The Relationship Between Non-Traditional Instructional Strategies and the Multicultural Competence of School Psychologists

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Recommended Citation

https://academicworks.cuny.edu/gc_etds/1729
THE RELATIONSHIP BETWEEN NON-TRADITIONAL INSTRUCTIONAL STRATEGIES
AND THE MULTICULTURAL COMPETENCE OF SCHOOL PSYCHOLOGISTS

by

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A dissertation submitted to the Graduate Faculty in Educational Psychology in partial fulfillment of the
requirements for the degree of Doctor of Philosophy, The City University of New York
2017
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This manuscript has been read and accepted for the Graduate Faculty in Educational Psychology to satisfy the dissertation requirement for the degree of Doctor of Philosophy.

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Abstract

THE RELATIONSHIP BETWEEN NON-TRADITIONAL INSTRUCTIONAL STRATEGIES AND THE MULTICULTURAL COMPETENCE OF SCHOOL PSYCHOLOGISTS

by

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Advisor: David Rindskopf, Ph.D.

School psychology training programs have taken on the great responsibility of preparing practitioners who are culturally competent and able to provide effective services to a diverse range of students, families, schools, and communities. Literature in the related fields of counseling psychology and teacher training show evidence of the effectiveness of multicultural training on trainees’ and practitioners’ cultural competence, with some evidence that the instructional methods used in courses and workshops play a role in outcome. There is to date a dearth of research available in the school psychology literature to provide guidance to trainers and program administrators as to the type of training course that would produce the most culturally competent practitioners. The broad range of practices employed across training programs demands an investigation into the benefits and drawbacks of available instructional strategies.

This study investigated the utility of non-traditional instructional strategies (e.g., cultural immersion, reflective journaling, case conceptualizations, other intimate learning experiences) as compared to traditional lecture-based instruction in school psychology multicultural training courses and workshops. It also examined practitioners’ perception of task value of multicultural training and satisfaction with training experiences as predicted by different instructional strategies. Using a national sample of 119 practitioners, regression analyses were used to analyze how non-traditional instruction is related to multicultural competence, subjective task value, and
training satisfaction. Exposure to more non-traditional instructional activities and exposure to a multicultural practicum was found to be related to self-reported multicultural competence. Self-reporting of multicultural competence was skewed towards the scale ceiling. Qualitative responses regarding training activities that participants found particularly useful also pointed towards the effectiveness of non-traditional strategies. Implications for training and research based on these findings were discussed.
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CHAPTER I

Introduction

Over the last several decades school psychology training programs have begun incorporating multicultural issues into coursework due to the nation’s shifting demographics (Rogers, Hoffman, & Wade, 1998; Rogers & Lopez, 2002). Most programs now include at least one course devoted to multicultural training. Although almost all school psychologists serve members of ethnic or racial minority groups, very few identify with a minority group themselves (Curtis et al., 2008). The growth in the minority population coupled with the current demographics of the school psychology profession create the need to train practitioners to work with students from different racial, ethnic, and linguistic groups.

Multicultural training influences the way school psychology trainees approach issues involving students and families with backgrounds different from their own (Castillo, Brossart, Reyes, Conoley, & Phoummarath, 2007). The difficulty recruiting and retaining school psychologists of color magnifies the need to train White school psychologists to serve a diverse range of communities (Proctor & Truscott, 2012).

Multicultural competence comes from multicultural training (Bodur, 2012; Keengwe, 2010; Owen, 2010). The researchers involved in this domain see the need for school psychologists to have a better understanding of how to best serve students, families, and communities with a range of cultural backgrounds. While only 7% of school psychologists identify as racially diverse, about half of public school students fall into the category classically termed “minority” (Curtis et al., 2008; US Department of Education, 2014). School psychologists are almost certain to serve students whose backgrounds differ from their own; each practitioner has a responsibility to provide services that are commensurate with best practices for
each individual. Basic training in competence begins in graduate school; administrators and individual instructors are tasked with figuring out how trainees gain that competence. The American Psychological Association (APA) and National Association of School Psychologists (NASP) have emphasized the importance of training pre-service school psychologists to work with diverse families and communities in order to provide the most appropriate services to all students (NASP, 2010; APA, 2009). Since the early 1990’s, when accrediting bodies and program administrators began noting multicultural training as a necessary component of school psychology programs, a number of delivery methods and training strategies have surfaced (Rogers, Ponterotto, Conoley, & Wiese, 1992). However, neither NASP nor APA provide particular details regarding the content of training or instructional delivery. Some preliminary work has been done to investigate the training methods that are most successful in instilling multicultural competence, but the large majority of data exists in the counselor psychology and teacher training fields (Boysen & Vogel, 2008; Dickson & Jepsen, 2007; Jones, Sander, & Booker, 2013). The present study aimed to build upon research conducted primarily in these related fields to demonstrate the most effective instructional methods for promoting multicultural competence in school psychologists.

In general, multicultural courses aim to cover the broad competencies of knowledge, awareness, and skills. These arose out of work done by Sue, Arredondo, and McDavis (1992) over two decades ago, but have been repeatedly cited by the counseling psychology field as the basic structure of multicultural competence (e.g., Robinson-Zañartu et al., 2011; Sehgal et al., 2011; Seto, Young, Becker, & Kiselica, 2006). Most outcome measures (i.e., measures of multicultural competence) rely on the three categories of this framework (Chao, Wei, Good, &
Flores, 2011; Dickson & Jepsen, 2007; Seto et al., 2006; Sodowsky, Taffe, Gutkin, & Wise, 1994).

Results are mixed regarding whether multicultural training exerts a positive influence on school psychology trainees (Dickson & Jepsen, 2007; Seto et al., 2006; Toporek & Pope-Davis, 2005). Studies reporting gains in multicultural competence, measured with competency scales or through qualitative measures, after taking a multicultural issues course show only modest effect sizes (Boysen & Vogel, 2008; Castillo et al., 2007). The wide assortment of training models and instructional methods impede researchers’ ability to clearly parse out the change agent - the qualitative or quantitative aspect(s) of progressing through a training course that engenders competency, or fails to do so.

Multicultural training for school psychologists generally consists of three types of strategies: traditional, exposure, and participatory (Dickson & Jepsen, 2007; Jones et al., 2013). Exposure and participatory strategies are classified as non-traditional approaches to instruction. Traditional strategies include didactic lectures, reading assignments, composing research papers, holding impersonal class discussions, and watching relevant films. Exposure strategies include activities that foster direct contact and interaction with persons from diverse backgrounds. These activities may consist of guest speakers, community visits, participation in cultural activities, or being assigned a culturally different mentor. Participatory strategies are the most involved and intimate learning experiences. They include immersive experiences, role-plays and counseling simulations, candid class discussions of reactions to assignments and activities, processing of emotions with peers, reflective journaling, and case conceptualizations that are discussed with and critiqued by peers.
There has been limited research exploring which of the three types of instruction yields best outcome. One study was conducted in the counseling psychology literature and found that participatory instructional strategies engendered higher positive racial attitudes as compared to traditional, teacher-centered models (Dickson, Jepsen, & Barbee, 2008). Another, also in the counseling literature, found that exposure to diverse field placements as part of multicultural training is beneficial (Chao et al., 2011). There is also some evidence that participatory strategies increase trainees’ subjective task value, or support, for multicultural training (Owen, 2010). The applicability of these and other studies to school psychology is unclear, and the field is ripe for new, updated research that takes into account the style of training employed by school psychology programs.

The purpose of the present study was to examine if and how multicultural training in graduate programs leads to multicultural competence among practitioners. More specifically, this study investigated the relationship between particular instructional methods in multicultural training courses and practitioners’ self-reported levels of competence. This information has the potential to help accrediting bodies (i.e., APA and NASP) further develop their training standards. The following research questions were addressed by the current study:

RQ1: Does more exposure to non-traditional instructional strategies during multicultural training predict a school psychologist’s self-reported multicultural competency?
RQ2: Does spending more time on non-traditional instructional strategies during multicultural training predict a school psychologist’s satisfaction with the training?
RQ3: Does the addition of structured fieldwork with diverse clients to multicultural training predict a school psychologist’s level of competence?
RQ4: Does instruction with non-traditional strategies predict an increase in subjective
Chapter II: Literature Review

This chapter presents a review of the literature on multicultural training in school psychology and related fields (e.g., counseling psychology, teacher training), with a particular emphasis on current implementation methods. First, the background and rationale for including multicultural issues in school psychology programs is presented. This includes a brief and current history of the practice of psychology in a multicultural context, including the demographics of practitioners. The section focuses on current public school demographics and the disparate schooling experiences and outcomes for students of different backgrounds. This section also discusses the importance of multicultural competence for school psychologists and other school and mental health personnel.

The second section provides a brief outline of the purported goals of graduate training as determined by accrediting bodies and scholars. It addresses the instability of the definition of competence and the difficulty of fully preparing trainees to exit programs with appropriate levels of competence in the wide range of job responsibilities attributable to school psychologists. The third section reviews current trends in conceptualizing multicultural competence broadly as well as with regard to a measurable construct. Highlighted here are the many ways in which researchers have chosen to define and measure multicultural competence in school psychology and education.

The fourth section of this chapter provides an overview of how school psychology, teacher training, counseling psychology, and clinical psychology programs have chosen to implement multicultural training.
The fifth section provides a review of the outcome literature for multicultural training. This section explores the reported outcomes of training as a general construct and delves more deeply into the outcomes potentially attributable to specific instructional methods and program characteristics. Next, in the sixth section, the instructional methods are defined as they are used in this paper. The present study depends on the integration of research on multicultural training research with instructional style. This section synthesizes those fields to demonstrate how pedagogical choices may affect multicultural competency. The seventh and final section of the chapter provides rationales for the current study, and is followed by the purposes and hypotheses of the investigation.

A Rationale for Multicultural Training in School Psychology

Shifting demographics prompted shifts in training standards. The demographics of the United States are rapidly shifting, especially within the public school system. In 2011, almost half of all public school students were categorized as minority, including Black/African American, Asian, Hispanic/Latino, Native Hawaiian/Pacific Islander, or American Indian/Alaska Native (US Department of Education, 2014). This number is expected to reach 55% by the year 2023. Psychologists, including school and counseling, as well as teacher trainers have largely interpreted these changes as a call for research on culturally sensitive practices and training programs (e.g., Dickson, Jepsen, & Barbee, 2008; Jones, et al., 2013; Keim, Warring, & Rau, 2001). Both the National Association of School Psychologists (NASP) and the American Psychological Association (APA) have emphasized the importance of training preservice school psychologists to work with culturally and linguistically diverse families and communities (APA, 2009; NASP, 2010). They have also recognized the need for trainers to attend to issues of diversity throughout training, including practicum and internship experiences. In response to
APA and NASP, most school psychology training programs include at least one course devoted to multicultural training (Rogers & Lopez, 2002).

An empirical focus on competency training gains importance as so many new practitioners begin their careers in diverse and evolving communities. According to a 2008 survey released by NASP, almost all school psychologists serve members of ethnic or racial minority groups (Curtis et al., 2008). Research on the preparation of school psychologists to work with students and families from a variety of backgrounds is still very scarce, although some have started to investigate this topic (e.g., Rogers, Hoffman, & Wade, 1998; Lopez, & Bursztyn, 2013). Most of the available literature related to the topic is found in counseling psychology and teacher education.

**Minority students experience achievement gap.** Students of various racial, ethnic, and socioeconomic backgrounds experience disparate outcomes in schooling. Data indicate an achievement gap between students of color and their White peers (e.g., US Department of Education, 2014; Vanneman Hamilton, Baldwin Anderson, & Rahman, 2009), as well as gaps in treatment along racial lines in terms of school-based discipline sanctions (Skiba et al., 2011; US Department of Education Office for Civil Rights, 2012). Specifically, over 80% of fourth-grade students of color perform below grade level in math and reading, while 48% of White fourth graders perform below grade level in math and 58% perform below grade level in reading (Vanneman et al., 2009). A similar gap exists for eighth graders, and these discrepancies have remained constant since the 1990s (Vanneman et al., 2009).

This trend continues through middle and high school, impacting graduation rates and career or higher education trajectories. For example, African American, Hispanic/Latino, American Indian, and Alaska Native students are more than twice as likely to drop out of high
school as their White peers (US Department of Education, 2014). Additionally, students of color are more likely than their White peers to be involved in suspensions, referrals to law enforcement, and school-related arrests (US Department of Education Office for Civil Rights, 2012).

Scholars in the fields of teacher training and school psychology see these disparities as evidence that more work is needed to better understand how to provide effective and culturally relevant schooling to students from culturally and linguistically diverse backgrounds (e.g., Anderson, 2012; Bodur, 2012; FantuzzoLeBoeuf Rouse, & Chen, 2010; Skiba et al., 2011).

**The role of school psychologists in ameliorating the gap.** As demographic changes continue, school personnel are expected to work competently with diverse populations. In order to do so, school psychologists must obtain, through training or otherwise, a working knowledge of how culture interacts with the process of schooling. School psychologists are responsible for establishing safe and effective learning environments in collaboration with other school personnel and families. Both APA and NASP have put forward statements that communicate their belief that multiculturally competent practitioners can help transform America’s schools so that students of all backgrounds have an equal opportunity to succeed (APA, 2010; NASP, 2010). School psychologists are trained specifically in the prevention-oriented model of positive behavioral interventions and supports (PBIS), with a unique emphasis on child psychology, education, learning theories, school systems, and classroom environments (Perfect & Morris, 2011). When used in a multiculturally sensitive way, these preventative interventions can begin to ameliorate the current disciplinary trends discussed above.

Competent school psychologists also have the potential to improve outcomes for culturally and linguistically diverse students through multiculturally sensitive consultation
(Goldstein & Harris, 2000; Tarver Behring, Cabello, Kushida, & Murguia, 2000). When appropriate multicultural approaches are used, consultation can lead to effective changes in student and teacher behaviors. Consultation can also be used to create systems-level changes across school districts and to empower community members to speak out for improvements in their schools (Goldstein & Harris, 2000).

According to the profession’s blueprint, school psychologists are “knowledgeable about development in social, affective, and adaptive domains” (Ysseldyke et al., 2006, p. 31), and are tasked with using this knowledge to make a positive impact upon diverse communities. Early intervention services, including those implemented under PBIS, have the potential to shrink gaps between students of different socioeconomic backgrounds (Hagans & Good, 2013).

School psychologists are advocates for all students; they can be called upon to work directly on the systemic problem of inequity (Speight & Vera, 2009). Over the last two decades, school psychologists have begun filling the role of systems change agents (Hawken, 2006). School psychologists already have the tools necessary to implement program-level changes, as consultation is one of the three main job roles taught in training programs. Whether or not school psychologists are able to effectively carry out programs in diverse educational settings has not been heavily researched, but some preliminary studies offer insights along with data from the related fields of teacher and counselor education. The foundation for investigating multicultural competence was established by the legal precedent set in the second half of the twentieth century.

**Legal precedent for multicultural training.** In addition to the logistical arguments for multicultural training of school psychologists based on upon evolving demographics, there is a strong legal precedent. With a growing minority student population comes the need for personnel
that can meet the legal requirements embedded within half a century of court cases. Relevant case law and resulting implications for training and practice are outlined in three landmark cases (Diana v. California State Board of Education, 1970; Guadalupe v. Tempe Elementary District, 1972; Lau v. Nichols, 1974). School psychologists must possess the competence to provide appropriate and nondiscriminatory assessment and intervention services to racially, ethnically, culturally, and linguistically diverse populations.

The precedent for cultural sensitivity when working with students with limited English proficiency (LEP) originated in the 1970 and 1972 court cases of Diana v. State of California and Guadalupe v. Tempe Elementary District. These cases involved the placement of LEP students into classes for the educable mentally retarded after they were assessed solely with standardized English measures. As a result of these court decisions, practitioners were required to assess primary language competence, test children in their dominant language, use nonverbal or performance tests when appropriate, and reevaluate all student placements (Reschly, 1980).

Another case, Lau v. Nichols (1974), set the standard for educating children who were not native English speakers. Prior to Lau v. Nichols it was commonplace to instruct students with LEP solely in English in the absence of supplemental English remediation (i.e., English as a second language [ESL] services, as they are known today). In the landmark ruling, the Supreme Court ruled that “there is no equality of treatment merely by providing students with the same facilities, textbooks, teachers, and curriculum; for students who do not understand English are effectively foreclosed from meaningful education” (Lau v. Nichols, 1974, p. 566). As a result, school personnel were effectively required to gain the competencies necessary to provide LEP students with said meaningful education, including ESL services and bilingual education.
The primary issue in the court cases cited above as well as others of the time is sensitivity towards marginalized groups of people, particularly immigrants, non-English speakers, and racial or ethnic minorities. The cases cited above set the precedent for fighting bias and discrimination within psychoeducational assessment and, later, school psychology (Reschly, 1980). However, although the court mandates unbiased and non-discriminatory assessment of students, it does not provide a definition or criteria for compliance. In the more than forty years since the Supreme Court began ruling on these issues, the psychology and education fields have been working towards constructing competencies that would allow professionals to fulfill the spirit of the laws.

