Exploring the Effect of Disability Microaggressions on Sense of Belonging and Participation in College Classrooms

Lynsie Harris
Utah State University

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EXPLORING THE EFFECT OF DISABILITY MICROAGGRESSIONS ON SENSE
OF BELONGING AND PARTICIPATION IN COLLEGE CLASSROOMS

by

Lynsie Harris

A thesis submitted in partial fulfillment of the requirements for the degree
of
EDUCATION SPECIALIST

in
School Psychology

Approved:

Donna Gilbertson, Ph.D.  Melanie M. Domenech Rodriguez, Ph.D.
Major Professor  Committee Member

Renee Galliher, Ph.D.  Mark R. McLellan, Ph.D.
Committee Member  Vice President for Research and
Dean of the School of Graduate Studies

UTAH STATE UNIVERSITY
Logan, Utah

2017
ABSTRACT

Exploring the Effect of Disability Microaggressions on Sense of Belonging and Participation in College Classrooms

by

Lynsie Harris, Education Specialist
Utah State University, 2017

Major Professor: Donna Gilbertson, Ph.D.
Department: Psychology

This study aimed to fill gaps in the literature on microaggressions in university contexts for students with disabilities. The first aim was to examine the frequency with which college students with disabilities are experiencing microaggressions in university classroom settings. This was accomplished by piloting the Microaggressions Towards Students with a Disability Questionnaire (MTSDQ) consisting of 11 items each describing a different type of microaggression. The second aim was to gauge the impact of microaggression events on students’ willingness to participate and their sense of belonging in the classroom. The internal consistency of the Microaggressions Towards Students with a Disability Questionnaire (MTSDQ) measure was within an acceptable range (alpha = .90). A principal component analysis supported a one component scale with eigenvalues of 5.432, explaining 49% of the variance. Finally, construct validity was supported by significant correlations between the MTSDQ and reported bullying experiences and the Revised Everyday Discrimination Scale (REDS). Endorsed
frequency ratings on the MTSDQ showed means of the total score and each theme falling between “rarely” and “sometimes” experienced within the college classroom setting. About 50% of the participants reported Denial of Experience, Spread Effect, Fear of Disability, and Shaming of Disability as “sometimes” or “often” experienced. Pearson correlations showed that (a) more frequent reported microaggression experiences were associated with higher ratings of negative impact on student comfort and willingness to engage in the class ($r = .613$) and (b) more frequent reported microaggression experiences were associated with lower student sense of belonging to class ($r = .709$). The negative associations between disability microaggression experiences and students’ participation and belonging and implications for future research are discussed.

(89 pages)
PUBLIC ABSTRACT

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by

Lynsie Harris

Microaggressions are a form of interpersonal discrimination towards marginalized groups that are often ambiguous in nature and delivered unintentionally. The subtleness of these attacks on identity can make them difficult to recognize and address.

Emerging research reveals that the targets of microaggressions are experiencing negative effects on their wellbeing; however, the bulk of existing literature on this topic only addresses microaggressions perpetrated towards racial minority or LGBT individuals. Little is known about pervasiveness and potential impact of microaggressions directed towards people with disabilities- particularly in academic contexts.

This study pilots a measurement tool, the *Microaggressions Towards Students with a Disability Questionnaire (MTSDQ)*, to assist in assessing the frequency with which university students with disabilities are encountering microaggressions in their classroom settings. The negative impact of these events on students’ sense of belonging and willingness to participate in their classrooms is also addressed.
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I would also like to thank my friends and family who were with me through all of the joys and frustrations of the research process. In particular, I am thankful for my mother for always giving me the support I needed to achieve my academic goals.

Lynsie Harris
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CHAPTER I
INTRODUCTION

Belonging is thought to be a universal common need that motivates actions which form strong connections to other people or organizations (Baumeister & Leary, 1995). University students who feel a strong sense of belonging to a school or class are more likely to attend and engage in classes, perform successfully, and graduate (E. M. Anderman, 2002; McMahon, Parnes, Keys, & Viola, 2008; Meeuwisse, Severins, & Born, 2009; Rhee, 2008). Sense of belonging or school membership is defined as the student’s “sense of being accepted, valued, included and encouraged by others (teachers and peers) in the academic classroom setting” (Goodenow, 1993, p. 25). A strong sense of belonging is shaped by positive attitudes, and interactions with students and teachers that value and respect a student’s involvement within an emotionally comfortable, safe environment (Juvonen, 2006). Positive recognition leading to a sense of belonging generates motivation for a student to be involved and committed to academic activities. Staying involved is important given that engagement is a key determinant of academic success for all diverse student populations.

Sense of belonging to a university community may be disrupted by discrimination towards minority and marginalized groups (Johnson et al., 2007). Negative attitudes, beliefs, stereotypes, emotions, and behaviors towards members of minority groups are still pervasive in educational settings (Akrami, Ekehammar & Bergh, 2010; Bonilla-Silva & Forman, 2000) and discriminatory practices undoubtedly continue despite legislation aimed at minimizing these occurrences. While these practices can be perceived as a
system-level problem, there are also real consequences to consider on the individual level. Research shows that targets of racism, sexism, ableism and other forms of explicit prejudice experience detrimental effects to their social and psychological well-being (Huynh, Devos, & Dunbar, 2012) as well as poor physical health outcomes (Priest et al., 2013).

Identifying the discrimination, prejudices, and negative stereotyping that interfere with classroom sense of belonging and involvement must occur to challenge misperceptions and discriminatory treatment. The nature of discrimination has changed over time from overt acts and denial of equal opportunity to subtler, interpersonal exchanges. Thus, research has focused on the identification of ambiguous social behaviors that perpetuate minority groups as second-class citizens. Brief everyday experiences that send denigrating messages towards minority groups, identified as microaggressions in the literature, are often “unconsciously delivered in the form of subtle snubs or dismissive looks, gestures, and tones” (Sue, Lin, Torino, Capodilupo, & Rivera, 2009, p. 273). Similar to explicit discrimination and prejudice, microaggressions have been shown to have adverse effects on the well-being of targeted individuals and are more frequently encountered compared to overt attacks on identity (Solorzano, Ceja, & Yosso, 2000; Wang, Leu, & Shoda, 2011). The added threat of microaggressions lies in their ambiguity, making it difficult for both targets and witnesses to discern whether a discriminatory attack has been made. The commonplace nature of these indignities can also discourage those affected from addressing microaggressions.

Given that microaggressions can diminish or invalidate experiences of targeted
groups, allowing these acts to continue in classroom settings suggests that targeted
groups do not belong there because they are not as respected, valued or accepted as
untargeted groups. According to the social development model, sense of belonging is
produced from school involvement that contacts positive recognition or reinforcement
from teachers and peers. The intensity of belonging is determined by the level that this
involvement is valued and accepted. Social identities that fit the dominant groups’ values,
beliefs, and behaviors are more likely to be recognized and reinforced—even
unintentionally. In consequence, a strong sense of belonging is more likely to develop for
those reinforced for conforming to the dominant group social norms. Alternatively,
opinions or behaviors that fall outside the current classroom norm may receive negative
reactions from professors and other students that shut down (punish) future participation.
The presence of unchallenged microaggressions may cause additional emotional distress
by degrading certain social identities that differ from the dominant group. If these
distressing, aversive incidents occur frequently, students will avoid activities, people, and
environments associated with the occurrences to avoid further distress. Thus,
microaggressions may decrease the sense of safety and perceived value, belonging, and
social acceptance of targets with marginalized social identities (Walton & Cohen, 2007).

Students with disabilities have been increasingly included in mainstream
classrooms since the Individuals with Disabilities Education Act (IDEA) was enacted in
1990, and enrollment of these students in postsecondary programs has also increased
(Cortiellia & Horowtiz, 2014). Since that time, contact between peers with and without
disabilities has been shown to have many social and educational benefits for students
with disabilities including higher academic gains, higher engagement and increased reciprocal friendships (Katz & Mirenda, 2002; Vaughn, Elbaum & Schumm, 1996). Unfortunately, this high level of social contact between students with differing abilities also provides a setting and opportunity for interpersonal discrimination to occur.

Research has clearly documented that students with disabilities are targets of discrimination and bullying in school settings (Blake, Lund, Zhou, Kwok & Benz, 2012), but researchers have not examined the frequency or effect of microaggressions with these students. Although accommodations for equal educational opportunities are a clear focus of college campus programs supporting students with disabilities, a weak sense of belonging resulting in low-class involvement interferes with accommodation efforts. Emerging research also suggests that stereotypes towards this group may be more negative than previously suggested (Rohmer & Louvet, 2012). Students with and without disability experience have reported expectations that individuals with disabilities face awkwardness and discomfort from others, be devalued by the community and experience poorer emotional well-being compared to peers without a disability (Green, 2007). Students with disabilities also experience higher dropout rates and lower academic performance compared to their peers, and those with “invisible” disabilities often avoid seeking accommodation services due to fear of potential stigma (Kranke, Taylor, & Floersch, 2013). Students without disabilities have more positive than negative attitudes towards those with disabilities receiving accommodation services (Meyer, Myers, Walmsley, & Laux, 2012), but stigma may still follow students with disabilities into the college classroom.
Sense of belonging in school settings is one aspect of positive school climate that heavily relies on an equity perspective and respect for diversity to effectively impact student achievement. It is important to note that if microaggressions occur in classrooms without being appropriately addressed, or allowing aversive reactions to transpire when they are addressed, suggests some class-wide level of intolerance towards diversity. Frequent microaggressions targeting students with disabilities witnessed by other students may also influence their comfort in participating in an intolerant environment or a sense of “not fitting in” with the current classroom culture and climate. Witnessing disrespect towards certain social identities may dampen students’ sense of class safety or belonging to an intolerant environment and thus, the individual’s motivation and comfort level to be involved in classroom activities or discussions.

Research suggests unfair biases can be corrected with increased awareness and motivation to make efforts to change. In fact, sense of belonging is enhanced by people who take action to increase knowledge and awareness of microaggressions and the harm they can cause (Nelson, Dunn, & Paradies, 2011). This role is an important undertaking that allies can take towards stopping the psychological and social harms that deter a sense of belonging to minority students in college settings.

A first step to correcting discrimination is to increase understanding of microaggressions in the classroom and its influence on student sense of belonging and engagement. Despite growing literature on the effects of microaggressions, little is known about the frequency or negative impact of microaggressions that occur in academic settings on academic outcomes for college student targets. It is unclear how
frequently students with disabilities are being subjected to microaggressions across college campuses and in the classroom setting. Likewise, few studies have examined the impact of microaggressions in the classroom on students’ academic outcomes. The purpose of this study is to gauge the frequency at which students with disabilities perceive disability microaggressions in the classroom. The subsequent impact on students’ willingness to participate in classroom activities and sense of belonging at the classroom level as a result of experiencing microaggression events is also assessed.
CHAPTER II
LITERATURE REVIEW

A review of the research for this study is divided into four sections. A literature review is presented on (a) academic participation/engagement as a predictor of other academic outcomes, (b) school belonging (or connectedness) and its relevance to engagement, (c) definitions of microaggressions and relevant themes in microaggressions perpetrated against people with disabilities, and (d) the impact of microaggressions on various measures of psychological and academic outcomes.

