

**THE EXAMINATION OF THE SCHOOL PSYCHOLOGY
MULTICULTURAL COMPETENCE SCALE**

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ABSTRACT

The School Psychology Multicultural Competence Scale (SPMCS) is a 45-item, self-report measure designed to assess the multicultural competence of school psychologists and school psychology trainees. The SPMCS was developed to address the need for a multicultural assessment tool specific to school psychology. The purpose of the present study was twofold: to determine the underlying factor structure of the SPMCS and to determine which characteristics of training programs and individual trainees were related to higher self-reported scores on multicultural competence.

Participants in this study were 312 school psychology specialist and doctoral students enrolled in NASP approved and/or APA accredited school psychology programs in the United States. All students completed the SPMCS and a brief demographic survey in which they were asked about coursework in multicultural and diversity issues and practicum experiences with culturally and linguistically diverse populations.

The results of the factor analysis demonstrated that a four factor solution best fit the data obtained from the sample of graduate students who completed the SPMCS. The four factor subscales were Cultural Knowledge/Skills, Cultural Appreciation, Basic Skills, and Cultural Awareness. These four subscales may provide a clearer and more accurate description of multicultural competence in professional psychology.

Overall, education and training (i.e., advanced standing in graduate program, multicultural/diversity coursework, practicum with culturally and linguistically diverse clients, and internship) were associated with higher self-reported scores of multicultural competence. Female trainees, ethnic minority trainees, and bilingual/multilingual

speakers also reported higher multicultural competence than male, Caucasian, and monolingual trainees. These results lend tacit support for an integrated-separate course model of multicultural training with explicit coursework in multicultural issues, integration of multicultural content into all coursework, and practicum experiences with culturally and linguistically diverse clients.

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TABLE OF CONTENTS

	PAGE
ABSTRACT.....	ii
ACKNOWLEDGEMENTS.....	iv
DEDICATION.....	vi
LIST OF TABLES.....	viii
CHAPTER	
1. INTRODUCTION.....	1
2. REVIEW OF LITERATURE.....	5
3. METHODS.....	36
4. RESULTS.....	43
5. DISCUSSION.....	73
REFERENCES CITED.....	85
APPENDICES	
A. INVITATION LETTER TO PROGRAM DIRECTORS.....	92
B. INVITATION LETTER TO GRADUATE STUDENTS.....	93
C. DEMOGRAPHIC QUESTIONNAIRE FOR PROGRAM DIRECTORS.....	94
D. TRAINING QUESTIONNAIRE FOR GRADUATE STUDENTS.....	96
E. SCHOOL PSYCHOLOGY MULTICULTURAL COMPETENCE SCALE.....	100

LIST OF TABLES

Table	Page
2.1 Selected explanatory statements of the multicultural counseling competencies (Arredondo et al., 1996).....	22
3.1 Demographic characteristics of the participants.....	37
4.1 Factor loadings for exploratory factor analysis with direct oblim rotation of the SPMCS items.....	45
4.2 Mean SPMCS subscale scores by demographic group.....	50
4.3 One-way analysis of variance for the effect of gender on SPMCS subscale scores.....	55
4.4 One-way analysis of variance for the effect of race/ethnicity on SPMCS subscale scores.....	56
4.5 Mean score on SPMCS subscales as a function of race/ethnicity.....	57
4.6 One-way analysis of variance for the effect of second language on SPMCS subscale scores.....	58
4.7 One-way analysis of variance for the effect of geographic region on SPMCS subscale scores.....	59
4.8 Mean SPMCS subscale scores as a function of geographic region.....	60
4.9 One-way analysis of variance for the effect of degree on SPMCS subscale scores.....	61
4.10 One-way analysis of variance for the effect of year in program on SPMCS subscale scores.....	62
4.11 Mean SPMCS subscale scores as a function of year in program.....	63
4.12 One-way analysis of variance for the effect of internship status on SPMCS subscale scores.....	64
4.13 One-way analysis of variance for the effect of number of multicultural and diversity courses taken on SPMCS subscale scores.....	65
4.14 Mean SPMCS scores as a function of number of multicultural and diversity courses taken.....	66

