002) believes a multicultural education is, "a process that never ends because there will always be a discrepancy between democratic ideals and school and societal practices" (p. 123), suggesting this stage is unattainable by faculty. Similarly, much of the TTM research does not include the termination stage, perhaps because many individuals do not reach this stage. Nevertheless, individuals are not considered successful in their behavior change until they have progressed through all six stages of change (Prochaska, 2006), making this a necessary stage to include to fully understand inclusive teaching behaviors.

Application of TTM to Various Types of Behaviors

Researchers have found the Transtheoretical Model to be applicable to a number of behavioral changes (Prochaska, 1994; Prochaska, 2006; Prochaska et al., 1994; Prochaska et al., 1992), although most TTM applications have focused on smoking populations (Herzog, 2007). In addition, much of the focus of this research has often been on the termination of problem behaviors such as smoking versus the attainment of

positive behaviors such as exercising (Herzog, 2007; Prochaska et al., 1994). Nevertheless, further research can, and has, expanded on these limitations and at the same time shown that the TTM is the only model of behavior change that can handle, "multiple behavior changes across populations and problems" (Prochaska, 2006, p. 772).

Prochaska and colleagues (1994) examined the relation between the TTM and 12 behaviors in order to expand on the applicability of the stages of change model. More specifically, they looked at smoking cessation, quitting cocaine, weight control, high-fat diets, adolescent delinquent behaviors, safer sex, condom use, sunscreen use, radon gas exposure, exercise acquisition, mammography screening, and physicians' preventative practices with smokers. These 12 behaviors were chosen because they vary dramatically from one another in a variety of ways. For example, the first five behavior changes deal with the termination of a negative behavior, whereas the last seven deal with attaining positive behaviors. In addition, certain behaviors relate to addictions whereas others do not, some behaviors occur many times in the course of a day whereas others happen once a year, some of the behaviors are illegal whereas others are not, there are also private and public behaviors, and lastly certain behaviors are more socially acceptable than others. Prochaska and colleagues' (1994) sample included over 3,800 participants from 12 different studies who were asked questions regarding the pros and cons of their behaviors as they related to the TTM. They found that each sample could be subdivided into the stages of change except for the preparation stage, which was measured in only two of the samples, supporting the notion that the TTM can be applied to a variety of behaviors. It should also be noted that these authors found this model to fit across a wide variety of demographic variables such as socioeconomic status, age, and gender. In addition, these

authors found support for differing beliefs between many of the stages. More specifically, they found that in all 12 behaviors, individuals in the precontemplation stage believed there were more cons than pros to changing their behavior, whereas the pros for changing the behavior was higher for those in the contemplation stage. In addition, for all 12 of the behaviors, the cons for changing were lower for those in the action stage in comparison to those in the contemplation stage. However, they lacked the same consistent findings in the number of pros given to the 12 behavior changes between those in the action and contemplation stages. This change in beliefs, that there are more pros to changing the behavior, occurred in the contemplation stage for seven of the behaviors, whereas it seems to have appeared in the preparation stage for five of the behaviors. However, as mentioned before, preparation was not measured in the majority of the samples. Nevertheless, based on these results, Prochaska and colleagues (1994) believe that this change in beliefs in behavior change from cons to pros is most likely to occur before the action stage.

Gatersleben and Appleton's (2006) study expands on the previous research of health behaviors and the use of the TTM by looking at cycling to work as a means of boosting sustainable forms for transportation. This study was performed in the UK where cycling was not the norm so that the authors could get a better understanding of who cycles and why. They were also interested in how well this behavior could be matched to the Transtheoretical Model of behavior change. Participants were asked their usual mode of travel to work, how far they travel, how long their travel takes, and how often they cycle. They were also given 13 questions measuring their attitudes toward cycling. Using these data, participants were grouped by how often they cycled and whether they

had ever considered cycling. Based on these numbers, participants were then either placed in the precontemplation, contemplation, preparation, action, or maintenance stage of change, with precontemplators making an average of .59 cycle trips per month and those in maintenance making 54.35 trips.

In addition, Gatersleben and Appleton (2006) examined the attitudes, personal barriers, and structural barriers of these participants in regards to cycling and found that based on their answers, they could also be placed in the certain stages of change. The attitudes of those in the lowest level of change (i.e., precontemplation) included being less likely to enjoy cycling, did not want to cycle, and the least likely to believe cycling aided in health, which is in direct contrast to those in the maintenance stage of change. The personal barriers of those in the precontemplation stage of change were their lack of personal fitness, their lack of comfort with cycling, as well as the fact that cycling was uncharacteristic of them. There were zero personal barriers reported by those in the action and maintenance stages. Although structural barriers (e.g., no bike lanes) were issues for those in precontemplation, these barriers were often higher for those in the latter four stages of change, which might be due to the experiences of the actual cyclists. Nevertheless, these barriers did not stop those in the action and maintenance stages from cycling as it appears to have done for those in the lower stages of change. These findings suggest that personal barriers tend to inhibit certain behaviors more than structural barriers for those in the earlier stages of change; whereas those in the later stages of change are able to overcome structural barriers perhaps due to their lack of personal barriers.

Ronda, Van Assema, and Brug (2001) further expand on the TTM's applicability by examining a number of psychological factors associated with behavior change. More specifically, these authors studied the physical activity levels of the Dutch. Due to the many benefits of 30 minutes of moderate physical activity a day, these authors were interested in how to increase the 50% of the Dutch population who did not meet this criterion of exercise. Over 2,500 individuals were asked about their physical activity (types and levels) as well as a number of psychological factors associated with their physical activity. These psychological factors included individuals' attitudes toward increasing physical activity levels, their perceived behaviors of others' activities, perceived social support, their self-efficacy toward increasing physical activity, and their intentions to increase activity levels. Individuals were grouped into the precontemplation, contemplation, preparation, action, or maintenance stage of change based on whether they met the recommended physical activity level, whether they intended to increase their activity levels, or whether they already had. Similar to past research, the majority of the sample was in the precontemplation stage and was not exercising 30 minutes at least five days a week. In addition, those in the precontemplation stage held significantly less positive attitudes toward the target behavior, scored significantly lower on self-efficacy measures, and were less likely to perceive social support from others in comparison to those in the latter stages of change. It is also interesting to note that those in the precontemplation stage rated their physical activity levels as significantly higher than those in the contemplation and preparation stages, suggesting that individuals in this stage of change overestimate their level of positive behaviors. In addition, individuals who overestimated their physical activity

levels were also least likely to intend to change their behaviors by increasing their levels of activity.

Application of TTM to Inclusive Teaching

Although research has yet to map professors' inclusive teaching behavior onto the TTM, findings from the TTM literature suggest its feasibility. For example, past research has consistently found that about 50% of populations with behaviors in need of change are in the precontemplation stage (Prochaska, 1994). As mentioned previously, approximately 70% of faculty report the importance of diversity, but only 34% actually include diversity materials into their curricula (AAUP & ACE, 2000; Maruyama & Moreno, 2000). It is likely that the 30% who did not believe in the importance of diversity are in the precontemplation stage. Even those who reported the importance of diversity, but failed to include diversity materials are most likely in the lower stages of change. Individuals in the precontemplation stage are also least likely to perceive a need to change their current behaviors (Prochaska & Norcross, 2001). The same can be said of faculty and students who believe that diversity education is not needed if the class consists of mainly majority statuses (e.g., Wasonga & Piveral, 2004).

Individuals in the earlier stages of change are also most likely to perceive barriers to changing their target behavior (Prochaska & Norcross, 2001). For example, Gatersleben and Appleton (2007), as well as Ronda and colleagues (2001), found that individuals in the precontemplation stage were the most likely to hold negative attitudes toward the target behavior of change. This means that faculty in the earlier stages of change are most likely to report many of the negative evaluations mentioned previously such as a lack of time, fear of offending students, uncertainty of which groups to cover

and how in depth, student resistance, as well as personal resistance (e.g., personal biases) (Kowalski, 2000).

Conversely, "the more action taken, the better the prognosis" (Prochaska et al., 1992, p. 1105). Just as the TTM literature suggests, the more support sought and received as well as the more positive steps taken to change the target behavior, the more successful the individual will be in executing the positive behaviors (Prochaska et al., 1992; Prochaska & Norcross, 2001). For example, Mayhew and Grunwald (2006) found that faculty were more likely to include diversity materials when they believed their department valued and supported diversity. In addition, the most powerful predictor of which faculty would include diversity into their curriculum was whether they had participated in some sort of workshop, conference, etc. that raised awareness and sensitivity toward diversity issues.

Based on such parallel findings, the current study proposed to fuse and expand on past research by incorporating cross-disciplinary methods. First, this study expanded on the literature examining beliefs about possible barriers held by faculty in regards to teaching inclusively. Second, as mentioned previously, past research is scarce in examining the utility of the Transtheoretical Model of behavior change in regards to behaviors unrelated to health issues. The current study aimed to build on this literature by applying the TTM to professors' behaviors related to teaching inclusively. In addition, the current study examined attitudes, perceived norms, and efficacy related to each stage of change (i.e., precontemplation through termination) in attempts to predict who includes, and at what level, multicultural content in their curriculum. As noted earlier, past research has failed to include all six stages of change in examining behaviors.

Theory of Planned Behavior

Past research has often failed to find strong correlations between attitudes and behaviors (Ajzen & Fishbein, 2005). Ajzen and Cote (2008) suggest this is most likely due to the types of attitudes assessed and behaviors examined. Specifically, these authors note past researchers' assessment of global attitudes in an attempt to predict specific behaviors. For example, one's level of ageism may not be the best predictor of whether that person would help an elderly individual cross the street. A better predictor would be individuals' attitudes toward helping elderly individuals cross the street. Ajzen and Cote (2008) suggest that in order to have a strong prediction of behavior from attitudinal variables, researchers must use the principle of compatibility and assess the specific attitudes directly related to the specific behavior in question. Similarly, if researchers are interested in a set of behaviors, they should assess attitudes associated with the set of behaviors (Ajzen & Fishbein, 2005). To ensure compatibility, Ajzen and Fishbein (2005) note that attitude and behavior measures should overlap on four criteria: action, target, context, and time. For example, the current study examined teaching behaviors (action) for inclusivity (target) at academic institutions (context) for a particular semester (time).

The Theory of Reasoned Action (TRA) was developed using the principle of compatibility in an attempt to better predict behaviors from attitudes and was later improved upon forming the Theory of Planned Behavior (TPB) (Ajzen, 1991; Montano & Kasprzyk, 2002). The TRA model (see top part of Figure 1) suggests that behaviors are influenced by intentions to perform the behavior and that intentions are influenced by attitudes toward the behavior as well as norms or social pressure to perform the behavior. In other words, intentions are the main determinant of whether the behavior is performed.

However, problems arise when the behavior is not under the complete control of the actor (Montano & Kasprzyk, 2002). For example, a person may be highly motivated to perform a behavior, but personal and/or environmental factors may inhibit the behavior (Armitage & Conner, 2001).

The Theory of Planned Behavior (TPB) improves upon the Theory of Reasoned Action with the additional element of perceived behavioral control (Montano & Kasprzyk, 2002). A conceptual model of this theory is presented in Figure 1. The TPB suggests that behavior is predicted by intentions to perform (or not) a behavior as well as individuals' efficacy or perceived behavioral control to perform the behavior. However, intentions are the better predictor of behavior except when intentions are unstable and when the behavior is not under complete control of the individual (Ajzen & Fishbein, 2005). Reasons such as these are why perceived behavioral control was added to the Theory of Reasoned Action resulting in the Theory of Planned Behavior, which has been shown to be the better of the two models accounting for greater variance in behaviors (Armitage & Conner, 2001).

The three factors in the TPB said to influence intentions are attitudes toward the behavior, norms to perform the behavior, and perceived behavioral control. Attitudes are defined as individuals' positive or negative evaluations of the behavior or positive/negative beliefs about the consequences of the behavior (Ajzen, 1991; Ajzen & Cote, 2008; Ajzen & Fishbein, 2005; Montano & Kasprzyk, 2002). Those who believe performing the behavior will result in positive outcomes are more likely to perform the behavior, and vice versa for negative evaluations. Norms are defined as the social expectations of whether one should perform the behavior or not based on the behaviors of

those around them (Ajzen, 1991). The social pressures to perform the behavior depend on the perceived behaviors of those who are important to the individual, which differ by behavior and situation (Ajzen & Fishbein, 2005; Doll & Ajzen, 1992). As mentioned previously, perceived behavioral control influences behavior, but it also influences intention. Perceived behavioral control is one's ability to perform a behavior and the ease with which it can be performed (Ajzen, 1991; Ajzen & Fishbein, 2005). In this sense, perceived behavioral control can also be viewed as one's efficacy in performing the behavior and the terms are often used interchangeably (Ajzen, 2001; Ajzen & Fishbein, 2005). Lastly, intentions are defined as the "likelihood of performing the behavior" (Montano & Kasprzyk, 2002, p. 69).

The influence of attitudes, norms, and efficacy on intentions varies by behavior and population (Ajzen & Fishbein, 2005). For example, Armitage, Norman, and Conner (2002) found perceived norms to influence intentions to use condoms for college students followed by attitudes and control; whereas Montano and Kasprzyk (2002) found norms to have the greatest influence on intentions to use condoms for Black, Hispanic, and White women. Perceived behavioral control had the greatest influence on intentions to donate money to a found for college students (Ajzen, Brown, & Carvajal, 2004). In examining intentions to start smoking in a White and Black college sample, Nehl and colleagues (2009) found behavioral control to have the highest weight for White and Black students, followed by attitudes for Black students and norms for White students. Perceived behavioral control has also shown to have more influence on intentions to finish high school for Black students than norms and attitudes (Davis, Ajzen, Saunders, & Williams, 2002). Other studies have failed to find a significant influence of one or more of the

three TPB variables (Ajzen & Fishbein, 2005), with norms often being the weakest predictor of the three (Armitage & Conner, 2001). For example, Doll and Ajzen (1992) found subjective norms to have no effect on intentions to play video games. It should also be noted that the referent (i.e., the source of perceived social pressure) used in that study was the experimenter. Ajzen and Fishbein (2005) note that such findings do not discredit the TPB, but rather indicate which factors are important influences on the behavior(s) under examination.

Ajzen and Fishbein (2005) also note that individuals' background variables (e.g., race, gender, education, stereotypes, mood, etc.) can also influence behaviors; but they are not accounted for in the model. The authors posit that such factors are mediated by individuals beliefs related to attitudes, norms, and efficacy. As such, group differences are noted, but often ignored in TPB analyses (e.g., Davis et al., 2002). This is potentially problematic when research has found demographic variables to directly influence behaviors. More specifically, Armitage and colleagues (2002) found gender to have a direct effect on drinking and driving intentions and health screenings after controlling for TPB variables.

It is also worth noting the resiliency of the TPB to predict behaviors with varied methods, materials, and analyses. For example, elicitation interviews should be used to develop survey questions to identify the attitudes, norms, and behavioral control issues that are relevant to the population being surveyed to predict specific behaviors (Montano & Kasprzyk, 2002). Nevertheless, certain studies have used preexisting or self-developed scales to capture these variables (e.g., Bamberg, Ajzen, & Schmidt, 2003; Conatser, Block, & Gansneder, 2002). Furthermore, the TPB model is a causal model that lends

itself to structural equation modeling (SEM); yet, regression appears to be most often used (Ajzen & Fishbein, 2005; Montano & Kasprzyk, 2002; Zint, 2002). Other discrepancies include the use of intentions as the outcome variable in place of behaviors due to high correlations between the two variables (Ajzen et al., 2004; Montano & Kasprzyk, 2002). The number and type of questions asked about attitudes, norms, efficacy, and intentions have also varied greatly (Armitage & Conner, 2001). However, regardless of these varied methods, the Theory of Planned Behavior has shown to explain about 20% of variance in observed behaviors and 27% in reported behaviors (Armitage & Conner, 2001).

Application of Theory of Planned Behavior

The Theory of Planned Behavior (TPB) has been used with success by many researchers to predict behavior(s) from attitudes in a variety of domains with a number of different populations (Ajzen, 2001; Armitage & Conner, 2001). Examples include the prediction of types of transportation used to get to school by students (Bamberg et al., 2003), condom use (Armitage et al., 2002; Montano & Kasprzyk, 2002), smoking (Armitage & Arden, 2008; Nehl et al., 2009), binge drinking and drinking and driving (Armitage et al., 2002), video game play (Doll & Ajzen, 1992), high school completion (Davis et al., 2002), donations to certain funds (Ajzen et al., 2004), healthy eating (Armitage, 2006; Armitage et al., 2004), physical activity (Lippke et al. 2007) and the list continues. The application of the TPB as been so broad and numerous that Ajzen (2001) notes, "little can be gained at this point by further demonstrations of the theory's applicability to particular domains" (p. 44).

Unlike the Transtheoretical model, a number of studies have used the Theory of Planned Behavior to predict teaching behaviors and other academic related behaviors (Zint, 2002), suggesting the use of this model to predict inclusive teaching behaviors. However, when it comes to certain aspects of academia, it appears that additional factors should be considered when using the TPB to predict behaviors. For example, Kersaint, Lewis, Potter, and Meisels (2006) used the TPB to predict why faculty leave their position. They developed 18 survey items based on elicitation interviews with faculty who had stayed or left their position within a three year time frame about factors related to why faculty stay or leave their position. These items were then factor analyzed, which produced six factors. Attitudes were measured with joy of teaching and financial benefits; a factor was not produced for norms; and control beliefs were measured with paperwork and assessment, administrative support, and family responsibility. Intentions were also not measured. The authors found that all variables, except two, predicted those who stayed versus those who left. More specifically, two of the three items measuring control beliefs (i.e., paperwork and assessment and family responsibility) were not significant predictors. It is also worth nothing that further examination revealed individual differences for many of the variables. For example, Kersaint and colleagues (2006) found that females who left their teaching position were more concerned with the time they spent with their family than those who stayed. Males indicated paperwork and assessment as an important factor in whether they stayed or left more so than women. These results suggest that demographic variables as well as other variables not included in the TPB may influence behaviors in this particular domain.

Zint (2002) examined science teachers' intentions to incorporate environmental risk education into their curriculum. Interviews with teachers were used to develop survey questions to assess factors related to the Theory of Reasoned Action (TRA), the Theory of Planned Behavior (TPB), and the Theory of Trying (TT). Similar to Montano and Kasprzyk (2002), intentions were used in place of actual behaviors. Path analyses or SEM was used as well as hierarchical regressions in comparing the three models. Results suggest that the TPB (which is an extension of TRA), combined with certain elements of the TT explained the greatest variance in teaching behaviors. Focusing on the TPB, results suggest that attitudes toward teaching about risks had the greatest impact on intentions followed by behavioral control and subjective norms. However, it is unclear the exact impact of these factors on behaviors because they were not assessed.

Somewhat similar to the current study, Conatser and colleagues (2002) used the Theory of Planned Behavior to predict aquatic professors' inclusive teaching behaviors. In this context, inclusive instruction meant teaching swimming to students with disabilities. They note that most instructors are not trained to teach inclusively, but are expected to nevertheless. A cross-sectional sample was obtained from the National Swim Association Membership Directory. Instructors were asked their beliefs about inclusive teaching, perceived norms, perceived control and ease of inclusive teaching, as well as their intentions to teach an inclusive swim class. Instructors reported either always, sometimes, or never including students with disabilities in their swim programs over the last five years. Using hierarchical regression, Conatser and colleagues (2002) found that attitudes and behavioral control were significant predictors of intentions and that intention was a significant predictor of inclusive teaching for students with mild

disabilities; normative beliefs were not significant. All three predictors were significant predictors of intention for inclusive teaching with students with severe disabilities. It is interesting to note that perceived control, or efficacy, was the strongest predictor of inclusive teaching. This could be due in part to instructors' lack of training in teaching students with disabilities.

Kuyini and Desai (2007) also examined inclusive teaching with the Theory of Planned Behavior, but in the context of primary schools. Similar to Conatser and colleagues (2002, inclusive teaching meant adapting teaching methods and materials to meet the needs of students with disabilities in the classroom. These authors used preexisting scales to examine attitudes, norms, and behavioral control of teachers regarding inclusive teaching; intentions were not measured. Unique to this study was that teaching behaviors were observed instead of self-reported. Specifically, teachers were randomly chosen for three classroom observation sessions, where two coders examined inclusive teaching behaviors. Also using hierarchical regression, Kuyini and Desai (2007) found attitudes toward inclusive teaching and perceived behavioral control predicted inclusive teaching behaviors, which is similar to studies using self-report behavioral measures. Normative beliefs and perceived administrative support did not predict teaching behaviors. This is in contrast to earlier findings that at least one source of norms (institutional versus departmental) influences teaching behaviors (Maruyama & Moreno, 2000; Mayhew & Grunwald, 2006).

Comparing and Contrasting TTM and TPB

As mentioned above, the Transtheoretical Model and the Theory of Planned Behavior have both been successfully applied to a wide variety of behaviors; however,

Armitage (2006) notes these models are most widely used in the health behavior domain. In addition, the two models have overlapping variables, namely attitudes (decisional balance in TTM) and efficacy (Armitage et al., 2004). Norms, or perceived social pressure, to (or not to) perform a behavior have also been shown to relate to behaviors in the TTM (Kennet, Worth, & Forbes, 2009) and TPB literature (Ajzen & Fishbein, 2005), but they have been examined somewhat differently with each model and even by study. For example, within the TTM literature it appears that norms are not always included and when they are it varies from assessing the perceived behaviors of others to asking about external reasons and social reasons for performing a specific behavior (Ronda et al., 2001; Kennett et al., 2009). Researchers using the TPB often ask individuals what they believe people who are important to them would think, expect, or feel if they performed a certain behavior (Ajzen & Fishbein, 2005). However, Doll and Ajzen (1992) note that it is reasonable to specify relevant referent group(s) depending on the behavior in question. For example, Ajzen and colleagues (2004) found perceived norms and motivation to comply with norms to differ between perceived norms of parents and family, friends and fellow students, other group members, as well as faculty and administrators when they asked students about donating money to a fund.

The major difference between the two models is that the TTM is a stage model, whereas the TPB is a continuous model (Lippke et al., 2007). Armitage (2006) also notes how the focus of the two models has differed. More specifically, use of the TTM has focused more on behavior change and as noted above, there are a number of cognitive, social, and behavioral variables found to significantly differ across the stages of change (Armitage, 2006; Armitage et al., 2004). Conversely, research using the TPB has focused

more on understanding the behavior (Armitage, 2006). More specifically, the attitudes, norms, and perceived behavioral control associated with certain intentions to perform a behavior, which then are said to predict behavior in conjunction with efficacy. Efficacy and decisional balance of pros and cons in the TTM are said to mirror perceived behavioral control and attitudes in the TPB; but the TPB provides more insight to behavior with additional variables such as subjective norms (Armitage et al., 2004). According to stage theories, these variables should differ by stage of change (Lippke et al., 2007). Because of the complementary nature of these two models, research has begun to use both to get a richer understanding of behavior.