University Students with Disabilities

Postsecondary institutions are experiencing increased enrollment of students with disabilities following special education laws enacted by Congress in 1990 to protect the civil and educational rights of people with disabilities (Cortiellia & Horowitz, 2014). Students with disabilities make up 11% of the undergraduate population as of the 2007-2008 academic year (Snyder & Dillow, 2013) and approximately 45% of young adults with disabilities report having been enrolled in a postsecondary school following high school graduation. However, students with disabilities were far more likely to be enrolled in a 2-year college (rather than a 4-year university) compared to their same-age peers. Those who did attend a 4-year program graduated at a rate of 34%, which is low relative to the national average of 59% (Newman et al., 2011).

Students with disabilities experience unique challenges in the college setting which may account for this discrepancy in postsecondary outcomes. Students with
learning disabilities have reported higher levels of academic-related stress and lower levels of perceived social support compared to peers without a disability (Heiman, 2006). Garrison-Wade (2012) also found that students with disabilities experienced a lack of understanding or support from postsecondary faculty, but the study emphasized that academic success can be better facilitated by capitalizing on the student’s self-determination, implementing a formalized academic plan and improving postsecondary support through accessibility, accommodations and mentoring. Enrollment of students with a disability has led to changes in the postsecondary programs to support students with disabilities in college adjustment and access to non-discriminatory college programs and services.

**Classroom Engagement and Participation**

The increasing population of students with a disability has been supported with college programs to accommodate the learning needs of these students. Learning requires student effort and ability to engage in academic activities. Research on benefits of engagement show that student engagement is linked positively to critical thinking, grades, retention, learning and generalization of new skills, high levels of college adjustment and psychosocial development across diverse groups of students (Carini, Kuh, & Klein, 2006; Klem & Connell, 2004; Krause & Coates 2008; Kuh, 2001; Quave & Harper, 2009). Thus, college support programs plan accommodations to provide equitable opportunities for students with disabilities to engage in academic activities.

The terms “engagement” and “participation” are often used interchangeably in the
literature. Student engagement has been defined broadly as the extent to which students are actively involved in important actions in and out of the classroom that are necessary for successful learning outcomes (Krause & Coates, 2008). Specific participation during a class session is a part of the graded curricula for many college courses and can encompass students’ preparation, contribution to discussions, group skills, communication skills, and general attendance (Dancer & Kamvoussnias, 2005). Participation during class is positively related to academic achievement in several studies of elementary aged children (Finn & Cox 1992; Voelkl, 1995), though less straightforward research on the relationship between these variables exists for university students.

Several predictors of classroom participation examined in the literature include classroom logistics (Fassinger, 2000; Faust & Courtenay 2002), student confidence, gender (Dancer & Kamvoussnias, 2005), instructional style and classroom climate (Matsumura, Slater, & Crosson 2008). Carini et al. (2006) examined the complex relationship between classroom climate, engagement and achievement and showed that ratings of school engagement from college students ($N = 1,058$) at 14 colleges were linked positively with critical thinking and grades, with more favorable ratings of student-faculty interaction ($ES = .25$) and supportive campus environment ($ES = .29$).

Engagement is a multidimensional construct that involves behavioral and psychological efforts that are challenging in unsupportive environments. Fredricks, Blumenfeld, and Paris (2004) defines three aspects to student engagement: expected behavioral attendance and participation, emotional or affective reactions to school, and
cognitively challenged learning. Including subjective feelings as a subtype of engagement highlights the critical role that student’s psychological connection plays in motivating and maintaining engagement. Willingness to participate is enhanced in an emotionally safe setting that includes positive teacher and peer interactions promoting feelings of being respected, accepted, included and encouraged. Research addressing the effects of sense of belonging on student outcomes will be discussed in the next section.

**Sense of Belonging, Theories, and Participation**

Universities and classrooms are dynamic environments that develop a unique sense of social and academic culture which influence the emotional, affective subtype of engagement. Because belonging is considered a fundamental social need, it makes intuitive sense that those who feel they belong will be more emotionally equipped to be academically engaged than those who feel they do not fit within the school culture. Students who have a sense that they are a respected, valued, and equal members of a classroom environment are more likely to report being connected/“belonging” to the school and engaged in classroom activities (Booker, 2007; Graham-Smith & Lafayette, 2004). School belonging is a multidimensional construct in the literature that includes school connectedness, attachment, bonding, and engagement (Libbey, 2004). These features of belonging have been shown to be positively associated with school engagement, adjustment, grades, and retention (Rhee, 2008). In general, belonging is defined as “the extent to which students feel personally accepted, respected, included and supported by others in the school social environment” (Goodenow, 1993b, p. 80). Mahar,
Cobigo, and Stuart (2013) further conceptualize a sense of belonging as a subjective feeling of value and respect derived from a reciprocal relationship to an external referent that is built on a foundation of shared experiences, beliefs or personal characteristics. There is an overall subjective perception of a “good fit” between the person and the larger group and environment. Measures of school belonging or connectedness typically encompass multiple factors including faculty support, institutional belonging, and peer acceptance/rejection (Freeman, Anderman, & Jensen, 2007; Goodenow, 1993b; Hoffman, Richmond, Morrow, & Salamone, 2002).

A strong sense of school belonging or connectedness has been associated with many desirable psychological outcomes in adolescents, including lower reports of depression/anxiety symptoms, decreased risk for substance use and externalizing symptoms, and higher positive self-regard (Bond et al., 2007; Pittman & Richmond, 2008 Shochet, Dadds, Ham, & Montague, 2006). Academic outcomes associated with a strong sense of belonging include higher academic self-efficacy, achievement (GPA), motivation, and high school completion (E. M. Anderman, 2002; Goodenow, 1993a; Uwah, McMahon, & Furlow, 2008). In higher education, students’ sense of belonging to the university has also predicted better retention than those with a low sense of belonging for first- and second-year undergraduates ($N = 286$). At the classroom level, sense of belonging was positively associated with student academic self-efficacy, $R^2 = .34$, $p < .001$; $\beta = .58$, $p < .001$, intrinsic motivation, $R^2 = .16$, $p < .001$; $\beta = .38$, $p < .001$, and perceptions of the value of academic tasks in that class, $R^2 = .21$, $p < .001$; $\beta = .46$, $p < .001$ (Freeman et al., 2007). Sense of belonging in this study was defined as a sense of
being an accepted, respected, and valued part of the school and classroom context. In
sum, research supports that students with a strong sense of belonging perform better
academically about those who feel more alienated and unconnected.

Although marginalized students report a positive relationship between school
belonging and positive psychological and academic outcomes, minority students
(specifically African American males) have had the lowest reported sense of belonging
across multiple studies (E. M. Anderman, 2002; Booker, 2004). Major barriers reported
are discrimination, prejudice or different quality of support and respect from teachers and
peers. These negative attitudes and acts exclude or consequently punish or decrease
student involvement. Although the sense of belonging to a school is hypothesized to
motivate academic engagement, being unique and upholding a positive self-concept are
equally important motivational needs connected to a student’s social identity.

**Behavioral Principles**

Behavioral theories of social development suggest that sense of school belonging
is produced from school involvement that is maintained by positive recognition or
reinforcement of one’s identity, authentic self, and value from teachers and peers. Sense
of belonging in academic settings is hypothesized to be an important motivational factor
that facilitates persistent academic engagement. A stable sense of belonging is
determined by the frequency and level at which the involvement is valued and accepted.
Hagerty, Lynch-Sauer, Patusky, Bouwsema, and Collier (1992) proposed antecedents that
predict sense of belonging including the energy, motivation, and ability to be
meaningfully involved in a group possessing shared or complementary characteristics.
Consequences that follow involvement and a sense of belonging are positive social recognition such as praise or various other acts which indicate that the involvement was needed, valuable, or accepted. Recognition could also relay approval of shared characteristics that suggest a good fit. Finally, subjective feeling of meaningful psychological, social, or physical involvement or fit are potential consequences of sense of belonging. Positively reinforcing consequences that satisfy the person’s need to belong will motivate or predict future involvement. A model based on behavioral principles of reinforcement provides a guide to developing individualized antecedent and consequential strategies that enhance valued experiences or provide supporting consequences related to attributes of sense of belonging that impact a student’s engagement and well-being.

**Social Identity Theory**

Social identity theory explains the additional challenges that marginalized students face that result in a feeling that they do not fit in or belong within a school environment. Social identity theory asserts that an individual’s values, feelings, thoughts, and behaviors are strongly guided by the identification with a collective group, organization, or culture (Hogg, 2006). Receiving messages of negative stereotypes that threaten a student’s social identity can adversely affect fit or a sense of belonging, failing to add a motivational factor others experience in the classroom. Subtle threats to a student’s personal identity make it difficult to judge when they will be accepted or rejected by others in the environment. This distrust and variable acceptance from the non-stigmatized, socially dominant group creates a sense of uncertain belonging and vigilance.
for rejection that undermines energy, social connectedness and the motivation to become
more involved in an unpredictable environment (Walton & Cohen, 2007). It is
challenging for students to stay engaged in their classrooms when their social identities
are being devalued. Thus, positive social support and interactions are a vital to maintain
positive social identities and associated values, goals, and behaviors.

Hanselman, Bruch, Gamonran, and Borman (2016) presented a conceptual model
summarizing the impact of social identity threats on students’ academic outcomes. Under
this model, the social identity threat is conceptualized as an “interaction between a social
environment and an individual within a specific task domain” (p. 107). This interaction
leads to responses from a student which may hinder academic performance. For example,
when a student is actively aware of negative stereotypes surrounding a facet of their
identity, they may experience negative psychological responses such as stress or worry.
The lack of available cognitive resources in the face of these responses leaves less energy
for academic tasks presented. The authors note that the salience of these stereotypes can
increase based on the demographic composition of the learning environment, the
students’ level of identification with the marginalized group to which they belong, and
specific messages in the environment which reinforce negative stereotypes.

Sense of belonging can also be influenced by several environmental factors that
positively reinforce one’s identity on college campuses. Johnson et al. (2007) conducted a
study with college students from diverse cultural backgrounds ($N = 71,728$) and found
that sense of belonging was highly related to supportive residence halls, faculty support
and co-curricular involvement for all racial/ethnic groups ($R^2 = .14-.25$). Perceptions of a
positive campus racial climate was also a significant contributor to sense of belonging for African American, Asian Pacific American, Multiracial/Multiethnic and White students ($\beta = .02-.05, p < .001$), though interactions with students from diverse backgrounds only positively related to belonging for Hispanic/Latino students ($\beta = .14, p < .05$). The results suggest that a school’s racial climate and level of support from the institution is a major contributor to sense of belonging for minority students.