The Individuals with Disabilities Education Act (IDEA) was passed in 1997, with a reauthorization, the Individuals with Disabilities Education Improvement Act (IDEIA), released in 2004. This law follows directly from the court cases of the 1970s in its call for non-biased procedures and effective intervention practices when working with diverse students with handicapping conditions (Diana v. California State Board of Education, 1970; Guadalupe v. Tempe Elementary District, 1972). IDEA and IDEIA, given the evolving demographics of the United States, set the legal precedent for establishing multicultural training of all school and mental health personnel, including school psychologists. Current disparities in competence levels within school psychology and related fields are discussed below.

**Multicultural competency among diverse professionals.** Some studies in the counseling psychology and teacher training fields have quantified the need for improved multicultural competence among White practitioners as compared to their minority peers (Chao et al., 2011; Tatum, 2002). This is an important factor given the high percentage of White school psychologists. In the 2009-10 NASP membership study, 90.7% of respondents identified as
Caucasian, while 3% identified themselves as African American and 3.4% as Hispanic (Castillo, Curtis, Chappel, & Cunningham, 2011). These reflect very minor increases in minority membership since the 2004-05 survey. This membership study only reflects those school psychologists who are members of NASP and therefore may not be representative of the population of professionals. A 2014 study by Graves, Proctor, and Aston found that the NASP survey may underestimate the number of school psychologists of color. The authors surveyed 97 school psychologists from urban, diverse districts and found that 54.8% of respondents are white, as compared to the 90.7% in NASP’s study. This may indicate that there is a higher percentage of school psychologists of color in racially diverse educational settings than the NASP survey indicates.

Graves et al. (2014) also found that 90% of practitioners serve caseloads that are 50% or more minority students, while the NASP study found the number to be only 36% of practitioners. Given that more than 80% of Americans live in urban areas where diverse communities are more likely to be found, many more practitioners than is predicted by the NASP survey likely serve large numbers of minority students (United States Census Bureau, 2010). Despite their differences, both the 2010 NASP and the 2014 independent study found that the number of school psychologists of color does not match the growing number of minority students. This means that students of color are likely under the care of White school psychologists at some point in their educational program, and those White practitioners have the responsibility to be competent in providing multiculturally appropriate services.

A basic tenet of multicultural school psychology is the idea that all people, including mental health practitioners, hold implicit bias and a worldview that affects their behavior towards people of different backgrounds. This presupposition is supported by research in school
psychology and education (Boysen& Vogel, 2006; Castillo et al., 2007; Toporek& Pope-Davis, 2005). White trainees in particular are expected to enter teacher training programs with lower levels of cultural self-awareness than their minority peers. Students from the majority culture may consider themselves separate from the idea of diversity and multiculturalism (Chao et al., 2011; Tatum, 2002).

Studies employing self-report measures of multicultural competence among counseling trainees, such as the Multicultural Counseling Inventory (Sodowsky, Taffe, Gutkin, & Wise, 1994) show significant gaps between the self-reported competency levels of minority trainees and their white peers (Chao, Wei, Good, & Flores, 2010). Some scholars (e.g., Dickson & Jepsen, 2007; Chao et al., 2010) found that these gaps can be ameliorated through multicultural training experiences. According to Castillo, Brossart, Reyes, Conoley, and Phoummarath (2007), multicultural training may also have the potential to ameliorate some implicit racial prejudice, as measured by the Implicit Association Test. Despite the potential benefits of training, a large body of literature provides striking evidence that trainees do not have the skills they need to work effectively with a diversity of cultures and backgrounds upon completion of a single training course (e.g., Dickson & Jepsen, 2007; Dickson et al., 2008; Toporek& Pope-Davis, 2005).

The Goal of Graduate Training

In their principles for ethical practice, the American Psychological Association (2002) asserts that training does not conclude at graduation; professional development and workshop attendance is crucial to extend knowledge beyond basic competence. Rather, instruction at the graduate level is intended to provide practitioners with foundational skills and an impetus for seeking out additional opportunities to develop multicultural competence in the context of their
role as a professional (i.e., assessment, consultation, counseling). NASP, too, puts lifelong learning high on their list of priorities for practitioners (NASP, 2010).

**Definition of competence.** Multicultural competence lacks a standardized definition by relevant school psychology accrediting bodies (i.e., APA and NASP), which place more responsibility on training programs to delineate what skills are necessary for practitioners. NASP provides a very general definition of competence emphasizing the importance of using knowledge about individuals and groups of people to improve service quality and outcomes (NASP, n.d.). Similarly, APA (2013) calls for a “thoughtful and coherent plan” (p. 10) in all professional psychology training programs to provide students with the knowledge and experiences necessary for working in diverse communities.

Two documents released by NASP describe how diversity and multiculturalism play a role in school psychology training and practice (NASP, 2010b; NASP, 2010c). In the prescribed model for service delivery, NASP decrees that practitioners must employ effective strategies and skills for all students while respecting human diversity (NASP, 2010c). The model also requires practitioners to engage in effective advocacy and social justice for all children, families, and schools. More specifically, practitioners should “identify diverse cultural issues, contexts, and other factors that have an impact” and “address these factors when developing and providing services” (pg. 7). NASP makes repeated use of the terms *knowledge* and *skills* when addressing multicultural competency, and also calls for an *awareness* of how implicit cultural bias affects one’s work. The model released by NASP closely resembles the triarchic model of competence developed by Sue, Arredondo, and McDavis (1992), discussed in the following section.

The NASP standards for graduate training require that programs must “emphasize human diversity” in practica experiences, at least to the degree that the university community offers
diverse settings (NASP, 2010b, p.8). These standards offer general guidelines for training programs regarding how to structure the coursework to include reference to multicultural issues. They do not, however, outline the specific ways in which trainees and graduates can effectively demonstrate and utilize multicultural practices to effect change in communities. Research on these more specific goals is discussed in the following section.

There is a quickly growing field of multicultural research in school psychology, but it continues to lag behind other psychology subfields and the teacher training literature (e.g., Newell, Nastasi, Hatzichristou, Jones, Schanding, & Yetter, 2010; Rogers & Lopez, 2002). The American Counseling Association (ACA), for example, has endorsed the release of a comprehensive document outlining necessary multicultural and social justice counseling competencies for practitioners (Ratts, Singh, Nassar-McMillan, Butler, & McCullough, 2015). School psychologists in urban areas are looking for help with multicultural competence, and scholars have been proposing addendums to training programs for decades, but little research exists on the instructional tools that will help trainees and practitioners build the skills they need to work effectively in diverse communities (Graves et al., 2014; Hawken, 2006; Splett, Fowler, Weist, McDaniel, and Dvorsky, 2013).

**Developmental readiness of trainees.** One goal of graduate training is to prepare students to benefit from the learning experiences of the program. Students entering psychology and teacher training programs don’t always envision the type of multicultural training that awaits them, namely building self-awareness and confronting personal biases or dispositions (Jones et al., 2013). This unpreparedness places demands upon the instructional style employed by course instructors, as discussed in section four. Trainees’ lack of understanding regarding what it means to be a culturally competent practitioner is one of the most important factors concerning the
establishment of a rigorous and effective instructional framework (Keim et al., 2001). Students are required not just to learn material, but to learn how to prepare themselves to deal effectively with the material in a way that promotes growth. With students who lack the emotional and developmental preparedness, programs and instructors are building competent practitioners from the ground up on many occasions.

**Multicultural Competency Development Research**

Multicultural competence for school psychologists is an evolving construct and a single definition has not been defined by the field. Researchers in school psychology and related fields have proposed numerous definitions of competence, including varying numbers of domains necessary to achieve competence (e.g., Banks, 2008; Gopaul-Mcnicol, 1997; Sue et al., 1992). Most competencies were not developed empirically but instead were based on the authors’ values, insight, and judgment. Other scholars then operationalized some of these competencies in order to build measurement scales.

Gopaul-McNiccol (1997) consolidated multicultural competencies from decades of publications into a list she believes forms the 15 major multicultural competencies for working with culturally diverse children. The items are primarily categories (e.g., language competencies, competence in understanding inter-racial issues) and do not dictate specific skill sets necessary for working in diverse communities. Rather, she refers to a long list of scholars who have contributed different pieces of the competency framework. Gopaul-McNicol’s work, which appeared to aim to surpass work done by Sue et al. earlier in the decade, remains in the background of the emerging field.

In 2002, Rogers and Lopez identified critical cross-cultural competencies for school psychologists using both qualitative and quantitative methods. Lopez and Rogers (2001), in a
follow-up study, used multiple rounds of open-ended surveys to generate their list of competencies. [Rogers and Lopez (2002) was conducted prior to Lopez and Rogers (2001) despite the later publication date]. These two lines of work represent the only set of competencies developed empirically for school psychology, and therefore warrant discussion. They go beyond the more prolific multicultural counseling competency literature by taking into account the non-counseling roles of school psychologists (e.g., consultation, report-writing, assessment).

Rogers and Lopez (2002) generated 102 critical cross-cultural competencies over 14 domains for school psychologists by conducting an extensive literature review and using panelist ratings on the relative importance of each of those literature-based competencies. Panelist members were considered experts in delivering services to racially, ethnically, culturally, and linguistically diverse clients. The panelists included both scholars (e.g., faculty members who published papers on the topic) and practitioners who focused on diverse populations. The domains include assessment, report-writing, laws and regulations, working with interpreters, working with parents, theory, counseling, professional characteristics, consultation, culture, academic interventions, research methods, working with organizations, and language. The categories include many overlapping competencies and focus heavily on developing an understanding of one’s own culture and the culture of the client, minimizing bias, and how to take culture and context into account while working with clients.

Lopez and Rogers (2001) used open-ended methodologies to generate relevant competencies. The procedure involved three rounds of panelist surveys in which panelist-generated competencies were refined and pared down. The 2001 study resulted in 89 essential cross-cultural competencies, down from the 102 found using a literature-based generation. This
comprehensive list of critical cross-cultural school psychology competencies has been cited dozens of times by scholars in the field (e.g., Arra, 2010; Styck, 2012) but have not been operationalized into a measurement instrument that would be useful for program development and assessment.

Due to the complex, multidimensional nature of school psychology as compared to counseling, finding an adequate measurement tool for multicultural competence is difficult. Self-report scales are available, individually, for measuring school psychologists’ counseling competence and consultation competence (Kong, 2011; Rogers & Ponterotto, 1997). The scale developed by Kong, however, has not been tested extensively and may not accurately capture self-reported competency. Recently, a scale that measures the multicultural competency of school psychologists and trainees was released (Malone, 2015). It, too, has not been tested extensively; more research is needed to validate its use across training programs.

Kong (2011) used methodology from Rogers and Lopez (2002) in the development of the Multicultural School-Based Consultation Competency Scale (MSCCS) for her dissertation. Malone (2015) used the competencies found by Lopez and Rogers (2001) and Rogers and Lopez (2002) in the development of the School Psychology Multicultural Competency Scale. Both Kong and Malone based their scales heavily on the 1992 framework by Sue et al., discussed below. Kong’s scale provided the foundation for the measure used in the present study.

Knowledge, awareness, skills, and action. The most prominent work in the field of multicultural competency, and which has formed the basis for many of the scales used to measure competency in trainees and practitioners, originated in Sue et al.’s 1982 position paper. This framework includes 11 essential competencies necessary to provide appropriate services to racially and ethnically diverse clients. This position paper was published by APA’s Division of
Counseling Psychology (Division 17), again highlighting the lag of school psychology in relation to related subfields. The 11 competencies were conceptualized within three broad domains: knowledge, skills, and awareness. Knowledge refers to having specific knowledge of the cultural group the practitioner is working with in addition to knowledge about her own cultural group. The skills domain encompasses the ability to develop and utilize culturally appropriate problem identification and intervention strategies. The awareness category involves a practitioner’s awareness of personal biases, values, and assumptions that affect the counseling process.

These 11 competencies were expanded to 31 in a call to the profession published in the Journal of Counseling and Development in 1992 by Sue et al. In 2015, the American Counseling Association released a comprehensive framework for counseling competencies for practitioners based on the 1992 set of multicultural counseling competencies (Ratts et al. 2015). In addition to knowledge, skills, and awareness, Ratts and his colleagues included action as one of the four pillars of multicultural competence. They also developed the awareness category further into attitudes and beliefs.

Work by Sue and his colleagues, most notably the 1992 paper, has served as the foundation for four widely used self-report measures of multicultural competency: the Multicultural Awareness-Knowledge and Skills Survey (MAKSS; D’Andrea, Daniels, & Heck 1991), the Multicultural Counseling Awareness scale - Form B (MCAS-B; Ponterotto, Rieger, Barrett, & Sparks, 1994), the Multicultural Counseling Inventory (MCI; Sodowsky, Taffe, Gutkin, & Wise, 1994), and the Cross-Cultural Counseling Inventory - Revised (CCCI-R; LaFromboise, Coleman, & Hernandez, 1991). This study uses the three original competencies; namely awareness, knowledge, and skills; in order to identify the effectiveness of current multicultural training initiatives. Assessment tools based on these competencies are readily
available and have been validated for use with trainees and practitioners in other fields, but remain critically limited in school psychology. The current study will make use of an adapted scale that is more focused on school psychologists and their broader list of activities (i.e., counseling, consultation, assessment).

**Implementation of Multicultural Training in Psychology and Education**

**Lack of specificity in school psychology guidelines.** As previously discussed, APA and NASP require multicultural training in all accredited clinical, school, and counseling psychology programs (APA, 2013; NASP, 2010b). These mandates require program directors and course instructors to make decisions on the influential aspects of training, including the definition of competence and instructional methods. In response to these broad regulations, numerous scholars have stepped up to summarize the major multicultural competencies that should be included in training programs as well as the methods of implementation (e.g., Gopaul-McNicol, 1997; Kearns, Ford, & Brown, 2002; Robinson-Zañartu et al., 2011). A review of current training methods was also conducted over two decades ago, but no researcher has updated the information since (Rogers et al., 1992). The 1992 survey of program directors found that 40% of programs had no multicultural training in their course sequences. These programs did not offer a diversity-specific course and also had not integrated multicultural themes into core school psychology courses. Of the 60% of programs that did offer specific training courses, they were required only 75% of the time. Approximately one-third of surveyed programs did not provide trainees with relevant practical experiences, such as practicum placements with a diverse student population. In their effort to gather field-wide information, Rogers et al. contacted every school psychology program director; they yielded a 67% response rate. Their report demonstrated the practical outcomes of lax multicultural training standards.
In 1998, Rogers et al. investigated the multicultural training practices of five counseling programs and five school psychology programs, all APA-approved. These ten programs were chosen as notable examples based on nominations from scholars who had demonstrated expertise in multicultural issues by authoring at least three published articles on the topic. Rogers et al. found considerable variability among the ten programs and noted that counseling programs, system-wide, were more likely to show a commitment to multicultural training than school psychology programs. They used both qualitative (e.g., semi-structured phone interviews with faculty members) and quantitative (e.g., coding application packets) methods to gather data. In contrast to prior work by Rogers et al. (1992), four of the five nominated school psychology programs had a specific diversity course. All of the counseling programs included such a course. Only one of the school psychology programs reported that students were conducting theses or dissertations with a multicultural emphasis whereas all five of the counseling programs indicated diversity-themed theses or dissertations. All five of the school psychology programs exposed students to diverse clientele through practica and internship experiences, in contrast with two-thirds of the programs that did so in the 1992 survey of a wider pool of programs. Based on these findings, while some notable training programs have become committed to providing multicultural competency training, they continue to fall behind the closely related field of counseling psychology. The conclusions that can be drawn from this 1998 study are limited because it does not provide information regarding the typical training model used across school psychology programs and instead focuses solely on five nominated programs that are likely to be closest to ideal.

Kearns et al. (2002), in their unpublished study, gathered data that suggest that some of the information reported by Rogers et al. a decade earlier still stands; school psychology
programs continue to struggle with multicultural training integration. The 10 randomly selected school psychology training programs in Kearns et al. each reported that they included multicultural content in their courses, but the authors noted a lack of a “systematic approach” across the programs. They also pointed out that none of the programs incorporated all of the training practices that were considered important by APA. In 2002, therefore, the situation of multicultural training had advanced, but most programs were still in need of additional adaptations.

**Pilot work for the present study.** Pilot work done by this author, in an effort to update the data gathered by Rogers et al. (1992), demonstrated that while the majority of school psychology training programs include a multicultural course in their required sequence, the objectives, assignments, and nature of those classes vary greatly. The researcher collected 32 syllabi from required multicultural training courses in NASP-approved school psychology programs. Individual departments and instructors interpret the NASP requirement for multicultural competence training in a broad manner; there is little consistency among courses with regard to texts used, content covered, and required assignments. While 82% of the courses labeled as multicultural training courses sufficiently adhered to the broad array of multicultural competencies outlined by a variety of scholars, they did so in a divergent manner. Each course emphasized different aspects of multicultural competency to different degrees and with different language. Course content generally emphasized the study of specific populations and general terms (e.g., diversity, race) to the exclusion of personal identity development, reflection, and skills building, which were featured much less often in the syllabi.