Armitage and Arden (2008) assessed predictors in the TPB within each stage of change in examining the effectiveness of different interventions to reduce smoking. The passive group only received a questionnaire. The active group was asked to quit smoking and to plan how they would do so, and the experimental group was asked the same question, as well as to specifically list the situations in which they will use their plans. However, only individuals in the first three stages (i.e., precontemplation, contemplation, and preparation) were used in the study because those in the later stages (i.e., action, maintenance, and termination) were considered nonsmokers. Cross-sectional analyses prior to the intervention were as expected. Nicotine dependence decreased as stage of change increased and there were also significant linear relations between the stages of change and TPB variables. Specifically, attitude, subjective norm, perceived behavioral control, and intention all increased by stage. Following the intervention, only intention and perceived control significantly differed across the intervention groups. The authors suggest it was the implementation intentions in the experimental group that increased

these variables. Unfortunately, not all stages were included in this study and so only speculations can be made as to how constructs of the TPB fit into the later stages of change.

Armitage and colleagues (2004) also examined TPB variables within each stage of change, except they included five out of the six stages (termination left out). This means that in their study of healthy eating behaviors, their sample included a range of those who were not eating healthy to those who were. This is in contrast to Armitage and Arden (2008) who only examined individuals performing the problem behavior. In addition, Armitage and colleagues (2004) examined which variables predicted stage of change transition (i.e., progression, static, or regression) over a five month period. First, they found that the TPB variables increased linearly across the stages of change. In regards to predictors of stage transition, they found their attitude change about healthy eating intervention to be the only significant predictor of progression from precontemplation to contemplation. Individuals' perceived behavioral control and age predicted progression from contemplation to preparation. There were no significant variables predicting progression out of the preparation stage, but lower scores on intentions to eat healthy did predict regression from the preparation stage. Progression from the action stage was also predicted from age and perceived behavioral control and regression from the maintenance stage was predicted by lower scores on intentions to eat healthy. Overall, Armitage and colleagues' (2004) findings suggest that TPB variables do vary by stage of change and that at least two TPB constructs (i.e., intentions and perceived behavioral control) have the greatest influence on transitions between stages. It is also important to note that age was a significant predictor of transitions between a

number of stages. This is in contrast to the Theory of Planned Behavior, which postulates that demographic variables are mediated by TPB constructs (Ajzen & Fishbein, 2005). These findings, as well as those reported earlier, suggest the need to include demographic variables when attempting to predict inclusive teaching behaviors.

Other work suggests that intentions should be the primary focus of research examining the TPB. Armitage's (2006) work with TPB variables within the stages of change suggests that intentions are the most important factor in aiding individuals to progress through the stage of change. Prochaska and colleagues' (1992) works suggests that specific interventions need to be used for each stage of change to aid in progression through stages. However, Armitage (2006) notes the costly consequences of employing such a high number of interventions. Instead he argues that intentions, the primary predictor of behaviors, could be the focus of interventions for every stage of change. Individuals completed questions regarding their attitudes, norms, perceived behavioral control, and intentions to eat a low-fat diet as well as check the description of stage of change that best described them. The treatment group was also asked to write down their implantation intentions. More specifically, they were asked to describe how they would eat a healthy diet in a variety of situations. As expected, TPB variables increased across stages of change and fat intake decreased, however none of the TPB variables predicted progression through stages of change. Out of the TPB variables, only intention predicted regression of stages. In contrast, only implementation intentions significantly affected progression to later stages of change. However, this study was limited in the number and type of survey items used. For example, only 2 to 3 questions were used to assess each construct of the TPB. A generic referent group was also used to assess norms, which

research suggests may not be effective in assessing perceived social pressures to perform a behavior. Instead, specific referent groups (e.g., family, colleagues, friends, etc.) should be used.

In contrast to Armitage's (2006), one of the largest studies to examine the TPB in conjunction with the TTM found support of differing TPB levels within each stage of change, suggesting these constructs would affect stage transition. Lippke and colleagues (2007) used SEM to test for TPB discontinuity patterns across the stages of change. They note the advantages of using such analyses with this research even though most researchers have used regression analyses. For example, they were able to test for directional relations between TPB variables as suggested by the model within each stage of change with SEM, which cannot be done with regressions. Over 3,000 individuals were asked about TTM and TPB variables related to physical activity. SEM analyses were performed separately for each stage of change using the TPB variables and adequate fit was found for all stages. Model fit was better in the precontemplation and maintenance stages than in the contemplation and action stages. In addition, differences in regards to TPB variable between adjacent stages were examined. Because the preparation stage can be considered a midpoint between those who are thinking about acting versus those who are, those in the precontemplation, contemplation, action, and maintenance stages were compared to this group. Similar to previous studies, termination was not assessed. Results showed that those in the precontemplation stage had significantly lower norms and intentions than those in the contemplation stage and those in the contemplation stage had significantly lower attitudes, norms, and perceived behavioral control than those in the preparation stage. Individuals in the action stage had

greater attitudes and intentions than those in the preparation stage and those in the maintenance stage had significantly higher scores on all TPB variables in comparison to those in the action stage. These results suggest that TPB variables successfully fit into each stage of change and that there is discontinuity between the variables as the stage model suggests. Similar to Armitage and colleagues (2004), these results suggest that the influence of TPB variables on behaviors differ by stage; however the influence of TPB variables in stage progression differed in the current study. For example, norms were only a significant predictor of progression from the precontemplation stage. Unlike Armitage and colleagues (2004), attitudes and intentions were found to be influences on stage of change and perceived behavioral control was not. Lippke and colleagues (2007) suggest this finding could be due to individuals' in this stage lack of experience with the behavior. This has been supported by Doll and Ajzen (1992) who found a significantly higher intention-behavior correlation between those with direct experience versus those with indirect experience. Further supporting this, are those in the action and maintenance stages (i.e., those with behavioral experience) who had significantly greater perceived behavioral control and intentions. Armitage and colleagues (2004) found similar results, except they also found certain demographics to influence stage change. As mentioned earlier, the influence TPB variables varies by behavior and population (Ajzen & Fishbein, 2005). Therefore, the differences between TPB variable influence on stage transitions could be due to different populations used as well as different behaviors examined. However, Lippke and colleagues (2007) did not include demographic variables in their analyses.

In sum, research has begun to find support that the constructs of the TPB map onto the stages of change, but research is lacking into whether the TTM maps onto the TPB. More specifically, the discrete measure of stages of change can also be viewed as an ordinal measure to assess one's level of intent to perform a behavior (Prochaska et al., 1992), and could therefore also be used as the measure of intent for the Theory of Planned Behavior analyses. Previous research using the TPB has used similar, but more limited measures of intention. For example, Armitage and colleagues (2002) used three questions to measure intent with wording such as, "I intend to...", "I expect I will...", and "I want to..." (p. 303). Ajzen and colleagues (2004) only asked students whether they "intended" or "planned" to perform a certain behavior in their assessment of intentions. It is possible that the six questions used to assess stage of change would be a better assessment of intention and therefore a better predictor of behavior.

CHAPTER IV

CURRENT STUDY

The current study had multiple goals. First, was to define what it means to teach inclusively by examining specific behaviors employed by faculty who teach inclusively. Second, this study sought to identify and examine the possible factors related to inclusive teaching. Third, the current study was aimed at expanding the current TTM and TPB literature by using these models to examine inclusive teaching behaviors of faculty. Research using the TTM and TPB in conjunction is relatively new and has been limited to health behaviors. Another limit of past research in this area has been the limited questions (e.g., 1 to 2 questions per variable) used to assess TPB variables (Armitage & Conner, 2001). To address this limitation, the current study employed multiple item questions for each TPB construct. Past research has also looked at how TPB variables differ by stage of change. The current study also attempted to further expand this literature by examining stages of change as the mediating factor for behaviors within the TPB, due to the fact that stage of change is in essence a measure of intention (Prochaska et al., 1992).

Hypotheses

Transtheoretical Model. There are six stages of change (i.e., precontemplation, contemplation, preparation, action, maintenance, and termination) and eight outcome variables. These variables include three measures of negative attitudes (i.e., content,

excuses, and anxiety) toward teaching about diversity, two positive attitudes (i.e., student perspectives and student engagement), two measures of norms (i.e., institution and department norms), and one measure of multicultural teaching efficacy. It was hypothesized that those in the earlier stages of change would hold more negative attitudes, less positive attitudes, perceive less teaching diversity norms, have less teaching efficacy, and score lower on inclusive teaching behaviors than those in the later stages of change. See Table 1 for predictions on each outcome variable as they relate to each stage of change.

Theory of Planned Behavior. It was hypothesized that the data would map onto the conceptual model of the Theory of Planned Behavior. More specifically, attitudes, norms, and efficacy would predict intentions (i.e., stage of change), which in turn would predict inclusive teaching behaviors. In addition, it was hypothesized that efficacy would also directly predict behaviors, as the conceptual model suggests (see Figure 2).

TTM and TPB. Based on the mixed results in the research looking at TPB variables within stages of change, specific hypotheses were not made. Instead, there was a general expectation that scores on positive attitudes, perceived norms, and efficacy would increase and negative attitudes would decrease with stages of change.

Methods

Participants. A total of 623 faculty from colleges and universities across the US were surveyed. Recruitment of faculty is described further below in procedures. College and university professors (n = 114) who completed less than half of the survey were dropped, resulting in 509 participants (81.7% completion rate). Of the remaining sample, 62.9% identified as female, 35.8% as male, .2% as transgender, .6% as other, and .6% did

not answer. The average age of these faculty was 47.91 (SD = 12.40), with on average 16.27 (SD = 12.05) years of teaching experience. The sample was roughly split between schools, with 44.6% from UNH, 47.7% from other schools, and 7.7% choosing not to report. The majority of sample was Caucasian (86.6%) followed by other (4.3%), African American (3.3%), Asian (3.1%), Latino/a (2%), and missing (.6%). Most faculty taught within the social sciences (84.1%), physical sciences (11.8%), and some did not answer (4.1%). Roughly two-thirds of the sample reported having participated in a diversity related training and/or workshop, with the remaining third reporting they had not. See Table 2 for demographics of total sample, UNH sample, and non-UNH sample.

Although the UNH and non-UNH groups were combined to provide a more diverse sample, there were significant demographic differences between the two groups worth noting. Due to the number of significance tests run, the Bonferroni-corrected per-comparison alpha level of .05/6 = .008 was used (Warner, 2008). Chi square tests revealed significant relations between school (i.e., UNH and non-UNH) and gender ($\chi^2(6) = 72.64, p < .001, V = .27$), race ($\chi^2(8) = 28.74, p < .001, V = .17$), science in which they taught ($\chi^2(1) = 64.96, p < .001, V = .38$), and whether they had participated in a diversity related training ($\chi^2(1) = 20.32, p < .001, V = .21$), with the UNH group having higher percentages of male faculty, White faculty, faculty in the physical sciences, and a lower percentage of faculty who had participated in a diversity related training. T-tests also revealed significant group differences for age ($t(405) = 7.15, p < .001, r^2 = .11$) and number of years they have taught ($t(467) = 6.10, p < .001, r^2 = .07$), with UNH faculty being older and subsequently teaching longer (see Table 2).

Characteristics of those who did not complete the survey include 50.9% females, 44.7% males and 4.4% did not identify their gender identity. The average age of these professors was 48.46 (SD = 12.79), with an average of 16.5 (SD = 11.45) years of teaching experience. Approximately half were faculty from UNH, a quarter were from other schools, and a quarter chose not to state where they taught. The majority of this subsample was Caucasian (82.5%), followed by Asian (4.4%), other (2.6%), African American (1.8%), Latino/a (1.8%), and missing (7%). These faculty taught courses in the social sciences (60.5%), physical sciences (20.2%), and other chose not to report (19.3%). Roughly half (53.5%) of these professors had participated in a diversity related training and/or workshop, 37.7% had not, and 8.8% did not answer. Those who completed the survey verses those who did not were not statistically different in regards to gender, race, age, and years they have taught. Chi-square tests revealed relations between drop-outs and school ($\chi^2(1) = 10.43, p = .001, V = .14$), the science in which they taught ($\chi^2(1) = 10.19, p = .001, V = .13$), and whether they had participated in a diversity related training ($\chi^2(2) = 247.20, p < .001, V = .64$), with dropouts having higher percentages of UNH faculty, faculty in the physical sciences, and experience with diversity related trainings. Overall, those who dropped out of the study did not differ substantially from those who completed the survey (see Table 2).

Materials

Variables assessed in the current study included demographics, stages of change, efficacy to teach inclusively, perceived inclusive norms at the institutional level, perceived inclusive norms at the department level, efficacy, positive attitudes related to inclusive teaching, negative attitudes related to inclusive teaching, and actual inclusive

teaching behaviors. Although predictor and outcome variables differ somewhat depending on which behavioral model is used, the primary dependent variable in the current study was inclusive teaching behaviors. Furthermore, many of the measures were developed for the current study. The materials section describes the measures used in the current analyses and the results section describes the analyses used to derive these measures.

Demographics. Demographic survey items included age, gender, race, number of years they have been teaching, school at which they teach, and whether they have participated in a diversity related training and/or workshop. Participants also reported the department in which they taught, which was coded into physical and social sciences.

Stages of Change (SOC)/Intent. There are two main types of assessment that have been used to examine which stage of change (i.e., precontemplation, contemplation, preparation, action, maintenance, and termination) individuals are in. One is a continuous measure with subscales for each stage of change and the other is a categorical measure that consists of exclusive statements representing each stage from which participants choose the most representative of their behavior (Prochaska et al., 1992). In assessing stage placement, Prochaska and colleagues (1994) asked questions pertaining to a time frame of six months, but research suggests this time frame can be changed to better match the behavior (Donovan et al., 1998; Herzog, 2007). Therefore, in order to better match the behavior of the current sample, time frames in regards to semesters instead of six months was used. In addition, the wording of these scales was changed to match the specific behavior under examination. The measure assessing stages of change in the current study included a 6-item discrete categorical measure adapted from

Donovan and colleagues (1998), who found the test-retest correlation of this scale to range in multiple samples from .59 to .78. Others modifying this scale have also found strong test-retest correlations (Armitage et al., 2004). Faculty were asked to choose the statement that best reflects their thoughts and behaviors regarding their inclusive teaching. Based on their choice, they were placed into one of the following stages: precontemplation, contemplation, preparation, action, maintenance, and termination. More specifically, professors who chose, "I do not intend to include diversity content into my curriculum in the next semester" were placed in the precontemplation stage. Those reporting, "I am seriously thinking about including diversity into my curriculum, but not in the next semester" were placed into the contemplation stage. Those in the preparation stage reported, "I intend to change my curriculum to include diversity content in the next semester". Faculty who chose, "I am currently trying to change my curriculum to adequately include diversity content" were placed in the action stage. Individuals in the maintenance stage reported, "I have already made changes in my curriculum to include diversity, however I am still working on improving my coverage". Last, those in the final stage of termination reported, "I have complete confidence that my curriculum adequately includes diversity content and in my ability to teach the material". This measure of SOC can also be viewed as an ordinal measure to assess one's level of intent to perform a behavior (Prochaska et al., 1992), and will therefore also be used as the measure of intent for the Theory of Planned Behavior analyses, with later stage placement indicating greater intent.

Faculty Multicultural Efficacy/Perceived Behavioral Control. Individuals' perceived ability to perform a behavior and the ease with which they perform it have

been shown in the TTM (Armitage & Arden, 2008; Kennett et al., 2009) and TPB literature to influence behaviors (Ajzen & Fishbein, 2005). In the TPB literature this has been termed self-efficacy or more commonly, perceived behavioral control (Ajzen & Fishbein, 2005). Research in both areas suggests that the more efficacy individuals have, the more likely they are to perform the behavior. The current study used Guyton and Wesche's (2005) Multicultural Efficacy Scale (MES) in order to measure professors' confidence in providing a multicultural education. The MES consists 3 subscales; however, the current study only used the 20 time multicultural teaching efficacy scale. Professors rated their ability from (1) I do not believe I could do this very well to (5) I am quite confident that this would be easy for me to do. An item from this subscale includes, "I can analyze instructional materials for potential stereotypical and/or prejudicial content". Higher total scores indicate greater teaching efficacy. Guyton and Wesche's (2005) overall Cronbach alpha for the MES was .89, with a subscale alpha of .93 for teaching efficacy. The Cronbach alpha for the teaching efficacy subscale in the current study was .96.

Perceived Norms at Institution and in Department. In the current study, two separate scales were used to assess faculty norms, or perceived social pressure, to teach inclusively, because research suggests professors' perceptions of norms of inclusive teaching at their academic institution and in their department can differ (Maruyama & Moreno, 2000). Items were developed to measure perceived norms at both levels based on elicitation interviews as well as items from Maruyama and Moreno (2000) and Mayhew and Grunwald (2006). More specifically, a six item measure assessed institutional norms and a five item measure assessed department norms. An item adapted

from Maruyama and Moreno (2000) asking faculty to reflect on their academic institution includes, "A diverse campus environment is a high priority at my academic institution"; and an item focusing on their department includes, "My department is committed to enhancing the climate for all students". Items were also derived from the work of Mayhew and Grunwald (2006), who used a total of 26 items to measure factors that contributed to faculty incorporating diversity into their curriculum. Example items include, "My institution has achieved a positive climate for diversity"; and, "My department emphasizes the importance of diversity in our field". An item developed based on elicitation interviews with professors includes, "Many faculty in my department believe in the importance of diversity and work to include diversity related materials into their curriculum". All items were scored on a 5-point scale ranging from (1) strongly disagree to (5) strongly agree, with higher total scores indicating greater perceived support for diversity. The Cronbach alphas were not reported for any of the scales in the original work. However, Maruyama and Moreno (2000) did note that all items were factor analyzed for single dimensions, and Mayhew and Grunwald (2006) found that their model had an 86% success rate in predicting which faculty would and would not include multicultural education into their curriculum. The Cronbach alphas in the current study were .90 for the institutional norms measure and .82 for the department norms measure.

Negative Attitudes toward Inclusive Teaching. Individuals' attitudes toward an action have also been shown to influence behaviors. In the TTM literature this is often termed as one's decisional balance or assessed pros and cons of performing a behavior, and each is measured separately (Prochaska, 1994). Similarly, Ajzen and Fishbein (2005) note that attitudes toward a behavior in the TPB are a result of positive or negative

evaluations of the behavior and the consequences of performing the behavior. However, attitudes are usually summed with a resulting positive or negative attitude. In both behavioral models, the more positive attitudes individuals have toward performing a behavior, they more likely they are to engage in that behavior. In the current study, negative and positive attitudes toward inclusive teaching were measured separately.

Based on elicitation interviews and past research, a 23 item scale was developed for the current study to assess professors' negative attitudes toward inclusive teaching. This scale consists of three subscales. The first consists of eight items examining professors' beliefs that including diversity into their curriculum is harmful to the broader content coverage in the course. In other words, including diversity comes at a cost. Nine items assess excuses and defensiveness that faculty have for not including diversity into their curriculum. Lastly, six items measure professors' anxiety about including diversity into their curriculum. These items were developed based on elicitation interviews as well as the work of Aboud and Fenwick (1999), Aldridge, Calhoun, and Aman (2000), Aveling (2002), Banks (2002), Kowalski (2000), Marshall (1995), and Maruyama and Moreno (2000). For example, Aboud and Fenwick's (1999) examination of interventions to reduce prejudice in schools lead to the development of the item, "Discussing group differences only fosters prejudice". Aldridge and colleagues (2000) offer 15 common misconceptions about multicultural education they have encountered through their own experiences. An example item from this work includes, "We do not need multicultural education because the US already acknowledges its cultural diversity". Aveling (2002) notes other hesitancies that will be used as items. For example, "There is a lack of concrete strategies that one can apply in the classroom when incorporating

diversity", and "Including diversity content into the curriculum takes away from the other concepts of the class". Kowalski (2000) notes six main challenges or barriers faculty face when including diversity content into their curriculum. An example developed from this work includes, "I am unsure how much time should be devoted to diversity and how to best go about incorporating multicultural issues". Marshall (1995) suggests an additional four common misconceptions, including, "In classrooms without minorities, multicultural education is not needed". Lastly, items adapted from a subscale from Maruyama and Moreno (2000) were used. Originally, these authors used four items to measure the negative effects of diversity of physical diversity on campus. The wording of these items has been changed to reflect diversity in the curriculum and include items such as, "Teaching about diversity lowers the quality of education for students". Responses were measured on a 5-point scale from (1) strongly disagree to (5) strongly agree. A higher score indicates more negative attitudes toward inclusive teaching. The Cronbach alpha for each subscale in the current study was .85 for content, .86 for excuses, and .77 for anxiety.

Positive Attitudes toward Inclusive Teaching. A 13 item scale was developed based on elicitation interviews and past research to measure professors' perceived facilitators and positive attitudes toward inclusive teaching. More specifically, eight items measure professors' beliefs that including diversity into curriculum has a positive effect on students' global perspectives and five items assess faculty beliefs that including diversity into the curriculum positively affects student engagement. These items were based on elicitation interviews as well as the work of Maruyama and Moreno (2000) and Kowalski (2000). An example item adapted from Maruyama and Moreno (2000)

includes, "Adding diversity in the curriculum raises new issues and perspectives". In addition, Kowalski (2000) lists a number of beneficial reasons for including diversity into the curriculum, resulting in items such as, "The use of multiple perspectives in teaching helps to reduce student prejudices". All items were answered on a 5-point scale from (1) strongly disagree to (5) strongly agree. Higher scores indicate more positive attitudes and perceived facilitators. The Cronbach alpha for the perspectives subscale was .95 and .89 for the engagement subscale.

Inclusive Teaching Behaviors. The dependent variable in the current study was developed based on interviews with instructors as well as previous research. Specifically, a 31 item measure was developed to assess faculty behaviors related to inclusive teaching. Items were developed from elicitation interviews with faculty as well as numerous books and articles pertaining to multicultural education. Before answering the survey questions, faculty were asked to refer to the most recent course they have taught likely to raise diversity issues. Items were constructed to fit into seven categories of actions associated with inclusive teaching. Specifically, professors were asked about their behaviors regarding overall curriculum design, assigned readings, course content and materials, delivery, classroom climate, behaviors in the classroom, and self-improvement. As discussed in the results section, these items produced one factor. In reflecting on that course, faculty were asked questions such as, "did you intentionally choose a textbook for its diversity coverage", "provide content that challenged the prejudicial beliefs and values possibly held by many in your society, including your students", and "bring in guest speakers from diverse backgrounds". All 31 items were summed to create a total score of inclusive behaviors, with higher scores indicating more

behaviors. All responses were answered on a 5-point scale from (1) never to (5) always. The Cronbach alpha of this scale in the current study was .95.