In a study by Levin, Laar, and Foote (2006), college students ($N = 3,877$) of White, Asian American, Latin American, and African American background were sampled at different stages in their postsecondary education. Higher numbers of in-group friendships related to more academic motivation ($\beta = .07, p = .02$) and commitment to finishing school ($\beta = .08, p = .02$) in the overall sample. However, Latino students presented interesting deviations from students of other ethnicities. In regression analyses, higher numbers of in-group friendships for Latino students were associated with a lower GPA ($b = -.17, p = .01$) and a lower sense of overall school belonging ($b = -.28, p = .001$). The authors asserted that, at least for Latino students, more in-group friendships could result in (or from) feelings of alienation from the rest of the school community. Minority students’ number of in-group friendships were also associated with higher levels of perceived discrimination ($\beta = -.14, p < .001$), though it remains unclear whether experiencing discrimination leads to seeking in-group friendships or if these friendships lead to increased awareness of discrimination that is already happening in the environment. Because of this poor sense of school belonging, motivational sources with less negativity may need to come from those already associated with a students’ social
identity (e.g., similar ethnicity, gender identification, or disability).

Hausmann, Ye, Schofield, and Woods (2009) found that in general both White and African American students’ reported a sense of belonging was positively related to their institutional commitment and academic persistence, but an intervention aimed at increasing both groups’ sense of belonging was only effective for White participants. The authors speculated that it might be more difficult to influence the sense of belonging in ethnic minority students because of chronic experiences with alienation and discrimination in the context of White majority schools. Second, interventions may still lack relevant inclusion of culturally responsive components or positive validation of certain social identities.

Another study found that college students (N = 950) who were targets of classism in the university setting reported a lower sense of school belonging, higher intentions of leaving school and poor psychosocial outcomes associated with these experiences (Langhout, Drake, & Rosselli, 2009). School belonging was reported by the authors as a mediator between classism and negative outcomes, consistent with other literature citing school belonging as a protective factor. Studies also show that lesbian, gay, bisexual, transgender, queer, and questioning (LGBTQ) students report weaker school bonding and attachment than heterosexual students (Peter, Taylor, Ristock, & Edkin, 2015; Rostosky, Owens, Zimmerman, & Riggle, 2003).

Few studies have directly measured differences in reported sense of belonging between students with and without disabilities, despite it being acknowledged as an important factor in academic success for both groups (Graham-Smith & Lafayette, 2004;
McMahon et al., 2008). Mahar et al. (2013) conducted a review of 22 articles from 1990 to 2011 on a sense of belonging to clarify further a definition that would constructively support people with disabilities in community-based programs. The authors identified five intersecting themes in conceptual definitions across the articles, including 

*reciprocity*, or a shared sense of relatedness between the individual and larger group; 

*dynamism*, or the complex physical and social environments that contribute to belonging; 

*self-determination*, or the individual’s power or choice to interact with the group and form connections; 

*subjectivity*, stressing that belonging is a perception formed by the individual; and 

*groundedness* to an external referent or group to which the individual belongs. The construct of belonging is complex, and factors influencing the sense of belonging may also depend on the referent group to which the individual belongs.

Hagborg (1998) examined the sense of school connectedness at a single high school for students with \( n = 37 \) and without learning disabilities \( n = 37 \) with no significant differences observed between groups. The author acknowledged several limitations to the study which may account for these unexpected results including the small sample size and supportive nature of the school’s special education program. Thus far, no additional research has been conducted to account for these limitations or that probe further into the factors which might influence the sense of school belonging for students with disabilities at a post-secondary level.

**Microaggressions**

Although belonging is a contributing motivational factor to academic
engagement, a theme in the sense of belonging literature is the negative association between perceived sense of belonging and overt and subtle prejudice, discrimination, or negative stereotyping that invalidates or disrespects minority social identities. Students with disabilities experience relatively lower occurrences of hate crimes, violence, bullying, etc. relative to other marginalized groups. However, research shows that marginalized groups do experience subtle negative slights that insult or harm oppressed groups. Thus, daily social interactions with non-disabled peers may still contain subtle discriminatory messages and messages that students with disabilities do not belong. This section will begin by defining a form of subtle discrimination, termed microaggressions, and providing a review of the effects that targeted individuals experience as a result of microaggression events. Existing literature primarily examines racial microaggressions and the contexts in which they occur, though the research base examining dimensions of gender, sexual orientation, disability status, and intersectional identities is also emerging. Next, the specific thematic content of microaggressions across domains of race, sexual identity and disability status will be explored. Finally, the impact of microaggression experiences on both psychological and academic functioning will be discussed.

**Definitions**

Microaggressions are defined as brief and subtle insults, delivered verbally or behaviorally, which send demeaning messages to oppressed groups (Solorzano et al., 2000; Sue, Capodilupo, et al., 2007). Microaggression events can be intentional but are often unintentional or automatic, which can leave both perpetrators and targets unsure of whether an event of prejudice or stereotyping has occurred. The construct and definition
of “microaggression” originally developed from studies examining racially charged events (Pierce, Carew, Pierce-Gonzales, & Wills, 1978), though it has adapted to apply to the brief injustices experienced by other marginalized groups including women, religious minorities, LGBT individuals, and persons with disabilities.

Three distinct forms of microaggressions have been proposed by leading researchers on racial microaggressions to account for the topographically dissimilar events that are still defined as a microaggression: microassaults, microinvalidations, and microinsults (Sue, Capodilupo, et al., 2007). Microassaults are the most explicit in nature, including purposeful attacks or discriminatory actions. As an example, a manager may decide not to hire a fully qualified job applicant because he has a medical disability. The discrimination of one candidate over another based on one facet of his identity may be interpreted as a microassault. Microinsults include insensitive or demeaning interactions about the target’s identity. A perpetrator can unconsciously deliver microinsults but still sends out a negative message about an oppressed group. An example of a microinsult would be for an employer to express obvious surprise that a job applicant with a learning disability has an advanced degree, due to her disability status and gender. Finally, microinvalidations deny the lived experiences of oppressed groups, negating their thoughts and feelings in a way that can be dehumanizing. For example, an employer may know his employee has a painful disability that makes parts of the job difficult, but simply tells him to “toughen up” when the employee requests minimal accommodations. While this is overt discrimination, it is also clear that the employee’s experience with pain as a result of a disability is being disregarded by the employer on an interpersonal
level. Each form of microaggression, though some may be more explicit, can be equally devastating and invalidating to the target. The cumulative impact of these different forms of microaggressions has been shown to have adverse effects on several areas of wellbeing that will be discussed later in this review.

Themes

The actual content of microaggressions can vary greatly depending on the target group, and much of the literature on microaggressions attempts to describe content themes that emerge from qualitative studies. For racial minorities, assumptions of intellectual inferiority, criminality, inferior status and second class citizenship have been observed across multiple thematic investigations of microaggressions against Black individuals (Sue, Nadal, Capodilupo et al., 2008). It is important to note that specific ethnic minority groups may experience unique content themes. A qualitative study by Sue, Bucerri, Lin, Nadal, and Torino (2007) identified common types of microaggressions experienced by Asian Americans. Findings from semi-structured interviews included the exoticization of Asian women, ascription of intelligence, and pathologizing of cultural values or communication styles. While some themes seem consistent across minority racial groups (e.g., second-class citizenship, denial of racial reality), clear differences also emerge based on characteristics of the target group. This suggests that microaggressions are specific to characteristics of the target group’s identity.

Content themes of microaggressions towards the LGBT community also vary from those seen in studies of race/ethnicity. Nadal, Rivera, and Corpus (2010) originally
proposed several themes relevant to LGBT populations that were bolstered by a second qualitative study by the same author. The seven main themes included the use of heterosexist terminology, endorsement of heteronormative culture, the assumption of universal LGBT experience, exoticization, discomfort/disapproval of LGBT experience, denial of heterosexism, and the assumption of sexual pathology/abnormality (Nadal et al., 2011). The LGBT-specific themes that emerged solidify the idea that microaggression themes are not universal, but specific to the social biases surrounding each marginalized group.

Limited research exists on microaggressions directed at people with disabilities, though one major thematic study provides insight into their content. Keller and Galgay (2010) were the first to qualitatively examine themes in microaggressions experienced by people with disabilities through a method similar to Sue et al. (2008), in which targeted participants were recruited to share their experiences as part of a focus group. While Sue et al. met with African American students to review racial microaggressions, Keller and Galgay invited adults from various educational and occupational backgrounds (N = 12) who (1) self-identified as having a disability and (2) agreed that discrimination or social prejudice against people with disabilities (i.e., ableism) exists and can take both overt and covert forms. A semistructured interview based on previous microaggression literature was used to facilitate discussion of microagression content and impact on the group members. Transcripts of the focus group were coded by the research team, and each microaggression was labeled and categorized based on its central content, resulting in eight proposed domains: denial of identity, denial of privacy, helplessness, secondary
gain, spread effect, patronization, second class citizenship, and desexualization.

Denial of identity included two subcategorizations. First, denial of personal identity occurs when an aspect of a person’s identity not relevant to their disability is minimized, ignored, or denied altogether. Second, denial of disability experience minimizes the actual experience or hardships that can arise when living with a disability. The Denial of Privacy domain involves active information-seeking about the disability itself, disregarding the personal nature of such information. Helplessness was described as “frantic” attempts to help a person with a disability regardless of whether help was warranted or requested. Secondary Gain microaggressions occur when someone expects intrinsic or extrinsic reinforcement for the kindness they direct towards people with disabilities. Spread effect involves the assumption that if a person has a disability in one area, other areas of the person’s life must be also impacted in some way. This includes the assumption of multiple disabilities or that another area may be enhanced as a result of an existing deficit (e.g., someone with a visual impairment must have a heightened sense of hearing). The Patronization domain includes treating a person with a disability as a child or giving excessive praise for basic accomplishments. Microaggressions imply second-class citizenship when a person with a disability has their rights or equality denied because they are seen as burdensome, expensive or as a waste of time and effort. Finally, Desexualization involves denying a person with disability’s existence as a sexual being.

Mental illness, a more specific category of disability, has been examined separately to identify themes in a study by Gonzales, Davidoff, Nadal, and Yanos (2014).
Adult participants ($N = 21$) with a self-reported mental health diagnosis were recruited from resource centers in both a community and university setting. Focus groups were held and guided by questions to prompt discussion of microaggressions towards people with mental illness. From these discussions, five main themes were identified. The first was Invalidation, which was further broken down into minimization of symptoms, and symptomizing of “normal” behaviors exhibited by a person with mental illness and patronization. The second theme, Assumption of Inferiority, included ascriptions of lower intelligence and incompetence. A third theme highlighted fear of individuals with mental illness due to an assumption of unpredictability or dangerousness. Finally, microaggressions suggesting second-class citizenship were often experienced. Many of the participants included descriptions of negative emotions following microaggression events and increased feelings of isolation or self-stigma.