The syllabi sampled were inconsistent in their approaches to multicultural issues. While some programs favored an exploration of group-specific issues, others tended towards a broader
notion of competence, focusing on building skills that are useful across groups. Skills
development, long cited as lacking in multicultural competency courses, was not a major focus
of the syllabi based on daily session content and assignment data. Rather, the syllabi focused
more on building knowledge and, to a lesser extent, self-awareness. The assignments and
activities required by the 32 courses demonstrated great breadth as well as creativity by
instructors and programs. Only one of the courses did not require anything beyond the traditional
assessment measures (i.e., participation, exams, journal articles, research paper).

In general, the studies reviewed in this section of the chapter suggest that a lack of
systematic agreement among school psychology training programs persists with regard to
multicultural training implementation. The range of interpretations also makes it difficult to
devide a standard definition of multicultural competence. This is in spite of general guidelines
released by APA and NASP as well as tighter commitment and conformity across counseling
training programs. The absence of more recent field surveys precludes our understanding of
current practices in school psychology training programs. Due to the limited information
available, the following sections will examine the recent literature in related fields. This will
provide a basis upon which to interpret the results of the current study.

**Implementation in counseling psychology programs.** In counseling psychology
training programs, multicultural training can be implemented as infusion (i.e., all courses include
aspects of multicultural training) or stand-alone (i.e., one or more courses dedicated to
multicultural training). Scholars consistently call for the former (Abreu, Chung, & Atkinson,
2000; Pieterse, Evans, Risner-Butner, Collins, & Mason, 2009). Research from the 1980’s and
1990’s supports the use of the infusion approach, though the stand-alone method is much more
common and, therefore, is much more likely to be the focus of training studies (Abreu et al., 2000; Pieterse et al., 2009).

Pieterse et al. (2009) surveyed multicultural counseling courses and found a significant breadth of material across the courses. Pieterse et al. conclude that programs lack a standardized understanding of what it means to gain the knowledge, awareness, and skills that 96% of the courses endorsed. Pieterse et al. (2009) also surveyed the assessment methods used. There was very little consistency across the courses, but the assignments tended to be geared towards building self-awareness and knowledge rather than skills.

Malott, Paone, Maddux, and Rothman (2010) surveyed instructors of multicultural counseling courses. They found that almost all instructors included some iteration of increasing student awareness of their own assumptions, values, and biases regarding others in their courses. Most instructors also cited development of cultural empathy and knowledge of different groups as course components. There was wider variability among the instructors with regard to the narrow objectives (e.g., assessment practices, diverse religions).

Malott et al. (2010) also found wide variation in the strategies used by the instructors to meet the course objectives. Malott and her colleagues note that more information is needed about empirically-supported instructional strategies before training standards can be set. The present study aims to begin filling this research gap.

Implementation in clinical psychology programs. There is limited data on how multicultural training is currently implemented in clinical psychology programs. Tori and Ducker (2004) found that restructuring of training programs to implement new multicultural initiatives is a difficult process that can give rise to tensions between different racial and ethnic groups. They
concluded that more information is needed about what works before changes can be implemented across the field.

Lee and Khawaja (2012), working in Australia, found wide variability in multicultural training across the continent with regard to hours of education, supervision, and practical experience. The lack of consistency found in the United States extends to Australia, where there are similar issues surrounding diversity.

**Implementation in teacher education programs.** Compared to the psychology subfields, multicultural training is a popular research topic in the teacher training field (e.g., Gay, 2002; Kim, 2011; Owen, 2010). Gorski (2008) surveyed syllabi from multicultural education courses. He found that only 12 of the 45 syllabi he examined had the potential to prepare authentic multicultural educators. Gorski notes that despite this finding, the syllabi all met the standards set by The National Council for Accreditation of Teacher Education (NCATE). Broad standards set by accrediting bodies, therefore, may be insufficiently broad to ensure the development of effective multicultural educators.

Ullucci (2010) interviewed teachers in low-income urban school districts who taught primarily students of color. Her interviewees cited experiences that required them to look at life from the perspective of someone of another ethnicity as the most influential during their training. This type of non-traditional experience led to self-reflection, allowing the teachers to uncover hidden values and unconscious biases in themselves and the environment.

Keengwe (2010) looked at the effect of pairing preservice teachers with English Language Learners enrolled in the same university. According to Keengwe, this non-traditional experience pushed the trainees to acknowledge their stereotypes and biases in their efforts to
connect with their partners. He recommends that cultural experiences become a part of all teacher training programs.

A similar activity was examined by Waddell (2011). Preservice teachers became immersed in diverse communities through interviews, volunteer work, and field trips alongside traditional didactic instruction. Waddell concluded that the non-traditional instructional experiences led to new, holistic perceptions of the community and self-reflection of biases and assumptions. She noted that the trainees particularly benefited from the classroom safe space, where they could express themselves freely without the constraints of political correctness.

Garmon (2005) synthesized the research to provide a list of key factors in diversity training for teachers. He noted the importance of a safe space that challenges trainees’ dispositions while providing experiences that foster multicultural awareness and sensitivity. He calls for non-traditional instructional experiences to enhance teacher training.

The studies reviewed here indicate an ongoing need for quantitative data examining the effectiveness of these instructional experiences. While scholars argue for concrete and specific objectives for preservice teachers, data from operating programs show an overall lack of specificity and depth in conjunction with weak central mandates from NCATE. Concrete data is necessary before training programs can be expected to incorporate new or enhanced models of multicultural training. The following section provides an overview of the outcomes of multicultural training across psychology subfields and education.

**Outcomes of Multicultural Training**

Across the psychology and teacher training literature, outcome studies have found mixed results of multicultural training initiatives. When researchers break down training into its
component parts and examine the instructional experiences that directly relate to competence outcomes, results are more favorable. These findings are discussed below.

**Studies in psychology subfields.** There is one available study from the clinical psychology field. Lee and Khawaja (2013) found that supervision and therapy experiences with culturally diverse clients were related to the self-reported levels of multicultural competence of clinical psychology trainees. More traditional coursework (e.g., lectures) was not associated with competence.

In the counseling psychology field, studies consistently find positive but mild effects of multicultural training on counselors’ self-reported multicultural competence (e.g., Boysen & Vogel, 2008; Chao et al., 2011; Constantine, 2001). Constantine (2001) specifically points out the necessity for future research to parse out the influence of specific multicultural training activities on competence. Most studies reviewed below look at multicultural training as a whole rather than the pieces of training as individual predictors.

Chao et al (2011) found a multicultural competence gap between White and minority trainees that disappears at higher levels of multicultural training (i.e., more courses or workshops taken). Chao’s study points towards the usefulness of training but does not indicate which training experiences were significant predictors. Barden and Greene (2015) also found support for multicultural training. They found that time in graduate school predicted self-reported multicultural competence, but not self-reported multicultural efficacy. Counselors continued to feel unprepared to work with diverse clients despite their bolstered competence. These two studies looked at multicultural training very broadly and found modest support.

Two studies used implicit measures of racial bias or prejudice as indicators of competency in counseling trainees (Boysen & Vogel, 2008; Castillo et al., 2007). Castillo et al.
(2007) found that students in a multicultural counseling class averaged a 9% improvement on the Race Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998). Boysen and Vogel (2008) found no effect of multicultural training on implicit bias, as measured by a written version of the IAT (Lowery, Hardin, & Sinclair, 2001). These competing results warrant further research that better defines the specific predictive factors within training.

Four studies looked at competence in more detail (Constantine, 2001a; Constantine 2001b; Tomlinson-Clarke, 2000; Toporek & Pope-Davis, 2005). Tomlinson-Clarke (2000) found that students in a multicultural training course felt they needed more in-depth multicultural training, specifically additional non-traditional experiences and challenges outside the classroom. The participants reported that their coursework was helpful overall, but they required more training in cultural self-awareness and self-knowledge. Tomlinson-Clarke did not use a formal measure of competence and instead relied on participant interviews and written responses. This study highlights the value of trainee feedback; the participants were able to recognize their limitations and outline what they felt was necessary to increase their multicultural competence.

Constantine (2001a) found that formal academic coursework related to multicultural counseling can predict counselors’ ability to conceptualize etiology and treatment issues of a minority client. Cognitive and affective empathy also played a role in counselors’ case conceptualizations. This is one of the few studies that does not use self-report as a measure of competence. She calls for the incorporation of empathy training in multicultural coursework.

A second similar study (Constantine 2001b) used a self-report scale to measure cross-cultural counseling competence. Similar to her previous study, she found that the number of multicultural counseling competency courses taken was significantly related to self-reported multicultural counseling competence in practicing female school counselors. The results did not
hold for male participants. Constantine calls for more research on the factors within the courses that lead to competence.

Toporek and Pope-Davis (2005) found that multicultural courses and workshops predicted trainees’ endorsement of external and structural causes of poverty rather than individual or dispositional causes. They argue that the attribution of poverty is a valid indicator of multicultural competence. Additionally, Toporek and Pope-Davis call for additional research that can break down the components of training that are most effective.

In general, the studies reviewed above demonstrate a trend towards positive effects of multicultural training, with few caveats. The effects, however, are typically small and researchers are calling for additional studies that parse out the effects of different instructional methods over longer periods of time.

**Studies in teacher education.** A brief review of the literature in the teacher training field shows that multicultural training typically produces some positive effects, but modifications to implementation are necessary to produce teachers that are ready to work effectively in diverse communities. Sleeter (2001) conducted a meta-analysis. She found that fieldwork and student teaching, particularly those experiences that help trainees relate to the experiences of minorities, have the potential to increase cultural awareness. She warned, however, that some poorly planned practicum or tutoring experiences can reinforce or create stereotypic attitudes. Sleeter also found that the infusion method of training has the potential to help students gain multicultural teaching skills, but students were still generally under-prepared to work in diverse communities.

Dooley (2008), using qualitative measures, found that multicultural training can lead to small conceptual changes about culture, literacy, and language that are indicative of multicultural
competence. Dooley analyzed her participants’ instructional planning and found that it became more culturally responsive due to the trainees’ expanded definitions of culture, language, and literacy.

Ferrara, Larke, and Lea (2010) relied on trainee feedback for their study. The participants felt that their training consisted of too much traditional coursework (e.g., lectures) and that they would benefit from additional time observing high quality teachers at work. The trainees noted student teaching as the most impactful course. Ferrara et al. found that the trainees developed a deeper understanding of how culturally responsive teaching can affect their students, but the researchers did not see any measurable growth in multicultural self-awareness.

Mueller and Hindin (2011) also found support for field experiences, based on trainee feedback. However, they also found that field experiences have the potential to expose trainees to negative actions that do not align with culturally responsive practices. They call for supervised fieldwork that is coordinated in such a way as to guarantee that the supervising teachers uphold the philosophy and methods of the training program.

Bodur (2012) used quantitative and qualitative methods to compare the multicultural competence of trainees who had or had not yet completed a multicultural training course and a field experience in a diverse setting. He found that the completers scored higher on a measure of multicultural awareness, and follow-up interviews confirmed that the students who had completed the multicultural training had more mature, self-reflective views of culturally responsive teaching.
Owen (2010) also found support for non-traditional instruction. Owen’s participants experienced project-based learning in their multicultural teaching course. She found that the majority of students in the course became more culturally competent by the end of the semester.

One study found no support for multicultural coursework (Locke, 2005). Locke included only didactic (i.e., traditional) instruction in his study. He found that the multicultural training course did little to influence students’ multicultural perspectives. He argues that the isolated didactic course cannot compete with trainees’ pre-existing beliefs and did not provide the necessary safe space for growth.

The studies reviewed above show some mixed results but generally point to the potential for multicultural training, particularly non-traditional instruction (e.g., fieldwork, project-based learning), to lead preservice teachers towards higher cultural responsivity. Scholars in the teacher education field as well as the psychology subfields call for more non-traditional instructional methods that allow students to approach issues of diversity at their own pace and in the real world. A more specific explanation of non-traditional strategies, as described by Kim and Lyons (2003), will be discussed in the next section.

**Non-Traditional Instruction**

The present study uses the term non-traditional instructional strategies as an umbrella for participatory and exposure strategies, described below. Participatory instructional strategies include a broad range of activities and assignments, and the construct has been used by different researchers with some minor modifications. In essence, participatory instruction includes those strategies that require trainees to become part of their learning experience. Many of the studies reviewed above include examples of such strategies while also demonstrating the fluctuating inclusionary and exclusionary criteria of this term. Dickson et al. (2008), for example,
differentiate participatory methods from exposure methods (e.g., visiting diverse neighborhoods), while other researchers group them together (e.g., Bodur, 2012).

The studies reviewed here provide evidence for the benefits of non-traditional instructional strategies. Dickson and Jepsen (2007), Ferrara et al. (2010), and Bodur (2012) all found that working with multicultural clients, either as teacher trainees or counselor trainees, improved multicultural competence. Owen (2010) found that project-based learning positively contributes to competence. Jones et al. (2013), Dickson et al. (2008), and Seto et al. (2006) all gathered data supporting the positive influence of interactive simulations or role playing on multicultural competence. This support adds to the information from Sleeter’s (2001) earlier review which reports on the effectiveness of cross-cultural immersion experiences.

Non-traditional instructional strategies evolved from the constructivist teaching framework, which has become popular in both K-12 education and medical training programs. Research into the mechanisms of constructivism highlights the ways in which these instructional methods may be effecting change in psychology, counseling, and teacher trainees. Schmidt, van der Molen, teWinkel, and Wijnen (2009) found that constructivism allows students to take control of their learning with a self-guided exploration of topics that has a reduced dependence on instructors. Prawat and Floden (1994) made the argument that the discussion, elaboration, and focus on deep understanding and real-world connectedness that are central to constructivism are the change agents responsible for improved results. Nie and Lau (2010) found that constructivist strategies improve student support for instruction.

For the purposes of this study, non-traditional instruction includes those methods that go beyond traditional didactic teaching and assignments (i.e., lecture, research papers, and exams). The present study includes exposure methods, such as cross-cultural immersion; reflective
activities, such as journaling, simulations, or role plays; supervised clinical work with diverse children; and case conceptualization under this umbrella term. The spirit of participation in one’s own learning involves going beyond class discussions and observations; it necessitates experiencing multicultural issues first-hand. This dissertation uses the findings from both counselor and teacher training studies in order to build upon the school psychology literature base. The specific details of the current project are discussed in the following section.

Rationale

Based on the review of the literature, it is clear that multicultural training is a necessary component of school psychology preparation programs. National trends indicate that student diversity is increasing at a much faster rate than practitioner diversity, highlighting the necessity for practitioners to be able to provide services to children, families, and communities that differ from their own cultural background (Castillo et al., 2011; US Department of Education, 2014). While most school psychology programs have some element of multicultural training available according to this author’s research, and both APA and NASP have recognized the importance of multicultural training, there are no specific mandates regarding what training should look like or what outcomes are expected (APA, 2013; NASP, 2010b; Rogers et al., 1998). Research in related fields has been advancing much more quickly. Specifically, counseling psychology and teacher training research point to the importance of not just whether or not multicultural training is available but the way it is provided (e.g., Ferrara et al., 2010; Constantine, 2001b; Sleeter, 2001).

It is crucial that specific data are obtained for school psychologists. The importance of conducting research in the area of multicultural competence is strongly supported by: (a) current societal trends that indicate growing diversity among U.S. school children and families, (b)
school psychologists’ legal and ethical obligation to provide services that are culturally responsive, and (c) the potential effectiveness of multicultural training as suggested by numerous outcome studies in the nearby fields of counselor and teacher training.

Prior studies in the related clinical, counseling, and teacher education fields have set the stage for research that more closely examines multicultural training for school psychologists. Many of the studies reviewed above depend on small, homogeneous participant cohorts that undergo uniform training in a small amount of time. Researchers thus far have primarily explored the effect of training in general, or have used only qualitative data to examine the impact of non-traditional strategies on competence. Scholars have also neglected to quantify trainee support for multicultural training, which is often alluded to in their results and may be a contributing factor in how trainees respond to multicultural course work. The present study builds upon the research foundation by gathering data that reflects the potential effects of instructional methods in various school psychology programs across the United States.

**Purpose**

The purpose of this investigation was to determine the relationship between non-traditional instructional strategies used in school psychology training programs to promote multicultural competence, satisfaction with training, and subjective task value of training. This was measured by a self-report scale. The study compared non-traditional methods with more traditional didactic teaching (e.g., lectures, exams). The ultimate goals of the study were to establish empirical support for specific types of multicultural training that lead to competence and to provide guidance in an emerging field to both trainers and researchers regarding ongoing investigations into the best practices of multicultural competence training.
Hypotheses

Based on prior work in related fields, four hypotheses were proposed with respect to examining the usefulness of non-traditional instructional strategies.