4.15	One-way analysis of variance for the effect of practicum with CLD clients on SPMCS subscale scores.....	67
4.16	Regression analysis summary for demographic variables predicting SPMCS Cultural Knowledge/Skills subscale score.....	69
4.17	Regression analysis summary for demographic variables predicting SPMCS Cultural Appreciation subscale score.....	70
4.18	Regression analysis summary for demographic variables predicting SPMCS Cultural Awareness subscale score.....	71

CHAPTER 1

INTRODUCTION

The demographics of the United States have been changing to become more racially and ethnically diverse. By the year 2042, racial and ethnic minorities are expected to become the majority and by the year 2050, they are expected to compose 54% of the United States population (US Census Bureau, 2008). This change in demographics is especially noticeable in the school age population. In 2008, 47% of children under age five and 44% of all children under age 18 were racial and ethnic minorities. Additionally, 43% of all elementary through high school students were non-white (US Census Bureau, 2009).

In contrast, the field of school psychology does not reflect the same racial and ethnic diversity as the United States. In a survey of the membership of the National Association of School Psychologists (NASP), the professional organization which represents school psychologists in the United States, almost 93% of the respondents identified themselves as white (Curtis, Chesno Grier, & Hunley, 2004). This is in stark contrast to the racial and ethnic composition of the school age population in the United States. Although there have been efforts to increase the number of racial and ethnic minorities in school psychology through targeted graduate student recruitment and retention, it is not likely that the field of school psychology will achieve parity with the United States population (Zhou et al., 2004).

Because of the differences in the racial-ethnic composition of school psychologists and the school age population, there is an increased likelihood that ethnic incongruence will occur. Ethnic incongruence refers to the ethnic differences between

psychologists and their clients (Loe & Miranda, 2005). In the NASP survey previously mentioned, almost all of the respondents indicated that they work with culturally and linguistically diverse (CLD) students (Curtis, Chesno Grier, & Hunley, 2004). In a study specifically examining ethnic incongruence in school psychology, about one third of the school psychologist participants in the study had caseloads in which one fourth or more of the students were ethnic minorities (Loe & Miranda, 2005). Considering the high levels of ethnic incongruence that exist in school psychology, it is imperative that school psychologists be adequately prepared to work with CLD populations.

The ability to work effectively with racial, ethnic, and linguistic minorities is referred to as multicultural competence. Multicultural competence has been described as the ability to translate knowledge of cultural differences into effective and sensitive school psychological services (Rogers, 2006). In order to do this, a school psychologist should be knowledgeable about individual differences and culturally different groups and be aware of his/her own self identity and personal biases.

The factors that contribute to the growth of multicultural competence and culturally responsive practices have been researched extensively by counseling psychologists (e.g., Arredondo et al., 1996; Ponterotto et al., 1994; Sue, Arredondo, & McDavis, 1992; Sue et al., 1982). Historically, these topics have not received the same level of attention in school psychology research, but the field of school psychology has been displaying more interest in these topics as evidenced by the increase of articles with a focus on CLD populations or issues published in school psychology journals (Brown, Shriberg, & Wang, 2007; Miranda & Gutter, 2002; Rogers Wiese, 1992) and the research

conducted to identify specific multicultural competencies in school psychology (Gopaul-McNicol, 1997; Lopez & Rogers, 2001; Rogers & Lopez, 2002).

While this is a move in the right direction for the field of school psychology, most of the multicultural and diversity research in school psychology has focused on the assessment of CLD students (Brown, Shriberg, & Wang, 2007; Miranda & Gutter, 2002; Rogers Wiese, 1992). There is still a need for more research which examines the development of multicultural competence in school psychologists. This will allow training programs to be aware of the factors most conducive to the growth of this competence and include those factors in their programs. In order for this to occur, there needs to be a tool to assess the multicultural competence of school psychologists. Such instruments exist for counseling psychologists (Hays, 2008; Ponterotto et al., 1994), but their utility for school psychologists is limited because they do not address multicultural competence in all areas of school psychology service delivery (i.e., assessment, intervention, consultation). There has been an attempt to develop a multicultural competence assessment for school psychologists; however, that instrument, the Multicultural School Psychology Counseling Competency Scale (MSPCCS; Rogers & Ponterotto, 1997), is similar to the scales used in counseling psychology in that it focuses only on multicultural competence in counseling. The ability of school psychologists to conduct research examining the factors contributing to multicultural competence is limited because no instrument exists to assess multicultural competence in all areas of school psychology service delivery.