While some thematic consistencies can be observed across more than one type of study (e.g., second-class citizenship), content themes clearly differ in microaggressions against racial minorities, LGBT populations, and people with disabilities. This indicates that microaggressions are nuanced to the characteristics of the target group. Several measures exist which examine the frequency of microaggressions experienced by these groups in respect to the unique themes identified by qualitative studies. Nadal (2011) first developed a scale looking at the frequency with which various racial microaggressions were experienced, called the Racial and Ethnic Microaggressions Scale (REMS), which contained items based on the original taxonomy of Sue et al. (2008) in addition to other studies exploring microaggression content. Themes supported by factor analysis included
assumptions of inferiority, second class citizenship, microinvalidations, exoticization, environmental microaggressions and workplace/school microaggressions. Tests of internal consistency yielded a coefficient alpha of $\alpha = .928$ for this measure. Torres-Harding, Andrade, and Romero Diaz (2012) later developed the Racial Microaggressions Scale (RMAS), on which internal consistency was very good across the six factors (themes) explored (foreigner/not belonging [$\alpha = .78$], environmental invalidations [$\alpha = .81$], sexualization [$\alpha = .83$], criminality [$\alpha = .85$], undesirable/low achieving [$\alpha = .87$], invisibility [$\alpha = .89$]), with no overall alpha reported. Concurrent validity was examined by comparing the frequency of microaggressions reported by people of color to that of White participants using a series of $t$ tests, with $p < .001$ for each of the six factors indicating that participants of color experience significantly more race-centered microaggressions than White participants. Balsam, Molina, Beadnell, Simoni, and Walters (2011) created an intersectional measure of microaggressions titled LGBT People of Color Microaggressions Scale with an overall internal consistency of $\alpha = .92$. No such measure of microaggression frequency has been developed for people with disabilities.

Many negative outcomes have been reported in studies examining microaggressions experienced by racial or sexual minorities, though little is known about the emotional, psychological or other outcomes experienced by people with disabilities. The outcomes measured in studies involving racial minority and LGBT students will be discussed in depth in the following section.
Psychological Impact of Microaggressions

While literature on the taxonomy of microaggressions continues to grow, research examining the actual impact of microaggressions on wellbeing highlights the importance of understanding these events. Encounters with racial microaggressions have been associated with poorer mental health outcomes for targets, including increased anxiety and depressive symptoms in Black women (Donovan, Galban, Grace, Bennet, & Felicié, 2013) and increased instances of depression in Asian American and Latino adolescents (Huyhn, 2012). Racial microaggressions experienced by clients in the clinical setting can also be detrimental to building a therapeutic alliance, which may hinder the success of mental health interventions (Sue, Capodilupo, et al. 2007). Latino and Asian adolescent students ($N = 360$) from California high schools were recruited for a study by Huynh (2012) examining the impact of microaggressions on wellbeing. Their experiences with microaggressions were measured by the Ethnic Microaggressions (EMA) scale, and subsequent measures of psychological and somatic symptoms were also administered. Overall, both groups’ reported frequency of microaggressions was associated with higher somatic and depressive symptoms. Participants also reported increased levels of anxiety, anger, and stress in response to these events. Frequent exposures to microaggressions were hypothesized to lead to more significant negative outcomes (and to worse depressive/ somatic symptoms) if these direct psychological reactions were left unaddressed.

Cultural or racial microaggressions experienced by college students may also influence factors linked to student success. In a study by Blume, Lovato, Thyken, and
Denny (2012), culturally diverse university students who experienced higher frequencies of microaggressions over the last month reported higher anxiety and instances of binge drinking. Undergraduate students’ experiences with racial microaggressions have also been found to negatively impact targets’ self-esteem, with microaggressions in the educational environment cited as being especially detrimental (Nadal, Won, Griffin, Davidoff, & Sriken, 2014).

Studies of LGBT microaggressions have revealed similar negative effects on psychological health. Nadal (2011) conducted a study that aimed to discover how LGBT individuals experience and cope with microaggressions. College students ($N = 26$) who identified as either gay, lesbian, or bisexual were divided into focus groups and interviewed by the research team. The participants were asked to recall an event in which they felt subtly discriminated against because of their sexual orientation and to describe how they felt following the event. Emotionally, participants described feeling unsafe and uneasy in the environment where a microaggression has just occurred. Angry reactions, frustration, and sadness were also common- along with a feeling of shame after being put down by slights or slurs. Many participants also explained a direct connection between experienced microaggressions and their mental health status, with several reporting symptoms of depression or PTSD as a result of their continuous experience with discrimination.

There is a gap in research examining mental health outcomes for people with disabilities who have experienced microaggression events. Adults with psychological disorders have reported negative feelings and increased self-stigma associated with these
events in one qualitative study (Gonzales et al., 2014), but it is unclear if this finding generalizes to people with other types of disabilities or if other types of negative outcomes are occurring. Microaggressions towards students with disabilities have yet to be examined in academic contexts, with little known about the effect of microaggressions on this particular population. Relevant research on the effects of discrimination on academic outcomes will be discussed in the following section.

**Academic Impact of Microaggressions**

The academic setting is not devoid of discrimination, including microaggressions. In one study (Boysen & Vogel, 2009), 38% of college instructors (N = 333) reported witnessing an incident of explicit or implicit bias in their classroom within the last year. Microaggressions were observed at similar rates compared to overt incidents (e.g., perpetuating stereotypes, making offensive jokes, using slurs). Several strategies were used by teachers who chose to respond to these events, including (in order of frequency) confrontation, class discussion of the incident, providing rebuttals, ignoring the event, private confrontation and correcting perceived ignorance. Only 36% of the respondents rated their actions as successful, with 40% unsure of how to assess the success of their actions. While it is clear that microaggressions are occurring, many teachers may lack confidence or training in effectively managing these events.

In a later study, Boysen (2012) presented both teachers (n = 222) and students (n = 166) at four year universities vignettes of racial microaggressions occurring in classrooms, following the categories of microinsults, microinvalidations, and microassaults outlined by Sue, Capodilupo, et al. (2007). Participants in teaching
positions were asked to imagine themselves in the role of teacher for that scenario and
decide whether they would respond to the event in some direct way. Teachers reported
that they would be most likely to address microassaults, which are typically more overt,
though in general teachers did not feel that responding to a microaggression incident
perpetrated by a student would have a positive impact on classroom behavior. Teachers
with more extensive training in diversity issues were more likely than others to respond
to each incident and rated the microaggressions as more negative events. Student
participants were more likely than teachers to believe that any response to a
microaggression by the teacher would be effective in managing future incidents. The
authors suggest that this highlights the importance of teacher training for handling these
situations, as students in the classroom may be experiencing direct psychological harm as
a result of the microaggression events that go unaddressed.

Sue et al. (2009) have suggested that microaggressions on college campuses serve
as a trigger for important dialogues on race that may not otherwise take place. The study
presented a semi-structured interview about microaggressions in the classroom to two
focus groups comprised of ethnic minority students \( (N = 14) \), who identified as Black,
Asian American, Latino, or Biracial. The interviews with students from minority
backgrounds revealed that nearly every participant had experienced microaggressions
directly in the classroom, with content themes including ascription of intelligence, “alien
in own land,” denial of racial reality, and assumptions of criminality. The participants
reported that these microaggressions led to feelings of “tension in the classroom,
discomfort among White students and often the professor, and generally an unsatisfactory
resolution to any difficult dialogues that ensued” (p. 187). Participants who felt targeted by microaggressions also faced the difficult decision of how to react to the events. Many reported avoiding confrontations due to a fear of possible consequences, including lowered grades or damaged relationships with classmates or professors. Others reported that when they did “step up” and address the event, further negative emotions were often triggered by the defensiveness of other students and lack of productive dialogue about race. All participants were asked about the instructor’s role in these situations and how best outcomes can be achieved. Effective teachers validated the feelings of culturally diverse students and made any classroom discussions both directive and comfortable for all involved. Ineffective teachers were described as those who did not respond directly to the event, became emotional or angry, or lacked the awareness, knowledge or skills necessary to facilitate an effective dialogue on race.

While the previous studies demonstrate the existence and potential management of microaggressions in college classrooms, there is a lack of the literature examining the actual impact that these contextual microaggressions may have on students’ academic experience. One study found that racial minority students who experienced frequent microaggressions reported higher rates of anxiety and binge drinking (Blume et al., 2012), two outcomes that could potentially have a negative impact on academics. While not mentioning microaggressions specifically, Smalls, White, Chavous, and Sellers (2007) found that African American adolescents (N = 390) reporting more racial discrimination predicted lower levels of academic persistence (β = -.10, p < .05) and more negative school behaviors (r = .12, p < .05). A longitudinal study of Chinese-American
middle school students has also indicated discrimination as a predictor of lower grades ($\beta = -.12, p < .05$) and school engagement ($\beta = -.13, p < .05$; Benner & Kim, 2009).

Similar results have been found with LGBT adolescents in a study by Kosciw, Palmer, Kull, and Greytak (2013). They found that adolescent LGBT students ($N = 7261$) who experienced in-school victimization (i.e., verbal harassment, physical harassment, and physical assault in the past school year due to their sexual orientation or gender expression) had worse self-esteem ($\beta = -.186, p < .01$), lower GPA ($\beta = -.075, p < .01$) and more absences ($\beta = .386, p < .01$) from school. Interaction effects showed that supportive teachers, a harassment policy, and inclusive curriculum are associated with lower missed school days and greater self-esteem, particularly for those who endorsed severe levels of victimization. It remains absent from the literature whether protective factors could also diminish the frequency or impact of microaggressions towards marginalized students at the secondary or post-secondary level. Clearly, the many negative outcomes warrant actions to be taken by educators and student witnesses to decrease microaggressions and negative outcomes in school settings.

**Summary and Research Questions**

Sense of belonging and student engagement are integral to predicting student success, and little is known about how acts of subtle discrimination, or *microaggressions*, in the classroom, may affect belonging and participation for students with disabilities. The present study explores connections between the frequency of microaggression events students with disabilities are experiencing, sense of belonging and student
engagement/participation in the classroom.

This study aims to fill gaps in the literature of microaggressions in university contexts for students with disabilities. The first aim is to examine the frequency with which college students with disabilities are experiencing microaggressions in university classroom settings. This will be accomplished by piloting the *Microaggressions Towards Students with a Disability Questionnaire (MTSDQ)*. The second aim is to gauge the impact of microaggression events in small college classrooms on students’ willingness to participate (i.e., in discussions or group work) and their sense of belonging in the classroom.

Specific research questions included the following.

1. What is the reliability and validity of the *Microaggressions Towards Students with a Disability Questionnaire (MTSDQ)* with vignettes?

2. What are the reported frequencies of total disability microaggression experiences and for each specific theme depicted in vignettes in university students with disabilities?

3. What is the relationship between perceived frequency of reported microaggressions and reported impact on immediate willingness to participate in classroom settings after a microaggression in university students with disabilities?

4. What is the relationship between perceived frequency of reported microaggressions and reported impact on sense of belonging to the classroom setting in university students with disabilities?