Procedure

Because the Theory of Planned Behavior operates on the compatibility principal (Ajzen & Cote, 2008; Ajzen & Fishbein, 2005), elicitation interviews were performed with faculty and teaching graduate students in the social and physical sciences to identify positive and negative attitudes toward inclusive teaching, perceived norms of inclusive teaching at the institutional and departmental levels, as well as specific behaviors of inclusive teaching. In regards to attitudes, faculty were asked were asked to, "describe any plusses/minuses, advantages/disadvantages, and positive/negative outcomes that would result from including diversity into your curriculum". In regards to norms, faculty were asked to, "describe any people, groups, etc. that support or discourage inclusion of diversity into the curriculum". To identify any other possible factors, instructors were asked to, "describe any environmental or other factors an situations that make it easier or harder to include diversity". Based on previous research, behavioral items regarding overall curriculum design, readings, content, delivery, classroom climate, classroom behaviors, and self-improvement were developed and piloted with faculty and teaching graduate students. Faculty and teaching graduate students rated whether they had engaged in a particular behavior and reported why or why not. In addition, professors and graduate students reported any additional inclusive teaching behaviors that were not on the list.

Following multiple IRB approvals at UNH and one from Tennessee State University, three forms of recruitment were used in the current study. Because the

findings from this study offered foundational knowledge for improving curriculum, colleges and universities with Teaching Excellence programs were contacted to participate in this study and to help with the recruitment of participants. See Appendix A for the list of schools contacted and their demographics. Directors of the Teaching Excellence Programs were sent a letter (see Appendix B) describing the study and asking for their help in recruiting faculty at their academic institution. Incentives for directors for their participation included access to all anonymous data collected at their school, comparison reports of their institution with other schools involved in the study, and/or a report on the implications of their school's results. Incentives for faculty participation included an option at the end of the survey to enter into a drawing to win one of two Blackberry phones. Directors who did not respond to the letter were sent a follow up email with the same information approximately one month later. However, this recruitment method was unsuccessful. Directors declined to participate for multiple reasons, others forwarded the email to other potentially interested faculty, staff, and administration, and others did not respond. Unresponsive directors as well as new contacts were sent one last recruitment email two months after the letters were mailed. See Appendix C for responses from schools. Those who agreed to help with recruitment were sent an email they could forward to their faculty describing the study and the link at which the survey was located. See Appendix D for email forwarded to faculty. One school, Tennessee State University, requested that IRB be obtained at their school before the study was implemented. The Teaching Excellence Program Director at TSU was contacted again following IRB approval at this school, but the director was unresponsive. Overall, this recruitment method resulted in only nine participants.

The following recruitment methods were more successful for obtaining faculty participants. First, a list of email addresses of individuals who teach (e.g., faculty and staff) at the University of New Hampshire was compiled using the UNH campus directory catalog. This resulted in approximately 893 emails sent to UNH teaching people. The email sent to these individuals was the same as the email sent to directors to forward to their faculty (see Appendix D). Roughly 40 emails were returned with an error message that the user was unknown. Six weeks later, the same email was sent (minus the 40 unknown users) asking faculty one last time to participate in the study. Of these emails, 16 were returned due to error or with messages that the faculty were on sabbatical. Although it is difficult to be exact, approximately 30% of professors contacted at UNH participated in the current study.

The third method of recruitment involved the use of listservs, which are electronic mailing lists that people join based on their topic of interest. Once an individual becomes a member s/he can then send an email to the administrator of the listserv who then forwards the email to all members of the group. Because the current study involved inclusive teaching methods and materials, listservs pertaining to diversity and teaching were sought after. A total of six listservs (i.e., SPSSI, Diversity-Teach, Powr-L, PsychTeacher, EDTEACH, and COMMCOLL) were joined and a recruitment email (see Appendix D) was sent to all. A reminder email was sent to all listservs six weeks after the first email.

Faculty who agreed to participate, regardless of recruitment method, completed the survey online. The survey was conducted on the Survey Monkey website. Each participant was given a unique ID, which was not linked to any personal information,

ensuring complete anonymity of participants. Furthermore, participants were allowed to skip any demographic information that they believed compromised their anonymity. Clicking on the link in the recruitment email brought participants to the consent page of the online survey (see Appendix E). After reading this page, participants could continue with the survey or exit at any time. Participants were told they were participating in a study that was researching teaching attitudes and behaviors. They were asked a series of questions including demographics, their behaviors regarding inclusive teaching, stages of change, multicultural teaching efficacy, perceived institutional and departmental norms and support regarding diversity, perceived barriers in the classroom and curriculum to including diversity, and perceived gains to including diversity (see Appendix F for survey items). Space was also provided at the end of the survey for participants to elaborate on any answers they may have given. After completing the last question of the survey, participants were brought to the debriefing page (see Appendix G). There was also a link on this page to bring participants to a separate survey where they could enter into a drawing to win one of two Blackberry phones.

CHAPTER V

RESULTS

Scale Development

Four scales (i.e., perceived norms at institution and in department, negative attitudes toward inclusive teaching, positive attitudes toward inclusive teaching, and inclusive teaching behaviors) were developed for use in the current study. To assess the dimensionality of the items in each scale, exploratory factor analyses (EFA) was performed with principal axis factoring. Variances accounted for reported below are after varimax rotation. An arbitrary criterion of .40 was used to decide which factor loadings were large. Items that were factorially complex (e.g., had large loadings on more than one factor) based on this criterion were grouped in the factor for which the item had the largest loading.

Perceived Norms at Institution and in Department. Originally, an 18-item scale was developed to measure professors' perceptions of support for diversity and norms of inclusive teaching at their academic institution (11 items) and their department (7 items) based on previous literature as well as elicitation interviews. More specifically, five items were adapted from Maruyama and Moreno's (2000) 47 questions used to assess faculty's attitudes toward diversity on campus and in their classrooms. Nine items were derived from the work of Mayhew and Grunwald (2006) who used a total of 26 items to

measure factors that contributed to faculty incorporating diversity into their curriculum. The remaining four items were developed based on elicitation interviews with faculty.

Exploratory factor analyses (EFA) was performed separately for each subscale (i.e, institution and department) based on past research suggesting perceptions of norms differ at the institutional and department levels (Maruyama & Moreno, 2000). The correlation matrix of the 11 items focusing on institutional norms showed moderate to strong correlations of .34 to .84 for the first eight items and weaker correlations of -.015 to .2 for the last three items. See Table 3 for the correlation matrix of these items. Although it was expected that all 11 items would load onto one factor in EFA, the number of factors was not restricted. Using the criterion of .40 to decide which factor loadings were large, results showed that items 1, 2, 3, 4, 7, and 8 loaded onto the first factor accounting for 25.81% of variance. These items appear to assess institutional climate for diversity. Items 5 and six loaded onto the second factor accounting for 24.67% of variance and appear to measure individuals' perceptions of how minority faculty are treated at their institution. Items 9, 10, and 11 did not meet the .40 criterion on either factor and were dropped (see Table 4 for factor loadings). See Appendix F for wording of each item.

Similarly, EFA was performed to assess the dimensionality of the seven items meant to measure participants' perceptions of their department's norms and support for diversity. See Table 5 for the correlation matrix of these items. Items two and four had weak negative correlations with the remaining items. Allowing the items free to load, the factor analysis produced two factors, with the first accounting for 34.03% of the variance and the second factor accounting for 17.05% (see Table 6 for factor loadings). The five

items on the first factor originate from Maruyama and Moreno (2000), Mayhew and Grunwald (2006), as well as the elicitation interviews and appear to measure norms in one's department regarding diversity issues. The two items on the second factor were from the work of Mayhew and Grunwald (2006) and appear to measure professors' perceptions of a lack of diversity in their department, but were not used in the current study. See Appendix F for wording of each item.

Negative Attitudes toward Inclusive Teaching. A 27 item scale was originally developed to assess professors' negative attitudes toward inclusive teaching. The correlation matrix of the 27 items showed weak ($r = .01$) to strong ($r = .94$) correlations among the items. See Table 7 for the correlation matrix of these items. Allowing the items free to load in EFA produced five factors, accounting for 17.48%, 16.08%, 11.35%, 7.07%, and 6.46% of variance, respectively. Using the same criterion of .40 for large factor loadings showed double loadings for a number of items. Therefore, the analysis was rerun limiting the factors to three. Factor 1 accounted for 19% of the variance, factor 2 accounted for 15.11%, and factor 3 accounted for 10.11% of the variance (see Table 8 for factor loadings). Factor 1 consisted of eight items assessing professors' beliefs that including diversity into the curriculum comes at a cost. Factor 2 consisted of nine items measuring professors' excuses for why they do not include diversity in their curriculum. Factor 3 consisted of 6 items assessing professors' anxiety about including diversity into their curriculum. Four items did not meet the .40 criterion and were dropped. See Appendix F for wording of each item.

Positive Attitudes toward Inclusive Teaching. EFA was also used to assess the dimensionality of the 13 items of this scale. The correlation matrix of these items show

moderate (r = .43) to strong (r = .78) relations (see Table 9). Allowing the items free to load in EFA produced two factors, accounting for 42.12% and 30.21% of the variance, respectively. A criterion of .40 was used to decide large factor loadings. The two items that met this criterion on both factors were placed in the factor for which it had the highest loading. See Table 10 for factor loadings. Factor 1 consisted of eight items measuring faculty beliefs that including diversity in the curriculum has positive effects on students' global perspectives. The remaining five items (factor 2) assess professors' beliefs that including diversity into the curriculum has a positive effect on student engagement. See Appendix F for wording of each item.

Inclusive Teaching Behaviors. Similar to previous scales, EFA was performed to assess the dimensionality of the 31 items of this scale. The correlation matrix of these items shows that the majority of these items are moderately related (see Table 11). Allowing the items free to load in EFA produced six factors, accounting for 18.82%, 13.37%, 6.79%, 6.02%, 5.28%, and 5.01% of the variance, respectively. Using a .40 criterion for large factor loadings produced double loadings for a number of items, with most items loading on the first two factors. Therefore the EFA was rerun limiting the factors to two. These two factors accounted 27.59% and 17.40% of the variance, with all items having the largest loading on the first factor. Lastly, EFA was run again limiting the factors to one, with this factor accounting for 40.51% of the variance. All items met the .40 criterion for large loadings (see Table 12). Therefore, all 31 items were used in the current analyses as a means of assessing faculty inclusive teaching behaviors. See Appendix F for wording of each item.

Group Differences

Group differences regarding gender, race, the science in which faculty taught, and whether they had participated in a diversity training are reported below. Group differences regarding the TTM and TPB are reported with those corresponding results sections.

Gender. Because past research suggests there are a number of demographic variables related to inclusive teaching, these were examined first (see Table 13 for mean scores for all groups). Due to the number of significance tests run looking at group differences, the Bonferroni-corrected per-comparison alpha level of .05/13 = .004 was used (Warner, 2008). In regards to gender (coded 1 = male, 0 = not male), males had been teaching longer ($t(503) = 7.79, p < 001, r^2 = .12$), were more likely to teach in the physical sciences ($\chi^2(2) = 49.56, p < .001, V = .32$), and held more negative attitudes toward inclusive teaching regarding content ($t(415) = 6.79, p < .001, r^2 = .10$) and excuses ($t(417) = 7.54, p < .001, r^2 = .12$). Females were more likely have attended a diversity training ($\chi^2(2) = 13.23, p = .001, V = .16$), to report more inclusive teaching behaviors ($t(495) = -9.69, p < .001, r^2 = .16$), have greater efficacy ($t(447) = -6.22, p < .001, r^2 = .08$), and hold more positive attitudes toward inclusive teaching regarding student perspectives ($t(416) = -7.96, p < .001, r^2 = .13$) and engagement ($t(415) = -7.69, p < .001, r^2 = .12$). There were no significant gender differences in race, perceived norms at the institution or department level, and negative attitudes toward inclusive teaching regarding anxiety.

Race. Race was coded so that 1 = White and 0 = non-White. Non-White individuals were more likely to report more inclusive teaching behaviors ($t(495) = -4.23$, $p < .001$, $r^2 = .03$), have greater efficacy ($t(447) = -3.85$, $p < .001$, $r^2 = .03$), and have more positive attitudes toward inclusive teaching regarding student engagement ($t(415) = -3.57$, $p < .001$, $r^2 = .03$). White individuals had been teaching longer ($t(503) = 4.13$, $p < .001$, $r^2 = .03$) and more excuses for not teaching inclusively ($t(417) = 3.87$, $p < .001$, $r^2 = .03$). There were no significant differences between race and the science in which they taught, participation in a diversity training, and gender (as reported above). There were also no differences in perceived norms, negative attitudes related to content and anxiety, as well as positive attitudes related to student perspectives.

Science. The department in which individuals taught was recoded so that 1 = physical sciences and 0 = social sciences. Those in the physical sciences had been teaching longer ($t(485) = 4.33$, $p < .001$, $r^2 = .04$) and held more negative attitudes toward inclusive teaching regarding content ($t(399) = 5.41$, $p < .001$, $r^2 = .07$) and excuses ($t(401) = 8.66$, $p < .001$, $r^2 = .16$). Those in the social sciences were more likely to report more inclusive teaching behaviors ($t(478) = -8.92$, $p < .001$, $r^2 = .14$), greater efficacy ($t(430) = -6.37$, $p < .001$, $r^2 = .09$), perceived department norms ($t(425) = -4.10$, $p < .001$, $r^2 = .04$), and hold more positive attitudes related to student perspectives ($t(401) = -6.53$, $p < .001$, $r^2 = .10$) and engagement ($t(399) = -6.15$, $p < .001$, $r^2 = .09$). Gender differences are reported above. There were no significant differences between science and race (as reported above), participation in diversity training, perceived institutional norms, and negative attitudes related to anxiety.

Diversity Training. Participation in a diversity training or workshop was coded so that 1 = yes and 0 = no. Those who had participated in a training were more likely to report more inclusive teaching behaviors ($t(498) = 10.28, p < .001, r^2 = .18$), have greater efficacy ($t(448) = 5.92, p < .001, r^2 = .07$), perceive more department norms ($t(444) = 3.01, p < .001, r^2 = .02$), and have more positive attitudes toward inclusive teaching regarding student perspectives ($t(418) = 5.18, p < .001, r^2 = .06$) and engagement ($t(416) = 6.24, p < .001, r^2 = .09$). Those who did not participate in a diversity training were more likely to hold negative attitudes regarding content ($t(416) = -4.31, p < .001, r^2 = .04$) and excuses ($t(419) = -7.96, p < .001, r^2 = .13$). Gender differences are reported above. There were no differences between participation and race (as reported above), science in which they taught (as reported above), years teaching, perceived institutional support, and negative attitudes related to anxiety.

Transtheoretical Model

Chi squares and ANOVAs with Tukey HSD post hoc tests were used in order to assess group mean differences across the stages of change (i.e., precontemplation, contemplation, preparation, action, maintenance, and termination), with the results generally following the predicted means (see Table 1).

Demographics across Stages. Chi square tests showed significant relations between all demographics and stages of change except for race. Specifically, a relation was found for gender and stage of change ($\chi^2(10) = 61.20, p < .001, V = .25$), with higher percentages of males classifying themselves in precontemplation and contemplation than other genders. There was also a relation between stage of change and whether one taught in the social or physical sciences ($\chi^2(5) = 71.39, p < .001, V = .39$). A closer examination

of the distributions showed that 46% of those in the physical sciences and 8.11% of those in the social sciences classified themselves in the precontemplation stage of change, which meant they did not intend to include diversity content into their curriculum. Conversely, those in the social sciences were more likely to classify themselves in the maintenance (54.05%) and termination (24.08%) stages of change.

There was also a significant relation between stages of change and whether an individual had participated in a diversity related training ($\chi^2(5) = 25.88, p < .001, V = .23$). An examination of the distributions revealed that 7.28% of those who had participated in a training and 22.16% of those who had not classified themselves in the precontemplation stage of change. Most classified themselves in the latter stages of change with 54.43% and 26.9% of those who had participated in a training and 41.32% and 21.56% of those who had not classifying themselves in the maintenance and termination stages of change, respectively.

An ANOVA revealed an overall group significance between stages of change and how long individuals had taught ($F(5, 476) = 4.64, p < .001, \eta^2 = .05$). Post hoc tests revealed those in the precontemplation stage of change had been teaching significantly longer than those in the preparation (HSD = 11.09, $p = .005$) and action (HSD = 8.17, $p = .027$) stages of change. See Table 14 for percentages of nominal demographics and means for age in each stage of change.

Mean Scores across Stages. ANOVA's revealed significant overall group differences across the stages of change and efficacy ($F(5, 433) = 40.61, p < .001, \eta^2 = .32$), and department norms ($F(5, 429) = 6.64, p < .001, \eta^2 = .07$). The only measure that was insignificant was perceived institutional norms ($F(5, 432) = 1.37, p = .234, \eta^2 = .02$).

More specifically, those in the precontemplation stage of change scored significantly lower than those in preparation and action stages on efficacy (HSD = -18.58, $p < .001$; HSD = -18.36, $p < .001$, respectively). Those in the first stage of change also scored lower than those in the maintenance and termination stages on efficacy (HSD = -24.39, $p < .001$; HSD = -27.96, $p < .001$, respectively) as well as department norms (HSD = -3.06, $p < .001$; HSD = -2.98, $p = .001$, respectively). Those in the contemplation stage of change scored significantly lower on efficacy than those in the maintenance (HSD = -13.00, $p = .006$) and termination (HSD = -16.57, $p < .001$) stages. Those in the preparation stage of change had lower efficacy than those in the termination (HSD = -9.38, $p = .032$) stage and scored lower on department norms than those in maintenance (HSD = -3.72, $p = .011$) and termination (HSD = -3.64, $p = .020$). Lastly, those in the action stage had lower efficacy than those in the termination (HSD = -9.60, $p = .002$) stage.

Overall significant values were also found for negative attitudes about teaching diversity related to content ($F(5, 401) = 23.01$, $p < .001$, $\eta^2 = .22$), excuses ($F(5, 405) = 43.36$, $p < .001$, $\eta^2 = .35$), and anxiety ($F(5, 402) = 3.65$, $p = .003$, $\eta^2 = .04$). More specifically, those in the precontemplation stage of change held more negative attitudes about teaching diversity related to content than those in every other stage (HSD = 4.10, $p = .013$; HSD = 4.34, $p < .001$; HSD = 6.15, $p < .001$; HSD = 6.27, $p < .001$; HSD = 5.21, $p < .001$; listed in order of following stages). Those in the precontemplation stage also had more excuses to not teach about diversity than those in the preparation (HSD = 7.18, $p < .001$), action (HSD = 6.45, $p < .001$), maintenance (HSD = 12.53, $p < .001$), and termination (HSD = 11.59, $p < .001$) stages. Those in the contemplation stage had more

excuses than those in the maintenance (HSD = 10.92, $p < .001$) and termination (HSD = 9.98, $p < .001$) stages. Those in the preparation stage only had more excuses than those in the maintenance (HSD = 5.36, $p = .005$) stage. Lastly, those in the action stage had more excuses than those in the maintenance (HSD = 6.09, $p < .001$) and termination (HSD = 5.14, $p = .001$) stages of change. Although there was an overall significant F value for scores on anxiety between stages of change, post hoc tests did not reveal specific significant group differences.

Similarly, overall significant values were found between stages of change and positive attitudes toward inclusive teaching related to student perspectives ($F(5, 405) = 21.79, p < .001, \eta^2 = .21$) and engagement ($F(5, 402) = 20.41, p < .011, \eta^2 = .20$). More specifically, those in the precontemplation stage held less positive attitudes than those in the preparation, action, maintenance, and termination stages related to student perspectives (HSD = -5.62, $p = .001$; HSD = -6.35, $p < .001$; HSD = -7.89, $p < .001$; HSD = -5.63, $p < .001$, respectively) and engagement (HSD = -5.75, $p < .001$; HSD = -4.73, $p < .001$; HSD = -6.14, $p < .001$; HSD = -5.18, $p < .001$). Those in the contemplation stage held less positive attitudes related to engagement than those in the maintenance (HSD = -4.13, $p = .009$) stage. Lastly, those in the maintenance stage had more positive attitudes related to student perspectives than those in the termination (HSD = 2.27, $p < .001$) stage.

Faculty also significantly differed on inclusive teaching behaviors across the stages of change ($F(5, 472) = 53.90, p < .001, \eta^2 = .36$). Those in the precontemplation stage of change reported significantly less inclusive teaching behaviors than those in the preparation (HSD = -22.87, $p = .001$), action (HSD = -34.19, $p < .001$), maintenance (HSD = -46.49, $p < .001$), and termination (HSD = -43.24, $p < .001$) stages. Those in the

contemplation stage reported fewer inclusive behaviors than those in the action (HSD = -24.11, $p = .013$), maintenance (HSD = -36.41, $p < .001$), and termination (HSD = -33.16, $p < .001$) stages. Those in the preparation stage reported less behaviors than those in maintenance (HSD = -23.62, $p < .001$) and termination (HSD = -20.37, $p = .002$). Lastly, those in action reported less behaviors than those in the maintenance (HSD = -12.30, p = .039) stage of change. See Table 15 for group mean differences across stages of change.

In sum, those most likely to teach inclusively were female, faculty of color, in the social sciences, and had attended a diversity related training or workshop. Furthermore, as predicted, there were general linear trends across the stages of change. Specifically, as individuals progressed through the stages of change, they had more positive attitudes about inclusive teaching and believed it aided students to engage in the material and benefited students' perspectives toward diverse social groups. Negative attitudes decreased across stages of change, with faculty having less excuses to not teach inclusively and beliefs that including diversity comes at a cost to core content. Although anxiety to teach inclusively was found to be significant overall, anxiety did not significantly differ by stage of change. Perceived institutional norms also did not differ across stages of change. Conversely, faculty perceived more department norms as they progressed through the stages. As expected, one's efficacy to teach inclusively, as well as inclusive teaching behaviors, increased across the stages of change.

Theory of Planned Behavior

Structural Equation Modeling. Structural equation modeling (SEM) was used to examine whether the Theory of Planned Behavior predicted intentions to include diversity in curriculum and actual inclusive teaching. Several models were tested using

the Amos 16 statistical package (Arbuckle, 2007). Model fit measures used include the Tucker-Lewis index (TLI), comparative fit index (CFI), and the root mean square error of approximation (RMSEA). A TLI and a CFI greater than or equal to .95 is considered a good fit, and an RMSEA less than .06 to .08 is considered a good fit (Schreiber, Stage, King, Nora, & Barlow, 2006). Maximum likelihood method of estimation of parameters was used. For consistent estimation of parameters, listwise deletion was performed (Byrne, 2001), which resulted in an N of 388 for these analyses.