The School Psychology Multicultural Competence Scale (SPMCS) was developed to address the need for a multicultural assessment tool specific to school psychology. The

purpose of this study is twofold: to determine the underlying factor structure of the School Psychology Multicultural Competence Scale and to determine which characteristics of training programs and individual trainees are related to higher self-reported scores of multicultural competence. It is anticipated that the factor structure of the SPMCS will reflect the three dimensional construct of multicultural competence as defined in the existing literature. Additionally, it is anticipated that trainees who have had multiple experiential and didactic courses in multicultural issues will have higher self-reported scores of multicultural competence.

Research Questions

1. What is the underlying factor structure of the School Psychology Multicultural Competence Scale (SPMCS)?
2. In what area do school psychology graduate students perceive themselves to be most multiculturally competent based on the factors of the SPMCS?
3. Does school psychology graduate students' perceived multicultural competence differ based on selected participant characteristics?

CHAPTER 2

REVIEW OF LITERATURE

Due to the changing demographics of the United States, it has become increasingly important that school psychologists be multiculturally competent. Although this is an important goal for school psychologists, there is very little research in school psychology that discusses this issue. The little research in this area has mainly focused on the equitable assessment of culturally and linguistically diverse (CLD) students. However, greater attention needs to be given to defining and assessing multicultural competence in broader terms across all areas of school psychology.

Multicultural Research in School Psychology

The United States is becoming increasingly culturally and linguistically diverse. This demographic change is most evident in the school aged population with whom school psychologists work. Therefore, school psychologists should engage in research that focuses on CLD populations so that they can identify the competencies needed to work most effectively with them. However, the research base in multicultural and diversity issues in school psychology is not as extensive as the research base in counseling psychology. The school psychology field is attempting to address this gap by increasing the number of publications addressing these issues in school psychology journals. Three studies (Brown, Shriberg, & Wang, 2007; Miranda & Gutter, 2002; Rogers Wiese, 1992) analyzed the content of the major school psychology journals over a 28 year period from 1975 to 2003 and found that the percentage of multiculturally focused articles published increased over each time period examined.

Rogers Wiese (1992) analyzed the content of articles published in three major school psychology journals (*Journal of School Psychology*, *Psychology in the Schools*, and *School Psychology Review*) from the period of 1975 to 1990. Articles that focused on CLD groups as the participants or discussed minority issues in the practice of school psychology were included in the analysis. Out of the 2460 articles published, 9% of the articles met the identified criteria and addressed multicultural and diversity issues in school psychology. Over 80% of the identified articles were empirical studies; the majority of the empirical multicultural school psychology research dealt with assessment issues and the school psychologist's role as a psychoeducational evaluator. Very few of the articles addressed the role of the school psychologist in intervention, consultation, and counseling and only 1% of the identified articles were related to training.

As a follow up to the Rogers Wiese (1992) study, Miranda and Gutter (2002) reviewed all of the research published in the four major school psychology journals. Three of the journals (*Journal of School Psychology*, *Psychology in the Schools*, *School Psychology Review*) were included in Rogers Wiese's study; the fourth journal reviewed was *School Psychology Quarterly*. The review included articles published from 1990 to 1999. Similar to Rogers Wiese (1992), articles with a focus on CLD groups as the participants or that discussed minority issues in school psychology were included in the analysis; however, articles with a focus on socioeconomic status and sexual orientation were also included in the final analysis. They found that 10.6% of the articles fit the coding criteria and were related to multicultural and diversity issues in school psychology. This is an increase from the 9% reported by Rogers Wiese (1992); however, it is unclear if that increase was because of the broader inclusion criteria or because there

were more articles published with a focus on cultural and linguistic diversity. Similar to previous findings, the largest subset (38%) of the published articles were about assessment issues with a focus on intellectual assessment. Only 2% of the identified articles addressed training issues.