It was hypothesized that: (a) students with disabilities will report witnessed/experienced microaggressions towards people with disabilities on college campuses for each theme, (b) the frequency of experienced microaggressions and participation at the University will be negatively correlated such that higher frequencies of microaggressions incidence ratings would be associated with lower ratings of
participation for all microaggression themes, and (c) the frequency of observed microaggressions and sense of belonging at the university will be negatively correlated such that higher frequencies of microaggressions incidence ratings would be associated with lower ratings of sense of belonging.
Participants

Participants \((N = 86)\) included undergraduate and graduate university students with a disability attending universities in Utah who were between the ages of 18-40. Two participants completed the MTSDQ but did not complete the additional outcome measures and were not included in analyses for three of four research questions. The sample was comprised of 52 (60.5%) women, 29 (33.7%) men and 5 (5.8%) students who identified as non-binary. The ethnic/racial makeup of the sample included White or European American (87.2%; \(n = 75\)), Asian (3.5%; \(n = 3\)), Hispanic or Latino (3.5%; \(n = 3\)), Black or African American (2.3%; \(n = 2\)), Native Hawaiian or other Pacific Islander (1.2%; \(n = 1\)), American Indian or Alaska Native (1.2%; \(n = 1\)) and other ethnicity/races (1.2%; \(n = 1\)). Participants identified their sexual orientation as straight (73.3%; \(n=63\)), bisexual (16.3%; \(n = 14\)), gay or lesbian (3.5%; \(n = 3\)) and other (1.2%; \(n = 1\)). The largest group by class standing were first year students (38.4%; \(n = 33\)), followed by sophomores (25.6%; \(n = 22\)), juniors (16.3%; \(n = 4\)), seniors (15.1%; \(n = 13\)), and graduate students (4.7%; \(n = 4\)). Specific disabilities reported by participants included mental health impairments (66.3%; \(n = 57\)), ADHD (23.3%; \(n = 20\)), learning disabilities (10.5%; \(n = 9\)), chronic illnesses (8.1%; \(n = 7\)), vision and hearing impairments (4.7%; \(n = 4\)), physical impairments including mobility 16.3%; (4.7%; \(n = 4\)), autism (2.3%; \(n = 2\)) and speech-language impairments (1.2%; \(n = 1\)). Eighteen (20.9%) of the total
participants reported that they were currently receiving accommodations in the university setting for disability.

The sample was recruited from undergraduate psychology courses, through the Disability Resource Center and Access and Diversity Center on the Utah State University campus, and through online social media platforms to reach students attending universities in Utah.

**Measures**

**Demographics**

A demographic survey was used to collect each participant’s gender, major, age, class standing, ethnicity, sexual orientation, and disability status. An additional probe for asked whether participants are currently receiving accommodations in the university setting for their disability (Appendix A).

**Microaggressions**

The frequency of observed microaggressions in college classrooms towards students with disabilities was assessed using a scale constructed for this study, *Microaggressions Towards Students with a Disability Questionnaire (MTSDQ)*; see Appendix B). One item was developed on this scale for each of the themes reported by adults with disabilities in focus groups from a study conducted by Keller and Galgay (2009). Themes include: denial of personal identity, invalidation/denial of disability experience, secondary gain, denial of privacy, assuming helplessness, patronization, spread effect, assumption of inferiority (lower competency or control), fear of the
disability, shaming disabilities, and second class citizenship (Gonzales et al., 2014; Keller & Galgay, 2010). Similar to the Racial Microaggressions Scale (RMS; Torres-Harding et al., 2012), respondents were asked to rate how often they have encountered each of the 11 items, which describe microaggressions towards students with disabilities, in college classrooms on a 4-point Likert-type scale where 1 = never, 2 = rarely, 3 = sometimes, and 4 = often. All scale items scores were summed for each participant with higher scores representing more encounters with microaggressions.

Vignettes were also presented with each item as examples of microaggressions within the theme. Specific situations were composed for this study by reviewing the qualitative literature on microaggressions experienced by people with disabilities and members of racial minorities that fitted each theme (Keller & Galgay, 2010; Sue, Capadilupo, et. al., 2007). Second, microaggressions reported by persons with disabilities were also gathered from online sources. Two vignettes (n = 16) were developed per theme, and all vignettes consist of one to three sentences that depict an ambiguously inappropriate comment or action directed at a person or group of persons with a disability that is occurring in a college classroom (see Appendix B).

**Bullying**

Given that microaggressions are negative putdowns and actions, a brief assessment was conducted to assess the relationship between microaggressions and perceived bullying victimization in college classrooms for construct validity of the microaggression measure. First, the definition of bullying was presented: “A person is bullied when he or she is exposed, repeatedly and over time, to negative actions on the
part of one or more other persons. Bullying can either be direct or indirect” (Olweus, 1993). Second, two items were rated: “Other students bullied me during my classes at my college” and “Other students in my college classrooms bullied me because of a disability.” Items were rated on a 5-point Likert-type scale where 1 = Never happened to me, 2 = Rarely, happened only once or twice to me, 3 = Sometimes, happened 2 or 3 times a month to me, 4 = Often, happened about once each week to me, and 5 = Very often, happened several times each week to me. These ratings are similar to ratings used on the more comprehensive Olweus Bully/Victim Questionnaire (Olweus, 2001).

**Student Engagement**

Willingness or comfort to participate in class was assessed using a Likert rating on eight items that were developed in this study based on literature on effective responding opportunities that enhance learning in college classrooms (see Appendix C). Types of participating activities include attending class, asking questions, discussing, working in groups, presenting, peer feedback, and helping others. Participants endorsed each item on a 5-point scale where 1 = Never had a negative impact, 2 = Rarely had a negative impact, 3 = Sometimes had a negative impact, 4 = Often had a negative impact, 5 = Always had a negative impact. Ratings of all items were summed as the total score with higher scores reflecting the greater negative impact on willingness and comfort in participation in class activities. The Cronbach’s alpha was .920 for the study sample, within the acceptable range.
School Belonging

To measure participants’ general sense of belonging at the classroom level, eight items adapted from the Psychological Sense of School Membership Survey (PSSM; Goodenow, 1993b) were administered. The wording of questions was revised to reflect experiences specifically in secondary educational settings. Similar to the PSSM, items assess the extent to which students feel personally accepted, respected, included, and supported by others in the environment (see Appendix D). Each item is rated on a 5-point Likert-type response scale ranging from 1 = Never had a negative impact to 5 = Always had a negative impact. Ratings of all items were summed as the total score with higher scores reflecting a greater negative impact of microaggressions on a sense of belongingness. A Cronbach’s alpha of .937 was reported within the present sample, within the acceptable range.

Experiences with Discrimination

The five-item Revised-Everyday Discrimination Scale (Appendix F) is a self-report assessment of persistent experiences of subtle unfair treatment and conceptualized as a daily chronic stressor (Stucky et al., 2011). Responses range from 1 = Never to 6 = Almost every day, and higher scores indicate higher frequencies of everyday discrimination. Stucky et al. showed a single-factor model of the revised EDS resulting in an excellent fit, a reliability Cronbach of .84. The Cronbach alpha of the Revised- EDS was .857 with our study sample, consistent with that of Stucky et al.
Procedures

Before administering the questionnaires, the Institutional Review Board (IRB) at Utah State University reviewed the study for approval. Next, student volunteers were recruited from undergraduate courses at Utah State University (Protocol #7168). Additional recruitment was conducted using flyers in the Disability Resource Center, Academic Resource Center, Access and Diversity Center, and email recruitment through any list servs provided by these organizations. Given that all students were not enrolled in courses which offered credit for research participation, participants were also given the option to be entered into a drawing to win one of four $10 gift certificates and one $50 gift certificate to Amazon.com as compensation for their time. Winners were randomly selected at the end of the data collection period. Finally, participants were recruited by distributing an informative flyer/survey link on various Facebook groups applicable to college students in the Utah area.

Students who signed up for the study via SONA or who received a recruitment email were given a brief description of the study and a link to an online external research Qualtrics database. Once at the survey, a letter of information included all the pertinent information to ensure proper consent was obtained prior to beginning the survey. Participants first completed the demographic form. Second, the MTSDQ administered, and participants were asked to rate the frequency with which the presented examples of microaggressions have occurred in their classroom settings. Participants then rated the perceived impact of these events on their willingness to participate in the classroom and their classroom-level sense of belonging.
CHAPTER IV

RESULTS

The means, standard deviations, and ranges for the MTSWDQ, Revised Everyday Discrimination Scale (REDS) and bullying items used in the present study are reported in Table 1. There were no statistically significant differences in responding for any of these measures based on race, gender identity, age, class standing or sexual orientation within our sample based on the results of independent $t$ tests.

Reliability and Validity of the MTSDQ Scale: Research Question 1

Cronbach’s standard alpha was selected as a measure of internal consistency. The internal consistency of the MTSDQ measure was acceptable (.90). Bivariate correlations between MTSDQ items are presented in Table 2. Items describing the Denial of Identity and Fear of Disability microaggression themes were the only items within the scale that were not significantly correlated.

Table 1

<table>
<thead>
<tr>
<th>Scale</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Sample range</th>
<th>Possible range</th>
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<td>24.16</td>
<td>7.83</td>
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<td>11-44</td>
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<tr>
<td>Total REDS</td>
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<td>4.17</td>
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<td>5-30</td>
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<td>Other students have bullied me</td>
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<td>0.73</td>
<td>1-4</td>
<td>1-5</td>
</tr>
<tr>
<td>Other students have bullied me because of a disability</td>
<td>84</td>
<td>1.43</td>
<td>0.70</td>
<td>1-4</td>
<td>1-5</td>
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<td>Impact on student participation</td>
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<td>7.70</td>
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<td>Denial of privacy</td>
<td>Helplessness</td>
<td>Secondary gain</td>
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<td>.528**</td>
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<td>.469**</td>
<td>.483**</td>
<td>.490**</td>
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<tr>
<td>Second class citizenship</td>
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<tr>
<td>Fear of disability</td>
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</tr>
</tbody>
</table>

* *p < .05.
** **p < .01.
The REDS and Bullying Items were included in this study to assess the construct validity of the MTSDQ. The total score and each item of the MTSDQ were submitted to bivariate correlations with total scores from each of the two scales and bullying items. As shown in Table 3, the total scores for each of the two scales and bullying items were significantly correlated. The Total MTSDQ was also highly correlated with the bullying item specifying that victimization was due to disability status, consistent with expectations. Moreover, each item theme from the MTSWQ scale was highly correlated with the total MTSDQ and REDS scores.

Table 3

<table>
<thead>
<tr>
<th>Scale/Item</th>
<th>Total MTSDQ</th>
<th>REDS</th>
<th>Bullied by others</th>
<th>Bullied about disability</th>
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<td>.555**</td>
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<td>Patronization</td>
<td>.759**</td>
<td>.401**</td>
<td>.236*</td>
<td>.297**</td>
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<td>Secondary Gain</td>
<td>.755**</td>
<td>.397**</td>
<td>.121</td>
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<td>Assumption of Abnormality</td>
<td>.734**</td>
<td>.404**</td>
<td>.162</td>
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<td>.711**</td>
<td>.304**</td>
<td>.027</td>
<td>.111</td>
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<td>Denial of Experience</td>
<td>.689**</td>
<td>.465**</td>
<td>.191</td>
<td>.224*</td>
</tr>
<tr>
<td>Helplessness</td>
<td>.705**</td>
<td>.422**</td>
<td>.212</td>
<td>.376**</td>
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<tr>
<td>Second Class Citizenship</td>
<td>.683**</td>
<td>.589**</td>
<td>.234*</td>
<td>.451**</td>
</tr>
<tr>
<td>Fear of Disability</td>
<td>.682**</td>
<td>.265*</td>
<td>.065</td>
<td>.108</td>
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<tr>
<td>Shaming of Disability</td>
<td>.630**</td>
<td>.461**</td>
<td>.393**</td>
<td>.400**</td>
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<tr>
<td>Denial of Identity</td>
<td>.596**</td>
<td>.377*</td>
<td>.196*</td>
<td>.312**</td>
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<tr>
<td>Total REDS</td>
<td>.561**</td>
<td>.532**</td>
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<tr>
<td>Other students have bullied me.</td>
<td></td>
<td></td>
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<td>.626**</td>
</tr>
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</table>

*p < .05.