RQ1: Does spending more time on non-traditional instructional strategies during multicultural training predict a school psychologist’s self-reported multicultural competency?

HO1: It is expected that more exposure to non-traditional instructional strategies during multicultural training will be positively correlated with competency scores on the self-report scale of multicultural school psychology competence. In other words, practitioners who took coursework that included a higher percentage of time spent on or a higher number of non-traditional instruction will have higher levels of competency. Additionally, it is expected that spending more time, proportionally, on traditional strategies will predict lower scores on the competency scale.

RQ2: Does spending more time on non-traditional instructional strategies during multicultural training predict a school psychologist’s satisfaction with the training?

HO2: It is predicted that practitioners who experienced a higher proportion of non-traditional instruction in their multicultural training would be more satisfied with their training, while practitioners who experienced a higher proportion of traditional strategies would be less satisfied.

RQ3: Does the addition of structured fieldwork to multicultural training predict a school psychologist’s level of competence?

HO3: It is predicted that structured fieldwork integration (e.g., supervised practicum with diverse clients) will be positively related to level of competence.
RQ4: Does instruction with non-traditional strategies predict an increase in subjective task value for multicultural training?

HO4: A higher proportion of non-traditional instructional strategies will predict higher subjective task value for multicultural training.

CHAPTER III

Method

This chapter presents the methodology that was used to address the hypotheses and research questions concerning the predictive value of non-traditional instructional strategies on the multicultural competency of school psychologists. First, participant solicitation is described. This is followed by a description of each instrument that was used in the study, as well as a rationale for using these instruments. Finally, the investigator will present the study’s design and methods for data analysis.

Participants

A national sample of master’s- and doctoral-level school psychologists was identified through an online recruitment process. First, the investigator contacted all NASP-approved school psychology training programs that are listed on the NASP website with contact information; unapproved programs were not initially contacted due to difficulty obtaining a complete list of these programs. The contact person at each program was asked to solicit the participation of their alumni by forwarding an email containing information about the study, including a link to an online survey. Approximately three weeks after the programs were initially contacted, a reminder email was sent.

Participants were also recruited through posting a recruitment letter on several professional listservs (e.g. state school psychology associations’ member lists). A snowball effect
method of recruitment was also used. Invitations to participate indicated that the invitation could be forwarded to additional potential participants known by the recipients. The recruitment letter included a brief summary of the study, expected time commitment, a link to the SurveyMonkey survey, and contact information in case there were any questions.

A total of 176 potential participants began the online survey. One hundred twenty-three of these participants completed the survey. Those who did not complete the survey were not statistically different from the completers. Chi-square tests were used to compare the two groups. These incomplete surveys were dropped from all analyses. Data tables for the missing participants can be found in Appendix D.

Recruitment continued until the usable response rate reached the target sample size as determined by a power analysis using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007). A test using G*Power 3 software indicated that the desired sample size for the hypotheses testing for the current study was 114 participants. The sample size determination was based on an $f^2$ of .15 and .95 statistical power. The minimum sample size for detecting a medium effect size with 17 variables (4 independent, 13 control) with a 95% probability of finding a true effect was determined to be 130. The survey was closed shortly before reaching this point due to a lack of responses. The study, therefore, is slightly underpowered.

Four participants responded “Don’t Know” on more than 40% of the multicultural competency scale items. The data from these four participants was unlikely to provide accurate or useful information regarding their competency and their data were removed from primary analyses. Therefore, all primary analyses included a total of 119 participants. The qualitative analysis, however, included responses from all original participants in order to provide the fullest
practitioner report of experiences; 119 of these 123 participants answered the open-ended question.

Participants included in the statistical analyses \( n = 119 \) ranged in age from 24 to 65, with a mean of 40 years old. See the following tables (Table 1, Table 2) for a summary of participant demographic information. In general, participants were mostly female (91%), mostly White (86%), and have been practicing school psychology for ten years or less (63%). Age also skewed downwards, but the mean age was 40 years. Due to the very low number of participants who identified as Black/African American, Asian/Pacific Islander, Hispanic/Latino, and Other, these categories were collapsed into a category representing all participants who identify as a minority. The variable *Recoded Race* was used for all analyses.

Table 1

*Participant Demographics: Categorical*

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<th>Frequency</th>
<th>Percent</th>
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<td>Hispanic/Latino</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>3.4</td>
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<tr>
<td>Recoded Race</td>
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<tr>
<td>White/Non-Hispanic</td>
<td>98</td>
<td>82.4</td>
</tr>
<tr>
<td>Minority Identification</td>
<td>21</td>
<td>17.6</td>
</tr>
<tr>
<td>Gender</td>
<td>Count</td>
<td>Percentage</td>
</tr>
<tr>
<td>-----------------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>Female</td>
<td>108</td>
<td>90.8</td>
</tr>
<tr>
<td>Male</td>
<td>11</td>
<td>9.2</td>
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<tr>
<td>Other</td>
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<table>
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<tr>
<th>Age Range</th>
<th>Count</th>
<th>Percentage</th>
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<tbody>
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<td>24-35</td>
<td>49</td>
<td>41.2</td>
</tr>
<tr>
<td>36-45</td>
<td>36</td>
<td>30.3</td>
</tr>
<tr>
<td>46-55</td>
<td>16</td>
<td>13.4</td>
</tr>
<tr>
<td>56-65</td>
<td>18</td>
<td>15.1</td>
</tr>
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<table>
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<tr>
<th>Geographic Region</th>
<th>Count</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>South</td>
<td>23</td>
<td>19.3</td>
</tr>
<tr>
<td>Midwest</td>
<td>13</td>
<td>10.9</td>
</tr>
<tr>
<td>West</td>
<td>14</td>
<td>11.8</td>
</tr>
<tr>
<td>Northeast</td>
<td>64</td>
<td>53.8</td>
</tr>
<tr>
<td>No response/Puerto Rico</td>
<td>5</td>
<td>4.2</td>
</tr>
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<table>
<thead>
<tr>
<th>Degree Held</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters</td>
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<td>46.2</td>
</tr>
<tr>
<td>Specialist/Advanced Degree</td>
<td>16</td>
<td>13.4</td>
</tr>
<tr>
<td>Doctoral</td>
<td>48</td>
<td>40.3</td>
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<table>
<thead>
<tr>
<th>Years in Practice</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>51</td>
<td>42.9</td>
</tr>
<tr>
<td>6-10</td>
<td>24</td>
<td>20.2</td>
</tr>
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</table>
Table 1 Continued

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>11-15</td>
<td>12</td>
<td>10.1</td>
</tr>
<tr>
<td>16-20</td>
<td>12</td>
<td>10.1</td>
</tr>
<tr>
<td>More than 20</td>
<td>20</td>
<td>16.8</td>
</tr>
</tbody>
</table>

Multicultural Training History

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>One or more courses</td>
<td>38</td>
<td>31.9</td>
</tr>
<tr>
<td>One or more courses and workshops</td>
<td>62</td>
<td>52.1</td>
</tr>
<tr>
<td>No multicultural course, but exposure in other courses and/or workshops</td>
<td>16</td>
<td>13.4</td>
</tr>
<tr>
<td>No training at time of study</td>
<td>3</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Note. n = 119.

Table 2

Participant Demographics: Age and Years in Practice

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Range</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>24-65</td>
<td>40.2</td>
<td>11.1</td>
</tr>
<tr>
<td>Years in Practice</td>
<td>0-38</td>
<td>11</td>
<td>9.7</td>
</tr>
</tbody>
</table>

Note. n = 119.

Procedures

When a potential participant clicked on the hyperlink provided in the recruitment email, they were taken to a website hosting an introduction letter followed by the survey (see Appendix A). The introduction letter included a description of the study; a promise of confidentiality; a statement indicating that their participation is voluntary, and that completing and submitting the questionnaire constitutes consent on their part to participate; an explanation of why their participation is important; the anticipated amount of time required for completion and
submission; and notification that results of the study will be sent if requested during participation. The cover letter was followed by the three-part survey: the demographic questionnaire, the multicultural training experiences questionnaire, and an adjusted version of the Multicultural School-Based Consultation Competency Scale (Kong, 2011). The participants were able to stop the survey and continue it at a later time using the same computer and web browser. All results from the survey were sent to and stored in a secure online database.

**Measures**

**Demographic questionnaire.** All participants were asked to provide basic demographic information, including age, gender, race, years in practice, degree earned, the name of their university, and their training history (i.e., level exposure to multicultural training in courses and/or workshops). The full survey instrument is reprinted in Appendix A. Universities were coded based on geographic region (South, Northeast, Midwest, West, No Response/Puerto Rico). Participants were asked their age in order to garner information regarding the way cohort factors, including shared experiences or timely cultural trends, may influence someone’s dispositions. Prior studies have found an effect of race and gender on multicultural competency, making the current control of these variables a necessity (Chao et al., 2010; Constantine, 2001b). Because one would reasonably expect practitioners’ competence to continue growing as they progress through their careers, it is important to control for years in practice. School psychologists who hold a master’s or specialist degree may differ qualitatively from those with a doctorate, necessitating these as additional control variables. Including geographic region in the analyses may provide information regarding whether there are geographic differences in training programs or competence outcomes. Information on participants’ exposure to training in courses and/or workshops allows the researcher to note whether training in general predicts competence.
**Multicultural training experiences.** Information concerning the participants’ multicultural training experience was solicited on a questionnaire constructed by the investigator based on work by Dickson and Jepsen (2007). Participants were provided with definitions of traditional, participatory, and exposure instructional methods. Participants were asked to record the percentage of time that their training focused on each type of instruction. The responses were automatically required to add up to 100%. Traditional strategies were defined as didactic lectures, reading assignments, research assignments, and impersonal class discussions of topics. Participatory strategies were defined as role-plays and simulations, candid class discussions of reactions to assignments, and reflective assignments such as journaling. Exposure activities include direct contact and interaction with persons from diverse backgrounds, such as participation in diverse cultural activities, practicum, and community immersion. For all analyses, exposure and participatory strategies were included under the umbrella term of non-traditional strategies.

As additional exploratory information, participants were asked for similar information in a different format. Participants were asked to tally the activities that made up their multicultural training experiences. The survey provided a list of 15 activities and participants were asked to check each activity that was included in their training. The activities list included five traditional strategies and ten non-traditional strategies (five each of participatory and exposure). These data were used as secondary predictors for exploratory analyses regarding the relationship between exposure to non-traditional activities and resulting multicultural competence. Participants were also asked whether their training included supervision focused on multicultural issues (e.g., at practicum or internship). Finally, participants were asked to rate their overall satisfaction with
their training program and their opinion regarding the importance of obtaining multicultural competence (i.e., task value).

**Multicultural competencies.** Multicultural competence was measured using a modified version of the Multicultural School-Based Consultation Competency Scale (MSCCS; Kong, 2011). The MSCCS measures the multicultural consultation competence of school psychologists. It was validated on both practitioners and trainees, and follows the three factor model created by Sue et al. (1992; i.e., knowledge, awareness, skills). The MSCCS has a Cronbach’s alpha of .96, indicating very high internal consistency reliability. A confirmatory factor analysis determined that the scale can be represented sufficiently by the three-factor model, but is best represented by a one-factor model, indicating that the three tiers of the Sue et al. framework are highly intercorrelated and difficult to measure independently of one another. Using a scale of social desirability, Kong confirmed that her scale measures a construct sufficiently different than social desirability. Therefore, a social desirability scale does not need to be used in the present study.

Table 3, below, displays the correlations among the three subscales (i.e., knowledge, awareness, skills) of the MSCCS used in the present study. The subscales are all significantly correlated.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Awareness</td>
<td>.887**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>3. Skills</td>
<td>.829**</td>
<td>.878**</td>
<td>-</td>
</tr>
</tbody>
</table>

* p < .05, ** p < .01

Notably, there is some evidence that scores on the MSCCS are sensitive to training experiences, providing support for criterion validity and the use of the scale in the present study.
The MSCCS includes 40 items separated into Knowledge (10 items), Awareness (11 items), and Skills (19 items). The MSCCS also includes 10 items that represent general consultation competency and are not related to multicultural competency. These items were removed from the scale for the present study. As an additional modification, the wording of the MSCCS was altered in order to increase face validity and broaden the items to include assessment and counseling in addition to consultation. For example, where one original scale item asked the participants to rate their “ability to use culturally responsive approaches to develop and maintain rapport throughout the consultation process,” the altered scale asked for a rating of participants’ “ability to use culturally responsive approaches to develop and maintain rapport throughout the assessment; counseling; and/or consultation process.” Finally, the response choices of the scale were adjusted. While the original scale asked participants to rate items on a scale of importance, the new scale used a four-point Likert scale of competence, from “not competent” to “very competent.” The adjusted MSCCS used in the present study has a high internal consistency for the total score. Internal consistency for the MSCCS in the current study is $\alpha = .96$.

**Statistical Analyses**

In the first stage of analyses, all variables in the study were analyzed via descriptive statistics. This included demographic information (i.e., minority status, age, gender, degree, geographic region, training history, years in practice) and competency scores. A multiple regression was used to find any predictive value of the demographic variables on the dependent variables. All demographic variables were included in all regression models during hypothesis testing in order to present the most valid models.

The second step included a brief examination of the correlations among all the study variables, as displayed in Table 5.
The third stage of analysis employed a multiple regression analysis in an effort to understand the interrelated aspects of educational experiences, multicultural competencies, program satisfaction, and task value. The regression analysis determined the amount of variance in each dependent variable (i.e., self-reported multicultural competency, satisfaction with training program, subjective task value of multicultural training) that is accounted for by the independent variables (i.e., training history and demographic variables described above).

The first three regressions looked at the impact of instructional strategies and control variables on self-reported multicultural competency. The first regression used percentage of time spent on non-traditional instructional methods as the independent variable. The second and third regressions used the traditional and non-traditional activity tallies as the independent variables. Hypothesis 2 was tested with two regression analyses. The fourth regression used percentage of time spent on non-traditional instructional methods as the independent variable and satisfaction as the dependent variable. The fifth regression used the traditional and non-traditional tallies as the independent variables. Hypothesis 3 was tested with a single regression analysis. The sixth regression used fieldwork inclusion as the independent variable and competency as the dependent variable. Hypothesis 4 was tested with the seventh and eighth regression analyses, which used percentage of time spent on non-traditional instructional methods and the tallies as the independent variables, respectively, and task value of multicultural training as the dependent variable.

A ninth, exploratory regression analysis was conducted to investigate the relationship between competence and satisfaction, which was not one of the hypothesized relationships. This regression used satisfaction as the independent variable and competence as the dependent variable. The final two regression analyses loaded all the predictor variables (i.e., demographics,
training history, non-traditional and traditional instruction) to determine the best possible model for predicting multicultural competence (tenth regression) and satisfaction (eleventh regression).

**Qualitative Analysis**

One question (Question 15) on the survey was open-ended (see Appendix A). This question allowed participants to disclose whether a specific part of their training seemed particularly effective in preparing them to work with diverse students, families, and communities. Not all participants chose to provide responses. The researcher reviewed the surveys and identified common themes in the responses. These themes were translated into categories, which were then used to code the responses. Frequencies and percentages of the responses as they fit each category are reported (see Table 14).

**Chapter IV**

**Results**

The aim of this study was to examine the relationship between the use of non-traditional instructional methods in multicultural training and the self-reported multicultural competency of school psychologists. Additional aims included exploring the impact of non-traditional instructional methods on the school psychologists’ satisfaction with their training program, the impact of multicultural fieldwork on multicultural competence, and the impact of non-traditional instructional methods on practitioners’ rating of the task value of multicultural training. Finally, the present study included some additional exploratory analyses and one qualitative analysis. This chapter provides results for the four hypotheses described above and all additional analyses.