Because of multiple indicators for attitudes and norms, latent variables were constructed for each in the first model, although the conceptual model for TPB does not use latent variables (see Figure 3). However, this solution was inadmissible due to unreasonable estimates (i.e., $r > 1$) and extremely large standard errors (Byrne, 2001). Therefore, latent variables were removed from the model, which resulted in eight predictors with 28 covariance paths and eight direct paths to intentions (i.e., Stage of Change). There were also direct paths drawn from intentions to behaviors as well as efficacy to behaviors, as the original model suggests (see Figure 4). The fit for this model was poor (TLI = .52, CFI = .93, RMSEA = .22).

Modification indices suggested the addition of direct paths from all predictor variables, except institutional norms, to behavior. However, all predictors, except for efficacy, are theorized to be fully mediated by intentions. Efficacy is predicted to be partly mediated, but also to have a direct path to behavior. Nevertheless, Stages of Change may not fully capture intentions. Adding these paths produced a better fit, but still not a good fit (TLI = .92; CFI = .99; RMSEA = .09). See Figure 5 for the final model; covariance paths have been removed for simplicity (for correlations see Table

16). The results are mixed in regards to direct and indirect effects on inclusive teaching behaviors. In regards to attitudes, only anxiety was fully mediated by stages of change (Sobel test, $z = 3.71$, $p < .001$) and excuses was partially mediated (Sobel test, $z = -.366$, $p < .001$). Only student engagement had a direct effect on teaching behaviors (standardized direct coefficient = .30, $p < .001$). Good for student perspectives and content did not have significant paths to stages of change or teaching behaviors. In regards to norms, only department norms had a direct effect on teaching behaviors (standardized direct coefficient = .19, $p = .05$). Institutional norms lacked significant paths to stages of change or teaching behaviors. Efficacy was partially mediated by stages of change (Sobel test, $z = 3.71$, $p < .001$).

In theory, background factors such as individual differences (e.g., stereotypes), social status (e.g., gender), and information levels (e.g., knowledge) are expected to influence individuals' attitudes, perceived norms, and perceived behavioral control related to a specific behavior or set of behaviors (Ajzen & Fishbein, 2005). However, a noted limit of the TPB is that it does not take these variables into consideration (Sharma & Kanekar, 2007), even though such variables have been shown to have a direct affect on behavior (Armitage et al., 2002). Furthermore, the number of significant group differences reported earlier also warrants the inclusion of these variables in predicting inclusive teaching. Given the number of variables and paths in the current model, the addition of demographic variables would make the model practically unmanageable. Because of this, as well as a lack of fit, regression analysis was performed to examine how much variance was contributed by the groups of variables assessing positive and negative attitudes toward inclusive teaching, perceived norms, and the one variable

assessing multicultural teaching efficacy as well as stages of change. Although the theorized relations between the constructs of the TPB suggest the use of SEM analysis, the majority of research using the TPB has used regression analyses (Ajzen & Fishbein, 2005; Montano & Kasprzyk, 2002).

Regression. Inclusive teaching behaviors were predicted from the following variables: gender (coded 1 = male, 0 = not male), race (coded 1 = White, 2 = not White), number of years they taught, the science in which they taught (coded 1 = physical, 2 = social), whether they had participated in a diversity related training (coded 1 = yes, 2 = no), institutional norms, department norms, multicultural teaching efficacy, negative attitudes toward teaching about diversity related to content, excuses, and anxiety, positive attitudes toward teaching about diversity related to student perspectives and engagement, as well as stages of change (coded 1 = yes, 0 = no for each stage in comparison to the termination stage). The total n for this sample was 509; using listwise deletion the n for this analysis was 390. This drop in sample size was mostly due to participants' failure to fully complete the last two measures in the survey.

Hierarchical regression was performed, with predictor variable(s) entered in each step as determined by the researcher. Demographic variables considered "unchangeable" (e.g., race) were entered into the first step as a group. The second step included the "changeable" demographic of whether one had participated in a diversity training. Steps three through six include the measures the three constructs of the TPB said to influence intentions: attitudes toward the behavior, subjective norms, and perceived behavioral control. More specifically, institution and department norms were entered on step three as a group, multicultural efficacy was entered on step four, the three subscales assessing

negative attitudes related to teaching about diversity were entered on step five as a group, and positive attitudes related to teaching about diversity were entered on step six as a group. The stages of change were entered on step seven as dummy coded variables to further examine the contributions of variance of each stage due to the mixed SEM results. Because past research has shown that demographic variables as well as previous diversity training are related to inclusive teaching behaviors, these factors were entered in earlier steps. Factors (i.e., attitudes, norms, and behavioral control) associated with the Theory of Planned Behavior were arbitrarily entered on separate steps to assess the amount of variance contributed by each group. Because previous path analyses specify direct paths from attitudes, norms, and behavioral control to intentions, and then intentions to the behavior, Stages of Change was entered on the last step in order to control for variance contributed by the previous variables. See Tables 16, 17, and 18 for a summary of these results.

The overall regression, including all 19 predictors, was statistically significant, $R = .82$, $R^2 = .67$, adjusted $R^2 = .65$, $F(17, 372) = 43.53$, $p < .001$. Inclusive teaching behaviors could be predicted relatively well from the set of 19 variables, with almost 70% of the variance in teaching behaviors accounted for by the regression.

To assess the contributions of individual predictors, the t ratios for the individual regression slopes were examined for each variable in the step when it first entered the analysis. In the first step (unchangeable demographic variables), race ($t(386) = 4.36$, $p < .001$, $R^2_{inc} = .040$) and the science in which they taught ($t(386) = 7.73$, $p < .001$, $R^2_{inc} = .127$) were statistically significant. The positive slopes for each of these variables suggest that non-White faculty in the social sciences were more likely to teach about

diversity. In the second step (changeable demographic variable), participation in a diversity training significantly increased the R^2 ($t(385) = -7.72, p < .001, R^2_{inc} = .110$). The negative slope for this variable suggests that those who had greater inclusive teaching behaviors were more likely to have participated in a diversity training. Institution and department norms significantly increased the R^2 when they were entered in the third step ($t(383) = -2.27, p = .024, R^2_{inc} = .009$; $t(383) = 5.22, p < .001, R^2_{inc} = .047$, respectively). The negative slope for institutional norms suggests that professors were more likely to teach about diversity when they did not perceive support for inclusive teaching at the institutional level. Conversely, the positive slope for department norms suggests that professors were more likely to teach about diversity if they believed it was supported in their department. Multicultural teaching efficacy significantly increased the R^2 when it was entered in step four ($t(382) = 12.24, p < .001, R^2_{inc} = .186$). The positive slope for this variable suggests that faculty who believed that could teach about diversity were more likely to do so. Only excuses as to why professors did not teach about diversity (out of content, excuses, and anxiety) significantly increased the R^2 on the fifth step ($t(379) = -7.35, p < .001, R^2_{inc} = .056$). The negative slope for excuses suggests that the less excuses faculty had, the more likely they were to teach about diversity. Positive attitudes toward teaching about diversity related to student perspectives and engagement were entered in the sixth step as a group, but only engagement significantly increased the R^2 ($t(377) = 4.85, p < .001, R^2_{inc} = .022$). The positive slope for this variable suggests that the more professors believed that teaching about diversity increased student engagement, the more likely they were to teach about diversity. The stages of change were entered in the seventh and final step as a group of dummy variables. The first stage

(i.e., precontemplation) ($t(372) = -3.44$, $p = .001$, $sr^2_{inc} = .011$), second stage (i.e., contemplation) ($t(372) = -2.49$, $p = .013$, $sr^2_{inc} = .006$), and the third stage (i.e., preparation) ($t(372) = -2.81$, $p = .005$, $sr^2_{inc} = .007$) significantly increased the R^2. As expected, the negative slope for the precontemplation suggests that faculty in the lower stages of change were less likely to teach about diversity; whereas the positive slopes for the later stages suggest that professors were more likely to teach about diversity in the higher stages of change. Examination of the remaining variables in this final model, revealed race, science in which they taught, participation in a diversity training, perceived department support, efficacy, negative attitudes related to excuses, and positive attitudes related to student engagement as significant predictors of inclusive teaching behaviors (see Table 17 for results of final model).

Overall, inclusive teaching behaviors were relatively predictable from the set of predictor variables. Most of the predictors significantly increased the R^2 in the step when they first entered (see Table 18). Examining the final model, the strongest unique predictive contributions were from multicultural teaching efficacy, followed by beliefs that inclusive teaching improves student engagement (one of two positive attitude measures), excuses for not teaching about diversity (one of three negative attitude measures), and the last two stages of change (i.e., maintenance and termination).

Additional Exploratory Analyses

School. As mentioned previously, the UNH and non-UNH samples were combined to provide a more diverse sample. However, exploratory analyses were performed to examine differences in predictor and outcome variables between these two groups. Demographic differences were reported earlier and can be seen in Table 2. Due

to the number of significance tests run, the Bonferroni-corrected per-comparison alpha level of .05/9 = .006 was used (Warner, 2008). The UNH sample of faculty had significantly more negative attitude toward inclusive teaching regarding content ($t(389) = 3.40, p = .001, r^2 = .03$) and excuses ($t(392) = 4.68, p < .001, r^2 = .05$). The non-UNH sample was significantly more likely to report inclusive teaching behaviors ($t(460) = -7.01, p < .001, r^2 = .10$), have greater efficacy ($t(416) = -3.40, p = .001, r^2 = .03$), and more positive attitudes toward inclusive teaching regarding student perspectives ($t(390) = -4.22, p < .001, r^2 = .04$) and engagement ($t(389) = -4.11, p < .001, r^2 = .04$). A Chi-square also revealed a significant relation between school and stage of change ($\chi^2(5) = 31.25, p < .001, V = .27$), with the UNH sample have a greater number of faculty in precontemplation and less in the maintenance stage than non-UNH faculty. There were no significant differences between samples and perceived institution and department norms as well as negative attitudes toward inclusive teaching regarding anxiety. See Table 19 for group means.

Inclusive Teaching. As mentioned previously, the inclusive teaching measure was originally developed to assess seven areas of inclusive teaching (i.e., overall curriculum design, readings, content, delivery, class climate, class behaviors, and self-improvement), but factor analyses only revealed one dimension and therefore previous analyses only examined this one dimension. Because this was a new measure and the variable of primary interest, additional analyses were performed to further examine inclusive teaching behaviors. First, the percentages of the most common frequency with which faculty performed inclusive teaching behaviors (i.e., never to always) in each area of teaching were examined. The majority of faculty reported always engaging in

inclusive teaching behaviors regarding how they delivered the material (67%), behaved in the classroom (67%), as well as how they designed their overall curriculum (60%) and content for the course (57%). Approximately half of instructors said they always worked on having an inclusive classroom climate and only a third of faculty reported always being inclusive with the reading they assigned. Finally, about a third of the faculty reported always engaging in behaviors to improve their ability to teach inclusively.

Of particular interest are the 12 behaviors faculty most reported never engaging. In regards to curriculum design, a mode response of "never" was found for seeking help in curriculum design from those highly knowledgeable about diversity topics and issues. Similarly, the majority of faculty reported never contacting the diversity office on their campus for help in being inclusive. Inclusive teaching behaviors least likely to be used for the reading element of the course included picking a textbook for its diversity coverage and seeking out readings authored by minorities. Related to content considerations, faculty were also least likely to assign projects that required some level of social action, purposefully pick videos with/about minorities, and make sure wording on tests was inclusive. There was only one item for delivery in which the mode response was never. More specifically, instructors were least likely to invite diverse guest speakers to their classrooms. As for classroom climate, most faculty reported never reminding students to speak for themselves and not as a representative of a social group as well as never having to handle difficult discussions of diversity issues. The last area of inclusive teaching assessed in this dependent measure dealt with behaviors regarding self-improvement, with most faculty reporting never taking a course, workshop, etc. to increase their understanding and awareness of diverse others.

CHAPTER VI

DISCUSSION

The current study was designed to understand and predict inclusive teaching behaviors of faculty using the Transtheoretical Model of behavior change as well as the Theory of Planned Behavior. This was accomplished by surveying 509 faculty at colleges and universities across the US about their positive and negative attitudes toward inclusive teaching, perceived institutional and departmental norms regarding inclusive teaching, efficacy to teaching inclusively, intentions to teach inclusively (i.e., stage of change), as well as their self-reported inclusive teaching behaviors. Analyses were used to test how variables associated with the TPB differed across the stages of change as well as whether the stages of change measure could be useful as a measure of intention in the TPB. Consistent with past research, TPB constructs related to inclusive teaching (e.g., positive attitudes) increased linearly across the stages of change and those negatively related to inclusive teaching (e.g., negative attitudes) decreased (Armitage et al., 2004). More specifically, those who had more positive attitudes toward inclusive teaching, greater perceived department norms, more efficacy, and less negative attitudes were more likely to teach inclusively. Although research has yet to examine how the TTM is related to the TPB, the results of current study lend support to this alternative examination of the models to predict behaviors. Hierarchical regression analyses revealed attitudes (i.e., negative attitudes related to excuses and positive attitudes related to student engagement),

norms (i.e., perceived department norms), efficacy, and stages of change (i.e., precontemplation, maintenance, and termination) significantly predicted inclusive teaching behaviors. These results do not suggest that one model better predicts inclusive teaching behaviors, but that prediction of inclusive teaching behaviors is improved through the use of these models in conjunction.

Scale Development and Use

A number of scales were developed for the current study in accordance with the compatibility principle (Ajzen & Cote, 2008). More specifically, based on past literature as well as interviews with faculty, items were developed to assess perceived norms at the institutional and departmental level related to inclusive teaching, negative and positive attitudes toward inclusive teaching, as well as what behaviors constituted inclusive teaching. Looking at each of these scales as a whole, factor analyses revealed they accounted for 26% to 67% of variance. However, factor analyses suggested three dimensions for negative attitudes (i.e., content, excuses, and anxiety) and two dimensions for positive attitudes (i.e., student perspectives and engagement). Of particular concern are the subscales for negative attitudes, which had lower percentages of accounted variance. Although there is no standard criterion for how much variance a factor must account for in order to be considered adequate, some have suggested a 40% to 70% criterion (Warner, 2008). The inability of this measure of negative attitudes related to anxiety to predict inclusive teaching may be due to the fact that this factor had the lowest percentage of accounted variance. Similarly, the measure of anxiety also had the lowest internal consistency rating of all the measures used. Because the interviews with faculty resulted in a number of survey items related to anxiety about teaching inclusively, future

research would benefit from exploring this variable further to better understand how anxiety affects inclusive teaching behaviors.

Of particular importance is the measure developed to assess inclusive teaching behaviors, which has yet to be accomplished in the literature. There are obvious needs and desires for inclusive teaching (Huang, 2002; Mahoney & Schamber, 2004; Morey, 2000; Vaughan, 2005), and there are a number of theories as to what inclusive teaching is (Banks, 2002; Brown, 2007; Kitano, 1997; Montgomery, 2001; Richards et al., 2007), but there has yet to be a measure to assess actual inclusive teaching. This study is the first to accomplish this and results suggest the measure of inclusive teaching behaviors can and should be used in examining teaching behaviors. However, more studies are needed to further assess the validity of this measure.

For example, one item asked faculty whether they had taken a course, workshop, etc. in order to increase their understanding and awareness of diverse others, to which the mode response was "never". This is in contrast to a question in the demographic section of the survey that asked faculty whether they had participated in a diversity related training or workshop, which 66% of faculty reported yes. These differing responses could be due socially desirable responding for the later question and/or due to the wording of the former question. In other words, the self-improvement question in the inclusive teaching measure asked faculty if they had taken a course to improve their understanding. The mode response of never could be because faculty participated in diversity workshops to improve other factors such as skills for inclusive teaching. Additional questions are needed in future research to better understand why faculty attend workshops.

It is also worth noting how these measures were used. In the current study, different positive and negative attitudes, as well as different referent groups for perceived norms were examined separately. This is similar to measures used with the TTM, which represent pro and con attitudes as separate constructs and in contrast to the TPB, which only has a single measure of attitudes and norms as constructs. The three measures of negative attitudes and two measures of positive attitudes were analyzed separately due to the richness of information each provided. Aggregation of the three negative attitudes would have resulted in a poorer understanding of why faculty do not teach inclusively. For example, in keeping them separate, results suggest that the excuses faculty have for not inclusively teaching have the greatest impact on their teaching behaviors. Similarly, the TPB suggests that perceived norms are a single construct, which is usually assessed with a global measure regarding "important others" (Ajzen, 1991). However, research suggests that the referent group(s) can be changed to better match the sample (Doll & Ajzen, 1992). For example, Ajzen and colleagues' (2004) attempt to predict students' donating behaviors included normative referent groups: parents and family, friends and fellow students, other group members, as well as faculty and administrators. Only the perceived social pressure of friends and fellow students as well as other group members significantly affected donation behaviors. These results suggest that referent groups closer to the individuals would have a greater impact on perceived social pressure to perform a behavior than those not close or important to the individuals. The results of the current study support past research as well as suggest this is the case as only perceived department norms, versus perceived institutional norms, predicted inclusive teaching (Maruyama & Moreno, 2000).

Group Differences

It is also worth noting the number of group differences found for inclusive teaching. Faculty who were female, of color, in the social sciences, and had attended a diversity training were more likely to teaching inclusively, which is similar to previous studies examining diversity related teaching (Mayhew & Grunwald, 2006; Maruyama & Moreno, 2000) and earlier suggestions that minority faculty appear to be the ones carrying the responsibility of teaching students about diversity related topics and issues (Mio et al., 2006). However, expanding on previous research, these groups were also more likely to have greater efficacy and to hold more positive attitudes toward inclusive teaching. These differences also highlight the importance of including demographic variables in studying behavior as is discussed further below.

Transtheoretical Model

The findings from the current study suggest that inclusive teaching behaviors can be mapped onto stages of change. Similar to past research, constructs from the Theory of Planned Behaviors were found to discriminate between stages of change (Armitage, 2006; Armitage & Arden, 2008; Lippke et al., 2007). However, not all of the constructs were significant predictors of stage. More specifically, perceived institutional norms for inclusive teaching did not significantly differ by stage of change. This is not surprising given that perceived norms is not a construct of the TTM, and research using norms and perceived social support in studying stage of change has found limited support of norms to predict behavior (Lippke & Plotnikoff, 2006; Ronda et al., 2001). However, these findings are somewhat in contrast to Maruyama and Moreno (2000) who found that faculty believed their institutions valued diversity more than their departments and

Mayhew and Grunwald (2006) who found both institutional and departmental support to be significant predictors of inclusive teaching. Conversely, research using the TTM in conjunction with the TPB has found subjective norms to significantly differ across stages (Armitage, 2006; Armitage & Arden, 2008; Lippke et al., 2007), perhaps explaining the differences found in perceived department norms across stages of change. As discussed earlier, the different findings for institutional and departmental support could be the closeness and level of importance people have with those in their department versus those at their academic institution. Future research would benefit from a better examination of the individuals faculty perceive to be important to them in regards to inclusive teaching as well as why these individuals are important. For example, if faculty believe their colleagues are teaching inclusively, they may also in order to "fit in". However, faculty could also perceive social pressure to teach inclusively from campus officials due to tenure and promotion evaluation processes.

It should also be noted that perceived norms for inclusivity can differ by department (Maruyama & Moreno, 2000) and the current sample was overrepresented by those in the social sciences. Although many believe that only social sciences are applicable to inclusive teaching (Banks, 2002; Simoni et al., 1999), this is not the case. It is true that many topics covered in social sciences better lend themselves to inclusive teaching (e.g., covering GLBT dating in a social psychology course), but there are a number of methods that can be employed to be inclusive when teaching in any course. In courses where the material focuses on non-living objects, faculty can still offer a variety of assignments to fit the diverse learning styles of their students, assign readings authored by writers of diverse backgrounds, invite diverse guest speakers to class, create an

inclusive classroom climate, and seek knowledge about diverse others. Findings that those in the physical sciences as well as those who had not attended a diversity training tended to be in the lower stages of change, suggest that further work is needed in these sciences to inform faculty of the many ways they can be inclusive in their teaching.

The remaining constructs examined across the stages of change tended to be linear in nature as predicted, however not all constructs significantly differed by stage (Armitage et al., 2004). Instead, similar to past research, those in the earlier stages of change were most likely to differ from those in the later stages of change (Gatersleben & Appleton, 2007; Ronda et al., 2001). One might expect such findings given that the processes of change overlap for many of the stages of change (Prochaska et al., 1992), suggesting that certain social-cognitive variables could overlap as well, which would suggest that most findings would likely be between those at each end of the spectrum of behaviors. However, as noted earlier, TTM research has failed to take the termination stage of change into account in studying behaviors. The findings of the current research suggest the need for research to include this stage as it was almost always significantly different from the earlier stages of change, which is expected given it marks complete behavior change. Understandably, TTM intervention studies to reduce problem behaviors have dropped those in the later stages because they were not performing the problem behavior. However, research is needed in understanding complete progression through all stages of change so that interventions can be better informed and perhaps more effective. For example, TTM based interventions have been helpful in getting individuals to progress to further stages, but they have been ineffective in keeping people from regressing to earlier stages (Armitage, 2006).

Variables examined outside of the constructs of the TTM and TPB were also shown to be significant across stages of change. As mentioned earlier, those in the physical sciences, as well as those who had not participated in a diversity training, tended to be in the lower stages of change. Males, as well as those who had been teaching longer, also tended to be in the lower stages of change. However, most of the TTM research fails to take demographic variables into account. The exception to this is Gatersleben and Appleton (2007) who found demographic variables such as gender to vary across the stages of change. These results, as well as the results of the current study, suggest that demographic variables need to be taken into consideration in order to fully understand a behavior and develop effective interventions. For example diversity training was shown to vary across stages of change and has been shown to relate to inclusive teaching (Maruyama & Moreno, 2000; Mayhew & Grunwald, 2006). These results suggest that workshops can be effective in increasing inclusive teaching behaviors. As mentioned earlier, those in the physical sciences may benefit greatly from these types of workshops.

It is also interesting to note the distribution of faculty across the stages of change. Past research has consistently found that about 50% of populations with behaviors in need of change are in the precontemplation stage (Prochaska, 1994). As mentioned previously, approximately 70% of faculty report the importance of diversity, but only 34% actually include diversity materials into their curricula (AAUP & ACE, 2000; Maruyama & Moreno, 2000), yet 50% of the current sample reported themselves in the maintenance stage of change and 25% reported being in the termination stage. Armitage and colleagues (2004) study of healthy eating behaviors had 40% of the sample in the

preparation stage. They used hospital workers, which one might assume would be more likely to eat healthy. Nevertheless, they were able to find significant distinctions between stages for TPB variables. Similarly, Lippke and colleagues (2007) community sample used to look at levels of physical activity had 44-49% in the maintenance stage of change. Although the current sample was overrepresented by the social sciences and somewhat by females (which results suggest are more likely to teach inclusively), it is doubtful that many faculty were truly in those stages of change. This highlights the need for future research to use more objective measures of inclusive teaching. Studies using subjective and objective measures of behavior have found that a substantial number of people overestimate how much they engage in the socially desirable behaviors and that those who overestimate their behavior are the least likely to make any changes to their behavior (Ronda et al., 2001). Future research could observe classrooms or have students rate their professors' inclusive behaviors to get a more objective assessment.