**p < .01.
The 11 items of the MTSDQ scale were analyzed using a principal component analysis (PCA). According to Hair et al. (1995), .40 = important, and ±.50 are practically significant. Moreover, suitability for factor analysis is determined by minimal correlation coefficients of 0.30 (i.e., accounts for 30% of the data), by KMO index that ranges from 0 to 1 at or above 0.50 analysis and by a significant Bartlett's Test of Sphericity (Tabachnick & Fidell, 2013). Tests for suitability of factor analysis was confirmed with the majority of correlation coefficients of .3 and above (see Table 4), a Kaiser-Meyer-Olkin (KMP) value of .90 and a significant test of sphericity. The PCA results and review of the skew plot (see Table 5) supported a one component scale with eigenvalues exceeding 1, explaining 49% of the variance.

Table 4

*Principal Component Analysis Matrix for the Microaggressions Towards Students with a Disability Questionnaire*

<table>
<thead>
<tr>
<th>Microaggression theme per item</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Patronization</td>
<td>0.769</td>
</tr>
<tr>
<td>Spread effect</td>
<td>0.764</td>
</tr>
<tr>
<td>Secondary gain</td>
<td>0.759</td>
</tr>
<tr>
<td>Assumption of abnormality</td>
<td>0.734</td>
</tr>
<tr>
<td>Denial of privacy</td>
<td>0.717</td>
</tr>
<tr>
<td>Helplessness</td>
<td>0.715</td>
</tr>
<tr>
<td>Denial of experience</td>
<td>0.684</td>
</tr>
<tr>
<td>Second class citizenship</td>
<td>0.676</td>
</tr>
<tr>
<td>Fear of disability</td>
<td>0.672</td>
</tr>
<tr>
<td>Denial of identity</td>
<td>0.612</td>
</tr>
<tr>
<td>Shaming of disability</td>
<td>0.603</td>
</tr>
</tbody>
</table>
Table 5

**Total Variance Explained**

<table>
<thead>
<tr>
<th>Component</th>
<th>Total</th>
<th>% of variance</th>
<th>Cumulative %</th>
<th>Extraction sums of squared loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.432</td>
<td>49.381</td>
<td>49.381</td>
<td>5.432</td>
</tr>
<tr>
<td>2</td>
<td>1.068</td>
<td>9.705</td>
<td>59.086</td>
<td>1.068</td>
</tr>
<tr>
<td>3</td>
<td>.931</td>
<td>8.461</td>
<td>67.547</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>.629</td>
<td>5.715</td>
<td>73.263</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>.610</td>
<td>5.542</td>
<td>78.804</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>.502</td>
<td>4.559</td>
<td>83.363</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>.447</td>
<td>4.061</td>
<td>87.424</td>
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</tr>
<tr>
<td>8</td>
<td>.412</td>
<td>3.745</td>
<td>91.169</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>.368</td>
<td>3.349</td>
<td>94.518</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>.353</td>
<td>3.210</td>
<td>97.728</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>.250</td>
<td>2.272</td>
<td>100.000</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Extraction method: Principal component analysis.

**Frequency of Experiences Disability Microaggression Themes:**

**Research Question 2**

For the overall sample, the mean of the majority of the themes within the MTSDQ was reported to be *rarely* seen within the college classroom setting. About 50% of the participants, however, reported four themes (denial of experience, spread effect, fear of disability, and shaming of disability) as *sometimes* or *often* experienced in the classroom. Table 6 illustrates the means, standard deviation, and range for each item within the MTSDQ.
Table 6

*Descriptive Statistics for Each MTSDQ Item Ratings*

<table>
<thead>
<tr>
<th>Microaggression theme per item</th>
<th>M</th>
<th>SD</th>
<th>Frequency (n) sometimes or often rating</th>
<th>Percent sometimes (3) or often rating (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assumption of abnormality</td>
<td>2.21</td>
<td>1.02</td>
<td>37</td>
<td>43.02</td>
</tr>
<tr>
<td>Denial of experience</td>
<td>2.41</td>
<td>1.00</td>
<td>41</td>
<td>47.67</td>
</tr>
<tr>
<td>Denial of identity</td>
<td>1.78</td>
<td>0.79</td>
<td>17</td>
<td>19.77</td>
</tr>
<tr>
<td>Denial of privacy</td>
<td>2.33</td>
<td>0.99</td>
<td>36</td>
<td>41.86</td>
</tr>
<tr>
<td>Fear of disability</td>
<td>2.50</td>
<td>1.02</td>
<td>46</td>
<td>53.49</td>
</tr>
<tr>
<td>Helplessness</td>
<td>1.99</td>
<td>0.99</td>
<td>27</td>
<td>31.40</td>
</tr>
<tr>
<td>Patronization</td>
<td>2.14</td>
<td>1.07</td>
<td>31</td>
<td>36.05</td>
</tr>
<tr>
<td>Second class citizenship</td>
<td>1.95</td>
<td>1.05</td>
<td>27</td>
<td>31.40</td>
</tr>
<tr>
<td>Secondary gain</td>
<td>2.10</td>
<td>1.06</td>
<td>29</td>
<td>33.72</td>
</tr>
<tr>
<td>Shaming of disability</td>
<td>2.35</td>
<td>1.14</td>
<td>41</td>
<td>47.67</td>
</tr>
<tr>
<td>Spread effect</td>
<td>2.41</td>
<td>1.05</td>
<td>41</td>
<td>47.67</td>
</tr>
</tbody>
</table>

*Note.* Ratings: 1 = Never to 4 = Often.  
*N* = 86.

**Relationship Between Microaggressions and Student Participation:**

**Research Question 3**

Descriptive statistics are presented for participation and sense of belonging measures in Table 7. The Pearson correlation calculations between reported level of a microaggression and the level of perceived negative effect of microaggression experiences on students’ willingness to participate in their college classes are presented in Table 8 for the scale totals and each item of the MTSDQ and (impact on participation) measure. Results show that more frequently reported microaggression experiences were associated with higher ratings of negative impact on student comfort and willingness to engage in the class. Helping other peers was not as significantly negatively impacted by the other six participation items across microaggression themes.
Table 7

Descriptive Statistics of Impact on Student Participation and Belonging

<table>
<thead>
<tr>
<th>Scale</th>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participation (n = 84)</strong></td>
<td>Ask questions</td>
<td>2.81</td>
<td>1.26</td>
</tr>
<tr>
<td></td>
<td>Voice an opinion</td>
<td>2.77</td>
<td>1.22</td>
</tr>
<tr>
<td></td>
<td>Share during discussions</td>
<td>2.76</td>
<td>1.28</td>
</tr>
<tr>
<td></td>
<td>Give a class presentation</td>
<td>2.70</td>
<td>1.34</td>
</tr>
<tr>
<td></td>
<td>Work in groups</td>
<td>2.62</td>
<td>1.17</td>
</tr>
<tr>
<td></td>
<td>Give or receive feedback from peers</td>
<td>2.39</td>
<td>1.22</td>
</tr>
<tr>
<td></td>
<td>Attend class</td>
<td>2.13</td>
<td>1.08</td>
</tr>
<tr>
<td></td>
<td>Help others in class</td>
<td>1.96</td>
<td>1.01</td>
</tr>
<tr>
<td><strong>Belonging (n = 83)</strong></td>
<td>Being able to express who you are or to be your authentic self.</td>
<td>2.86</td>
<td>1.26</td>
</tr>
<tr>
<td></td>
<td>Being able to reach out to a classmate or professor if you have a problem.</td>
<td>2.64</td>
<td>1.34</td>
</tr>
<tr>
<td></td>
<td>Belonging and being a real part of the class.</td>
<td>2.42</td>
<td>1.06</td>
</tr>
<tr>
<td></td>
<td>Being valued, respected and taken seriously in class.</td>
<td>2.36</td>
<td>1.07</td>
</tr>
<tr>
<td></td>
<td>Being accepted by others in class</td>
<td>2.36</td>
<td>1.24</td>
</tr>
<tr>
<td></td>
<td>Being included in class</td>
<td>2.27</td>
<td>1.13</td>
</tr>
<tr>
<td></td>
<td>Being acknowledged when you're good at something or produce quality work.</td>
<td>2.18</td>
<td>1.15</td>
</tr>
<tr>
<td></td>
<td>Support and encouragement from others in class.</td>
<td>2.16</td>
<td>1.13</td>
</tr>
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</table>

**Relationship Between Microaggressions and Sense of Class Belonging:**

**Research Question 4**

The perceived negative effect of microaggression experiences on students’ sense of belonging in their college classes is presented in Table 9 for the scale totals and each item of the MTSDQ and (impact on belonging) measure. Results show that more frequent microaggression experiences were associated with lower student sense of belonging to classes.
Table 8

Relationship Between Microaggression Frequency and Negative Impact of Microaggression Experiences Participation

<table>
<thead>
<tr>
<th>Scale/Item</th>
<th>Total participation</th>
<th>Group work</th>
<th>Asking question</th>
<th>Discussing</th>
<th>Attending</th>
<th>Presenting</th>
<th>Feedback to/from peers</th>
<th>Voicing opinion</th>
<th>Helping others</th>
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</thead>
<tbody>
<tr>
<td>Total MTSWDQ</td>
<td>.613**</td>
<td>.576**</td>
<td>.550**</td>
<td>.538**</td>
<td>.535**</td>
<td>.491**</td>
<td>.473**</td>
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<td>.326**</td>
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<tr>
<td>Second class citizenship</td>
<td>.511**</td>
<td>.542**</td>
<td>.406**</td>
<td>.460**</td>
<td>.494**</td>
<td>.330**</td>
<td>.437**</td>
<td>.436**</td>
<td>.159</td>
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<tr>
<td>Shaming of disability</td>
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<td>.473**</td>
<td>.403**</td>
<td>.361**</td>
<td>.389**</td>
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<td>.342**</td>
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<td>.351**</td>
<td>.315**</td>
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<tr>
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<td>.332**</td>
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<td>.431**</td>
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<td>.291**</td>
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<td>.394**</td>
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<td>.364**</td>
<td>.311**</td>
<td>.343**</td>
<td>.361**</td>
<td>.182</td>
<td>.332**</td>
<td>.168</td>
</tr>
</tbody>
</table>

* $p < .05$  
** $p < .01$.  