**Descriptive Statistics**

Demographic information was collected for all participants. Variables included age, gender, race, years in practice, degree earned, the name of their university, and their training
history. As previously mentioned, a summary of these findings is available above in chapter 3 as well as in Table 1 in the Participants section. Table 4, below, presents the descriptive statistics for the Multicultural Training Experiences survey and the Multicultural Competency Scale in the order they were presented on the survey. The table is followed by a more detailed description of each subscale. Participants were also asked whether their training included a link to a practicum that provided exposure to clients from a culturally diverse population. Sixty three (53%) participants responded that their training did include an attached practicum component with diverse clients, while 56 (47%) responded that it did not. Frequency plots for all variables are displayed in Appendix E.
Table 4
Descriptive Statistics for Independent and Dependent Variables

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>95% CI</th>
<th>Possible Range of Scores</th>
<th>Range of Scores for Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>traditional instruction</td>
<td>55.1</td>
<td>25.8</td>
<td>50.5-59.7</td>
<td>0-100</td>
<td>0-100</td>
</tr>
<tr>
<td>Percent of time non</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>traditional instruction</td>
<td>45.4</td>
<td>26.2</td>
<td>40.7-50.11</td>
<td>0-100</td>
<td>0-100</td>
</tr>
<tr>
<td>Satisfaction with training program</td>
<td>3.9</td>
<td>0.9</td>
<td>3.72-4.06</td>
<td>1-5</td>
<td>1-5</td>
</tr>
<tr>
<td>Task value of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>multicultural training</td>
<td>4.8</td>
<td>.5</td>
<td>4.7-4.9</td>
<td>1-5</td>
<td>3-5</td>
</tr>
<tr>
<td>Multicultural</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence Scale</td>
<td>132.5</td>
<td>15.332</td>
<td>129.7-135.3</td>
<td>40-160</td>
<td>94-160</td>
</tr>
</tbody>
</table>

**Percentage of instructional time.** The first two rows of Table 4 provide the descriptive results of questions regarding the percentage of time spent on traditional and non-traditional instruction in participants’ multicultural training. The table shows that the range of scores was 0-100 for both traditional and non-traditional instruction, indicating that some participants received no traditional instruction while others received only traditional instruction, and some participants received no non-traditional instruction while others received only non-traditional instruction. The mean percent of time for traditional instruction was 55.1% with a standard deviation of 25.8,
indicating that there was wide variation in the percent of training time that the participants were exposed to traditional instruction. The standard deviation indicates the great variability in practitioners’ experiences. This is expected given the data accrued during the pilot work for this study, which found little consistency among training programs’ instructional methods.

**Satisfaction with program.** The third row of Table 4 describes the results of the question asking participants to rate their satisfaction with the training programs overall. The range of scores was 1-5, indicating that some participants were very satisfied with their programs while others were very dissatisfied. In general, participants’ ratings gather towards the positive end of the scale, with a mean of 3.9. The standard deviation of 1, however, also indicates some spread in the results.

**Task value of training.** The fourth row of Table 4 presents the descriptive results of the question asking participants to rate the importance of multicultural training for school psychologists. Similar to the previous question, these responses gather heavily towards the higher end of the scale, with a mean of 4.8, a restricted range of 3 to 5, and a standard deviation of .5. No participants indicated no value or very low value. This means that all of the surveyed school psychologists feel that there is at least some value to incorporating multicultural training into school psychology programs. Due to the restricted range of responses, this was transformed into a binary variable. All responses below 5 (very important) were combined.

**Multicultural competence.** The multicultural competence scale has 40 items with score ranges from 1-4 for each item (1= not competent, 2= little competence, 3= average competence, 4= very competent). The possible total score range, therefore, is 40 to 160. An additional option allowed participants to mark Don’t Know to individual items. Of all the responses, 3.7% were Don’t Know. As discussed above, participants who chose Don’t Know for at least 40% of their
responses were removed from the analyses. All remaining Don’t Know responses were coded as 2.5 to indicate a mid-range score, as recommended by Brick and Kalton (1996). After the removal of the four participants who met the above criteria, Don’t Know responses made up 3.4% of the data. In general, there was a tendency for participants to rate themselves towards the higher end of competence ($M = 132.5$, $SD = 15.3$). There was, however, a relatively large range of scores, reaching from a low of 94 to a high of 160.

**Exposure to instructional activities.** Participants were asked to tally the number of instructional activities they were exposed to during their training, using a set of 15 activities (see Appendix E). The set included five traditional activities (e.g., lecture, research paper) and ten non-traditional activities (e.g., guest speaker, internship or practicum in diverse setting). On average, participants were exposed to 58% of the non-traditional activities and 82% of the traditional activities. The full range of responses were given, with some participants experiencing only non-traditional activities and others experiencing only traditional. There was a wide variation of experiences with regard to exposure to traditional and non-traditional activities. As seen in the frequency plots in Appendix E, the variance of the spread of exposure to traditional activities, at .062, is slightly lower than the variance of the spread of exposure to non-traditional activities, at .071. This indicates some variability in the participants’ experiences, particularly for degree of exposure to non-traditional activities.

**Correlations among continuous variables.**

Table 5 presents Pearson’s correlations between all of the continuous variables in the study (i.e., age, years in practice, satisfaction with training, self-reported competency, proportion of time spent on non-traditional instruction, tally of exposure to traditional activities, and tally of exposure to non-traditional activities).
Table 5

Correlations between Continuous Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>_</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Years in Practice</td>
<td>.857**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Satisfaction</td>
<td>-.103</td>
<td>-.112</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. Competence</td>
<td>.111</td>
<td>.141</td>
<td>.216*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5. Non-traditional time</td>
<td>.111</td>
<td>.109</td>
<td>.042</td>
<td>-.023</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6. Traditional tally</td>
<td>-.357**</td>
<td>-.393**</td>
<td>.220*</td>
<td>.117</td>
<td>-.230*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7. Non-traditional tally</td>
<td>-.251**</td>
<td>-.257**</td>
<td>.236**</td>
<td>.224*</td>
<td>.259**</td>
<td>.431**</td>
<td>-</td>
</tr>
</tbody>
</table>

* p < .05, **p < .01

Years in practice is positively correlated with age (r = .857, p < .01) and negatively associated with both exposure to traditional instructional activities (r = -.393, p < .01) and exposure to non-traditional instructional activities (r = -.257, p < .01). Similarly, age is negatively correlated with both exposure to traditional instructional activities (r = -.357, p < .01) and exposure to non-traditional instructional activities (r = -.251, p < .01). Participants who are older and had been in practice longer and, therefore, graduated longer ago, reported exposure to fewer discrete instructional activities of either type.

Self-reported competence is positively correlated with satisfaction (r = .216, p < .05) and exposure to non-traditional instructional activities (r = .224, p < .05). Generally, participants who
scored higher on the self-report scale of multicultural competency had more exposure to non-traditional instructional activities and were more satisfied with their training.

Percentage of time spent on non-traditional instruction throughout training is positively correlated with exposure to non-traditional instructional activities ($r = .259, p < .01$) and negatively correlated with exposure to traditional instructional activities ($r = -.230, p < .05$). Generally, participants who spend more time on non-traditional activities were exposed to more non-traditional activities, while they were also exposed to fewer traditional activities.

Exposure to non-traditional instructional activities is positively correlated with satisfaction ($r = .236, p < .01$), percentage of time spent on non-traditional instruction ($r = .224, p < .05$), and exposure to traditional activities ($r = .431, p < .01$). Generally, participants who reported exposure to more non-traditional instructional activities were more satisfied with their training, had spent more of their training time on non-traditional instruction, and had been exposed to more traditional instructional activities.

**Regression Analyses**

To examine each of the four hypotheses, a series of regression analyses were completed, as displayed below in Table 6. All the analyses included the independent and dependent variables of interest in addition to the seven control variables.
Preliminary analyses revealed that only one control variable on its own, minority identification, was a significant predictor of self-reported multicultural competence. A summary of these preliminary regression analyses is displayed in Table 7, below. The results of these regression analyses, as displayed in Table 7, indicate that minority identification is a significant predictor of competency scores.

Table 6

Summary of Regression Analyses Corresponding to Variables Tested

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Competence</th>
<th>Satisfaction</th>
<th>Task Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of time on non-traditional instruction</td>
<td>1</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Tally of traditional activities</td>
<td>2, 3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Tally of non-traditional activities</td>
<td>2, 3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Fieldwork</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 7
Regression Analyses to Check Demographic Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adj $R^2$</th>
<th>SE of Estimate</th>
<th>$R^2$ Change</th>
<th>F Change</th>
<th>df 1/2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender$^a$</td>
<td>.074</td>
<td>.006</td>
<td>-.003</td>
<td>15.245</td>
<td>.006</td>
<td>.648</td>
<td>1/117</td>
<td>.422</td>
</tr>
<tr>
<td>Age$^b$</td>
<td>.110</td>
<td>.012</td>
<td>.004</td>
<td>15.195</td>
<td>.012</td>
<td>1.431</td>
<td>1/117</td>
<td>.234</td>
</tr>
<tr>
<td>Race$^c$</td>
<td>.244</td>
<td>.060</td>
<td>.051</td>
<td>14.826</td>
<td>.060</td>
<td>1.865</td>
<td>4/114</td>
<td>.008**</td>
</tr>
<tr>
<td>Region$^d$</td>
<td>.230</td>
<td>.053</td>
<td>.020</td>
<td>15.072</td>
<td>.053</td>
<td>1.594</td>
<td>4/114</td>
<td>.181</td>
</tr>
<tr>
<td>Degree$^e$</td>
<td>.197</td>
<td>.039</td>
<td>.022</td>
<td>15.052</td>
<td>.039</td>
<td>2.348</td>
<td>2/116</td>
<td>.100</td>
</tr>
<tr>
<td>Years in Practice$^f$</td>
<td>.141</td>
<td>.020</td>
<td>.012</td>
<td>15.135</td>
<td>.020</td>
<td>2.375</td>
<td>1/117</td>
<td>.126</td>
</tr>
<tr>
<td>Training History$^g$</td>
<td>.107</td>
<td>.011</td>
<td>-.014</td>
<td>15.332</td>
<td>.011</td>
<td>.444</td>
<td>3/115</td>
<td>.722</td>
</tr>
</tbody>
</table>

Note a. Predictors: (constant), Female
Note b. Predictors: (constant), Age
Note c. Predictors: (constant), Minority
Note d. Predictors: (constant), None, Midwest, South, West
Note e. Predictors: (constant), DegreeSpecialist, DegreeMasters
Note f. Predictors: (constant), Years in practice
Note g. Predictors: (constant), No training, Other exposure, Courses and Wrkshp

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

The use of regression analyses assumes linear relationships between constructs. In order to visually inspect the data related to the assumption of linearity, residual plots were observed for regression analyses. These scatterplots are displayed in Appendix F.

Regression analyses were used to test each of the four hypotheses; all analyses included the independent variable as well as the demographic variables. Hypothesis one states that more exposure to non-traditional instructional strategies during multicultural training will be positively correlated with competency scores on the self-report scale of multicultural school psychology competence. In other words, practitioners who took coursework that included a higher
percentage of time spent on or a higher number of non-traditional instruction will have higher levels of competency. Additionally, spending more time, proportionally, on traditional strategies will predict lower scores on the competency scale.

The first regression analysis was done with self-reported competency total score as the dependent variable and percentage of time on non-traditional instruction as the independent variable. The aim of this analysis was to determine if spending a greater percentage of training time on non-traditional instruction predicted self-reported competency scores, as hypothesized. The results indicate that, as measured in the present study, percentage of time on non-traditional instruction has very little predictive value when predicting a school psychologist’s self-reported competency ($R^2$ change = .000). The full regression analysis is displayed in Appendix G.

In order to garner more information regarding the effect of exposure to different instructional strategies and self-reported competency, a second regression analysis was run using the alternative response set, the tallies of exposure to traditional and non-traditional instructional activities. A summary of these results of this analysis is displayed below in Table 8. The full analysis is displayed in Appendix G.
These results indicate that level of exposure to non-traditional instructional activities does in fact predict self-reported multicultural competence above and beyond the degree of exposure to traditional instructional activities. In order to provide additional evidence in support of this finding, a third regression analysis was run that mirrored the previous analysis with one difference. In the third regression analysis, the non-traditional tally was entered in the second step while the traditional tally was entered in the third step. The results of this analysis are displayed in Appendix G. These results provide supplementary support on top of analysis two, as it demonstrates that the addition of traditional instructional activities does not add any predictive power above and beyond the tally of non-traditional instructional activities. Hypothesis 1, therefore, is partially supported.
Hypothesis two states practitioners who experienced a higher proportion of non-traditional instruction in their multicultural training would be more satisfied with their training, while practitioners who experienced a higher proportion of traditional strategies would be less satisfied. The fourth regression analysis examined the effect of the percentage of time of non-traditional instruction on the participants’ scores on the competency scale. The results of this analysis are displayed in Appendix G. These results indicate that the model predicting satisfaction from percentage of time spent on non-traditional instructional methods is not useful. For additional information, the same analysis was done using the tally responses. The results of the fifth regression analysis are displayed in Appendix G. The results indicate that although exposure to more traditional activities approaches significance as a predictor of satisfaction at the $p < .05$ level, exposure to non-traditional activities does not have significant predictive value for satisfaction. Hypothesis 2, therefore, is not supported.

The third hypothesis states that structured fieldwork integration (i.e., supervised practicum with a multicultural component) will be positively related to level of competence. This sixth regression analysis examined the predictive value of whether or not participants had fieldwork with multicultural clients as part of their multicultural training on participants’ multicultural competency score. A summary of this analysis is displayed below in Table 9; the full model is presented in Appendix G. These results indicate multicultural fieldwork inclusion is a significant predictor of competence. Hypothesis 3 is supported.
The fourth hypothesis states that a higher proportion of non-traditional instructional strategies will predict higher subjective task value for multicultural training. The seventh analysis examined the predictive value of nontraditional training on task value using a logistic regression. The results of this analysis are displayed in Appendix G. These results indicate that task value cannot be predicted by percentage of time spent on non-traditional instructional strategies. For additional information, the same analysis was run using the tallies for traditional and non-traditional instructional activities. The results of the eighth analysis are displayed in Appendix G. These results indicate that task value cannot be predicted by degree of exposure to traditional or non-traditional instructional activities. Hypothesis 4, therefore, is not supported.

One additional exploratory analysis was run to examine the relationship between satisfaction and competence. A regression analysis was run to examine the predictive value of participants’ satisfaction with their multicultural training on participants’ competence. A summary of the results of this analysis is displayed below in Table 10; the full model is displayed in Appendix G.
These results indicate that satisfaction is a statistically significant predictor of competence.

A final set of analyses was run in order to determine the best possible model for predicting multicultural competence and satisfaction with training. Summaries of these analyses, displayed below in Tables 11 and 12, show that the combination of all the predictor variables (i.e., time on non-traditional instruction, instructional tallies, and fieldwork), as a set, produce a statistically significant predictor of competence. They do not, however, significantly predict satisfaction. The full model for the regression analysis predicting competence from all the predictor variables is displayed in Appendix G. The implications of this and all other findings is discussed in more detail in Chapter 5.
Table 11
Regression Analysis to Determine Predictive Value of Full Set on Competence, Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adj R²</th>
<th>SE of Estimate</th>
<th>R² Change</th>
<th>F</th>
<th>df 1/2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1ᵃ</td>
<td>.415ᵃ</td>
<td>.172</td>
<td>.070</td>
<td>14.6829</td>
<td>.172</td>
<td>1.680</td>
<td>13/105</td>
<td>.076</td>
</tr>
<tr>
<td>2ᵇ</td>
<td>.508ᵇ</td>
<td>.258</td>
<td>.133</td>
<td>14.1764</td>
<td>.086</td>
<td>2.909</td>
<td>4/101</td>
<td>.025*</td>
</tr>
</tbody>
</table>

*Note a.* Predictors: (Constant), Female, Minority, West, Midwest, South, None, DegreeMasters, DegreeSpecialist, Years in Practice, No training, Other exposure, Courses and Wkshp

*Note b.* Predictors: (Constant), Female, Minority, West, Midwest, South, None, DegreeMasters, DegreeSpecialist, Years in Practice, No training, Other exposure, Courses and Wkshp, NonTrad, TradTallyProportion, NonTradTallyProportion, Fieldwork

*Note.* Dependent Variable: Competence

* p < .05, ** p < .01

Table 12
Regression Analysis to Determine Predictive Value of Full Set on Satisfaction

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adj R²</th>
<th>SE of Estimate</th>
<th>R² Change</th>
<th>F</th>
<th>df 1/2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1ᵃ</td>
<td>.245ᵃ</td>
<td>.060</td>
<td>-.056</td>
<td>.963</td>
<td>.060</td>
<td>.517</td>
<td>13/105</td>
<td>.910</td>
</tr>
<tr>
<td>2ᵇ</td>
<td>.344ᵇ</td>
<td>.119</td>
<td>-.030</td>
<td>.951</td>
<td>.058</td>
<td>1.673</td>
<td>4/101</td>
<td>.162</td>
</tr>
</tbody>
</table>

*Note a.* Predictors: (Constant), Female, Minority, West, Midwest, South, None, DegreeMasters, DegreeSpecialist, Years in Practice, No training, Other exposure, Courses and Wkshp

*Note b.* Predictors: (Constant), Female, Minority, West, Midwest, South, None, DegreeMasters, DegreeSpecialist, Years in Practice, No training, Other exposure, Courses and Wkshp, NonTrad, TradTallyProportion, NonTradTallyProportion, Fieldwork

*Note.* Dependent Variable: Satisfaction

* p < .05, ** p < .01

Summary of Findings Relating to Study Hypotheses

Table 13 summarizes this study’s hypotheses and indicates which hypotheses were supported by the research findings.
Table 13

*Overview of Study Hypotheses*

<table>
<thead>
<tr>
<th>HO Number</th>
<th>Study Hypotheses</th>
<th>Supported/Not Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Exposure to non-traditional instruction predicts competence.</td>
<td>Partially Supported</td>
</tr>
<tr>
<td>2</td>
<td>Exposure to non-traditional instruction predicts satisfaction.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>3</td>
<td>Multicultural fieldwork integration predicts competence.</td>
<td>Supported</td>
</tr>
<tr>
<td>4</td>
<td>Exposure to non-traditional instruction predicts subjective task value of multicultural training.</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

**Qualitative Analysis**

A total of 119 (97%) of the 123 participants answered the open-ended question, “Was there any activity in your training that you feel prepared you particularly well to work with diverse students, families, and communities?” Of these 119 participants, 68 (57%) described something in their training that they felt prepared them particularly well to work with diverse students, families, and communities. Another 31 (26%) participants noted that there was no part of their multicultural training that they found particularly effective, while two participants (2%) responded that multicultural issues were rarely discussed during their training. A summary of these findings is presented below in Table 14.
Table 14
*Summary of Open-Ended Responses*

<table>
<thead>
<tr>
<th>Activity Description</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No specific activity described</td>
<td>51</td>
<td>42.9</td>
</tr>
<tr>
<td>No activity was felt to be particularly useful</td>
<td>31</td>
<td>26.1</td>
</tr>
<tr>
<td>Multicultural issues rarely discussed</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td>Answer did not fit coded categories</td>
<td>18</td>
<td>15.1</td>
</tr>
<tr>
<td>Practical experiences were particularly useful</td>
<td>38</td>
<td>31.9</td>
</tr>
<tr>
<td>Engaging with diverse communities was particularly helpful</td>
<td>11</td>
<td>9.2</td>
</tr>
<tr>
<td>Self-reflection and processing emotions through class discussions were particularly helpful</td>
<td>7</td>
<td>5.9</td>
</tr>
<tr>
<td>Case conceptualizations and role-playing were particularly helpful</td>
<td>6</td>
<td>5.0</td>
</tr>
<tr>
<td>Learning from diverse faculty or guest speakers was particularly helpful</td>
<td>6</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. n = 119. Percentages do not equal 100 as not all responses fit a category and some responses fit more than one coding category.*

Table 14 presents the five activities most commonly cited by participants as being particularly helpful in preparing them to work with diverse students, families, and communities. Almost a third of respondents described the usefulness of practical experiences, including formal practicum or internship and the supervision that came along with these experiences. Eleven participants mentioned direct exposure to diverse communities, either through service learning, visiting cultural sites, or interviewing members of the community. Journaling, self-exploration, and processing emotions through deep discussion were cited by seven participants as particularly useful. Six participants found case conceptualizations and in-class role plays to be useful.
activities, while another six found that diverse faculty members and guest speakers were an asset to their multicultural training.