Brown, Shriberg, and Wang (2007) again found an increase in the percentage of articles with a focus on multiculturalism and diversity published in school psychology journals. The authors conducted a content analysis of the *Journal of School Psychology*, *Psychology in the Schools*, *School Psychology Quarterly*, *School Psychology Review*, and *The Journal of Applied School Psychology* from 2000 to 2003 using the same criteria for inclusion as Miranda and Gutter (2002). They found that almost 17% of the articles published during that time period focused on multicultural and diversity topics and issues. This represents an increase in the percentage of identified articles from Miranda and Gutter (2002); however, it is unclear how much of this increase is due to the addition of a fifth journal to the analysis. Out of the identified articles, 22.3% had a focus on intervention and prevention and about 20% of the articles were focused on assessment issues. This represents a change from the two prior studies (Rogers Wiese, 1992; Miranda & Gutter, 2002), in that intervention/prevention constituted the largest topic group. However, there is still little research examining multicultural competence and training issues in school psychology. Unlike the previous two studies (Rogers Wiese, 1992; Miranda & Gutter, 2002), the authors did not report the percentage of identified articles that addressed training issues.

While the increase in the publication of multicultural research in school psychology is encouraging, the focus of many of these articles has been the assessment of

CLD students. Although this topic did not make up the largest percentage of articles in the last analysis of published articles, they still represented a large percentage of the identified articles (Brown, Shriberg, & Wang, 2007). The equitable and fair assessment of CLD students is an important topic, but school psychologists function as more than psychoeducational diagnosticians (Ysseldyke et al., 2006). They have multiple roles in working with CLD students, families, and teachers through intervention, consultation, counseling, and the provision of other services. One of the best ways to evaluate the multicultural awareness, knowledge, and skills of school psychologists is to define the needed competencies and determine how these are addressed within their training program. Therefore, it is important that multicultural research in school psychology focus on the training of school psychologists before they go out into the field. Additionally, if the training in school psychology does not reflect the cultural and linguistic diversity that are present in K-12 schools, school psychologists are placed at a disadvantage in developing the skills needed to effectively work with these students.

All three studies that analyzed the multicultural and diversity content of school psychology journals provided recommendations for future research within this area of school psychology. The focus of multicultural school psychology research needs to be broadened to address other topics in addition to assessment and to gain a better understanding of the role that culture plays in the provision of school psychology services. Both Rogers Wiese (1992) and Miranda and Gutter (2002) suggested that future school psychology multicultural research focus on identifying the features and characteristics of culturally skilled school psychologists. To that end, there is a need to develop multicultural competence instruments to further define multicultural

competencies in school psychology. Ultimately, these measures are needed to be able to test the relationship between performance on multicultural competence measures and service delivery to CLD populations.

There has been some published research to identify multicultural competencies in school psychology. Based on her own personal experiences, a review of school psychology and ethnic minority literature, and empirical research, Gopaul-McNicol (1997) identified 15 multicultural competencies needed by school psychologists when working with CLD students. These competencies are (1) cross cultural ethical competence, (2) awareness of the therapist's own values and biases, (3) cross cultural awareness, (4) competence in understanding interracial issues, (5) language competencies, (6) competency in the ability to work with interpreters, (7) cross cultural assessment competencies, (8) cross cultural counseling competencies, (9) cross cultural issues in conflict resolution, (10) competence in special education prevention, (11) competencies in bilingual education curriculum, (12) cross cultural consultation competencies, (13) cross cultural research competencies, (14) competence in empowering families through community based organizations, and (15) competence in pediatric/health psychology. These comprehensive multicultural competencies address all of the domains in which school psychologists practice. In addition to these practice competencies, Gopaul-McNicol (1997) also addressed cross-cultural competencies in training. With the practice and training competencies, it was suggested that a specific multicultural curriculum in school psychology be developed with the goal of producing culturally competent school psychologists capable of working with children of any linguistic, cultural, or ethnic background.