46
Table 9

*Relationship Between Microaggression Frequency and Negative Impact of Microaggression Experiences on Sense of Belonging*

<table>
<thead>
<tr>
<th>Scale/Item</th>
<th>Negative impact on belonging</th>
<th>Authentic self</th>
<th>Accepted</th>
<th>Included</th>
<th>Seek help</th>
<th>Valued respected</th>
<th>Supported</th>
<th>Part of class</th>
<th>Work acknowledged</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTSWDQ Total</td>
<td>.709**</td>
<td>.621**</td>
<td>.612**</td>
<td>.593**</td>
<td>.588**</td>
<td>.586**</td>
<td>.553**</td>
<td>.535**</td>
<td>.509**</td>
</tr>
<tr>
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<td>.358**</td>
<td>.296**</td>
<td>.308**</td>
<td>.326**</td>
<td>.168</td>
<td>.312**</td>
<td>.238*</td>
<td>.336**</td>
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<tr>
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<td>.554**</td>
<td>.511**</td>
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<td>.424**</td>
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<td>.397**</td>
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<tr>
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<td>.452**</td>
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<td>.418**</td>
<td>.402**</td>
<td>.385**</td>
<td>.357**</td>
<td>.264*</td>
<td>.275**</td>
<td>.285**</td>
</tr>
<tr>
<td>Helplessness</td>
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<td>.299**</td>
<td>.410**</td>
<td>.362**</td>
<td>.276*</td>
<td>.405**</td>
<td>.335**</td>
<td>.284**</td>
<td>.352**</td>
</tr>
<tr>
<td>Secondary gain</td>
<td>.445**</td>
<td>.356**</td>
<td>.437**</td>
<td>.358**</td>
<td>.359**</td>
<td>.388**</td>
<td>.335**</td>
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<td>.297**</td>
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<tr>
<td>Spread effect</td>
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<td>.526**</td>
<td>.461**</td>
<td>.619**</td>
<td>.463**</td>
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<td>Patronization</td>
<td>.522**</td>
<td>.429**</td>
<td>.340**</td>
<td>.445**</td>
<td>.428**</td>
<td>.446**</td>
<td>.414**</td>
<td>.469**</td>
<td>.408**</td>
</tr>
<tr>
<td>Second class citizenship</td>
<td>.551**</td>
<td>.573**</td>
<td>.533**</td>
<td>.477**</td>
<td>.353**</td>
<td>.419**</td>
<td>.417**</td>
<td>.475**</td>
<td>.371**</td>
</tr>
<tr>
<td>Assumption of abnormality</td>
<td>.523**</td>
<td>.451**</td>
<td>.426**</td>
<td>.434**</td>
<td>.475**</td>
<td>.414**</td>
<td>.377**</td>
<td>.500**</td>
<td>.360**</td>
</tr>
<tr>
<td>Fear of disability</td>
<td>.406**</td>
<td>.390**</td>
<td>.346**</td>
<td>.263*</td>
<td>.462**</td>
<td>.311**</td>
<td>.343**</td>
<td>.211</td>
<td>.204</td>
</tr>
<tr>
<td>Shaming of disability</td>
<td>.594**</td>
<td>.484**</td>
<td>.540**</td>
<td>.447**</td>
<td>.593**</td>
<td>.477**</td>
<td>.538**</td>
<td>.418**</td>
<td>.375**</td>
</tr>
</tbody>
</table>

* * p < .05.
** ** * p < .01.
CHAPTER V
DISCUSSION

Research on microaggressions towards marginalized groups who are targeted because of their gender, racial/ethnic background or identification as LGBT report that microaggressions are occurring and are harmful (Torres-Harding et al., 2012). The negative outcomes reported as a result of these microaggression events include increased symptoms of depression and anxiety (Donovan et al., 2013; Huynh, 2012), binge drinking (Blume et al., 2012), and lowered self-esteem (Nadal et al., 2014). Despite these findings, few studies have investigated the occurrence of microaggressions specifically towards students with disabilities. Laws supporting the inclusion of students with disabilities reflect society’s intent to decrease discriminatory actions and to support positive academic outcomes for students with disabilities. One missing focus for ensuring inclusion is a better understanding of the occurrence and potential effects of subtle interpersonal discrimination, also called microaggressions, targeting students with disabilities in the classroom setting.

Society shapes implicit biases that result in unconscious or subtle negative judgment and behavior towards marginalized groups, including those with disabilities, which creates a climate in which microaggressions are likely to occur. Microaggressions based on implicit biases appear ambiguous and can make the classroom even more stressful and unfocused as targets and witnesses attempt to discern whether a discriminatory event has occurred. Addressing microaggressions, as well as clarifying the common themes of the messages being directed towards students with disabilities, can
help to promote understanding and eliminate or challenge the subtle discrimination, prejudices, and negative stereotyping that interfere with engagement and focus on classroom activities.

Contributions to the literature include the development of a measure specifically addressing microaggressions towards students with disabilities, using disability and mental health related themes identified by Keller and Galgay (2010) and Gonzales et al. (2014). The pilot results of the MTSDQ showed that it provided reliable and valid information regarding student perceptions of the frequency of microaggressions experienced in college classrooms. As expected, the factor analysis supported an 11-item one-factor solution for the scale with acceptable internal consistency to measure the total frequency of 11 different types of microaggression events identified in previous literature.

This scale was developed to expand the little research to date addressing the frequency with which students with disabilities encounter microaggressions. Results from the scale in this study showed that the majority participants have witnessed microaggressions towards students with disabilities. This result was surprising given the inclusionary efforts of universities in the wake of legislation such as IDEA and the ADA. Interestingly, there were no significant findings between in-group variables on total frequencies of microaggressions reported including gender, age, sexual orientation, class standing, race/ethnicity and major of study- indicating that microaggressions towards students with disabilities in college classrooms are likely occurring at similar rates in classrooms across various fields of study.
The reported frequency of specific disability microaggressions was also found to vary based on the thematic content of the interaction. Current inclusion laws may potentially explain lower relative ratings as a second-class citizen or helpless in place that supports students with a disability as being capable, deserving of equal opportunity rights, and not needing excessive help or praise to succeed. Lower reports of others focusing only on a person’s disability instead of other aspects of their identity could be explained by the fact that most participate in this study reported having “invisible” disabilities such as anxiety, ADHD, depression or learning disabilities that are not as visible (or as easily identifiable) as physical disabilities. Participants were sensitive to many other themes even with an “invisible” disability. Several of the themes noted by students with disabilities are comparable to racial, or LGBT-identified microaggression themes in the literature. Similar themes included minimizing obstacles faced by marginalized students, second-class status; identity viewed as undesirable, and incorrectly assumed negative expectations or abnormal experiences (Sue, Lin et al., 2007; Nadal et al, 2011). The experience of others acting scared or avoiding a student because of a disability is also a similar theme of other minority populations, although these negative reactions may be rooted in specific untrue beliefs and misunderstandings of disability- particularly mental health related impairments (Gonzales et al., 2014).

The microaggression theme most distinctive to persons with disabilities was “invasions of privacy” or asking personal questions about the person’s disability. Although education laws such as FERPA are in place to protect privacy, confidentiality of personal information is often not respected during social interactions.
In addition to revealing that microaggressions are being experienced, the results supported prior research that microaggression experiences are harmful to important college outcomes. Positive experiences result in students feeling that they are being respected, accepted, included and encouraged. In turn, perceptions of negative attitudes and beliefs about one’s identity create a feeling of not fitting in. The overall negative impact on students’ sense of belonging was significantly correlated with microaggressions frequency.

The results of this study further confirm past studies with LGBTQ students (Peter, Taylor et al., 2015; Rostosky et al., 2003) that microaggression messages may be one negative factor that disrupt one’s learning atmosphere when feeling disrespected and unconnected to other students. Many microaggressions themes in this study targeted a student’s social identity as a person with a disability with a negative message (Walton & Cohen, 2007). Microaggressions are, by definition, subtle attacks on the identities of persons that belong to marginalized groups. Under social identity theory, microaggressions that are more frequent would intuitively have a greater impact on a students’ sense of belonging in the environment in which those events occur. Our study found that microaggression experiences are negatively associated with belonging and participation, however, recent literature indicates that belonging may serve as a moderator between microaggression events and the anxiety that can often result from experiencing this type of discrimination (Liao, Weng, & West, 2016). In other words, the more social connectedness a student feels in their environment, the fewer anxiety symptoms appear as a result of these events.
Awareness of disability microaggressions in the classroom context could affect a student’s motivation to participate or attend class. Engaged students learn the course content that influences the final grade for a college course. Also, working in groups facilitates relationships with other students that often extend outside of class for social and academic support. Willingness to engage, however, is connected to the emotional or affective reactions students have to school experiences. Active engagement is not likely to be maintained for those students experiencing negative messages about abilities, particularly during class discussion. Negative messages also deter students from asking questions to clarify course materials or to seek help from classmates and professors. Importantly, experiencing undesirable messages about disabilities may make it less likely that students will disclose an invisible disability and seek legal accommodations to meet their learning needs. Finally, stress and inability to concentrate during class may occur when ambiguous microaggressions make it difficult for both targets and witnesses to discern if a discriminatory event occurred or the level of safety to respond to the event.

In sum, the results supported prior research that microaggressions experiences are harmful. Microaggressions towards students with disabilities are often unintentional but nevertheless undermines a student with a disability feeling of being accepted and the inclination to engage in class activities. Students who are disengaged and feeling alienated because of disability microaggressions are essentially excluded from learning activities (Lawson & Lawson, 2013). Moreover, classrooms with students who are avoiding participation also limit sharing of student diverse experiences and perspectives that can extend course content and promote thoughtful discourse. Given the importance
of engagement and sense of belonging on education outcomes, attention to strategies in future research that prevent, detect, and appropriately respond to microaggressions events are needed in the classroom setting.

**Limitations**

Several limitations of this study should also be noted when interpreting results. First, generalization of the results to all post-secondary students with disabilities may be limited due to the small sample and region-specific recruitment. Additionally, the sample was comprised primarily of white (87%), female (60%), heterosexual (63%) students between the ages of 18-25 (86%). The majority of participants also reported their disabilities as being mental health related or “invisible” disabilities which may have impacted the specific thematic content or outcome data for microaggressions reported.

Second, participants recruited online may have chosen to participate due to specific instances of interpersonal discrimination they had already encountered in classrooms and wanted to share. Finally, all data was also based on self-report that provided important insight on students’ perceptions in classroom settings. However, results may not represent the actual frequency of disability microaggressions as they occur in the classroom setting.

**Implications for Practice and Future Research**

In spite of the study limitations, results suggest several practical implications and extensions for further understanding in future studies. The results of the present study
indicate that microaggressions towards students with disabilities are happening in university classrooms and that these events have a measurable impact on important outcomes. Other universities are encouraged to utilize the MTSDQ to assess the frequency of disability microaggressions occurring on their campuses. Data regarding the specific themes of microaggressions which occur most frequently would be useful in planning interventions to increase the competency of professors in addressing these events as they happen and fostering a classroom climate that is inclusive of all students. Although the initial results on the psychometric properties of the MTSDQ are promising, additional research is needed to further confirm current themes and explore additional themes. Also, more research is needed on themes that oversimplify the diversity of this population and experiences of intersectional identities with race, gender, sexual orientation, and disabilities.