**Summary of Qualitative Analysis.** A review of the qualitative results reveals that just over half of the surveyed school psychologists felt able to pick out one or more specific activities in their training that helped them gain multicultural competence. The participants who chose not to answer the open-ended question may have felt nothing was particularly helpful or may have omitted a response simply to finish the survey more quickly. Table 14 lists the five most commonly-cited activities: practicum, engaging with diverse communities, self-reflection and processing emotions, case conceptualizations and role play, and learning from diverse faculty or guest speakers. These five activities also appear regularly in the multicultural training literature as examples of effective training methods. It is no surprise, then, that these activities came up repeatedly in this open-ended context. Tomlinson-Clarke (2001) found that counseling students are capable of pinpointing the parts of their multicultural training that was or could be most useful, and the results found here mirror those results. It is also important to point out that all of the activities described, with the exception of learning from diverse faculty, are examples of non-traditional instructional methods.

These results provide insight into the factors that school psychologists believe are most important for multicultural training. The participants expressed a need for additional instruction that goes beyond lectures, exams, and surface-level discussions of multicultural issues. The two activities that came up most often both include direct interaction with diverse communities in formal (e.g., internship) and informal (e.g., interviewing local families) contexts. The implication is that training programs have the power to enrich the learning experiences of school psychology
trainees by incorporating additional non-traditional instructional methods, regardless of the effect of these methods on self-reported competency scores.

**Discussion**

This chapter describes the central findings obtained from the analyses detailed above. It is followed by the training implications, limitations of the current study, and suggestions for further research.

**Key Findings**

The overall goal of this study was to establish a foundation of empirical support for basic elements of multicultural training in order to better inform training programs and instructors as well as to fill a gap in the literature. More specifically, this study sought to explore the relationship between non-traditional instructional strategies used throughout multicultural training and multicultural competence in school psychologists as measured by a self-report scale. The study also aimed to pinpoint the elements of training or experience that predict multicultural competence, satisfaction with training, and subjective task value of multicultural training among a nationally representative sample of school psychologists.

**Key findings pertaining to major constructs.** The study yielded mixed results, consistent with prior studies published in the psychology and counseling fields (e.g. Dickson & Jepsen, 2007; Seto et al., 2006). The only demographic variable found to be correlated with self-reported competence is minority status. This is consistent with prior research, which has found that counselors and teachers who identify as minorities are sometimes more multiculturally competent than their White peers (Chao et al., 2011; Tatum, 2002). This finding also implies that age and years in practice are irrelevant with regard to multicultural competency. This may be due to the nature of multicultural competence. Practitioners who have been in the field longer may
have developed more multicultural competence simply through working with a changing American landscape; practitioners who are more newly minted may have more competence due to the increased focus on diversity in training programs and fieldwork. This would lead to a non-linear relationship between age or years in practice and competence, which would not show up in a correlation.

The first hypothesis was partially supported, indicating that while a higher proportion of time spent on non-traditional instruction during training cannot predict competency, participating in a greater number of non-traditional instructional activities can predict competency. This is not surprising given the volume of literature that points to the effectiveness of specific activities rather than multicultural training models in general that engender competence in teachers and counselors (Keengwe, 2010; Ullucci, 2010; Waddell, 2011). Focusing exclusively on non-traditional instruction may not be as important as including a range of non-traditional activities (e.g., community immersion, journaling, multicultural supervision) within the context of a more traditional educational environment.

The second hypothesis was not supported, indicating that the predominating type of instruction is not one of the factors that is related to a school psychologist’s satisfaction with multicultural training. The qualitative analysis, discussed below, as well as future research may provide more insight into this matter.

The third hypothesis was supported, indicating that a multicultural fieldwork component is a positive predictor of multicultural competence. Prior research has found that field placements, even those in diverse settings, vary widely in quality and must be carefully constructed in order to prevent the reinforcement of stereotypes and biases (Sleeter, 2001).
results from the present study demonstrate the potential for fieldwork to have a positive influence on school psychologists’ competence, but more detailed research is warranted.

The fourth hypothesis was not supported, indicating that the proportion of time spent on non-traditional strategies cannot predict participants’ support of multicultural training. The participants felt overwhelmingly that multicultural training is important for school psychologists. Very few participants rated below “very” for the importance of multicultural training. This may indicate a ceiling effect that makes it difficult to find true differences.

An overwhelming support for multicultural training across this nationally representative sample of school psychologists is indicative of a field that recognizes the diversification of America’s population and the need for culturally responsive services. This finding is in opposition to prior research, although it has not yet been studied in the field of school psychology (Owen, 2010).

The final, exploratory analysis found that school psychologists’ satisfaction with their multicultural training predicts their self-reported multicultural competence. There are a number of possible reasons for this, and more research is needed to draw any specific conclusions. Participants who enjoyed their training may have absorbed more of the information and skills that were taught by engaging more deeply and investing more of their time and energy into the learning process. Alternatively, the school psychologists who were more satisfied with their training may feel an incorrectly inflated sense of competence based on their enthusiasm for the issue of culturally responsive services.

Overall, the present study found inconsistent results regarding the usefulness of non-traditional instruction in multicultural training. This echoes prior research in related fields that has, overwhelmingly, had difficulty pinpointing what engenders multicultural competence in
practitioners (e.g., Boysen & Vogel, 2008; Castillo et al., 2007; Toporek & Pope-Davis, 2005). Notably, more training and more years in practice were not significant predictors of competence. The present study is unable to provide any conclusive evidence of whether training leads to competence. However, there is some evidence that participation in a greater number of non-traditional instructional activities may contribute to competence in working with diverse students, families, and communities.

The importance of specific instructional activities above and beyond training in general is reflected in research in the counseling and teacher education fields. Ullucci (2010), Keengwe (2010), Bodur (2012), and Waddell (2011) all found that the most influential training activities are those that require trainees to engage with communities and individuals that are different from themselves and see life from another perspective. These types of activities do not have to be part of a full non-traditional program; they may be offered within the context of or in conjunction with more traditional multicultural coursework. Lee and Khawaja (2013) also reported on the positive effects that exposure to specific non-traditional activities had on multicultural competence and the absence of this effect from traditional coursework.

**Key findings from qualitative analysis.** The open-ended question on the survey gave participants an opportunity to share experiences in training that they believe were particularly helpful for developing multicultural competence. This allowed the researcher to look beyond the inconclusive quantitative results and gain an understanding of how practitioners view the issue of multicultural training. The results of the open-ended questions found that the participants highly valued the non-traditional training activities. Many of the participants specifically mentioned the usefulness of multicultural fieldwork, echoing the findings of Lee and Khawaja (2013) and Bodur (2012). Tomlinson-Clarke (2000) used a similar model, asking the trainees themselves
about the strengths and weaknesses of their multicultural coursework. The participants in the
current study echoed the trainees in Tomlinson-Clarke’s study, as they called out the importance
of engaging with a diversity of individuals (e.g., culturally and linguistically diverse faculty and
community members). Practical experiences provide opportunities for trainees to practice the
skills they’ve learned in class as well as challenge their own pre-existing beliefs and assumptions
under the guidance of trained instructors and supervisors.

Many of the participants also noted the effectiveness of community immersion. One
participant, for example, said that going out into communities to “understand how they work”
was a particularly useful activity. This individual appreciates the nuances of the communities she
serves; understanding how a community works allows her to navigate more effectively. Another
participant mentioned “maximal exposure to diverse students, families, and communities” as
something that boosted the quality of a class focused on social justice in higher education. The
general trend of responses and their focus on community immersion and practical experiences is
consistent with prior research in related fields, particularly Sleeter (2001), who found support for
diversity within a training program and community immersion.

Some participants also mentioned self-reflection and processing emotions as critical
elements of their multicultural training. One participant, for example, said “class provided a safe
place to talk about our feelings with our peers.” This participant was not alone in the use of the
word “safe” while other participants also mentioned the “honest” discussions that occurred and
the “exploration” of personal stereotypes. These activities are fundamentally non-traditional and
are aimed at increasing trainees’ knowledge and awareness of multicultural issues, particularly
personal beliefs that affect how we treat others. The activities mentioned throughout the
qualitative responses demonstrate how specific non-traditional activities, even within the context
of a relatively traditional, didactic course, can markedly affect the way a school psychologist approaches counseling, consultation, and assessment.

**Key findings regarding study measures.** The present study reflected the long-standing difficulty of using a self-report measure of multicultural competence (Boysen & Vogel, 2008; Castillo et al., 2007; Chao & Wei, 2011). The scores in the present study were heavily clustered towards the upper end (i.e., participants rated themselves as highly competent in general). A histogram displaying this is in Appendix E. The scores highlighted the imperfection of self-report measures. It’s impossible to draw conclusions from the data about the objective behavior of the participants while they are engaging in counseling, assessment, and consultation. Despite the cluster, there was enough sensitivity to see clear differences between high and low ratings. A more objective measure of competence is the logical next step for this field of study. The current study adds to the bulk of literature that has found inconsistent results regarding multicultural competence through the use of a self-report competency scale.

**Key findings regarding state of multicultural training.** The current study provides evidence that most practitioners have taken at least one course devoted to multicultural competence. A few participants, however, noted in their open-ended responses that multicultural issues were rarely if ever addressed throughout their training. These findings are in line with prior descriptive research done in 2002 (Rogers & Lopez) and 1998 (Rogers, Hoffman, & Wade).

Over the last decade, it appears that the school psychology training field has remained relatively consistent in its offering of multicultural-focused coursework. Most notably, only 13% of participants responded that their multicultural training comes from the full range of coursework offered in training programs, rather than from a standalone course. Since a
A descriptive analysis of school psychology training programs was published in 1992 (Rogers et al.) and studies in related fields found evidence for the superiority of the infusion style of multicultural training (Abreu, Chung, & Atkinson, 2000; Pieterse, Evans, Risner-Butner, Collins, & Mason, 2009), there has been a general call to incorporate more multicultural issues into all the courses offered during training. The difficulty of restructuring courses to suit the needs of a changing society likely preclude the move away from the standalone course. The most pertinent conclusion that Rogers et al. drew in 1992 was the lack of a pattern across training programs. Based on the responses to the present study’s survey, more than two decades later a pattern has yet to be put in place.

**Implications for School Psychology**

This is the first study to investigate the predictive value of multicultural training in school psychology programs. While many researchers have debated the effectiveness of multicultural training in counseling psychology and teacher education, none have focused on the role that multicultural training has in this particular branch of psychology. There have been some articles pointing out what appear to be promising examples of training programs that have incorporated multicultural issues, while others have outlined the competencies that training programs should seek to adopt (Rogers, Hoffman, & Wade, 1998; Rogers & Lopez, 2002). The present study provided an opportunity to peer into the outcome of two decades of calling for increased multicultural competence among practitioners. The present study is the first to set the stage for piecing together an understanding of how to promote multicultural competence.

Programs should sharply examine the NASP and APA training and practice guidelines. Administrators can determine how guidelines are currently being met in their programs. The participants of this study, in agreement with data from the author’s pilot study, did not report a
uniform training experience across the field. This confirms that school psychology training programs are providing a wide range of experiences. Furthermore, because the present study looked at both pre-service and in-service training, NASP and APA may use the data to inform their post-graduate training recommendations and requirements.

Programs may also consider the instructional methods they are using throughout their coursework. There is evidence that using a variety of non-traditional instructional activities can increase multicultural competence. Overall, the type or amount of training that the participants in this study received did not predict their self-reported multicultural competence. Programs should therefore focus on those aspects of training that do seem to make a difference when included, such as non-traditional activities, high-quality field experiences in diverse settings, and connecting with the community.

This report also found some support for allowing trainees themselves to provide feedback regarding what is and is not working for them with regards to training. Giving trainees a voice has the added potential bonus of increasing satisfaction with training, which may directly or indirectly result in higher self-reported competence. Kearns et al. (2002) found significant discrepancies between how trainees and faculty rated their programs’ multicultural training, with trainees rating the programs weaker than the faculty rated them. As trainees go out on practicum and internship, with opportunities to experience the current issues facing children and communities, they are likely to have valuable information to bring back into the training classroom. Some of the participants of the present study noted the importance of discussing their experiences and feelings with peers; it would serve faculty well to use what trainees bring to the table while designing the program coursework.
In addition to a general review of how non-traditional activities may be incorporated into existing coursework, program faculty should consider incorporating diverse field placements into their multicultural training regimen. The present study found that a diverse field placement predicts multicultural competence.

Although the current study is directed towards informing trainers and program directors, there is some information that would be valuable for the accrediting organizations as well (i.e., APA and NASP). APA and NASP both offer guidelines for training programs with regard to multicultural competence, but specific information regarding the core competencies and how to measure trainee competence are lacking. Data from the present study highlight the need for definitive frameworks for trainers to implement; participants displayed a wide array of training histories and competency levels.

**Limitations**

There are several limitations of the current study that should be addressed. The first notable limitation is sample size and participant attrition. Although the current study employed a participant pool that is comparable or greater in size than similar studies (e.g., Constantine, 2001b; Boysen & Vogel, 2008), it would have had additional power to detect minor differences with a larger sample. The sample was also limited in its representation of ethnic minorities (83% White), although it did mirror the racial make-up of the current population of school psychologists. Recent field surveys found that school psychologists are 91% White (Castillo et al., 2007). The current sample, therefore, is more diverse than the field. This gave the present study some additional power to test the difference between the White participants and the participants who identify as minority. However, the sample did not include any Native American or Alaska Native participants. A larger representation of ethnic minorities may have allowed the
researcher to observe any differences between each groups’ competence and training experiences. There was also a notable drop-out rate; 33% of the opened surveys were not completed. Hispanic/Latino participants were also more likely than participants of other races/ethnicities to drop out of the study before completing the survey. However, due to the fact that individual identifiers were not collected, it is impossible to know how many of participants who left one survey incomplete later completed the study on new forms. There is evidence that this happened on some occasions. Some of the potential participants began filling out the survey and did not finish. Another group of potential participants filled out the survey in its entirety their first time. A final group began the survey, stopped and lost their entries, and then completed the survey on their second access. SurveyMonkey saved all surveys regardless of whether they were complete; this data shows evidence that some of the participants who completed a survey had previously filled out the survey in part. Therefore, what appears as a dropped participant is sometimes a participant who filled out two surveys (one partially, one completely).