Overall, the results of the current study suggest the constructs of the TPB are consistent with those from the TTM stages of change. Faculty in the lower stages of change reported less efficacy to teach inclusively than those in the later stages of change. In other words, they were less likely to believe they could do such things as identify cultural biases in commercial materials used in teaching, help students view course content from diverse perspectives, and get students from diverse backgrounds to work together. Those in the lower stages of change were also less likely to believe their department valued diversity, emphasized the importance of diversity in their field, and that their fellow faculty taught inclusively. Precontemplators also held more negative attitudes toward inclusive teaching and held beliefs such as inclusive teaching only

fosters prejudice, impedes discussions of substantive issues, and lowers the quality of education for students. They also had a number of excuses to not teach inclusively such as there is not enough time to include diverse materials, there is a lack of strategies to use, and the textbook does an adequate job on its own. Conversely, those in the later stages were more likely to hold positive attitudes toward inclusive teaching. They believed that adding diversity to the curriculum raises new issues and perspectives and that more students engage in discussions as a result of inclusive teaching. Faculty in the later stages of change were also more likely to report inclusive teaching behaviors regarding overall curriculum design, readings, course content, delivery methods, classroom climate, classroom behaviors, and self-improvement for diversity awareness.

Theory of Planned Behavior

New to the TTM and TPB research, was the examination of how the stages of change fit into the TPB as a measure of intention. Separate SEM and hierarchical regression analyses were used to examine this relation. The SEM analyses partially supported the conceptual model of the Theory of Planned Behavior, with variables representing constructs of the TPB predicting intentions and inclusive teaching behaviors. However, not all of the paths in the current study reflected those presented in the conceptual model. More specifically, only negative attitudes toward inclusive teaching related to anxiety was fully mediated by stages of change; whereas efficacy was partially mediated by stages of change as the conceptual model suggests. Contrary to the conceptual model were the variables such as negative attitudes related to excuses that were partially mediated by stages of change as well as positive attitudes related to student engagement and perceived department norms, which had a direct effect on inclusive

teaching behaviors. However, Ajzen (1991) notes that it is possible to have such relations depending on the behavior under examination. Furthermore, it is difficult to know how often the conceptual model of the TPB is replicated in research because most studies use regression instead of SEM analyses (Ajzen & Fishbein, 2005).

The current study also employed hierarchical regression analysis as an alternative way to assess the predictive nature of the TPB for inclusive teaching behaviors, but also as a way of assessing additional variables not included in the TPB. More specifically, demographic variables have often been left out of TPB analyses because their effects are presumed to be mediated by attitudes, norms, and efficacy (Ajzen & Fishbein, 2005). However, similar to the current study, research has found variables such as gender and age to have a direct influence on behaviors (Armitage et al., 2002; Armitage et al., 2004). In the current study, race, the science in which faculty taught, and participation in a diversity training accounted for a significant amount of variance in teaching behaviors after controlling for all other variables. This supports previous research in suggesting that for certain behaviors, demographic variables are not fully mediated by attitudes, norms, and efficacy, and therefore need to be included in TPB analyses for better prediction of behaviors. Of particular interest is the finding that experience with diversity training predicted inclusive teaching. Just as the TTM literature suggests, the more support sought and received as well as the more positive steps taken to change the target behavior, the more successful the individual will be in executing the positive behaviors (Prochaska et al., 1992; Prochaska & Norcross, 2001).

In looking at the final hierarchical regression model, all constructs of the TPB significantly predicted inclusive teaching behaviors. In regards to attitudes, positive

attitudes related to student engagement and negative attitudes related to excuses contributed a significant amount of variance to teaching behaviors. Department norms and efficacy also had a significant impact on inclusive teaching. However, similar to past research, not all three constructs had a similar impact on behavior (Ajzen & Fishbein, 2005; Ajzen et al., 2004; Armitage et al., 2002; Montano & Kasprzyk, 2002; Nehl et al., 2009). The measure of norms was the weakest predictor of the three constructs, which has been repeatedly found in previous research (Armitage & Conner, 2001). It was suggested that the lack of findings in past research for norms was due to the limited number of questions asked pertaining to norms (Armitage & Conner, 2001). The current study attempted to address this limitation with multiple item measures, but more work is needed. Furthermore, departmental norms, but not institutional norms, significantly predicted inclusive teaching behaviors. These mixed results for norms are also similar to past research. For example, Conatser and colleagues (2002) found norms to significantly predict inclusive teaching for students with severe disabilities, but not for students with mild disabilities. Future research may benefit by asking more specific questions to assess those who are important to faculty, such as colleagues in their field, in assessing which social pressures affect inclusive teaching behaviors.

Efficacy contributed the greatest amount of variance to teaching behaviors followed by positive (i.e., engagement) and negative (i.e., excuses) attitudes. This supports a number of previous studies that have found efficacy or perceived behavioral control to best predict behaviors or intentions (Ajzen et al., 2004; Armitage, 2006; Armitage & Arden, 2008; Conatser et al., 2002; Davis et al., 2002; Nehl et al., 2009) and is opposite of Zint's (2002) findings that attitudes were the major predictor for faculty

including certain types of education into their curriculum as well as other studies which have found attitudes or norms to have the greatest impact on behaviors (Armitage et al., 2002; Doll & Ajzen, 1992; Kersaint et al., 2006). As this is the first study to examine TPB constructs to predict inclusive teaching, future research is needed to corroborate that efficacy and attitudes are the pest predictors of these teaching behaviors.

It is also important to examine the final construct of the TPB, intentions, which are said to be the best predictor of behaviors (Ajzen & Fishbein, 2005). Unique to the current study was the use of the stages of change as a measure of intentions in the TPB analyses. Although the measure of stage of change was developed as a discrete measure (Donovan et al., 1998), it was suggested that the measure of SOC could be viewed as an ordinal measure to assess one's level of intent to perform a behavior (Prochaska et al., 1992). Furthermore, previous TPB research using more limited measures of intention suggested the feasibility of using stage of change as a measure of intention (Ajzen et al., 2004; Armitage et al., 2002; Conatser et al., 2002). In addition, Armitage (2006) notes multiple reasons why the stages of change can be used as proxies for behaviors, much like measures of intention have been used as proxies (Ajzen & Fishbein, 2005). However, the current stage of change measure was an ordinal variable with six increasing levels of intent to perform a behavior by stage of change, which could have limited findings, especially because SEM analysis works best with continuous variables (Byrne, 2001). Nevertheless, full and partial mediation found in the SEM analyses, as well as the hierarchical regression analysis that revealed three of the six stages contributed a significant amount of variance to inclusive teaching, suggest that with further work, the stages of change could be used as a measure of intention. This leads to questions

regarding whether the, "stages are rather pseudo-stages of an underlying continuum" (Lippke et al., 2007, p. 652).

In addition, the stages of change uses an arbitrary time frame to assess intentions, which has been adapted for certain behaviors (Donovan et al., 1998). Herzog (2007) used two different time frames to assess smoking cessation behaviors: 6 months and 30 days. He found that many smokers do not think of quitting in terms of the time frames given. Similarly, faculty may not think of intentions to teach inclusively in terms of semesters. Herzog (2007) suggests omitting time frames to aid individuals to correctly assess their level of intention. Although intentions have been found to be the best predictors of behaviors, there are times when this is not the case, such as when intentions are unstable (Ajzen & Fishbein, 2005). Prochaska and colleagues (1992) note that with the stages of change, "relapse is the rule rather than the exception" for certain behaviors (p. 1104). It could be that professors intended to teach inclusively but for a variety of reasons regressed to an earlier stage of change; making this measure of intention somewhat unstable. Future research using longitudinal designs would be better suited to test the stability of this measure.

Overall, inclusive teaching behaviors were relatively predictable from the TPB constructs, the use of the stages of change as a measure of intention, as well as certain demographic variables. In regards to TPB constructs, norms (i.e., department norms), attitudes (i.e., excuses and engagement), efficacy, and intentions (i.e., precontemplation, maintenance, and termination stages of change) significantly predicted inclusive teaching behaviors. In other words, those who held beliefs such as their colleagues taught inclusively, more students engage in discussions as a result of adding diversity to the

curriculum, they could make time for inclusive teaching, had the skills and knowhow to teach inclusively, and intended to continue to teach inclusively reported the greatest number of inclusive teaching behaviors. Of particular importance are the findings that demographic variables directly affected inclusive teaching behaviors as well as the termination stage of change, highlighting the importance of including demographic variables as well as measures of continued intentions to perform a behavior in understanding and predicting behaviors.

Limitations

Despite the promising findings, a number of limitations need to be addressed. The cross-sectional design of the current study may have contributed to the linear findings across the stages of change. This is in support of previous TTM research which has found strong linear trends instead of quadratic and cubic trends, which might suggest the stages of change are more of a continuum (Lippke & Plotnikoff, 2006, p. 2006). Nevertheless, these stages are theorized to be distinct and research has found some support for discontinuity between stages (Lippke et al., 2007). Although much of TTM and TPB research is cross-sectional, future research in this area would benefit from longitudinal designs in assessing the relations between stages (Armitage, 2006; Armitage et al., 2004).

Findings should be interpreted with caution due to the nature and size of the sample used in the current study. Although multiple recruitment methods were used in order to obtain a diverse sample, faculty in the current study do not necessarily represent all faculty in the US. According to 2008 statistics provided by the US Department of Education, 76% of faculty were White and 42% were female at degree-granting

institutions in the United States. In the current study, 87% of faculty were White and 63% were female. In addition, the social sciences were overrepresented in the current sample, suggesting there might have been a self-selection bias. Piland and colleagues (2000) found that multicultural and diversity content was most likely to be taught in social sciences courses, further suggesting individuals most likely to report about inclusive teaching behaviors may come from these fields.

Behavioral models, such as the TTM and TPB, often rely on self-reports of behaviors which are subject to socially desirable responding (Armitage & Conner, 2001). Furthermore, Ajzen and colleagues (2004) as well as Ronda and colleagues (2001) found that individuals tend to overestimate the frequency with which they engage in socially desirable behaviors, which could lead to exaggerated measures of intention. As a result, self-reported behaviors are more strongly predicted by the TPB than observed behaviors (Armitage & Conner, 2001). Similarly, the Theory of Planned Behavior is a better predictor of behaviors in which the individuals will actually perform (Armitage et al., 2004; Doll & Ajzen, 1992). Because all the measures in the current study were self-report, there is no way of knowing which behaviors were actually performed. Ideally, professors' inclusive teaching behaviors would be observed, however such methods are somewhat infeasible. Future research could compare professors' self-reports of inclusive teaching with their students' perceptions of their teaching behaviors as a means of assessing possibly exaggerated inclusive teaching behaviors reported by faculty and improving the intention-behavior relation.

It is also worth noting that the findings of the current study may reflect a skewed representation of instructors' inclusive teaching behaviors. In order to answer the items

in the behavioral measure, faculty were asked to reflect on the most recent course they taught that was most likely to raise diversity issues. The purpose of this method was to capture instructors' best representation of inclusive teaching behaviors. However, these behaviors may not be used in all courses. It could be that faculty reflected on a diversity specific course they taught (e.g., Psychology of Gay Marriage) in answering the behavioral items. Future research is needed to examine inclusive teaching behaviors in more general courses (e.g., Psychology of Marriage). As mentioned previously, there are students who are more likely to enroll in diversity specific courses, and there are students who would avoid taking such courses. Inclusive teaching in general courses would be one way of providing these students with knowledge about diverse individuals they will most likely interact with after college.

Implications

The findings from the current study could be used to develop workshops to aid faculty to be more inclusive in their teaching. These workshops will especially be needed as more and more schools mandate diversity education (Kuyini & Desai, 2007). Prochaska and colleagues (1992) suggest that interventions should vary by stage of change. In studying health behaviors, they note, "a person's stage of change provides proscriptive as well as prescriptive information on treatments of choice" (Prochaska et al., 1992, p. 1106). This is because social-cognitive variables as well as processes of change vary by stage of change. For example, those in the earlier stages of change, where the new behavior is not engaged in, would benefit more from cognitively focused interventions than behaviorally focused interventions (Prochaska & Norcross, 2001). However, these workshops would be better informed by also considering the constructs

of the Theory of Planned Behavior. Given that the constructs of the TPB vary across stages of change, workshops for each stage of change could focus on the construct(s) most likely to aid in progression. Based on the results of the current study, it would appear that addressing all constructs of the TPB would aid those in the earlier stages of change progress to later stages. However, the workshops for earlier stages should still focus more on the cognitive aspects of inclusive teaching (Prochaska & Norcross, 2001). For example, Bamberg and colleagues (2003) have shown that interventions raising awareness about alternative travel modes can be successful in positively changing students' attitudes, norms, efficacy, and intentions to ride a bus to school.

Applying this to inclusive teaching, workshops to increase inclusive teaching should include all constructs of the TPB, but vary somewhat in focus. For example, workshops for the earlier stages of change should focus on educating faculty about diversity topics and issues, how much of the current curriculum is dominated by privileged statuses, and how this hurts students from all social groups. In addition, these workshops would benefit from emphasizing social pressure to teach inclusively, as norms have been found to be most influential for those in the earlier stages of change (Lippke et al., 2007). Other constructs of interests for workshops geared toward the earlier stages of change include positive and negative attitudes, as those in these stages have been found to have less positive attitudes and more negative attitudes (Prochaska, 1994). Similarly, Armitage and colleagues (2004) implemented of number of different interventions in an attempt to increase healthy eating and found that only the intervention aimed at positively changing attitudes was effective in helping people progress out of the earlier stages of change. Findings from the current study offer specific topics (e.g., excuses and student

perspectives) that attitude change workshops can focus on to aid faculty in becoming more inclusive.

Conversely, workshops for the later stages of change would focus more on skill building and practice for inclusive teaching. Although cognitive elements should still exist, the greater focus on behavior parallels the marked increase in positive behaviors of the later stages of change (Prochaska & Norcross, 2001). These workshops would focus more on increasing faculty's efficacy to teach inclusively. According the current study, that would include improving faculty abilities to solve problems that may arise as a result of diversity, show how prejudice affects all individuals, and develop materials to dispel myths and confront stereotypes about diverse groups.

Armitage (2006), as well as Armitage and Arden (2008), suggest it is possible to save the time and money that has been spent on stage-matched interventions by focusing on one key construct of the TPB: intentions. More specifically, they have found that implantation plans can be used and self-tailored by individuals to help them increase their positive behavior. This would basically entail asking faculty to describe in as much detail as possible how they plan to teach inclusively next semester. In examining all the TPB constructs and implementation plans, Armitage and Arden (2008) found that implementation plans increased individuals' perceived behavioral control and intentions to perform the behavior, which might also explain Armitage's (2006) findings that implantation plans significantly predicted progression through stages of change. Research asking faculty to form implantation plans for inclusive teaching would provide a detailed account of the factors and situations related to inclusive teaching behaviors, which would in turn better inform possible workshops.

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APPENDICES

Appendix A

List of Schools Contacted for Recruitment and Available Demographic Information

School Name	# of Faculty	% Men	% White
Vanderbilt	3,222	-	-
University of New Hampshire	1,223	66	91.60
University of Maryland	4,041	-	-
University of Nevada, Reno	663	63	85
University of Maine	623	66	96
University of Kansas	2,361	59	84
University of Florida	3,321	71	77
University of Colorado at Boulder	3,816	58	76
University of Arizona	2,262	64	87
Tennessee State University	438	58	39
Stanford University	1,048	54	84
Providence College	276	-	-
Oregon State University	3,127	54	79
New York University	3,363	62	77
Keene State College	405	52	99
Iowa State University	1,676	66	80
Hampton University	467	-	-
Georgia Southern University	690	55	85
Gallaudet University	257	-	-
Carnegie Mellon	1,459	71	95
Canisius College	280	-	
California State University Northridge	1,751	-	69
Bradley University	379	-	-
Bowie State University	364	54	24
Boston University	2,509	37	92
Bennet College	46	-	-
Arizona State University	2,862	59	72
Alabama State University	131	29	25
Abilene Christian University	368	-	-

Note. Information available on school website has been reported.

Appendix B

Letter Sent to Directors of Teaching Excellence Programs

DATE, 2008

Dear Dr.:

I am a doctoral student in the Department of Psychology at the University of New Hampshire; I am conducting an IRB approved study at UNH that examines faculty attitudes and behaviors about diversity in curriculum. This study examines teaching attitudes and behaviors; results could provide knowledge from which new curriculum development programs and workshops could be developed.

I am writing to ask you whether you would be willing to recruit faculty at your institution to participate in my online survey. This could be done by distributing an email to your faculty with a description of the study and a link to the survey. Responses from individual faculty would be anonymous.

In return for your participation, I would like to offer you multiple methods of feedback. Depending on your preferences, this could include access to all anonymous data collected at your school, comparison reports of your institution with other schools involved in the study, and/or a report on the implications of your school's results. Additional incentives are negotiable.

Some typical questions are provided below; these examine teachers' diversity related behaviors, confidence about providing a multicultural education, perceived institutional and department support, perceived barriers to including diversity, as well as perceived gains to including diversity. A complete survey will be sent upon request. I would like to thank you for your time and consideration. If you have further questions, please do not hesitate to contact me.

If you are not the person at your institution with the authority to recruit faculty for this kind of survey, would you please forward this email to the appropriate contact person? Thank you.

I look forward to your response.

Sincerely,

Heather Fauteux
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Sample Questions:

___ The core concepts of my class are taught through multiple, non-dominant perspectives where understanding and tolerance of others is encouraged.

___ I have already made changes in my curriculum to include diversity, however I am still working on improving my coverage.

___ I can plan instructional activities to reduce prejudice toward diverse groups.

___ I can involve students in making decisions and clarifying their values regarding multicultural issues.

___ My academic institution values the importance of having a diverse student body.

___ Minority faculty are treated fairly at my institute.

___ My department is receptive to integrating racial/gender issues in courses.

___ The material I teach does not lend itself to including diverse materials.

___ In classrooms without minorities, multicultural education is not needed.

___ Diversity in the curriculum acts as a way to confront stereotypes related to diverse others.

___ Teaching students about diversity is important for developing critical thinking.

Appendix C

Responses from Schools Contacted for Recruitment

School Name	Contacted	Letter Response and/or Follow Up	Response	Response
Vanderbilt	Dr. Allison Pingree	Emailed 11/4	No, due to faculty survey burn-out.	12/8: Emailed Dr. Nicholas Zeppos, Provost and Vice Chancellor of Academic Affairs. 12/14: He said no, but can contact faculty individually.
University of New Hampshire	Dr. Lee	Said he cannot. Set up meeting with Dr. Mitchell, Diversity Provost (10/31/08).	11/12. No support from Dr. Mitchell. 11/26: emailed Megan Davis (Chief of Staff).	No response
University of Maryland	Dr. David Eubanks	Emailed 11/4.	Emailed again 12/4	No response
University of Nevada, Reno	Dr. Barbara Mills	Emailed 11/4	Emailed again 12/4	No response
University of Maine	Dr. Jeffrey St. John	Emailed 11/4	No. Only disseminates surveys made by UMaine faculty	N/A
University of Kansas	Dr. Dan Bernstein	Emailed 11/4	No, faculty already over surveyed.	N/A
University of Florida	Dr. Winifred B. Cooke	Emailed 11/4	Emailed again 12/4. Dr. Cooke Forwarded it to interested parties.	No response
University of Southern Florida	Dr. Diane Williams	Emailed 11/4	Emailed again 12/4. No, she does not have access to faculty email.	12/8: Emailed Dr. Ted Williams, Associate Vice President of Diversity & Equal Opportunity Office. No Response
University of Colorado at	Dr. Maryann Shea	Emailed 11/4	Emailed again 12/4. Not able to forward at	12/8: Emailed Dr. McKee, Vice

Boulder			this time.	Chancellor for Diversity, Equity & Community Engagement. 12/23: Patricia Rankin interested and asked for more details. 2/16: Sent email to follow up with no response.
University of Arizona	Dr. Terri Riffe	Emailed 11/4	Emailed again 12/4	Dr. Raji Rhys from Diversity Resource Office interested. 12/8: Sent materials. Would like to collect data in January. 2/16.:Sent follow up email with no response.
Tennessee State University	Dr. G. Pamela Burch-Sims	Emailed 11/4	Have to apply to their IRB. 12/2: Sent proposal to IRB, will be reviewed first of spring semester.	2/16: Emailed to let know got approval and to see if would help recruit. 2/17: Said she would not, but would get back to me about who would. No response.
Stanford University	Dr. Michele Marincovich	Emailed 11/4	Need to contact Vice Provost for Faculty Development, Dr. Patricia Jones. 11/4.: Dr. Jones said would distribute after the holidays and to Contact her in Dec. or Jan.	2/16. Sent follow up email. No response
Providence College	Dr. Laurie Grupp	Emailed 11/4	No. Only do internal surveys	N/A
Oregon State University	Dr. Peter Saunders	Emailed 11/4	Said to contact Jun Xing, Professor of	Emailed Dr. Xing again 12/4. No

			Ethnic Studies. 11/4: emailed Dr. Xing	response.
New York University	Dr. Whitney Steen	Emailed 11/4	Emailed again 12/4	No response
Keene State College	Dr. Sue Castriotta	Emailed 11/4	Forwarded to Associate Provost, Ann Rancourt	Emailed Dr. Rancourt 12/4. Not her place; Forwarded email to Provost 12/17. No response.
Iowa State University	Dr. Steve Mickelson	Emailed 11/4	Emailed again 12/4	No response
Hampton University	Ms. Wendy DeShazo (Secretary)	Emailed 11/4	Emailed again 12/4	No response
Georgia Southern University	Dr. Alan Altany	Emailed 11/4	Emailed again 12/4	No response
Gallaudet University	Dr. Judith Termini	Emailed 11/4	Maybe. Sent it to IR people. 12/4: sent follow up email	No response
Carnegie Mellon	Dr. Susan Ambrose	Emailed 11/4	No. Over surveyed as is.	N/A
Canisius College	Dr. Patricia Coward	Maybe. 10/22: Sent materials to preview	11/17: Maybe still. Materials forwarded to Institutional Assessment Committee which recommended Dr. Coward send the request to their three deans (Business School, Arts and Sciences, and Education) who would make their own determination as to whether or not they will ask their faculty to participate.	12/2. Dean of Business School wants to participate. Sent Dr. Coward Survey Email that she would forward to Dean, who would forward to faculty. 2/16: Sent email to Dean Alber to follow up. 2/17: Sent recruitment email survey for him to send out.
California State University Northridge	Dr. Richard L. Goldman	Emailed 11/4	Emailed again 12/4	No response

Bradley University	Dr. Anika Bissahoyo	Emailed 11/4	Emailed again 12/4	No response
Bowie State University	Dr. Kimberly Whitehead	Emailed 11/4	Emailed again 12/4	No response
Boston University	Dr. Janelle Heineke	Emailed 11/4	Emailed again 12/4	No response
Bennet College	Dr. Dorothy Brown	Emailed 11/4	Emailed again 12/4	No response
Arizona State University	Dr. Judy Grace	Emailed 11/4	Should go through Provost Dr. Delia Saenz. 11/4: Emailed Dr. Saenz, who forwarded to Mark Searle, VPres for academic personnel. He said no, they do not send out non-ASU surveys.	N/A
Alabama State University	Dr. Pearla Griffin	Emailed 11/4	This request should be directed to the College of Education Dean, Dr.Evelyn Hodge. The Dean's administrative assistant is Ms. Leslie Jolly Emailed 11/5.	Emailed Dr. Jolly again 12/4. No response
Abilene Christian University	Dr. George Salstman	Maybe; wanted to see a proposal of the study that they could present to their colleagues. 10/31: Sent proposal	Still interested. Sent questions 11/4	11/17: Said yes, so sent recruitment survey email. Wanted to have phone conference. 12/23: Problems. Setting up phone conference. 2/16: Sent follow up email. No call yet. 2/17: Going to contact me beginning of March. No response

Appendix D

Email Sent to Directors, Administrators, and Staff that was Forwarded to their Faculty

Dear (Insert Director's name),

Below is an email invitation for survey participation that you may forward to faculty at your academic institution. You are welcome to edit this email, for example, to add information that this survey has been approved by your office.