In addition to this research, two studies (Lopez & Rogers, 2001; Rogers & Lopez, 2002) utilized the Delphi method to conceptualize and identify cross-cultural school psychology competencies that address the full spectrum of school psychological services. For both studies, panelists with expertise in cross-cultural school psychology were identified based on at least one of the five selection criteria: author criteria, presenter criteria, faculty criteria, practicing school psychologist criteria, and supervising school psychologist criteria. These criteria ensured that all panelists had an established body of research in multicultural school psychology and/or several years experience in working with CLD populations in schools.

In the first study, Lopez and Rogers (2001) provided panelists with an open ended questionnaire in which they were asked to identify essential cross-cultural competencies based on their own experiences and knowledge base. The panelists identified 89 essential competencies which were grouped into 12 categories. The five most important categories, as rated by the expert panelists, were Assessment, Consultation, Language, Professional Characteristics, and Report Writing. The competencies identified by these experts were consistent with the competence categories identified by Gopaul-McNicol (1997).

Unlike Lopez and Rogers (2001), the expert panelists in Rogers and Lopez's (2002) study did not complete an open ended questionnaire. Instead, these panelists were provided with a list of cross-cultural competencies identified by the authors that were derived through an extensive literature search about cross cultural competencies relevant to school psychology practice. The panelists were asked to rate the importance of each competence. Additionally, participants were asked to identify additional competencies based on their own professional experiences. From the questionnaire and specific open

ended questions, the panelists identified 102 critical competencies in 14 categories believed to be the most important to delivering effective, relevant, and sensitive services to multiethnic, multicultural, and multilingual clients in schools. The three competence categories rated as the most important were Assessment, Report Writing, and Laws and Regulations.

The 15 multicultural competencies identified by Gopaul-McNicol (1997) influenced future research on school multicultural competencies in that it provided broad competency categories which the Lopez and Rogers (2001) and Rogers and Lopez (2002) used to conceptualize more specific awareness, knowledge, and skill competencies. The Lopez and Rogers (2001) study had more of an emphasis on awareness items while the Rogers and Lopez (2002) study had more competency items focusing on knowledge and skills. Between these two studies, there is a comprehensive listing of multicultural competencies in school psychology which fit in the three domain conceptual framework of multicultural competence. The competencies derived from these two studies are also aligned with the multicultural school psychology competencies identified by Gopaul-McNicol (1997). One of the primary recommendations of both Lopez and Rogers (2001) and Rogers and Lopez (2002) was that a multicultural competence self-report assessment be created based upon the competencies identified in both studies. These self-report measures can then be used by school psychologists and trainees to evaluate the strengths and weakness of their own multicultural competence. Additionally, these assessments can be used to evaluate the effectiveness of curriculum models designed to develop multicultural competence in school psychology trainees.

Training Models to Develop Multicultural Competence

The multicultural competencies that were defined in the school psychology literature (GoPaul-McNicol, 1997; Lopez & Rogers, 2001; Rogers & Lopez, 2002) can be used to inform the manner in which school psychologists are trained, so that programs know which skills their graduates should have in order to practice in a culturally competent manner. However, this research does not provide guidance about the best method by which to deliver this content.

There is general consensus between the two major professional organizations, the American Psychological Association (APA) and the National Association of School Psychologists (NASP), which accredit and approve school psychology training programs, that school psychology trainees should be prepared by their programs to provide services to CLD individuals. In the *APA Guidelines and Principles for Accreditation of Programs in Professional Psychology* (2009), Domain D states that psychology training programs need to recognize the importance of cultural and individual differences and diversity in the training of psychologists. A similar statement can be found in NASP's *Standards for the Graduate Preparation of School Psychologists* (2010b). The particular standard which addresses diversity in development and learning makes it clear that an understanding and respect for diversity are foundations of school psychology service delivery.

In addition to the APA and NASP training guidelines, a commitment to culturally competent service delivery is in both organizations' ethical codes. The underlying assumption of these ethical codes is that psychologists will consider the demographic characteristics which may differ from the majority for an individual (e.g., race, ethnicity,

country of origin, language) in order to provide appropriate psychological services to clients. If the school psychologist does not have the appropriate training or possess the competence to work with these clients, then he or she would need to obtain additional training or supervision or make an appropriate referral (APA, 2010; NASP, 2010a). This, again, underscores the importance of addressing multicultural and diversity issues in coursework and practica of school psychology training programs. Including this coursework will help to ensure that programs produce professionals who are multiculturally competent and prepared to work with CLD clients in an ethical manner. By actively developing the multicultural competence of school psychologists through coursework and practica, school psychology training programs are preparing their trainees to work with CLD students, families, and teachers to provide effective and culturally sensitive school psychological services.