While sense of belonging and participation was revealed to be negatively impacted by microaggression events, it is unclear what other outcomes are influenced by a students’ exposure to interpersonal discrimination in college settings. Academic outcomes such as GPA, retention, matriculation or social and emotional wellbeing may be examined in future research utilizing the MTDSQ. Training programs for teachers and students to learn how to respond to microaggressions in college classrooms appropriately may be developed and tested to determine the effectiveness in mediating negative outcomes associated with these events.

These results further support that attention is needed to actively decrease microaggressions and the negative outcomes experienced after a microaggression event.
Professor and student lack of awareness and skills to confront microaggression establishes a classroom climate allowing negative views and social stigma of students with marginalized identities. Research suggests unfair biases can be corrected starting with increased awareness of one’s socially learned biases and motivation to make efforts to change (Nelson et al., 2011). Training programs for teachers and students to learn how to respond to microaggressions in college classrooms appropriately may be developed and tested to determine the effectiveness in mediating negative outcomes associated with these events. Taking steps to building a culture that supports diversity requires constant gains in cultural awareness, knowledge, and skills (Johnson et al. 2007). Also, training on how to have a dialogue on diversity, privilege and implicit biases in the classroom is vital (Sue, Lin, et al., 2007). Actively affirming statements and learning behaviors that positively validates all social identities can replace negative attitudes and acts that exclude or consequently punish or decrease student involvement. Attending to culturally inclusive positive statements, behavior, and context will enhance student’s sense of belonging that in turn influences one’s willingness to become involved in class activities (Hagerty et al., 1992).

In sum, microaggressions towards students with disabilities are occurring in college classrooms and have real consequences for those targeted, including lower student engagement and belonging within their classrooms. Prior research has shown that engagement and belonging factors also influence college adjustment and retention. Actively recognizing and addressing these microaggressions within educational settings may promote an awareness and reduction of messages that put down the identities of
students with disabilities. Future research is encouraged to determine potential training programs for teachers and other strategies to reduce the prevalence of microaggressions in classrooms and to lessen their potentially harmful effects on wellbeing.
REFERENCES


APPENDICES
Appendix A

Demographic Survey
Demographic Survey

1. Please specify your age: ________________________________

2. Class standing:

   Freshman [ ]  Sophomore [ ]  Junior [ ]  Senior [ ]  Graduate Student [ ]

3. Field of study (major): ________________________________

4. Gender:

   Male [ ]  Female [ ]  Non-binary [ ]  Other: ____________

5. Race/Ethnicity(ies):

   Hispanic or Latino [ ]  Native Hawaiian or Other Pacific Islander [ ]
   Black or African American [ ]  Asian [ ]
   White [ ]  American Indian or Alaska Native [ ]
   Other: ________________________________

6. Sexual Orientation/Identity:

   Gay or Lesbian [ ]  Straight [ ]  Bisexual [ ]  Other: ____________

7. Do you self-identify as having a disability/disabilities?  Yes [ ] No [ ]

   Please specify: ________________________________

   Are you currently receiving accommodations in the university setting for this disability?

   Yes [ ]  No [ ]
Appendix B

Microaggressions towards Students with a Disability Questionnaire (MTSDQ)

with Vignettes
Microaggressions towards Students with a Disability Questionnaire (MTSDQ) with Vignettes

**Directions:** Imagine each of the following items and vignettes as they might occur in a small college classroom (less than 50 students) at your university. First, rate how frequently have you witnessed/experienced a similar situation directed towards a student with a disability* while attending university classes.

*Under the law, Section 504, individuals with disabilities are defined as persons with a physical or mental impairment which substantially limits one or more major life activities. People who have a history of, or who are regarded as having a physical or mental impairment that substantially limits one or more major life activities, are also covered. Major life activities include caring for one's self, walking, seeing, hearing, speaking, breathing, working, performing manual tasks, and learning. Some examples of impairments which may substantially limit major life activities, even with the help of medication or aids/devices, are: AIDS, alcoholism, blindness or visual impairment, cancer, deafness or hearing impairment, diabetes, drug addiction, heart disease, and mental illness.

**Item 1:** I have seen educators or other students only pay attention to a student’s disability instead of other aspects of a student’s identity.

Example: A professor is taking role at the start of class and asks, “Are we missing anyone besides the guy in the wheelchair who usually sits in front?”

Example: A college class is divided into groups for an assignment. In one group, a student mentions how much quieter the class is “with that one ADHD student being absent today.”

<table>
<thead>
<tr>
<th>Indicate how often you have witnessed/experienced a situation towards a student with a disability similar to the above vignette while attending your university classes? (circle one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

**Item 2:** I have seen educators or other students minimize disabilities or deny that students with a disability face extra obstacles when compared to students without a disability.

Example: A professor goes on a tangent during a class lecture, then catches herself. “We had better get back to the slides before we run out of time,” she says. “I start to get kind of ADHD towards the end of the day.”

Example: The syllabus is being discussed on the first day of class. After the professor
explains the test format and accommodations available through the resource center, one peer mumbles out loud, “I wish I had a learning disability- it would be awesome having extra time on exams! Right?” Many students laugh and nod.

**Item 3: I have seen educators or other students invade a student’s privacy or ask personal questions about the person’s disability.**

Example: A student with a prosthetic limb is taking notes during a lecture. A classmate next to her touches the prosthetic and asks, “Whoa, were you born like that or did you get in an accident or something?”

Example: Presentations were due today. Before class started, one friend said to another, “You seem extra nervous today. Did you take your meds?” Another student who overheard the conversation asks if the meds were for anxiety and if they really help.

**Item 4: I have seen educators or other students persist that a student needs help or is helpless because of a disability when the student does not need help.**

Example: A professor discovers at the beginning of the semester that one of her students has accommodations through the disability resource center to receive extra time on exams. The professor decides to stop the student after class and suggest that he also attend tutoring sessions in order to be successful, given his disability.

Example: A student offers to carry the backpack of his classmate, who walks with a cane. He picks up her books and bag before she has time to answer, and continues to try and help after she objects several times.

**Item 5: I have seen educators or other students expect to feel good or be rewarded when assisting a student with disabilities.**

Example: A professor who works for the university’s website approaches a student with Down’s Syndrome after a lecture. She asks if she can take a picture of him for the website, “to help show how welcoming the university is to diverse students”.

Example: A student with a cane is carrying in a box of supplies for a presentation is asked if she needs help. She says “No, thank you!” The other student says, “Are you sure? I haven’t done my good deed for the day!”

**Item 6: I have seen educators or other students assume negative expectations just because of a disability.**

Example: In a class discussion about mental illness, a professor suggests that bipolar individuals do not make stable friends or romantic partners.
Example: A student is surprised to discover that her classmate, who has disclosed his learning disability, scored higher than she did on the last exam. She wonders if there’s been a mistake.

**Item 7: I have seen educators or other students overly praise or treat a student’s achievements to be special just because of a disability.**

Example: A student with a visible hearing aid and speech impairment is participating in a class discussion. Afterwards, a classmate comes up to tell him that he “is so inspiring for making it to college despite those challenges.”

Example: A professor spends extra time praising the efforts of a student with a disability compared to other members of the class, despite her average performance on most assignments. The student feels this feedback is insincere.

**Item 8: I have seen educators or other students treat a student like a problem or a burden because of a disability and deny rights to equal benefits.**

Example: A student discloses to her professor that she has a disability and may require accommodations to be successful. The professor asks whether the student should be taking such a difficult college course in the first place, given her condition.

Example: An ASL interpreter is signing at the front of a classroom. One student quietly mentions to another how “distracting it is for everyone who isn’t deaf”.

**Item 9: I have seen educators or other students expect that the student’s experiences are not normal because of a disability even when this is not the case.**

Example: After learning about autism in class, a student asks the professor whether individuals on the autism spectrum “ever try to date or get married?”

Example: Several students are surprised to discover that a student with cancer is still pursuing her degree during treatment.

**Item 10: I have seen educators or other students act scared or avoid a student because of a disability.**

Example: During various group projects, a professor has had to assign a student with autism to an existing group because other students have not tried to include him.

Example: As class gets out, a student with a physically apparent disability is avoided by classmates walking by. Many of them stare at her when she’s not looking, or try not to make eye contact as she walks towards them.
Item 11: I have seen educators or other students suggest that a disability is undesirable and should be kept secretive.

Example: In a group discussion, one student relates class material back to her experience with ongoing health problems. The other students seem uncomfortable and quickly change the subject.

Example: A professor is conducting a lesson on chemical imbalances that can contribute to mental illness. One student quietly mentions to another that he doesn’t believe biology has much to do with mental illness- and that people should be embarrassed if they can’t get a handle on their “issues.”
Appendix C

Student Participation Ratings
Table C1

*Student Participation Ratings*

<table>
<thead>
<tr>
<th>Indicate how directly witnessing/experiencing these events in YOUR classroom impacted your willingness or comfort…</th>
<th>Never had a negative impact</th>
<th>Rarely had a negative impact</th>
<th>Sometimes had a negative impact</th>
<th>Often had a negative impact</th>
<th>Always had a negative impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>to attend class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>to ask questions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>to share during discussions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>to work in groups.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>to give a class presentation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>to voice an opinion?.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>to help others in class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>to give or receive feedback to peers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix D

Sense of Class Belonging Ratings
Table D1

*Sense of Class Belonging Ratings*

<table>
<thead>
<tr>
<th>Indicate how directly witnessing/experiencing these events in YOUR college classrooms impacted your sense of …</th>
<th>Never had a negative impact</th>
<th>Rarely had a negative impact</th>
<th>Sometimes had a negative impact</th>
<th>Often had a negative impact</th>
<th>Always had a negative impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>belonging and of being a real part of that class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>being valued, respected and taken seriously in that class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>being included in that class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>being acknowledged when you’re good at something or produce quality work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>being accepted by others in the class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>support and encouragement from others in the class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>being able to reach out to a classmate or professor if you have a problem.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>being able to express who you are or to be your authentic self.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Adapted from the PSSM (Goodenow, 1993b).
Appendix E

Bullying in College Classrooms
Bullying in College Classrooms

A person is bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other persons. Bullying can either be direct or indirect” (Olweus, 2001).

Circle one rating that best describes your experience in your college classes.

1 NEVER = never happened to me
2 RARELY = happened only once or twice to me
3 SOMETIMES = happened 2 or 3 times a month to me
4 OFTEN = happened about once each week to me
5 VERY OFTEN = happened several times each week to me

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other students have bullied me during my classes at my college.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Other students in my college classrooms have bullied me because of a disability.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix F

Revised-Everyday Discrimination Scale
In your day-to-day life in your college *classrooms*, how often do any of the following things happen to you? Circle one for each item.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Less than once a year</th>
<th>A few times a year</th>
<th>At least once a week</th>
<th>Almost everyday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classmates act like you are not as smart.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Classmates act like they think they are better than you.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Classmates act as if they think you are dishonest.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>You are treated with less respect than other classmates.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>You are called names or insulted by other classmates.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Stucky et al. (2011).