The practitioners who chose to participate in the study also may indicate a self-selection bias; the participants may be more interested in multicultural issues than the general population of school psychologists. The convenience sampling procedures used may also have contributed to a sample that is not representative of all school psychologists. The recruitment materials were primarily distributed through emails or listservs associated with pre-existing lists of practitioners (e.g., members of professional networks, alumni of institutions that agreed to forward the invitation). This procedure excludes practitioners who are not affiliated with any of the professional networks or training programs that forwarded the materials. The sample issues discussed above limit the generalizability of the study results to the full population of school
psychologists. In particular, it has no external validity for Native American and Alaska Native practitioners.

The survey used is another potential limitation in the study. The multicultural competence scale chosen for the study was altered for the specific purposes of this study’s research questions, and has less established psychometric properties than a commercially available survey. Further study is needed to establish validity and reliability across samples. The scale also carries the inherent risks of using a self-report measure of competence. For example, Constantine and Ladany (2000) found that some measures of multicultural counseling competency scales correlate with measures of social desirability and do not predict case conceptualization ability of practicing counselors. Sodowsky, Kuo-Jackson, Richardson, and Corey (1998) also found some evidence of a social desirability effect on Multicultural Counseling Inventory scores. In addition to social desirability potentially affecting scores, the competency scale also left it up to the participants to interpret the operational definition of each level of competence (e.g., not competent, average competence). This issue is echoed across these kinds of self-report scales. In general, a direct measurement method is preferable to self-report (e.g. client ratings, case conceptualization ability). Finally, the inclusion of a “Don’t Know” response choice resulted in missing data for 3.7% of the responses. The exploratory nature of the present study, however, warranted the use of the indirect measurement scale. Directions for future research regarding this measurement issue are discussed below.

Another measurement limitation concerns the self-report of training experiences. Participants may not accurately recall the content of their multicultural training (i.e., percentage of traditional versus non-traditional instruction), especially many years later. It was beyond the scope of the current study to verify these self-report data through syllabi or workshop
documentation. The survey’s qualitative questions are also a source of potential concern. Coding procedures are a potential source of researcher subjectivity and bias. Due to the nature of the questions and analysis, no firm conclusions can be drawn from the qualitative data. The information garnered, however, is useful not only for future research endeavors but also to illustrate the points made by the main study hypotheses.

**Suggestions for Future Research**

As preliminary exploratory research, the findings and limitations of the current study serve as a starting point for more research on how to prepare school psychologists to work in a diversifying environment. Future research should begin by examining the measurement tools used to examine multicultural competence, and comparing the existing tools to more objective measures. Much of the research to date in related subfields is inconclusive, and the measurement tools used may be to blame. Establishing a more valid method of measuring multicultural competence would allow researchers to draw firmer conclusions regarding best practices in training. The measurement tool used in the present study was validated for consultation competency only. Until a valid measurement tool is established, the research field will continue to be muddled by inconsistencies. Researchers may use the current self-report tools available to operationalize the key competencies in a directly observable manner, or in a way that allows for client or coworker reporting.

The current measurement tool was lengthy; there is evidence that some potential participants answered all questions on the survey until they reached the daunting task of filling out a 40-question competency survey. The high internal consistency of the scale invites the deletion of many of the items to create a more approachable measurement tool. A scale published in 2016 was validated with a group of school psychology trainees and includes 28 items (Malone
et al., 2015). This is still a relatively lengthy scale, but the validation procedure and factor analysis showed it has promise with regard to measuring self-reported competence. Future researchers may wish to validate this shorter scale, of a shorter version of the scale used in the present study, against more objective measurements (e.g., case conceptualizations).

As an intermediary step between self-report and observational measurements, future studies may employ the use of vignettes to obtain a preliminary understanding of the relationship between self-reported multicultural competency and behaviors towards diverse clients. Participants may be asked to engage in hypothetical case conceptualizations for children from a variety of backgrounds. This research would provide a more detailed picture of multicultural competence as it relates to training history, and it may also help refine the more traditional self-report tools described above.

As more data is gathered on how practitioners work with different groups of children and what practices, specifically, lead to positive outcomes, researchers can re-evaluate the core multicultural competencies. Research that explores real-world child outcomes may answer the long-standing question of how time in a multicultural training course should be spent. For example, looking at graduation rates, income, or the classification of culturally and linguistically diverse children as requiring special education may shine more light on the benefits of multicultural competence.

Furthermore, the potential relationship between self-reported competency and social desirability should be included in future research. There is a potential social desirability bias in the current sample, and past research has found conflicting results regarding the usefulness of extending a measure by including a scale of social desirability (Chao et al., 2011; Constantine and Ladany, 2000). It is possible that the relationship between multicultural competence and
social desirability is complex, and understanding this relationship can help instructional planners better gauge how to reach trainees so that they understand not just the “right answer” but also the right action when working with culturally and linguistically diverse children.

Employing larger and more diverse samples would allow researchers to ascertain important differences in the way that different groups of trainees approach multicultural training, and any potential interactions due to race or other background factors. Particular attention should be paid to recruiting Native American and Alaska Native participants. Interactions between culture or background and training influences would point to the different way that trainees from different backgrounds approach and learn from different training methods. A larger sample would also allow the researcher to group practitioners based on whether they experienced a standalone or integrated model of multicultural training. Research on integrated training models is severely lacking, and any findings related to the outcome of this style of instruction would benefit the field of study.

Due to the potential difficulty of accurately recalling training experiences, more accurate results may be obtained by comparing outcomes across individuals from specific training programs, where the instructional methods can be controlled within each group. A national sample precludes the ability of the researcher to verify that participants are providing accurate representations of the training they received. By first collecting information about individual schools’ instruction and then sampling directly from those graduates, the researcher can ensure that experiences are controlled and accurate.

Targeting a study towards specific training programs also allows for the use of experimental methods. Rather than compare a wide swatch of participants nationally, trainees can be compared across two types of multicultural training within a few programs, where all
other variables may be held constant. The present study investigated differences between programs that likely lack uniformity across many dimensions. An experimental study may include the use of a pilot program in one or a few training programs that offers specific non-traditional activities to a subset of the training cohort.

Finally, further research should capitalize on the qualitative data available from trainees and practitioners regarding critical events or factors in their training that has helped or hindered their multicultural competence and behavior. The present sample provided ample qualitative information regarding the variables that were under quantitative investigation, indicating that many practitioners develop clear insight into their own training history and path towards competence. Future studies should expand the amount and type of qualitative information collected and integrate it with the quantitative data to best represent the experiences within training programs.

**Conclusion**

The purpose of this study was to investigate the relationship between instructional methods and self-reported multicultural competence of school psychologists. As the United States becomes increasingly diversified, and more school psychologists are working primarily with students, families, and communities who differ in background, maintaining culturally sensitive attitudes and practices takes on a central role in training. This study built upon research in counseling psychology and teacher training by examining the potential usefulness of non-traditional instructional strategies in boosting the multicultural competence of school psychologists. Using regression analyses, the researcher found that exposure to a higher number of non-traditional activities, such as journaling or community immersion, predicts multicultural competence. A diverse field placement also predicts competence. Training programs are
encouraged to continue adding non-traditional activities to their repertoire of instructional methods, and to incorporate trainee feedback during instructional planning. Researchers are encouraged to move towards more objective measures of multicultural competence and to incorporate integrated models of training into the field of study.
Appendix A

Survey Instrument

1. What is your gender?
   1. Male
   2. Female
   3. Other (please specify)
2. What is your age?
3. What is your race?
   1. White/non-Hispanic
   2. Black/African American
   3. Asian/Pacific Islander
   4. Native American/Alaska Native
   5. Hispanic/Latino
   6. Other (please specify)
4. What degree do you currently hold for school psychology?
   1. Masters
   2. Doctorate
   3. Specialist/Advanced degree
5. Where did you obtain your school psychology degree?
6. How many years have you been practicing school psychology?
7. Training history
   1. I have completed one or more multicultural training courses.
   2. I have completed one or more multicultural training courses and have attended at least one multicultural workshop during my career.
   3. I have never taken a multicultural training course but was exposed to multicultural topics in other courses and/or workshops.
   4. I have no multicultural training at the time of this study.
8. The following are three categories of activities that are commonly used in multicultural training. Please indicate the percentage of time your overall training (i.e., all courses, workshops, other training experiences) spent on each of the three types of activities. Please note that the percentages should add up to 100.
   1. Traditional instructional strategies (e.g., lecture from instructor on multicultural topic, multicultural-focused reading assignment done at home, research paper on multicultural topic, impersonal class discussion of multicultural topics, written quizzes and/or exams on multicultural topics)
   2. Exposure instructional strategies (e.g., guest speaker from a minority cultural background, visits to or volunteer work in different communities, participation in diverse cultural activities, working with a mentor or advisor from a cultural background that differs from your own)
3. Participatory instructional strategies (e.g., role-plays and simulations of multicultural cases, journaling or autobiographical writing, candid class discussions that include personal reactions to multicultural topics or issues, multicultural case conceptualizations, processing emotions with peers)

9. Please indicate whether each of the following activities was used at any time during your multicultural training.
   1. Lecture from instructor on multicultural topic
   2. Multicultural-focused reading assignment done at home
   3. Research paper on multicultural topic
   4. Impersonal class discussion of multicultural topics
   5. Written quizzes and/or exams on multicultural topics
   6. Guest speaker(s) from a cultural background that differs from your own
   7. Visits to or volunteer work in different communities
   8. Participation in diverse cultural activities
   9. Supervised practicum or internship in a diverse setting
   10. Working with a mentor or advisor from a cultural background that differs from your own
   11. Role-plays and simulations of multicultural cases
   12. Journaling or autobiographical writing
   13. Candid class discussions that include personal reactions to multicultural topics or issues
   14. Multicultural case conceptualizations
   15. Processing emotions with peers

10. Did your training include either of the following?
   1. A link to practicum providing exposure to clients from culturally diverse populations
   2. Multicultural supervision that includes the acknowledgment and discussion of multicultural issues as a central tenet of supervision

11. How satisfied are you with the traditional instructional strategies used by your training program(s) (e.g. lectures, reading assignments, research assignments, impersonal class discussions of topics)?
   1(not at all) 2 3(average) 4 5(a lot)

12. How satisfied are you with the exposure strategies used by your training program(s) (e.g. activities built around direct contact with people from other cultures, guest speakers, visits to different communities, participation in diverse cultural activities, supervised practicum in a diverse setting)?
   1(not at all) 2 3(average) 4 5(a lot)

13. How satisfied are you with the participatory strategies used by your training program(s) (e.g. role-plays and simulations, candid class discussions of reactions to assignments or topics that include processing of emotions, reflective assignments such as journaling or autobiographical writing)?

14. How satisfied are you with your training program(s) in general?
15. Was there any activity in your training that you feel prepared you particularly well to work with diverse students, families, and communities?

16. How important do you believe it is for school psychologists to receive multicultural training?

17. Please read each item that is described and rate your competence on each item. Please note that “client” may refer to students, families, organizations (e.g. schools), or other personnel (e.g. teachers).

Not competent  Little Competence  Avg. Competence  Very Competent  Don’t know

1. Knowledge of cross-cultural communication styles
2. Skills in modifying problem identification assessment tools and procedures when working with clients from diverse backgrounds
3. Knowledge of different help seeking behaviors used by culturally different individuals (e.g.; differential attitudes toward self-disclosure; confrontation; attribution of blame for problems)
4. Understanding how racial and cultural backgrounds may influence the functioning of clients
5. Awareness of attitudes towards self-disclosure held by clients from diverse cultural and ethnic backgrounds
6. Understanding individual differences that exist within cultural groups
7. Ability to generate possible solutions in school psychology practice that reflect sensitivity to cross-cultural issues
8. Ability to recognize the contributions of other races and cultures
9. Ability to value others’ cultures
10. Ability to work with others whose ethnic or cultural backgrounds are different from the practitioner’s own ethnic or cultural background
11. Ability to demonstrate sensitivity towards the cultural backgrounds of school personnel involved in consultation; assessment; and/or counseling
12. Understanding how the practitioner’s own racial; ethnic; and cultural backgrounds impact school psychology practice
13. Awareness of how clients from different cultural and ethnic backgrounds may vary in their acceptability towards specific interventions
14. Practitioner’s ability to identify the limits of their own multicultural abilities
15. Knowledge of sociopolitical factors (e.g.; poverty; immigration policy; racism; power differences) that influence racial and ethnic minorities
16. Ability to respect others’ cultures
17. Ability to identify prejudices and biases that can create obstacles to effective practice
18. Ability to identify sociocultural barriers (e.g.; differences in socioeconomic class; language or speech patterns; cultural identity) in order to help establish positive relationships with clients
19. Ability to adopt a culturally responsive consultation; assessment and/or counseling style for more effective communication
20. Practitioners having awareness of their own cultural backgrounds and values
21. Awareness of intervention approaches that are effective with culturally and linguistically diverse clients
22. Ability to use culturally responsive approaches to develop and maintain rapport throughout the assessment; counseling; and/or consultation process
23. Having culture-specific knowledge of various cultural and ethnic groups
24. Knowledge of cultural factors that may impact how the client’s “problem” is viewed in assessment; counseling; and/or consultation
25. Practitioners’ awareness of how their own psychological processes and biases can be influenced by their own cultural backgrounds and values
26. Ability to use cross-cultural communication skills when working with clients from different cultural and ethnic backgrounds
27. Ability to conduct culturally sensitive interviews with clients
28. Awareness of how clients from diverse cultural and ethnic backgrounds may differ as to how they view the roles of school psychologists
29. Ability to design intervention evaluation tools that are sensitive to cultural and language differences
30. Ability to use a variety of data collection techniques for problem identification and clarification that are culturally and linguistically sensitive
31. Knowledge of interventions that are appropriate for clients of diverse cultural backgrounds
32. Ability to draw appropriate conclusions based on modified assessment problem identification tools and procedures when working with clients from diverse backgrounds
33. Awareness of practitioner’s own values and biases and how they may impact interactions with clients
34. Understanding that multiple cultural identities (individual; group; or community affiliation of consultants and consultees) may influence relationships and outcomes
35. Ability to plan and implement interventions that are culturally sensitive to the needs of clients
36. Ability to identify bias and prejudicial attitudes at the individual level
37. Ability to identify bias and prejudicial attitudes at the organizational level
38. Awareness of cultural styles and preferences (e.g.; informal vs. formal; concrete vs. abstract; short-term vs. long-term) of clients during assessment; counseling; and/or consultation

39. Awareness of how acculturation impacts clients

40. Ability to develop an effective working alliance with clients to facilitate the assessment; counseling; and/or consultation process
Appendix B

Recruitment Letter

My name is Jacqueline Kluger and I am a doctoral candidate completing my dissertation research at the Graduate Center, City University of New York in the Educational Psychology program. The purpose of my dissertation is to investigate the current trends of multicultural training in school psychology degree programs.

The intended participants of this study are practicing school psychologists between the ages of 18 and 65. Your participation is important because it may help us to understand how to provide the best training to school psychologists working with diverse populations.

The survey has three parts and will take approximately fifteen minutes to complete. If you would like to participate in the study, please visit the following website: https://www.surveymonkey.com/r/schoolpsychtraining.

If you choose not to participate, please disregard this message.

Please contact us if you have any questions. If you have questions about your rights as a research participant, or you have comments or concerns that you would like to discuss with someone other than the researchers, please call the CUNY Research Compliance Administrator at 646-664-8918. Alternately, you can write to: CUNY Office of the Vice Chancellor for Research Attn: Research Compliance Administrator 205 East 42nd Street New York, NY 10017.

We appreciate your time and cooperation and look forward to receiving your responses. I would greatly appreciate it if you would forward this email to any school psychologists who you think may be interested in participating.

Sincerely,

Jacqueline Kluger, M.S.Ed.
Doctoral Candidate
Graduate Center, CUNY
New York City, NY 10016

David Rindskopf, Ph.D.
Faculty Advisory
Graduate Center, CUNY
New York City, NY 10016
Appendix C

Informed Consent (Page 1 of Survey)

Dear Colleague,

As a doctoral candidate completing my dissertation in the Educational Psychology department at the Graduate Center, City University of New York, I am requesting your participation in completing this online survey as part of my research study. The survey explores the multicultural training provided to school psychologists like yourself. Your participation is important because it may help us to understand how to provide the best training to school psychologists working with diverse populations. The intended participants for this study are currently practicing school psychologists between the ages of 18 and 65. We expect approximately 150 participants for this study.

Completing the survey is voluntary and constitutes consent on your part to participate in the study. All your responses are confidential, and your identity will be protected throughout the study. I may publish the results of the study, but the identity and individual characteristics of the participants will not be reported in any publications or presentations. All data will be reported in aggregate form. If you are interested in the findings of this study and would like to receive a copy of the results, please indicate so upon completion of the study. If you have any questions about your rights as a research participant or if you would like to talk to someone other than the researchers, you can contact CUNY Research Compliance Administrator at 646-664-8918.

The research team, authorized CUNY staff, and government agencies that oversee this type of research may have access to research data and records in order to monitor the research. Research records provided to authorized, non-CUNY individuals will not contain identifiable information about you.