Neither APA nor NASP specify how training programs should address multicultural and diversity issues; however, the *APA Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists* (2003b) provide some conceptual guidance as to what multicultural content should be addressed in training programs. Three of the six guidelines are especially relevant to the training of psychologists. Guideline #1 speaks to how psychologists need to be aware of their own cultural values and beliefs and how these may affect the manner in which they interact with individuals of a different culture. In addition to multicultural awareness, Guideline #2 refers to the importance of multicultural sensitivity, responsiveness, and understanding about CLD individuals. The third guideline is most directly related to the

education and training of psychologists. This guideline states that the constructs of multiculturalism and diversity should be incorporated into psychological education.

While the APA guidelines (2002) are conceptual and philosophical in nature, research has been conducted to develop a more concrete view of how these guidelines should be implemented in psychology training programs. Speight and colleagues (1995) conducted a study to describe an operational definition of multicultural training through dialogue with multicultural psychology experts using a modified Delphi procedure. These experts were selected based on the number of articles published on multicultural counseling in counseling psychology journals. The experts indicated that multicultural training in academic programs should include a multicultural curriculum, a diverse student population and a diverse faculty, faculty with multicultural expertise, and specific multicultural course content. The experts also indicated that multicultural training should be evident in the program's philosophy. Additionally, academic programs should embrace different definitions of multiculturalism and both students and faculty should be open to discussing such ideas. This study suggests that the environment of the training program is as important to the multicultural training as the curriculum. Multicultural training not only involves the presentation of coursework on culture and diversity issues, but also involves providing a space where students and faculty can discuss those issues and how they impact the practice of psychology.

Two studies (Rogers, 2006; Rogers, Hoffman, & Wade, 1998) examined school psychology programs that were considered exemplars of multicultural training to gain additional insight as to how multicultural training can occur in training programs. The programs described were nominated by individuals with expertise in multicultural school

psychology. The nominated programs utilized a variety of training models to address multicultural and diversity issues in the curriculum. All the programs exposed their trainees to CLD clients during training and almost all required a specific diversity issues course. The programs used a combination of curricular models including a separate concentration model in which students take a specific multicultural issues course while gaining firsthand exposure to CLD clients, an interdisciplinary model where students enroll in relevant multicultural issues courses outside of their school psychology program, and an integration model in which multicultural content is infused in all program coursework. The common factors in the nominated programs were a commitment to multicultural issues in mission statements and program philosophies, specific minority recruitment procedures, required cross-cultural and diversity issues in core curriculum, and faculty members with an interest in multicultural and diversity issues.

In addition to the studies previously discussed, Kearns and colleagues (2002) also examined the characteristics of good multicultural training in school psychology. Specifically, the purpose of their study was to determine the extent to which the best multicultural training in school psychology followed established guidelines. School psychologists with expertise in work with CLD children and youth nominated school psychology programs with strong multicultural training. The five most frequently nominated programs and five randomly selected APA accredited school psychology programs participated in this study. Faculty and students at each program completed the Training on Multicultural Issues Scale (TOMIS) for Faculty and Students. The TOMIS was developed based on the *Guidelines for Providers of Psychological Services to*