After data have been collected and analyzed, I will contact you to ask what summary information you would like to receive. Thank you again for your help with this research project.

Sincerely,

Heather Hussey

Hello Everyone,

I am writing to request your participation in a survey that assesses attitudes and behaviors related to inclusion of diversity in curriculum. This study has been approved by the Institutional Review Board at the University of New Hampshire. I hope to receive responses from teachers as well as teaching graduate students at several colleges and universities to obtain representative information about these issues across many different types of institutions and teachers. Survey responses will be anonymous and all data will be kept confidential. This survey takes only about 20 minutes to complete. At the end of this survey you will have the option of entering a drawing to win 1 of 2 Blackberry phones.

To participate in the survey, go to this link:
http://www.surveymonkey.com/teachingattandbeh

Results will be very valuable for my research; these data are for my doctoral dissertation in Psychology. In addition, information from this survey will help identify factors that may make it easy or difficult for faculty to include multicultural material into their teaching. Many institutions have stated increased diversity as a goal, and results from this survey could help institutions find ways to make that goal a reality.

If you can take the time to participate in this survey, I would appreciate it very much. As you may know, most research in psychology focuses on undergraduates (who are easy to recruit). For this study, we really need information about the attitudes of teachers. Your participation would provide extremely valuable information.

Thank you for your time,

Appendix E

Consent Form

Before you take this survey about your attitudes and behaviors regarding your curriculum, please read through the following information. Pressing the enter button indicates your consent to continue with the survey. You must be 18 years of age or older to take this survey.

If you have any questions about this research, you may contact:

Heather Hussey
hfauteux@unh.edu
Psychology Department
Conant Hall
University of New Hampshire
Durham, NH 03824

Purpose: The purpose of this research is to investigate faculty teaching attitudes and behaviors.

Incentive: After the debriefing page you will be redirected to a separate survey link where you can enter into a drawing to win 1 of 2 Blackberry phones.

1. I understand that the use of human subjects in this project has been approved by the University of New Hampshire Institutional Review Board for the Protection of Human Subjects in Research

2. I understand the scope, aims, and purposes of this research project and the procedures to be followed and the expected duration of my participation.

3. I understand that there are no reasonable foreseeable risks or discomforts associated with being a subject in this research.

4. The investigator seeks to maintain the confidentiality of all data and records associated with my participation in this research. I understand that the confidentiality of all data and records associated with my participation in this research, including my identity, will be fully maintained. I understand that when I enter the prize drawing, my personal information will be kept separate from my survey results.

5. I understand that my consent to participate in this research is entirely voluntary, and that my refusal to participate will involve no prejudice, penalty or loss of benefits to which I would otherwise be entitled

6. I further understand that if I consent to participate, I may discontinue my participation at any time without prejudice, penalty, or loss of benefits to which I would otherwise be entitled.

7. I confirm that no coercion of any kind was used in seeking my participation in this research project.

8. I understand that if I have any questions pertaining to the research, I can email Heather Hussey at hfauteux@unh.edu and be given the opportunity to discuss them. If I have questions pertaining to my rights as a research subject I can email Dr. Julie Simpson in the UNH Office of Sponsored Research at Julie.simpson@unh.edu, to discuss them.

9. I understand that I will not be provided financial incentive for my participation by the University of New Hampshire.

I certify that I have read and fully understand the purpose of this research project and the risks and benefits it presents to me as stated above.

I agree to take this survey (hit next button).

I do not agree to take this survey (please exit out of webpage).

Appendix F

Survey Items and Short Descriptions of each Measure

Demographics

1.) What is your age?
_____

2.) With which gender do you identify?
a.) Female
b.) Male
c.) Transgender
d.) Other

3.) What is your race?

a.) African American
b.) Asian
c.) Latino/a
d.) Caucasian
e.) Other

4.) Do you have tenure?
a.) Yes
b.) No

5.) What is your rank?
a.) Lecturer
b.) Adjunct
c.) Assistant Professor
d.) Associate Professor
e.) Full Professor
f.) Other

6.) How many years have you been Teaching?
_____

7.) In which department do you teach?
_____

8.) At which school do you teach? _____

9.) In regards to teaching a diversity focused course (e.g., Women's Studies), have you ever:
a.) Chosen to teach a course
b.) Been required to teach a course
c.) Neither

10.) Have you ever participated in a Diversity related training and/or workshop?

a.) Yes
b.) No

Stages of Change: Concrete. This scale by Donovan, Jones, Holman, and Corti (1998) was adapted to fit a faculty sample in regards to teaching behaviors. Teachers will be asked to choose the statement that best reflects their thoughts and behaviors. Based on their choice, they will be placed into one of the following stages: precontemplation, contemplation, preparation, action, maintenance, and termination.

Definition: The terms "diversity", "people different from me", "minority", and "multicultural" include people of different races, ethnic groups, cultures, religions, socio-economic classes, sexual orientation, physical abilities, and other historically underrepresented groups.

Please choose the statement that best reflects your thoughts and behaviors regarding including diversity content into your curriculum.

1.) ___I do not intend to include diversity content into my curriculum in the next semester.
2.) ___ I am seriously thinking about including diversity into my curriculum, but not in the next semester.
3.) ___ I intend to change my curriculum to include diversity content in the next semester.
4.) ___ I am currently trying to change my curriculum to adequately include diversity content.
5.) ___ I have already made changes in my curriculum to include diversity, however I am still working on improving my coverage.
6.) ___ I have complete confidence that my curriculum adequately includes diversity content and in my self-efficacy in teaching the material.

Teachers' Multicultural Efficacy. Guyton and Wesche (2005) developed the Multicultural Efficacy Scale (MES) in order to measure teachers' confidence in providing a multicultural education as well as minority group knowledge and attitudes toward diversity. The MES consists of 35-items with 3 subscales; however, the current study will use only one of the three subscales (i.e., multicultural teaching efficacy). A higher score indicates greater teaching efficacy.

Definition: The terms "diversity", "people different from me", "minority", and "multicultural" include people of different races, ethnic groups, cultures, religions, socio-economic classes, sexual orientation, physical abilities, and other historically underrepresented groups.

Directions: To the best of your knowledge, self-assess your own ability to do the various items listed below.

A= I do not believe I could do this very well
B= I could probably do this if I had to, but it would be difficult for me
C= I am honestly unsure of my abilities to do this
D= I believe that I could do this reasonably well, if I had time to prepare
E= I am quite confident that this would be easy for me to do

1.) ___ I can provide instructional activities to help students develop strategies for dealing with racial confrontations.
2.) ___ I can adapt instruction methods to meet the needs of learners from diverse groups.
3.) ___ I can develop materials appropriate for the multicultural classroom.
4.) ___ I can develop instructional methods that dispel myths about diverse groups.
5.) ___ I can analyze instructional materials for potential stereotypical and/or prejudicial content.
6.) ___ I can help students to examine their own prejudices.
7.) ___ I can present diverse groups in our society in a manner that will build mutual respect.
8.) ___ I can develop activities that increase the self-confidence of diverse students.
9.) ___ I can provide instruction showing how prejudice affects individuals.
10.) ___ I can plan instructional activities to reduce prejudice toward diverse groups.
11.) ___ I can identify cultural biases in commercial material used in teaching.
12.) ___ I can help students work through problem situations caused by stereotypical and/or prejudicial attitudes.
13.) ___ I can get students from diverse groups to work together.
14.) ___ I can identify school practices that may harm diverse students.
15.) ___ I can identify solutions to problems that may arise as the result of diversity.
16.) ___ I can identify the societal forces which influence opportunities for diverse people.
17.) ___ I can identify ways in which various groups contribute to our pluralistic society.
18.) ___ I can help students take on the perspective of ethnic and cultural groups different from their own.
19.) ___ I can help students view history and current events from diverse perspectives.
20.) ___ I can involve students in making decisions and clarifying their values regarding multicultural issues.

Perceived Norms at Institution and in Department. Items were derived from the work of Maruyama and Moreno (2000), Mayhew and Grunwald (2006), as well as elicitation interviews with teachers. Higher scores indicate greater perceived support. Items dropped from analyses are noted below.

Please respond to each statement by choosing one answer that best describes your reaction to it.

A= Strongly Disagree B= Somewhat Disagree C= Undecided
D= Somewhat Agree E= Strongly Agree

Institutional Climate

1.) ___ A diverse campus environment is a high priority at my academic institution.
2.) ___ My academic institution is committed to enhancing the climate for all students.
3.) ___ My academic institution values extracurricular activities that promote multicultural awareness.
4.) ___ My academic institution values the importance of faculty diversity.
7.) ___ Campus administrators are genuinely committed to promoting respect for the understanding of group differences at my institution.
8.) ___ My institution has achieved a positive climate for diversity.

Treatment of Minority Faculty

5.) ___ Minority faculty are treated fairly at my institute.
6.) ___ Minority faculty at my institution are accepted and respected.

Dropped From Analyses

9.) ___ Students are required to take at least one diversity related course at my academic institution.
10.) ___ Faculty are expected to teach at least one diversity related course at some point in their career at my academic institution.
11.) ___ Many believe the institution is placing too much emphasis on diversity at an expense of its prestige.

Department Norms

1.) ___ My department is committed to enhancing the climate for all students.
3.) ___ My department emphasizes the importance of diversity in our field.
5.) ___ The Chair in my department is committed to promoting respect for an understanding of group differences at this institution.
6.) ___ A number of faculty in my department teach diversity related courses.
7.) ___ Many faculty in my department believe in the importance of diversity and work to include diversity related materials into their curriculum.

Lack of Department Diversity

2.) ___ There is a scarcity of qualified minority faculty in my department.
4.) ___ There is a need for more diversity in my department.

Negative Attitudes toward Inclusive Teaching. Items were developed to measure teachers' negative attitudes about inclusive teaching based on elicitation interviews as well as the work of Aboud and Fenwick (1999), Aldridge, Calhoun, and Aman (2000), Aveling (2002), Banks (2002), Kowalski (2000), Marshall (1995), and Maruyama and Moreno (2000). This scale consists of 3 subscales measuring content coverage issues, excuses, and anxiety. A higher score indicates greater negative attitudes. Items dropped from analyses are noted below.

Definition: The terms "diversity", "people different from me", "minority", and "multicultural" include people of different races, ethnic groups, cultures, religions, socio-economic classes, sexual orientation, physical abilities, and other historically underrepresented groups.

Please respond to each statement by choosing one answer that best describes your reaction to it.

A= Strongly Disagree B= Somewhat Disagree C= Undecided
D= Somewhat Agree E= Strongly Agree

Content

4.) ___ Discussing group differences only fosters prejudice.
17.) ___ In predominantly monocultural or bicultural societies, there is no need to study other cultures.
18.) ___ We do not need multicultural education because the US already acknowledges its cultural diversity.
19.) ___ Historical accuracy suffers in multicultural education.
20.) ___ In classrooms without minorities, multicultural education is not needed.
22.) ___ Teaching about diversity lowers the quality of the institution.
23.) ___ Teaching about diversity lowers the quality of education for the students.
24.) ___ Diversity discussions impede discussion of substantive issues.

Excuses

2.) ___ There is a lack of concrete strategies that one can apply in the classroom when incorporating diversity.
3.) ___ Including diversity content into the curriculum takes away from the other concepts of the class.
5) ___ I treat all students the same and therefore I do not need to change my teaching methods or class content.
6.) ___ Because the amount of attention that should be devoted to diversity content is unclear, I am hesitant to include any diversity material.
7.) ___ I am unsure how much time should be devoted to diversity and how to best go about incorporating multicultural issues.
8.) ___ I do not include additional diversity in my curriculum because the coverage in the textbook is appropriate.
9.) ___ Because the topic I teach has nothing to do with diversity, I do not need to worry about its inclusion into my curriculum.
14.) ___ The material I teach does not lend itself to including diverse materials.

27.) ___ I just don't have the time to research how diversity could fit into my existing curriculum.

Anxiety

1.) ___ In encouraging open dialogue about diversity issues, I fear that prejudiced and harmful remarks may be made.
10.) ___ Teaching multicultural education is like "walking on eggshells".
11.) ___ Students are often resistant to teachings about diversity.
12.) ___ Teachers must be wary of including diversity materials in their class so as not to appear as though they are pushing an agenda.
25.) ___ Diversity in the curriculum creates tension and arguments.
26.) ___ Classroom composition often makes teaching about diversity hard or awkward, especially with certain topics.

Items dropped from analyses

13.) ___ I need more education and resources regarding minority groups in order to be a more competent multicultural teacher.
15.) ___ Multicultural education just includes ethnic or racial issues.
16.) ___ Discussing only other cultures' holidays and major contributions is appropriate for teaching multicultural education.
21.) ___ Minority teachers are best suited for teaching about diversity.

Positive Attitudes Toward Inclusive Teaching. Through elicitation interviews with teachers as well as materials from Maruyama and Moreno (2000) and theories from Kowalski (2000), a scale was devised to measure teachers' perceived gains from including multicultural education into their curriculum. Higher scores indicate more perceived gains.

Please respond to each statement by choosing one answer that best describes your reaction to it.

A= Strongly Disagree B= Somewhat Disagree C= Undecided
D= Somewhat Agree E= Strongly Agree

Perspectives

1.) ___ Adding diversity in the curriculum raises new issues and perspectives.
2.) ___ Teaching about diversity broadens the variety of experiences shared in the classroom.
3.) ___ Diversity in the curriculum acts as a way to confront stereotypes related to diverse others.
4.) ___ Teaching students about diversity is important for developing critical thinking.
5.) ___ Multicultural education is important for developing willingness to examine ones own perspectives.
6.) ___ Teaching through multicultural lenses is important for exposing students to new perspectives.
7.) ___ Teaching about diverse others positively affects the issues non-minority students consider.
11.) ___ A multicultural education better prepares students to succeed in life.

Engagement

8.) ___ Multicultural education positively affects how students read course materials.
9.) ___ Views toward research are positively affected by diversity in the curriculum.
10.) ___ Understanding diverse others leads students to work on different research topics.
12.) ___ The use of multiple perspectives in teaching helps to reduce student prejudices.
13.) ___ More students engage in discussions as a result of including diversity topics into the curriculum.

Inclusive Teaching Behaviors. A 31 item measure was developed from elicitation interviews with teachers as well as multiple books and articles regarding multicultural education. A higher score indicates more inclusive teaching behaviors. Although items are totaled for one score, items are groups by the original subcategories for clarification purposes.

Please refer to the most recent (e.g., the one more likely to raise diversity issues) course that you have taught in answering the questions below. Please answer openly and honestly. You will be given an opportunity at the end of this survey to elaborate on any ideas that you may have.

Definitions: For clarification purposes, the terms "diversity", "people different from me", "statuses", "minority", and "multicultural" include people of different races, ethnic groups, cultures, religions, socio-economic classes, sexual orientation, physical abilities, and other historically underrepresented groups.

Directions: Please respond to the following questions by choosing one answer that best describes your behaviors.

A= Never B= Rarely C= Sometimes D= Usually E= Always

1.) What is the most recent course you taught? _____

In reflecting on that course, did you:

Overall Curriculum Design
1.) ___Make sure to consider your students' multicultural background (e.g., gender, disability status, sexual orientation, etc.) in designing your curriculum?
2.) ___Seek help in curriculum design from people with specialist expertise in diversity knowledge?
3.) ___ Contact the diversity office on your campus for diversity resources, support, etc. in designing your curriculum?
4.) ___Consider how concepts in your course might apply differently to a variety of statuses (e.g., age, gender, sexual orientation, ability, etc.)?
5.) ___Spend any time examining where certain "truths" of your discipline originated and/or how accurate those truths are (e.g., from who and how was the knowledge acquired and how applicable is it)?

Readings
6.) ___Intentionally choose a textbook for its diversity coverage?
7.) ___Assign additional readings about diverse others as it relates to the concepts in your class (e.g., If the concept being covered is dating, you included readings about lesbians and gay men dating).
8.) ___Seek out readings for students that were authored by minorities?

Content

9.) ___Make sure course content examined the implications of diversity as part of the theory or practice being studied (e.g., How does concept X apply to status Y)?
10.) ___Ensure course content encouraged students to recognize, understand, and appreciate people who are different from them?
11.) ___Offer a variety of assignments designed specifically to fit the different learning styles of your students (e.g., hands on vs. visual)?
12.) ___Assign projects that require students to participate in some level of social action (e.g., student involvement with social issues)?
13.) ___Purposefully picked videos with minorities and/or about diverse others?
14.) ___Make sure examples, test items, etc. included traditionally non-Anglo American names (e.g., Mohammad vs. Joe)?
15.) ___Provide content that challenged the prejudicial beliefs and values possibly held by many in society, including your students?

Delivery

16.) ___Vary the delivery methods of your teaching (e.g., group work, lectures, videos, etc.) to match different learning styles?
17.) ___Make sure you use only "politically correct" terms in discussing and teaching the concepts of your course?
18.) ___Try your best to make sure the examples you use in your class are applicable to all statuses (age, ability, sexual orientation, etc.)?
19.) ___Try to teach the core concepts of the course through multiple, non-dominant perspectives (e.g., other than straight, White, able, middle-upper class, male, etc.)?
20.) ___Bring in guest speakers from diverse backgrounds?
21.) ___When using visuals (e.g., Power Point), made sure there was a distribution of the statuses depicted (e.g., people of color versus only White people)?

Classroom Climate

22.) ___Make clear to students in the first week of the course that you expect a classroom climate of respect and acceptance of all diverse individuals and opinions?
23.) ___ Include classroom climate "guidelines" in your syllabus?
24.) ___Rremind students to speak for themselves instead of as a representative of a particular social group (e.g., gender, race, ability)?
25.) ___Have to handle difficult student discussions based on diversity issues?

Classroom Behaviors

26.) ___ Use the "Jigsaw Classroom" (cooperative learning technique) for any activities and/or assignments?
27.) ___ Make a conscious effort to call on social groups (e.g., males and females) equally?
28.) ___ Actively confront instances of stereotyping, bias, and discrimination when they occurred?

Self-improvement

29.) ___Seek out more information to enhance your own awareness and understanding of diversity issues (e.g., racism, heterosexism, etc.) by talking with others, reading, and/or listening?

30.) ___Take time to assess (e.g., personal reflection, surveys, etc.) any possible biases and/or incorrect assumptions you may have regarding diverse others?

31.) ___Take a course, workshop, etc. in order to increase your understanding and awareness of diverse others?

Appendix G

Debriefing Form

Thank you for your participation in this study. The purpose of the study was to examine three broad objectives. First, the factors (e.g., demographics, attitudes, barriers, etc.) related to teaching about diversity Second, to examine what level (e.g., no inclusion to complete inclusion) of diversity teachers include into their curricula. Lastly, to compare and contrast three behavior and attitude models in order to examine which best predicts teachers' inclusion of diversity into their curricula.

Although a majority of faculty believe that a diversified institution and curriculum is positive, little research has examined the faculty likely to include diversity in their curriculum and/or teach diversity specific classes (American Association of University Professors & American Council on Education, 2000; Maruyama & Moreno, 2000; Mayhew & Grunwald, 2006). There is also limited information about the possible barriers and perceived gains that teachers face in making these changes to their curriculum (Kowalski, 2000).

The American Association of University Professors (AAUP) and the American Council on Education (ACE) (2000) report that roughly 70% of faculty believe in the importance of incorporating diversity in the classroom, however only 34% include diversity materials in their courses. A possible reason for such disconnect could be the number of hesitancies or resistances faculty have about including diversity into their curriculum (Cockrell, Placier, Cockrell, & Middleton, 1999). Kowalski (2000) suggests that there are six primary challenges to incorporating diversity into the curriculum. The list includes uncertainty of how much diversity to include, which minority groups should be covered, whether minority individuals will be offended by the material, how in-depth diversity coverage should go, who will resist the new diversity curriculum, and how much diversity education is needed by the instructor to teach such a curriculum.

The findings from the current study hold the potential to not only predict who is teaching multicultural education courses, but at what level. Future research can then examine the effects of teaching and attending these courses; a literature that is all but nonexistent (Mayhew & Grunwald, 2006; Piland et al., 2000; Simoni et al., 1999). Additionally, these findings could aid in the development and implementation of effective workshops and interventions tailored to reduce the number of barriers teachers face based on their placement in the three models examined.

If you have any questions pertaining to the research, you can email Heather Fauteux at hfauteux@unh.edu and be given the opportunity to discuss them. If you have questions pertaining to your rights as a research subject, you can call Julie Simpson in the UNH Office of Sponsored Research, 603-862-2003, to discuss them. Thank you.

Clicking on the "Done" button will bring you to a separate page where you can enter a drawing to win 1 of 2 Blackberry phones.