The survey has three parts and will take approximately twenty minutes to complete. Once you start the survey, you can stop and return to finish it at another time, using the same computer and browser. If you have already responded to this survey, please do not respond to it again. Your participation in the study entitles you to enter a drawing of 3 $25 Amazon gift cards.

Statement of Consent

I have read the above purpose of the study, and understand my role in participating in the research. I volunteer to take part in this research. I have had a chance to ask questions. If I have questions later, about the research, I can ask the investigator listed above. I understand that I may refuse to participate or withdraw from participation at any time without jeopardizing my employment, student status or other rights to which I am entitled. The investigator may withdraw me at his/her professional discretion.
Appendix D

Tables for Listwise Deleted Participants

Table D1

*Demographic Variables of Deleted Participants*

<table>
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<tr>
<th>Demographic</th>
<th>Frequency</th>
<th>Percent</th>
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<td></td>
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<tr>
<td>White/Non-Hispanic</td>
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<td>73.7</td>
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<tr>
<td>Minority</td>
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<tr>
<td>Age</td>
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<td>24-35</td>
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<td>56-65+</td>
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Table D1 Continued

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<td>11</td>
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Table D3  
Logistic Regression to Inspect Missing Data

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<th>Wald</th>
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<th>Sig.</th>
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Appendix E

Frequency Plots

Figure E1. Frequency distribution of Competency Scale scores.

Figure E2. Frequency distribution of Traditional Time.
Figure E3. Frequency distribution of Non-Traditional Time

Figure E4. Frequency distribution of Non-Traditional Tally
Figure E5. Frequency distribution of Traditional Tally

Figure E6. Frequency distribution of Race/Ethnicity
Figure E7. Frequency distribution of Minority Identification

Figure E8. Frequency distribution of Gender
Figure E9. Frequency distribution of Age

Figure E10. Frequency distribution of Geographic Region
Figure E11. Frequency distribution of Degree

Figure E12. Frequency distribution of Years in Practice
Figure E13. Frequency distribution of Training History

Figure E14. Frequency distribution of Satisfaction with Training
Figure E15. Frequency distribution of Exposure to Multicultural Practicum

Figure E16. Frequency distribution of Task Value Rating (Full Scale)
Figure E17. Frequency distribution of Task Value Rating (Truncated Scale)
Appendix F

Scatterplots of Correlations – Residuals
Appendix G

Regression Analysis

Table G1
*Regression Analysis to Predict Competency from Non-Traditional Instruction*

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<th>Model</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adj $R^2$</th>
<th>SE of Estimate</th>
<th>$R^2$ Change</th>
<th>$F$</th>
<th>df 1/2</th>
<th>Sig. F Change</th>
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<tbody>
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<td>1$^a$</td>
<td>.411</td>
<td>.169</td>
<td>.066</td>
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<td>.169</td>
<td>1.645</td>
<td>13/105</td>
<td>.084</td>
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<tr>
<td>2$^b$</td>
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<td>.169</td>
<td>.066</td>
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<td>.000</td>
<td>1/104</td>
<td>.991</td>
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*Note a.* Predictors: (Constant), Female, Age, Minority, West, Midwest, South, None, DegreeMasters, DegreeSpecialist, Years in Practice, No training, Other exposure, Courses and Wrkshp

*Note b.* Predictors: (Constant), Female, Age, Minority, West, Midwest, South, None, DegreeMasters, DegreeSpecialist, Years in Practice, No training, Other exposure, Courses and Wrkshp, NonTrad

*Note.* Dependent Variable: Competency

* $p < .05$, ** $p < .01$
Table G2
*Regression Analysis to Predict Competency from Instruction Tallies*

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<td>Specialist</td>
<td>4.629</td>
<td>4.565</td>
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<td>1.014</td>
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<tr>
<td>Years in Practice</td>
<td>.150</td>
<td>.284</td>
<td>.087</td>
<td>.528</td>
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<td>Courses and Wrkshp</td>
<td>3.231</td>
<td>3.255</td>
<td>.093</td>
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<tr>
<td>Other exposure</td>
<td>2.809</td>
<td>4.826</td>
<td>.050</td>
<td>.582</td>
</tr>
<tr>
<td>No training</td>
<td>-3.478</td>
<td>10.098</td>
<td>-.153</td>
<td>-.344</td>
</tr>
<tr>
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<td>2.164</td>
</tr>
<tr>
<td>3 NonTradTally</td>
<td>12.149</td>
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<td>.212</td>
<td>2.086</td>
</tr>
</tbody>
</table>

*Note.* Models 2, 3 displayed truncated; variables from models 1, 2 not repeated

*Note.* Dependent Variable: Competency

* * p < .05, ** p < .01
### Table G3

**Regression Analysis to Predict Competency from Instruction Tallies, Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adj $R^2$</th>
<th>SE of Estimate</th>
<th>$R^2$ Change</th>
<th>$F$ Change</th>
<th>df 1/2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
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<td>.172</td>
<td>.070</td>
<td>14.68293</td>
<td>.172</td>
<td>1.680</td>
<td>13/105</td>
<td>.076</td>
</tr>
<tr>
<td>2$^b$</td>
<td>.482$^b$</td>
<td>.232</td>
<td>.129</td>
<td>14.21053</td>
<td>.060</td>
<td>8.097</td>
<td>1/104</td>
<td>.005**</td>
</tr>
<tr>
<td>3$^c$</td>
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<td>.243</td>
<td>.133</td>
<td>14.17816</td>
<td>.011</td>
<td>1.475</td>
<td>1/103</td>
<td>.227</td>
</tr>
</tbody>
</table>

*Note a.* Predictors: (Constant), Female, Age, Minority, West, Midwest, South, None, DegreeMasters, DegreeSpecialist, Years in Practice, No training, Other exposure, Courses and Wrkshp

*Note b.* Predictors: (Constant), Female, Age, Minority, West, Midwest, South, None, DegreeMasters, DegreeSpecialist, Years in Practice, No training, Other exposure, Courses and Wrkshp, TradTallyProportion

*Note c.* Predictors: (Constant), Female, Age, Minority, West, Midwest, South, None, DegreeMasters, DegreeSpecialist, Years in Practice, No training, Other exposure, Courses and Wrkshp, NonTradTallyProportion, TradTallyProportion

*Note.* Dependent Variable: Competency

* $p < .05$, ** $p < .01$
Table G4
*Regression Analysis to Predict Competency from Instruction Tallies*

<table>
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<th>Model</th>
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<th>Standardized</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>125.012</td>
<td>9.241</td>
<td></td>
<td>13.528</td>
</tr>
<tr>
<td>Gender</td>
<td>3.859</td>
<td>4.777</td>
<td>.075</td>
<td>.808</td>
</tr>
<tr>
<td>Age</td>
<td>-.002</td>
<td>.240</td>
<td>-.010</td>
<td>-.009</td>
</tr>
<tr>
<td>Minority</td>
<td>10.708</td>
<td>3.812</td>
<td>.130</td>
<td>2.809</td>
</tr>
<tr>
<td>South</td>
<td>.944</td>
<td>3.703</td>
<td>.029</td>
<td>.255</td>
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<td>4.833</td>
<td>-.114</td>
<td>-1.539</td>
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<td>West</td>
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<td>4.478</td>
<td>-.161</td>
<td>-1.418</td>
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<td>6.720</td>
<td>7.143</td>
<td>.051</td>
<td>.941</td>
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<tr>
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<td>-2.908</td>
<td>3.086</td>
<td>-.096</td>
<td>-.943</td>
</tr>
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<td>4.629</td>
<td>4.565</td>
<td>.150</td>
<td>1.014</td>
</tr>
<tr>
<td>Years in Practice</td>
<td>.150</td>
<td>.284</td>
<td>.087</td>
<td>.528</td>
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<tr>
<td>Courses and Wrkshp</td>
<td>3.231</td>
<td>3.255</td>
<td>.093</td>
<td>.993</td>
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<tr>
<td>Other exposure</td>
<td>2.809</td>
<td>4.826</td>
<td>.050</td>
<td>.582</td>
</tr>
<tr>
<td>No training</td>
<td>-3.478</td>
<td>10.098</td>
<td>-.153</td>
<td>-.344</td>
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<td>TradTally</td>
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<td>7.392</td>
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<td>1.215</td>
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</tbody>
</table>

*Note.* Models 2, 3 displayed truncated; variables from models 1, 2 not repeated

*Note.* Dependent Variable: Competency

*p < .05, ** p < .01
### Table G5

**Regression Analysis to Predict Satisfaction from Non-Traditional Instruction**

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adj $R^2$</th>
<th>SE of Estimate</th>
<th>$R^2$ Change</th>
<th>F Change</th>
<th>df 1/2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1$^a$</td>
<td>.234$^a$</td>
<td>.055</td>
<td>-.062</td>
<td>.966</td>
<td>.055</td>
<td>.467</td>
<td>13/105</td>
<td>.938</td>
</tr>
<tr>
<td>2$^b$</td>
<td>.246$^b$</td>
<td>.061</td>
<td>-.066</td>
<td>.967</td>
<td>.006</td>
<td>.644</td>
<td>1/104</td>
<td>.424</td>
</tr>
</tbody>
</table>

*Note a.* Predictors: (Constant), Female, Age, Minority, West, Midwest, South, None, DegreeMasters, DegreeSpecialist, Years in Practice, No training, Other exposure, Courses and Wrkshp

*Note b.* Predictors: (Constant), Female, Age, Minority, West, Midwest, South, None, DegreeMasters, DegreeSpecialist, Years in Practice, No training, Other exposure, Courses and Wrkshp, NonTrad

*Note.* Dependent Variable: Satisfaction

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

### Table G6

**Regression Analysis to Predict Satisfaction from Instruction Tallies**

<table>
<thead>
<tr>
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<th>$R^2$</th>
<th>Adj $R^2$</th>
<th>SE of Estimate</th>
<th>$R^2$ Change</th>
<th>F Change</th>
<th>df 1/2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1$^a$</td>
<td>.245$^a$</td>
<td>.060</td>
<td>-.056</td>
<td>.963</td>
<td>.060</td>
<td>.517</td>
<td>13/105</td>
<td>.910</td>
</tr>
<tr>
<td>2$^b$</td>
<td>.307$^b$</td>
<td>.094</td>
<td>-.027</td>
<td>.950</td>
<td>.034</td>
<td>3.940</td>
<td>1/104</td>
<td>.050</td>
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<tr>
<td>3$^c$</td>
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<td>.110</td>
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</table>

*Note a.* Predictors: (Constant), Female, Age, Minority, West, Midwest, South, None, DegreeMasters, DegreeSpecialist, Years in Practice, No training, Other exposure, Courses and Wrkshp

*Note b.* Predictors: (Constant), Female, Age, Minority, West, Midwest, South, None, DegreeMasters, DegreeSpecialist, Years in Practice, No training, Other exposure, Courses and Wrkshp, TradTallyProportion

*Note c.* Predictors: (Constant), Female, Age, Minority, West, Midwest, South, None, DegreeMasters, DegreeSpecialist, Years in Practice, No training, Other exposure, Courses and Wrkshp, TradTallyProportion, NonTradTallyProportion

*Note.* Dependent Variable: Satisfaction

* $p < .05$, ** $p < .01$
Table G7
*Regression Analysis to Predict Competence from Fieldwork Inclusion*

<table>
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<th>Model</th>
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<th>Sig.</th>
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<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>125.012</td>
<td>9.241</td>
<td>13.528</td>
<td>.000</td>
</tr>
<tr>
<td>Gender</td>
<td>3.859</td>
<td>4.777</td>
<td>.075</td>
<td>.808</td>
</tr>
<tr>
<td>Age</td>
<td>-0.002</td>
<td>.240</td>
<td>-.010</td>
<td>-.009</td>
</tr>
<tr>
<td>Minority</td>
<td>10.708</td>
<td>3.812</td>
<td>.259</td>
<td>2.809</td>
</tr>
<tr>
<td>South</td>
<td>.944</td>
<td>3.703</td>
<td>.025</td>
<td>.255</td>
</tr>
<tr>
<td>Midwest</td>
<td>-7.439</td>
<td>4.833</td>
<td>-.153</td>
<td>-1.539</td>
</tr>
<tr>
<td>West</td>
<td>-6.347</td>
<td>4.478</td>
<td>-.135</td>
<td>-1.418</td>
</tr>
<tr>
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<td>6.720</td>
<td>7.143</td>
<td>.089</td>
<td>.941</td>
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<td>Masters</td>
<td>-2.908</td>
<td>3.086</td>
<td>-.096</td>
<td>-.943</td>
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<td>4.629</td>
<td>4.565</td>
<td>.104</td>
<td>1.014</td>
</tr>
<tr>
<td>Years in Practice</td>
<td>.150</td>
<td>.284</td>
<td>.096</td>
<td>.528</td>
</tr>
<tr>
<td>Courses and Wrkshp</td>
<td>3.231</td>
<td>3.255</td>
<td>.106</td>
<td>.993</td>
</tr>
<tr>
<td>Other exposure</td>
<td>2.809</td>
<td>4.826</td>
<td>.063</td>
<td>.582</td>
</tr>
<tr>
<td>No training</td>
<td>-3.478</td>
<td>10.098</td>
<td>-.036</td>
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*Note. Model 2 displayed truncated; variables from model 1 not repeated*

*Note. Dependent Variable: Competency*

*p < .05, ** p < .01
Table G8

Regression Analysis to Predict Task Value from Non-Traditional Instruction

<table>
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<th>Variable</th>
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</thead>
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<td>.698</td>
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<td>.378</td>
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<td>1</td>
<td>.233</td>
</tr>
<tr>
<td>South</td>
<td>.514</td>
<td>.627</td>
<td>1</td>
<td>.969</td>
</tr>
<tr>
<td>Midwest</td>
<td>-.034</td>
<td>.897</td>
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<td>.335</td>
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<td>.340</td>
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Note. Dependent Variable: TaskValue

* p < .05, ** p < .01
### Regression Analysis to Predict Task Value from Instruction Tallies

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<td>.056</td>
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<td>.345</td>
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<td>South</td>
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<td>.626</td>
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<td>.409</td>
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<td>Midwest</td>
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<td>.691</td>
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<td>1</td>
<td>.530</td>
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<td>1</td>
<td>.276</td>
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<td>.633</td>
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<td>.018</td>
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<td>.357</td>
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<td>Courses and Wrkshp</td>
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<td>.961</td>
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*Note.* Dependent Variable: TaskValue

* p < .05, ** p < .01
Table G10
Regression Analysis to Predict Competency from Satisfaction

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<th>Sig.</th>
</tr>
</thead>
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<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>125.012</td>
<td>9.241</td>
<td>13.528</td>
<td>.000</td>
</tr>
<tr>
<td>Gender</td>
<td>3.859</td>
<td>4.777</td>
<td>.074</td>
<td>.808</td>
</tr>
<tr>
<td>Age</td>
<td>-.002</td>
<td>.240</td>
<td>-.002</td>
<td>-.009</td>
</tr>
<tr>
<td>Minority</td>
<td>10.708</td>
<td>3.812</td>
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<td>2.809</td>
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<td>South</td>
<td>.944</td>
<td>3.703</td>
<td>.025</td>
<td>.255</td>
</tr>
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<td>Midwest</td>
<td>-7.439</td>
<td>4.833</td>
<td>-.153</td>
<td>-1.539</td>
</tr>
<tr>
<td>West</td>
<td>-6.347</td>
<td>4.478</td>
<td>-.135</td>
<td>-1.418</td>
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<tr>
<td>No region</td>
<td>6.720</td>
<td>7.143</td>
<td>.089</td>
<td>.941</td>
</tr>
<tr>
<td>Masters</td>
<td>-2.908</td>
<td>3.086</td>
<td>-.096</td>
<td>-.943</td>
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<td>4.629</td>
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<td>1.014</td>
</tr>
<tr>
<td>Years in Practice</td>
<td>.150</td>
<td>.284</td>
<td>.096</td>
<td>.528</td>
</tr>
<tr>
<td>Courses and Wkshp</td>
<td>3.231</td>
<td>3.255</td>
<td>.106</td>
<td>.993</td>
</tr>
<tr>
<td>Other exposure</td>
<td>2.809</td>
<td>4.826</td>
<td>.063</td>
<td>.582</td>
</tr>
<tr>
<td>No training</td>
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<td>10.098</td>
<td>-.036</td>
<td>-.344</td>
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Note. Model 2 displayed truncated; variables from model 1 not repeated

Note. Dependent Variable: Competency

* p < .05, **p < .01
Table G11
*Regression Analysis to Determine Predictive Value of Full Set on Competence*

<table>
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<th>Standardized</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
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<td>.073</td>
<td>.798</td>
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*Note.* Model 2 displayed truncated; variables from model 1 not repeated

*Note.* Dependent Variable: Competency

* *p < .05, ** *p < .01
References

doi:10.1177/0011000000285003


doi:10.1007/s10447-014-9224-1


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doi:10.1037/a0022091