Ethnic, Linguistic, and Culturally Diverse Populations (APA, 2003a) and assessed program philosophy and procedures regarding diversity issues, integration of diversity issues in the core curriculum, and professional development and practice issues. The faculty and student respondents rated 22 multicultural competencies taught in their programs and described how each particular competency was addressed. To corroborate the information provided by faculty and students and to obtain a more comprehensive picture of the programs' multicultural training, the handbooks for each program were evaluated using the TOMIS for handbooks. Common factors identified in the nominated programs were a commitment to multicultural issues in mission statements or program philosophies, specific minority recruitment procedures, required cross-cultural and diversity courses in the core curriculum, and faculty members who reported interest in multicultural and diversity issues. The comparison programs generally did not address multicultural and diversity issues in mission statements and primarily addressed multicultural and diversity issues by integrating them into existing coursework instead of requiring a standalone course. Although the nominated programs were selected based on their strong multicultural training, they still have areas in which they can improve. None of the programs adequately and consistently addressed the competencies measured in the TOMIS. These nominated programs were believed to provide the strongest multicultural training in school psychology. There are two possible explanations for the results obtained: the programs may not be adequately preparing their trainees to work with CLD populations or the TOMIS may not be the appropriate measure with which to assess multicultural training in school psychology programs.

Although the importance of multicultural training is evident upon examination of APA and NASP's training guidelines and ethical codes, all school psychology graduate students may not be receiving sufficient training in this area. In a national survey of NASP approved specialist and doctoral school psychology programs, Rogers and colleagues (1992) found that only about 60% of programs offered at least one course dedicated to multicultural issues. As noted in previous studies (Rogers, 2006; Rogers, Hoffman, & Wade, 1998), a dedicated multicultural course is not the only way to prepare school psychology trainees to work with CLD clients. However, it is unclear how the programs surveyed by Rogers and colleagues (1992) that did not have a multicultural course addressed these issues in training, or if they addressed these issues in training. This suggests that there may be a subset of school psychology students who have had limited multicultural training. Although there has not been a published follow up study since this survey of multicultural training in school psychology programs, it does not appear that much has changed since the Rogers (1992) study. NASP solicits nominations for training programs with a focus on multiculturalism and bilingualism. In order to be nominated, the programs must demonstrate a commitment to diversity issues through the recruitment and retention of CLD students, have a multicultural curricular emphasis, have faculty members involved in multicultural research and outreach, as well as participate in related research and training grants. Out of 180 NASP approved programs, fewer than 10% were nominated as having a focus on multiculturalism and bilingualism. It is important that school psychologists have the ability to work with individuals from a wide range of cultural backgrounds and that ability should be developed throughout the course of graduate school training. While there may be school psychology programs that address

these issues in training, school psychology programs may not be giving the content the attention that it deserves. Diversity issues and multicultural approaches to service delivery should receive attention in training and practice at every level (Erhardt-Padgett, Hatzichristou, Kitson, & Meyers, 2004). This attention is especially important at the training level to ensure that newly trained school psychologists have the appropriate skills and knowledge base needed in order to effectively provide culturally competent services.

Newell and colleagues (2010) recently described a best evidence approach to multicultural training in school psychology comprising seven components. The components are organized into two levels: program/faculty level and student level. The program level components are an integration-separate course model of multicultural training, multicultural research across all domain of school psychology practice, and recruitment and retention of CLD faculty and students. The student level components include curricular (i.e., courses and content) and practicum changes that should occur to improve multicultural training for students. These components are knowledge about different groups, translation of knowledge to school psychological services, practical experiences with diverse populations, and evaluation of students' multicultural knowledge and skills. Several of the components described by Newell and colleagues (2010) were present in the school psychology programs that were considered exemplars of multicultural training (Kearns, Ford, & Brown, 2002; Rogers, 2006; Rogers, Hoffman, & Wade, 1998). Although the previous studies identified some of the characteristics of exemplary multicultural training, the article by Newell and colleagues (2010) was the first to describe, in detail, how programs can and should structure such training.

Even with the detailed recommendations for training, research needs to be conducted regarding the effectiveness of these various training models at developing multicultural competence in school psychology trainees. There has been some research conducted to determine the relationship between training and the development of multicultural competence, but this research has primarily been done in counseling psychology using assessment tools that evaluate multicultural counseling competence. For school psychology to conduct similar research, the field needs multicultural competence assessment instruments that are specific to school psychology. The existing research within counseling psychology can be used to gain a better understanding of the theoretical construct of multicultural competence and how it may be applied to school psychology training and practice.