Table 1

Hypotheses for Means on Each Variable in Relation to Each Stage of Change

Factor	Precontemplation	Contemplation	Preparation	Action	Maintenance	Termination
Barriers/Negative Attitudes	Highest	High	Medium	Medium	Medium-High	Highest
Facilitators/Positive Attitudes	Lowest	Low	Medium	Medium-High	High	Highest
Institutional Norms	Highest	High	Medium	Medium	Medium-High	Highest
Department Norms	Highest	High	Medium	Medium	Medium-High	Highest
Efficacy	Lowest	Low	Low-Medium	Medium	Medium-High	Highest
Inclusive Teaching Behaviors	Lowest	Low	Medium	Medium-High	High	Highest

Table 2

Demographics and Differences between UNH versus Non-UNH Groups and Dropouts versus Non-Dropouts

	UNH (n = 225)	Non-UNH (n = 243)	Significant Differences	Dropouts (n = 114)	Non-Dropouts (n = 509)	Significant Differences
Age						
Mean (SD)	52.5 (10.93)	44.19 (12.37)	$t(405) = 7.15$***	48.46 (12.79)	47.91 (12.40)	-
Years Teach						-
Mean (SD)	19.8 (11.89)	13.24 (11.4)	$t(467) = 6.10$***	16.5 (11.45)	16.27 (12.05)	
Gender			$\chi^2(6) = 72.64$***			-
Female	45.78	77.37		53.2	63.2	
Male	54.22	21.4		46.8	36	
Transgender	0	0		0	.2	
Other	0	1.23		0	.6	
Race			$\chi^2(8) = 28.74$***			-
Caucasian	95.13	80.58		88.7	87.2	
African	0	6.2		1.9	3.4	
American	1.33	4.13		4.7	3.2	
Asian	.88	2.89		1.9	2	
Latino/a	2.66	6.2		2.8	4.3	
Other						
Science			$\chi^2(1) = 64.96$***			$\chi^2(1) = 10.19$***
Physical	26.15	.84		25	12.3	
Social	73.85	99.16		75	87.7	
Diversity			$\chi^2(1) = 20.32$***			$\chi^2(2) =$
Workshop	54.63	74.49		58.7	65.2	247.20***
Yes	45.37	25.51		41.3	34.8	
No						

Note. Values in table are valid percentages unless otherwise noted. The UNH and non-UNH samples do not add up to the total sample due to missing data regarding home institution. *** $p \leq .001$

Table 3

Correlation Matrix of Items Measuring Perceived Institutional Norms and Support for Diversity

	1	2	3	4	5	6	7	8	9	10	11
1	1										
2	.64	1									
3	.61	.63	1								
4	.65	.62	.60	1							
5	.39	.48	.34	.56	1						
6	.42	.52	.37	.57	.84	1					
7	.55	.63	.55	.65	.60	.61	1				
8	.58	.60	.51	.59	.59	.61	.66	1			
9	.20	.13	.20	.18	.03†	.04†	.18	.19	1		
10	.17	.14	.15	.16	.10	.10*	.13	.23	.34	1	
11	-.02†	-.12	-.05†	-.02†	-.12*	-.09†	-.06†	-.10*	.09*	-.01†	1

Note. See Appendix F for wording of each item. Values are significant at $p < .01$ unless noted otherwise. * $p < .05$ $^{\dagger}p > .05$

Table 4

Factor Loadings after Varimax Rotation for Items Measuring Perceived Institutional Norms and Support for Diversity

	Institutional Norms	Minority Faculty	Communality
1	.74	.28	.62
2	.66	.43	.61
3	.71	.24	.56
4	.65	.48	.65
5	.19	.89	.82
6	.23	.87	.82
7	.57	.56	.64
8	.57	.53	.61
9	.35	-.07	.13
10	.28	.02	.08
11	.004	-.15	.02
Sum of Squared Loadings	2.84	2.71	
% Explained Variance	25.81%	24.67%	

Note. See Appendix F for wording of each item. Factor analyses (EFA) was performed with principal axis factoring and variances are reported after varimax rotation. An arbitrary criterion of .40 was used to decide which factor loadings were large.

Table 5

Correlation Matrix of Items Measuring Perceived Department Norms and Support for Diversity

	1	2	3	4	5	6	7
1	1						
2	-.05†	1					
3	.49	-.10*	1				
4	-.09†	.57	-.05†	1			
5	.56	-.07†	.50	-.05†	1		
6	.24	-.16	.48	-.09†	.33	1	
7	.43	-.13	.59	-.05†	.40	.70	1

Note. See Appendix F for wording of each item. Values are significant at $p < .01$ unless noted otherwise. * $p < .05$ † $p > .05$

Table 6

Factor Loadings after Varimax Rotation for Items Measuring Perceived Department Norms and Support for Diversity

	Department Norms	Lack Diversity	Communality
1	.62	-.01	.39
2	-.08	.82	.67
3	.76	-.04	.58
4	-.04	.1	.50
5	.61	-.01	.37
6	.63	-.15	.42
7	.80	-.10	.65
Sum of Squared Loadings	2.38	1.19	
% Explained Variance	34.03%	17.05%	

Note. See Appendix F for wording of each item. Factor analyses (EFA) was performed with principal axis factoring and variances are reported after varimax rotation. An arbitrary criterion of .40 was used to decide which factor loadings were large.

Table 7

Correlation Matrix of Items Measuring Negative Attitudes toward Inclusive Teaching

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1														
2	.36	1													
3	.01†	.36	1												
4	.06†	.24	.48	1											
5	-.06†	.17	.40	.31	1										
6	.12*	.36	.48	.41	.34	1									
7	.20	.39	.38	.29	.20	.56	1								
8	.07†	.22	.32	.23	.29	.37	.39	1							
9	-.05†	.28	.59	.42	.44	.48	.38	.36	1						
10	.33	.35	.35	.27	.11*	.30	.36	.21	.27	1					
11	.24	.23	.13	.16	-.02†	.10*	.13	.01†	.08†	.42	1				
12	.17	.31	.44	.32	.29	.35	.27	.22	.40	.42	.33	1			
13	.24	.19	-.10*	-.05†	-.15	.14	.31	.07†	-.05†	.17	.01†	1	1		
14	-.07†	.27	.57	.37	.42	.53	.39	.32	.81	.29	.13*	.01†	-.05†	1	
15	.06†	.24	.34	.35	.23	.39	.21	.20	.42	.18	.04†	.42	-.01†	.40	1
16	.05†	.20	.27	.24	.22	.25	.16	.10*	.22	.20	.12*	.27	-.01†	.24	.22
17	-.01†	.11*	.30	.35	.21	.21	.11*	.16	.30	.18	.03†	.29	-.05†	.29	.33
18	-.05†	.15	.43	.37	.30	.31	.12*	.26	.38	.20	.04†	.18	-.10*	.38	.41
19	-.05†	.10*	.26	.21	.28	.22	.10*	.11*	.25	.23	.09†	.30	.01†	.23	.16
20	-.06†	.17	.35	.45	.29	.33	.15	.23	.44	.17	.06†	.19	-.09†	.36	.38
21	.17	.16	.11*	.20	.05†	.17	.17	.16	.20	.23	.13	.29	.14	.16	.18
22	-.10*	.11*	.47	.36	.31	.32	.12*	.19	.44	.24	.08†	.16	-.16	.36	.33
23	-.09†	.14	.52	.38	.31	.32	.11*	.20	.45	.28	.11†	.36	-.16	.38	.30
24	-.04	.22	.63	.44	.39	.35	.16	.26	.56	.31	.15†	.37	-.12*	.47	.34
25	.23	.18	.17	.14	.04†	.13*	.12*	.05†	.08†	.36	.40	.43	.11*	.09†	.12*
26	.34	.27	.28	.18	.10*	.23	.25	.12*	.14	.51	.42	.24	.13	.16	.13
27	.10†	.31	.51	.34	.28	.52	.54	.29	.58	.34	.13*	.37	.17	.54	.31

Note. See Appendix F for wording of each item. Values are significant at $p < .01$ unless noted otherwise. * $p < .05$ † $p > .05$

Table 7 cont

Correlation Matrix of Items Measuring Negative Attitudes toward Inclusive Teaching cont

	16	17	18	19	20	21	22	23	24	25	26
16	1										
17	.25	1									
18	.29	.60	1								
19	.32	.26	.28	1							
20	.29	.54	.66	.36	1						
21	.16	.22	.24	.15	.23	1					
22	.34	.47	.59	.42	.66	.16	1				
23	.32	.44	.59	.42	.64	.20	.94	1			
24	.33	.42	.55	.39	.55	.22	.72	.79	1		
25	.14	.12*	.13*	.10†	.08†	.25	.15	.19	.18	1	
26	.14	.10*	.12*	.08†	.11*	.26	.17	.20	.22	.57	1
27	.21	.20	.30	.17	.29	.24	.26	.27	.40	.24	.30

Note. See Appendix F for wording of each item. Values are significant at $p < .01$ unless noted otherwise. * $p < .05$ $^{\dagger}p > .05$

Table 8

Factor Loadings after Varimax Rotation for Items Measuring Negative Attitudes toward Inclusive Teaching

	Content	Excuses	Anxiety	Communality
23	.90	.13	.09	.84
22	.88	.13	.05	.80
20	.76	.20	.03	.62
24	.76	.33	.14	.70
18	.70	.24	.03	.55
17	.57	.14	.05	.35
19	.42	.15	.08	.21
4	.42	.35	.16	.33
16	.35	.20	.17	.18
9	.38	.74	-.03	.70
14	.32	.73	.002	.63
7	-.07	.66	.29	.52
27	.18	.65	.24	.52
6	.20	.65	.19	.50
3	.44	.56	.16	.54
8	.14	.49	.08	.26
2	.05	.42	.37	.31
5	.32	.39	-.08	.26
15	.37	.39	.08	.29
26	.13	.09	.76	.60
25	.15	-.004	.64	.43
10	.18	.27	.63	.50
11	.08	.03	.57	.33
1	-.14	.08	.51	.29
12	.33	.35	.38	.37
21	.22	.13	.31	.16
13	-.24	.13	.27	.15
Sum of Squared Loadings	5.12	4.08	2.73	
% Explained Variance	19%	15.11%	10.11%	

Note. See Appendix F for wording of each item. Factor analyses (EFA) was performed with principal axis factoring and variances are reported after varimax rotation. An arbitrary criterion of .40 was used to decide which factor loadings were large.

Table 9

Correlation Matrix of Items Measuring Positive Attitudes toward Inclusive Teaching

	1	2	3	4	5	6	7	8	9	10	11	12
2	.78	1										
3	.66	.77	1									
4	.63	.73	.70	1								
5	.57	.67	.70	.77	1							
6	.66	.74	.72	.78	.77	1						
7	.60	.68	.64	.70	.68	.74	1					
8	.47	.56	.55	.60	.59	.58	.66	1				
9	.44	.54	.49	.56	.53	.53	.60	.75	1			
10	.44	.53	.47	.52	.50	.49	.59	.66	.73	1		
11	.58	.67	.65	.65	.68	.67	.66	.57	.52	.49	1	
12	.50	.59	.51	.55	.55	.57	.58	.58	.54	.56	.59	1
13	.43	.53	.47	.50	.45	.48	.55	.59	.58	.65	.47	.63

Note. See Appendix F for wording of each item. Values are significant at $p < .01$ unless noted otherwise. * $p < .05$ $^{\dagger}p > .05$

Table 10

Factor Loadings after Varimax Rotation for Items Measuring Positive Attitudes toward Inclusive Teaching

	Perspectives	Engagement	Communality
1	.72	.28	.59
2	.80	.36	.77
3	.78	.31	.70
4	.76	.39	.73
5	.74	.36	.68
6	.82	.34	.78
7	.66	.51	.70
11	.67	.39	.69
8	.40	.73	.70
9	.31	.78	.70
10	.28	.79	.61
12	.48	.56	.55
13	.33	.67	.56
Sum of Squared Loadings	5.13	3.64	
% Explained Variance	39.43%	27.97%	

Note. See Appendix F for wording of each item. Factor analyses (EFA) was performed with principal axis factoring and variances are reported after varimax rotation. An arbitrary criterion of .40 was used to decide which factor loadings were large.

Table 11

Correlation Matrix of Items Measuring Inclusive Teaching Behaviors

	1	2	3	4	5	6	7	8	9	10	11	12
1	1											
2	.46	1										
3	.30	.45	1									
4	.66	.39	.25	1								
5	.33	.21	.17	.42	1							
6	.53	.49	.30	.52	.37	1						
7	.54	.51	.30	.56	.37	.64	1					
8	.50	.51	.32	.48	.39	.64	.69	1				
9	.55	.50	.28	.65	.41	.62	.67	.60	1			
10	.53	.40	.24	.63	.50	.56	.56	.48	.66	1		
11	.35	.26	.17	.36	.28	.24	.21	.20	.24	.31	1	
12	.31	.34	.24	.28	.27	.27	.32	.31	.28	.32	.39	1
13	.51	.52	.52	.52	.29	.66	.60	.61	.60	.55	.26	.31
14	.44	.44	.44	.48	.30	.58	.43	.38	.48	.50	.23	.20
15	.53	.53	.53	.62	.55	.54	.55	.51	.60	.69	.25	.27
16	.30	.30	.30	.34	.23	.24	.22	.19	.26	.32	.63	.35
17	.33	.33	.33	.35	.18	.26	.24	.21	.28	.29	.28	.19
18	.42	.42	.42	.46	.26	.34	.37	.31	.37	.46	.33	.26
19	.51	.51	.51	.61	.44	.52	.51	.48	.57	.61	.27	.28
20	.31	.31	.31	.28	.21	.41	.35	.39	.33	.35	.26	.39
21	.48	.48	.48	.53	.37	.55	.45	.50	.50	.53	.34	.26
22	.37	.37	.37	.44	.30	.40	.41	.36	.41	.43	.34	.27
23	.25	.25	.25	.35	.28	.31	.32	.26	.32	.32	.27	.19
24	.41	.41	.41	.41	.32	.50	.47	.46	.47	.45	.28	.29
25	.50	.50	.50	.50	.32	.53	.55	.53	.61	.49	.21	.33
26	.34	.34	.34	.29	.24	.37	.25	.29	.30	.27	.32	.23
27	.31	.31	.31	.27	.22	.29	.23	.33	.22	.31	.33	.25
28	.39	.39	.39	.43	.34	.39	.34	.36	.38	.50	.32	.30
29	.53	.53	.53	.56	.40	.55	.51	.50	.57	.60	.27	.30
30	.42	.42	.42	.42	.41	.46	.39	.39	.45	.43	.33	.28
31	.40	.40	.40	.35	.26	.50	.38	.44	.40	.39	.30	.33

Note. See Appendix F for wording of each item. Values are significant at $p < .01$ unless noted otherwise. * $p < .05$ $^{\dagger}p > .05$

Table 11 cont.

Correlation Matrix of Items Measuring Inclusive Teaching Behaviors cont.

	13	14	15	16	17	18	19	20	21	22	23	24
13	1											
14	.58	1										
15	.52	.51	1									
16	.28	.28	.29	1								
17	.22	.24	.19	.30	1							
18	.30	.34	.34	.38	.52	1						
19	.48	.49	.57	.34	.42	.57	1					
20	.43	.31	.32	.29	.21	.24	.34	1				
21	.65	.54	.49	.37	.36	.40	.51	.43	1			
22	.37	.34	.39	.33	.31	.34	.46	.28	.42	1		
23	.27	.34	.33	.25	.19	.23	.28	.22	.32	.53	1	
24	.43	.39	.43	.26	.18	.36	.47	.36	.42	.49	.43	1
25	.52	.45	.52	.22	.20	.30	.47	.35	.41	.40	.34	.52
26	.27	.30	.30	.32	.22	.27	.30	.22	.34	.26	.21	.40
27	.24	.18	.26	.24	.27	.40	.34	.24	.32	.30	.16	.38
28	.33	.35	.48	.29	.28	.43	.45	.25	.41	.46	.30	.44
29	.49	.43	.58	.28	.33	.42	.52	.30	.52	.42	.33	.49
30	.39	.41	.46	.28	.28	.40	.44	.30	.42	.36	.34	.48
31	.46	.43	.37	.31	.22	.28	.37	.39	.44	.33	.33	.42

Note. See Appendix F for wording of each item. Values are significant at $p < .01$ unless noted otherwise. * $p < .05$ $^{\dagger}p > .05$

Table 11 cont.

Correlation Matrix of Items Measuring Inclusive Teaching Behaviors cont.

	25	26	27	28	29	30	31
25	1						
26	.36	1					
27	.30	.29	1				
28	.43	.31	.51	1			
29	.48	.32	.36	.48	1		
30	.43	.33	.38	.43	.66	1	
31	.38	.31	.20	.28	.49	.45	1

Note. See Appendix F for wording of each item. Values are significant at $p < .01$ unless noted otherwise. * $p < .05$ $^{\dagger}p > .05$

Table 12

Factor Loadings after Varimax Rotation for Items Measuring Inclusive Teaching Behaviors

	Factor 1	Communality
1	.71	.51
2	.62	.38
3	.42	.18
4	.77	.59
5	.54	.29
6	.77	.59
7	.73	.53
8	.70	.50
9	.76	.57
10	.77	.59
11	.50	.25
12	.51	.26
13	.73	.54
14	.62	.39
15	.75	.56
16	.50	.25
17	.41	.17
18	.60	.36
19	.73	.54
20	.54	.29
21	.72	.52
22	.61	.37
23	.49	.24
24	.70	.49
25	.71	.50
26	.50	.25
27	.45	.20
28	.60	.36
29	.74	.55
30	.64	.41
31	.60	.36
Sum of Squared Loadings	12.56	
% Explained Variance	40.51%	

Note. See Appendix F for wording of each item. Factor analyses (EFA) was performed with principal axis factoring and variances are reported after varimax rotation. An arbitrary criterion of .40 was used to decide which factor loadings were large.

Table 13

Demographic Means for Predictor and Outcome Variables

	YT	ITB	IN	DN	EF	C	EX	A	P	EN
Gender										
Male	21.59	86.44	31.07	18.43	72.99	12.42	21.42	15.59	33.67	17.69
Non-Male	13.35_a	108.76_a	29.78	19.35	81.51_a	9.77_a	16.23_a	14.31	37.66_a	20.78_a
Race										
White	17.13	98.88	30.48	19.14	77.68	10.85	18.47	14.65	36.09	19.47
Non-White	10.60_b	113.81_b	28.45	18.29	85.24_b	9.54	14.48_b	15.38	37.83	21.63_b
Science										
Physical	22.65	73.72	31.13	16.59	66.90	13.48	25.60	15.49	32.12	16.58
Social	15.56_c	104.68_c	30.22	19.32_c	80.08_c	10.24_c	16.87_c	14.58	36.97_c	20.28_c
Training										
Yes	16.10	108.94	30.25	19.45	81.30	10.12	16.18	14.53	37.15	20.56
No	16.59	85.40_d	30.13	18.09_d	73.10_d	11.87_d	21.65_d	15.14	34.40_d	17.96_d

Note. The names of variables have been abbreviated so that YT = years they have taught, ITB = inclusive teaching behavior, IN = institutional norms, DN = department norms, EF = multicultural teaching efficacy, C = content, EX = excuses, A = anxiety, P = student perspectives, and EN = student. Subscribes denote significant differences at $p < .004$ for that row.

Table 14

Percentages and Means of Demographic Differences across Stages of Change

	Precont $n = 60$	Cont $n = 13$	Prep $n = 19$	Act $n = 29$	Main $n = 240$	Term $n = 121$	$\chi 2$	p	V
Total (%)	12.42	2.69	3.93	6.00	49.90	25.05	-	-	-
Gender (%)							61.20	< .001	.25
Male	66.67	61.54	1.58	31.03	22.82	41.32			
Not Male	31.67	3.85	78.95	68.97	76.76	58.68			
Race (%)							2.17	.825	.07
White	12.65	2.86	4.30	5.73	49.88	24.58			
Not White	9.84	1.64	1.64	6.56	50.82	29.51			
Science (%)							71.38	< .001	.39
Physical	46.00	1.79	0	0	25.00	26.79			
Social	8.11	2.95	4.18	6.63	54.05	24.08			
Training (%)							25.88	< .001	.23
Yes	7.28	2.22	3.80	5.38	54.43	26.90			
No	22.16	3.59	4.19	7.19	41.32	21.56			
Years Taught (M)	20.03	14.54	8.95	11.86	15.34	18.34	$F(5,476) = 4.64$	< .001	$\eta^2 = .05$

Note. The names of the stages of change have been abbreviated so that Precont = precontempation, Cont = contemplation, Prep = preparation, Act = Action, and Term = Termination.

Table 15

Mean Differences across Stages of Change

	P $n = 60$	C $n = 13$	PR $n = 19$	A $n = 29$	M $n = 240$	T $n = 121$	F	p	η^2	Post Hoc
Efficacy	56.89	68.27	75.47	75.25	81.28	84.85	40.61	< .001	.32	P < PR, A, M, T; C < M, T; PR < T; A < T
Int Norms	23.65	21.27	20.71	22.35	22.19	23.01	1.37	.234	.02	--
Dep Norms	16.54	16.20	15.88	19.31	19.60	19.52	6.64	< .001	.07	P < M, T; PR < M, T
Negative Att Content	15.90	11.80	11.56	9.75	9.63	10.70	23.01	< .001	.22	P > C, PR, A, M, T
Excuses	28.11	26.50	20.94	21.67	15.58	16.52	43.36	< .001	.35	P > PR, A, M, T; C > M, T; PR > M; A > M, T
Anxiety	16.48	18.70	14.19	16.58	14.26	14.37	3.65	.003	.04	--
Positive Att Perspective	30.07	33.80	35.69	36.42	37.96	35.70	21.79	< .001	.21	P < PR, A, M, T; M > T
Engage	14.69	16.70	20.44	19.42	20.83	19.87	20.41	< .001	.20	P < PR, A, M, T; C < M
Inclusive Teaching	64.5	74.58	87.37	98.69	110.99	107.74	53.90	< .001	.36	P < PR, A, M, T; C < A, M, T; PR < M, T; A < M

Note. The names of the stages of change have been abbreviated so that P = precontempation, C = contemplation, PR = preparation, A = action, M = maintenance, and T = termination. Academic institutional norms and department norms have been abbreviated with Int Norms and Dep Norms, respectively.

Table 16

Means, Standard Deviations, and Correlations of Predictor and Outcome Variables in SEM and Regression Analyses

	ITB	G	R	YT	SC	PD	IN	DN	EF	C	EX	A	P	EN	SoC
ITB	1														
G	-.03†	1													
R	.23	-.02†	1												
YT	-.12**	-.03†	-.17**	1											
SC	.38	-.01†	.04†	-.18	1										
PD	-.40	-.02†	-.11*	.04†	-.09*	1									
IN	-.03†	.02†	-.12**	.12*	-.01†	-.03†	1								
DN	.30	.00†	-.06†	.03†	.23	-.15**	.37	1							
EF	.66	-.01†	.23	-.13**	.31	-.27	.03†	.25	1						
C	-.48	.10*	-.10*	.10*	-.28	.20	.03†	-.24	-.46	1					
EX	-.70	.03†	-.17	.10*	-.40	.36	.03†	-.29	-.58	.56	1				
A	-.23	-.02†	.08†	-.01†	-.08†	.02†	-.12*	-.14**	-.26	.31	.38	1			
P	.56	-.08†	.10*	-.14**	.29	-.24	.00†	.26	.47	-.69	-.56	-.24	1		
EN	.62	-.03†	.14**	-.15**	.29	-.29	-.01†	.16**	.50	-.55	-.58	-.32	.72	1	
Soc	.58	-.16**	.09†	-.02†	.15**	-.22	-.01†	.20	.54	-.35	-.57	-.19	.34	.35	1
S1	-.56	.01†	-.05†	.15**	-.41	.22	.07†	-.18	-.53	.46	.54	.13**	-.42	-.43	-.85
S2	-.19	.00†	-.01†	-.03†	.01†	.03†	-.04†	-.11*	-.13**	.05†	.20	.13**	-.10*	-.13**	-.26
S3	-.13**	.25	-.07†	-.13**	.07†	.05†	-.10*	-.15**	-.06†	.03†	.08†	-.02†	-.04†	.03†	-.20
S4	-.05†	-.01†	.02†	-.10*	.09*	.04†	.02†	.02†	-.06†	-.06†	.11*	.10*	-.01†	-.01†	-.09*
S5	.33	-.08†	-.02†	-.07†	.20	-.10*	-.04†	.15**	.22	-.28	-.37	-.10*	.33	.25	.30
S6	.17	-.02†	.10*	.08†	-.02†	-.10*	.04†	.05†	.23	-.01†	-.12**	-.06†	-.02†	.06†	.54
Mean	104.00	--	--	16.79	--	--	22.65	19.07	78.83	10.57	17.88	14.73	36.69	19.96	4.67
SD	25.60	--	--	12.12	--	--	5.10	4.45	14.56	3.91	7.06	4.91	4.71	4.00	1.42

Note. The names of variables have been abbreviated so that ITB = inclusive teaching behavior, G = gender, R = race, YT = years they have taught, SC = science in which they taught, PD = participation in diversity training, IN = institutional norms, DN = department norms, EF = multicultural teaching efficacy, C = content, EX = excuses, A = anxiety, P = student perspectives, EN = student engagement, SoC = total Stages of Change, and the stages of change have been numbers so that S1

= precontemplation, S2= contemplation, S3 = preparation, S4 = action, S5 = maintenance, and S6 = termination. Because gender, race, science, participation in a diversity training and the stages of change were dummy coded, the mean and standard deviation of each are not reported. Similarly, the correlations among the dummy coded stages of change are not reported. Values are significant at $p < .001$ unless noted otherwise. * $p < .05$ ** $p < .01$ $^{\dagger}p > .05$

Table 17

Results of Last Model of Hierarchical Regression to Predict Inclusive Teaching Behaviors

	b	*β*	sr^2_{unique}
Gender	.06	.01	< .001
Race	5.06*	.07	.003
Years Taught	-.003	-.001	< .001
Science	5.07	.06	.003
Diversity Training	-6.07**	-.11	.010
Institutional Norms	-.26	-.05	.002
Department Norms	.50*	.09	.005
Efficacy	.40***	.23	.027
Content	.20	.03	< .001
Excuses	-.77***	-.21	.016
Anxiety	.18	.03	.001
Student Perspectives	.25	.05	.001
Student Engagement	1.49***	.23	.022
Precontemplation	-12.52**	-.15	.011
Contemplation	-13.19*	-.08	.006
Preparation	-13.20**	-.10	.007
Action	-3.63	-.03	.001
Maintenance	.76	.02	< .001
	$R^2 = .67$		
	$R^2_{adj} = .65$		
	$R = .82$***		

Note. Demographics have different coding: gender (1 = male, 0 = not male), race (1 = White, 2 = not White), science (1 = physical, 2 = social), and diversity training (1 = yes, 2 = no).

* $p < .05$ ** $p < .01$ *** $p > .001$

Table 18

Summary of R^2 Values and R^2 Changes at Each Step in the Hierarchical Regression in Table 16

Predictors Added by Step	R^2 for Model	F for Model	R^2 Change	F for R^2 Change
G, R, YT, SC	.184	$F(3, 386) = 29.04^{***}$	.184	$F(3, 386) = 29.04^{***}$
PD	.294	$F(4, 385) = 40.10^{***}$	.110	$F(1, 385) = 59.99^{***}$
IN, DN	.340	$F(6, 383) = 32.93^{***}$	.046	$F(2, 383) = 13.41^{***}$
EF	.525	$F(7, 382) = 60.37^{***}$	.185	$F(1, 382) = 148.77^{***}$
C, EX, A	.605	$F(10, 379) = 58.05^{***}$	.080	$F(3, 379) = 25.52^{***}$
P, EN	.642	$F(12, 377) = 56.38^{***}$	.037	$F(2, 377) = 19.57^{***}$
S1, S2, S3, S4, S5	.665	$F(17, 372) = 43.53^{***}$	.023	$F(5, 372) = 5.18^{***}$

Note. The names of variables have been abbreviated so that ITB = inclusive teaching behavior, G = gender, R = race, YT = years they have taught, SC = science in which they taught, PD = participation in diversity training, IN = institutional norms, DN = department norms, EF = multicultural teaching efficacy, C = content, EX = excuses, A = anxiety, P = student perspectives, EN = student engagement, and the stages of change have been numbers so that S1 = precontemplation, S2= contemplation, S3 = preparation, S4 = action, S5 = maintenance, and S6 = termination.

$^{***}p < .001$

Table 19

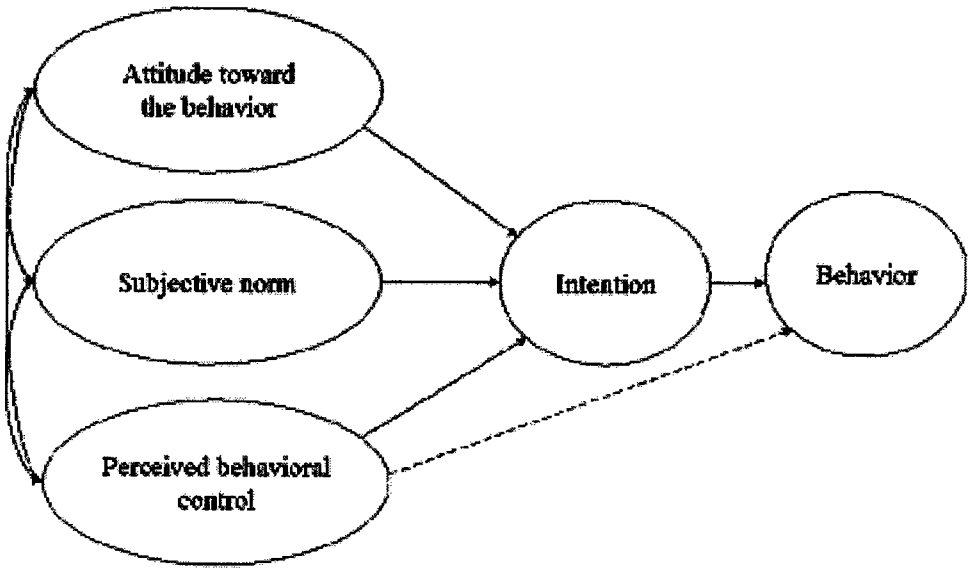
UNH and Non-UNH Mean Scores and Percentages on Predictor and Outcome Variables

	UNH	Non-UNH
Inclusive Teaching Behavior$_a$	91.58	108.41
Efficacy$_a$	75.79	80.53
Institutional Norms	31.01	29.44
Department Norms	18.89	19.13
Content$_a$	11.40	10.04
Excuses$_a$	19.79	16.55
Anxiety	14.66	14.97
Perspectives$_a$	35.10	37.30
Engagement$_a$	18.81	20.51
Stage of Change (%)		
Precontemplation	21.33	5.58
Contemplation	2.90	3.86
Preparation	4.27	3.86
Action	4.27	8.15
Maintenance	41.23	56.22
Termination	27.01	22.32

Note. Subscripts denote significant differences between groups for that variable.

Figure 1

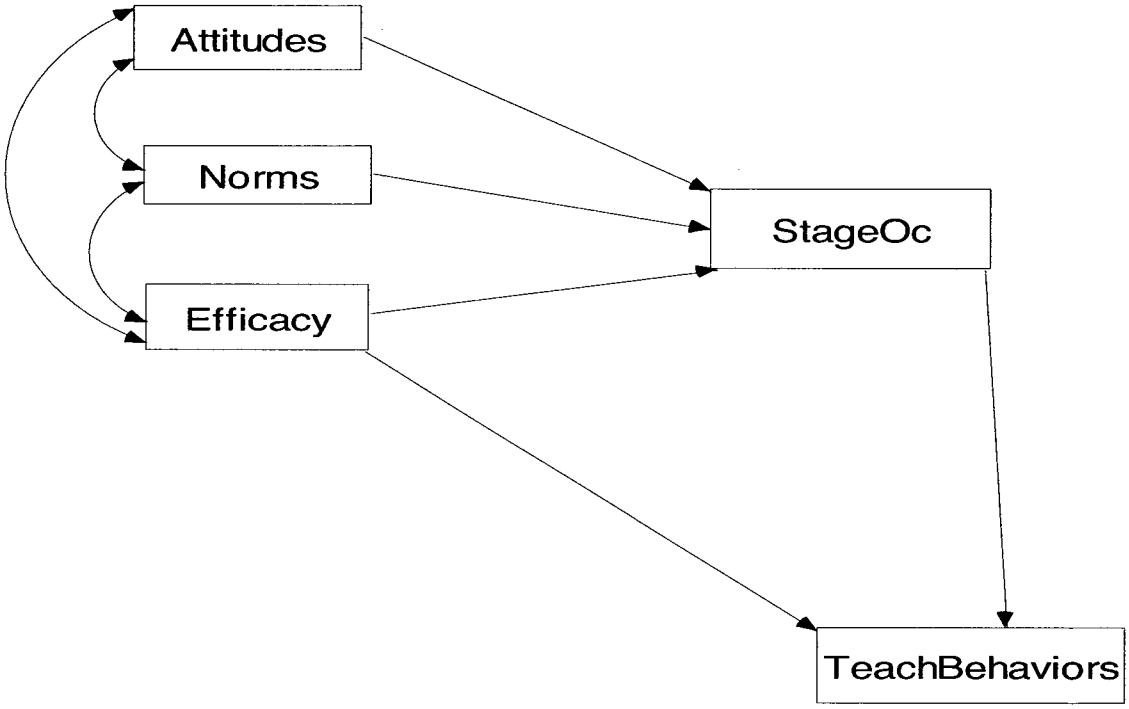
Conceptual Model of the Theory of Planned Behavior



Source: Ajzen & Madden (1986).

Figure 2

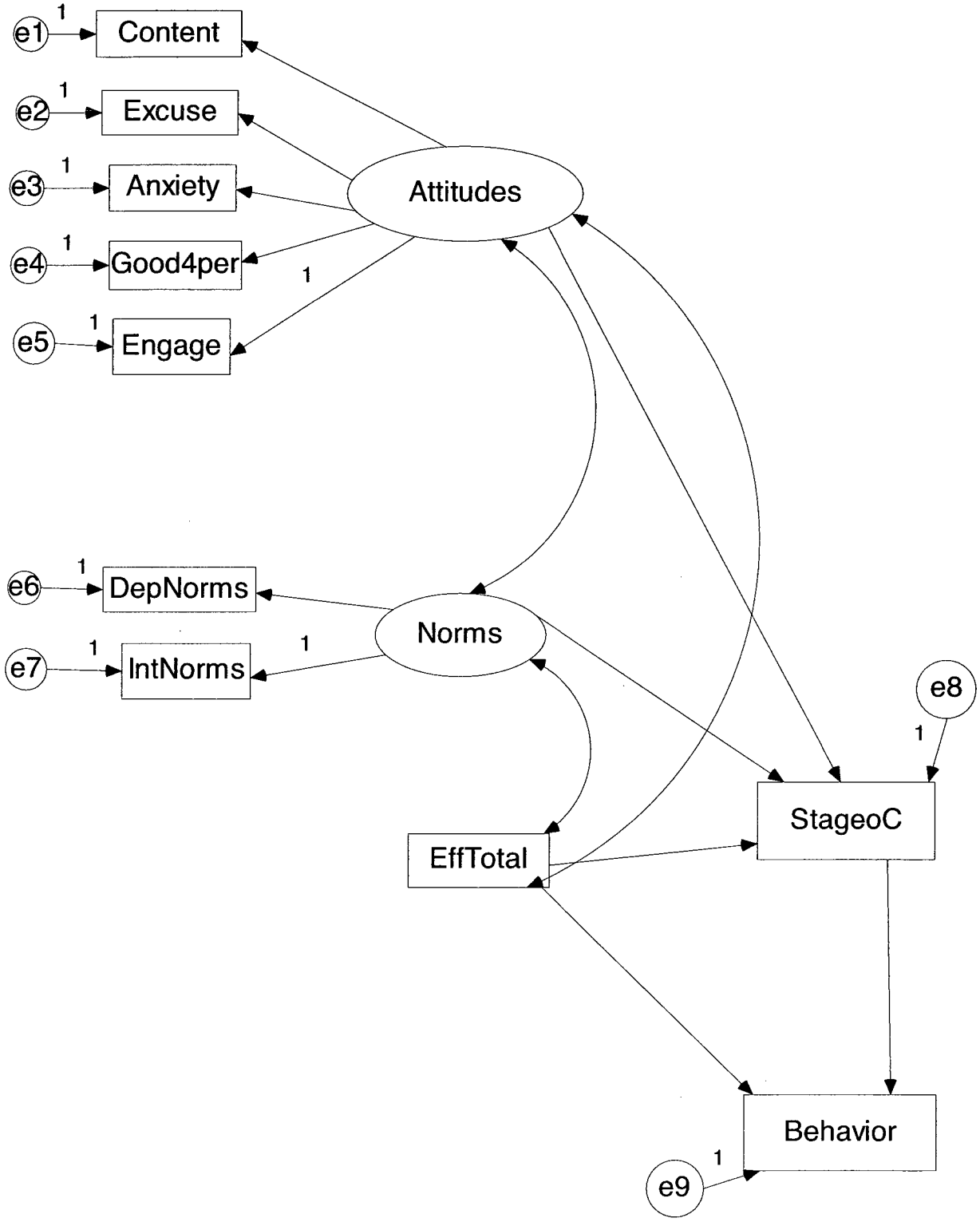
Hypotheses about Predictor Variables for the Theory of Planned Behavior



Note. Some constructs have been abbreviated so the StageOc = stage of change and TeachBehaviors = inclusive teaching behaviors.

Figure 3

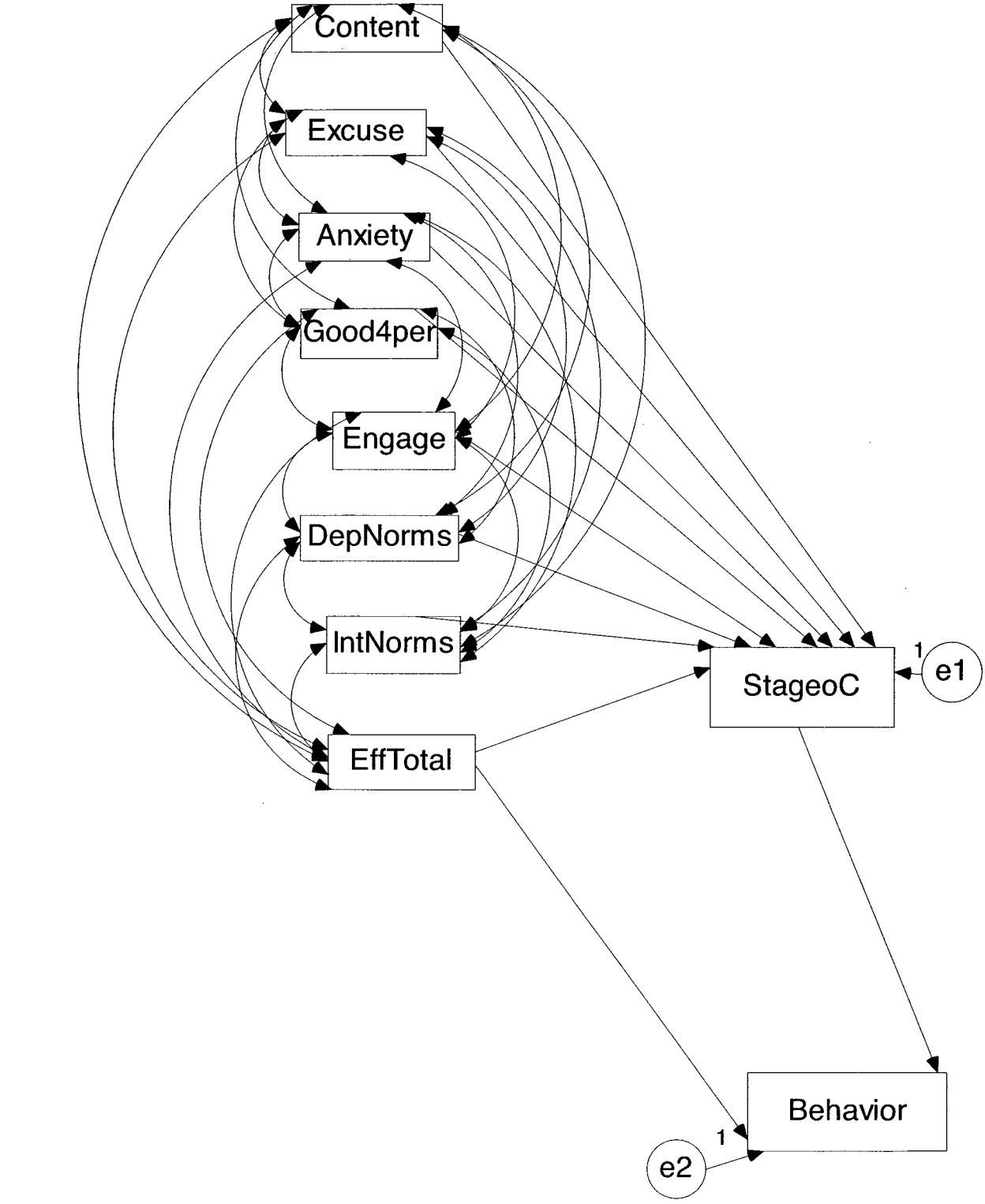
Theory of Planned Behavior Model using Latent Variables



Note. Solution was inadmissible. Variable names have been abbreviated so that Good4per = perspectives, Engage = engagement, DepNorms = perceived department norms, IntNorms = perceived institution norms, EffTotal = efficacy, and Behavior = inclusive teaching behaviors.

Figure 4

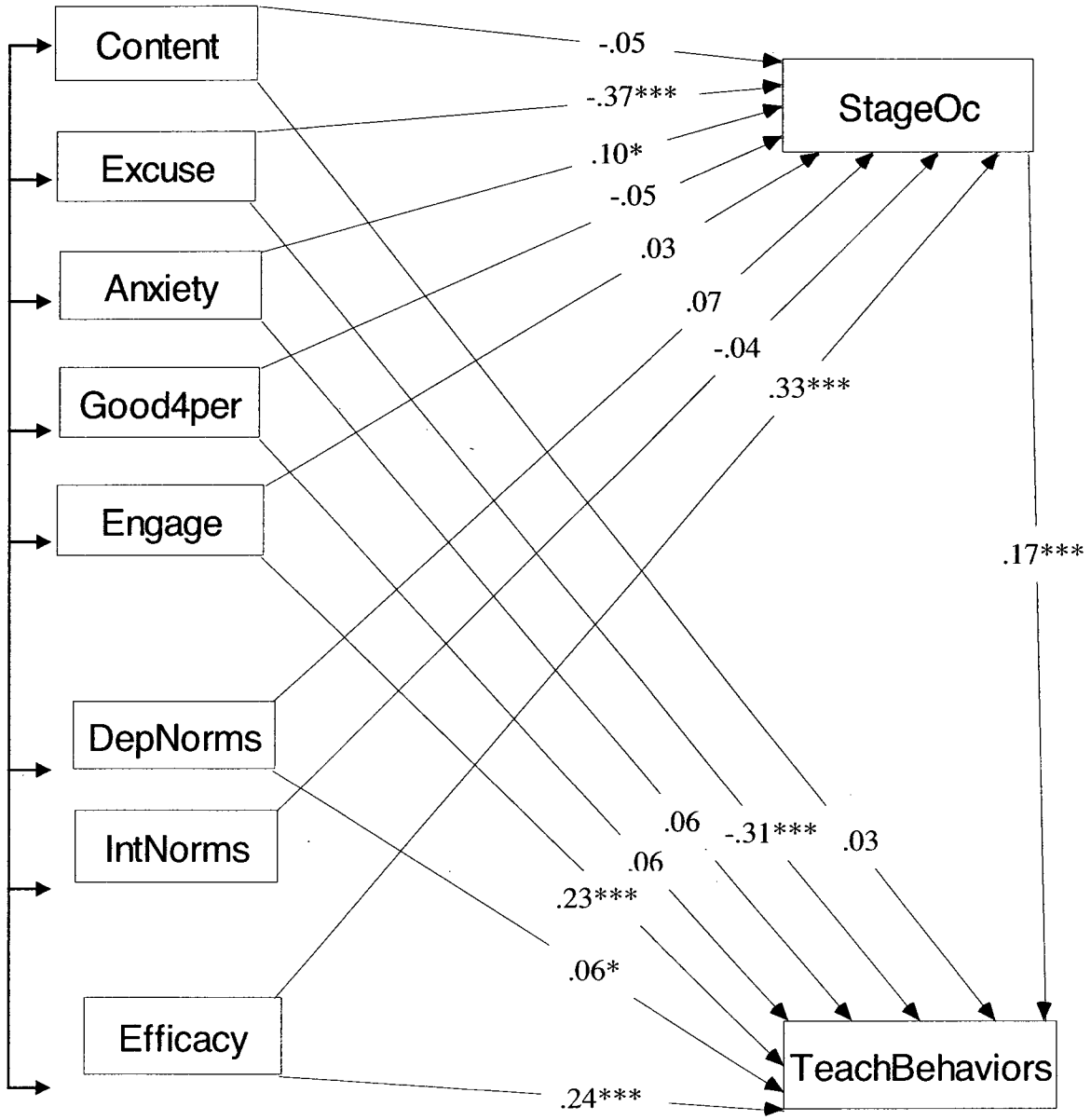
Theory of Planned Behavior Model with Paths Predicted by Conceptual Model and no Latent Variables



Note. Standardized regression weights are not reported for simplicity. Variable names have been abbreviated so that Good4per = perspectives, Engage = engagement, DepNorms = perceived department norms, IntNorms = perceived institution norms, EffTotal = efficacy, and Behavior = inclusive teaching behaviors.

Figure 5

Final Model Tested for Theory of Planned Behavior with Standardized Regression Weights



Note. Variable names have been abbreviated so that Good4per = perspectives, Engage = engagement, DepNorms = perceived department norms, IntNorms = perceived institution norms, and TeachBehaviors = inclusive teaching behaviors.