Multicultural Competence in Counseling Psychology

Counseling psychologists have taken a leadership role in conducting and publishing research on multicultural issues in the practice of psychology. That research has led to the development of multicultural counseling competencies (Arredondo et al., 1996; Sue, Arredondo, & McDavis, 1992; Sue et al., 1982). The conceptual framework of these competencies has been adopted by the other two practice fields of psychology (i.e., clinical psychology and school psychology) to define what a culturally competent psychologist is and how to be culturally competent or responsive in practice.

Cross cultural counseling/therapy may be defined as any counseling relationship in which two or more of the participants differ with respect to cultural background, values, and lifestyles (Sue et al., 1982). In most cases, the counselor or psychologist will be a member of the majority group and the client a member of an ethnic minority group.

In order to prepare psychologists for this interpersonal dynamic, the multicultural counseling competencies were developed. They were first described by Sue and colleagues (1982) and identify the beliefs/attitudes, knowledge, and skills of a culturally skilled psychologist. In terms of beliefs/attitudes, the culturally skilled counseling psychologist should be aware of and sensitive to his/her own cultural heritage, aware of one's own biases, and be comfortable with the differences that exist between himself/herself and the client in terms of race and beliefs. The knowledge that is important for multicultural competence is the understanding of the sociopolitical systems operating in the United States with respect to its treatment of ethnic minorities, specific knowledge about particular ethnic minority groups, and the knowledge and understanding of the generic characteristics of counseling and therapy. Culturally competent counseling psychologists possess the skills and abilities to generate a wide variety of verbal and nonverbal responses, to send and receive nonverbal messages accurately, and to exercise institutional intervention skills on behalf of the client when appropriate.

Sue, Arredondo, and McDavis (1992) expanded on the multicultural counseling competencies (Sue et al., 1982) by developing a 3 (characteristics) x 3 (dimensions) matrix in which to organize multicultural counseling skills. A total of nine competency areas were developed which represent important criteria for counselors and psychologists' practice in working with racial and ethnic minorities.

A clearer definition of multicultural counseling was developed by Arredondo and colleagues (1996). Multicultural counseling refers to the preparation and practices that integrate multicultural and culture-specific awareness, knowledge, and skills into counseling interactions. This paper also operationalized the competencies by developing

explanatory statements to describe how a counselor or psychologist can achieve and demonstrate each competency. All of the explanatory statements fit into the 3x3 matrix developed by Sue, Arredondo, and McDavis (1992). A few selected explanatory statements are highlighted in Table 2.1.

Table 2.1. Selected explanatory statements of the multicultural counseling competencies
(Arredondo et al., 1996)

	Characteristics		
	Counselor awareness of own assumptions, values, and biases	Understanding of the worldview of the culturally different client	Development of appropriate intervention strategies and beliefs
Beliefs and attitudes	Able to recognize the limits of their multicultural competency and expertise	Aware of their stereotypes and preconceived notions that they may hold toward other racial and ethnic minority groups	Respect clients' religious and spiritual beliefs and values, including attributions and taboos, because these affect worldview, psychosocial functioning, and expressions of distress
Knowledge	Have specific knowledge about their own racial and cultural heritage and how it affects their definitions about normality and abnormality and the counseling process	Possess specific knowledge and information about the particular group with which they are working	Should be aware of relevant discriminatory practices at the social and the community level that may be affecting the psychological welfare of the population being served
Skills	Seek out educational, consultative, and training experiences to improve their understanding and effectiveness in working with culturally different populations	Become actively involved with minority individuals outside the counseling setting so that their perspective of minorities is more than an academic or helping exercise	Should attend to, as well as work to eliminate, biases, prejudices, and discriminatory contexts in conducting evaluations and providing interventions

The conceptual framework of multicultural counseling competencies has influenced the research aimed at identifying school psychology multicultural competencies. In the three studies (Gopaul-McNicol, 1997; Lopez & Rogers, 2001; Rogers & Lopez, 2002) which identified multicultural competencies in school psychology, the definition of multicultural competence, as defined in the counseling psychology literature, provided the starting point. Specifically, multicultural competence is defined by Lopez and Rogers (2001) as, “the ability to demonstrate cross-cultural knowledge and engage in behaviors or skills that reflect an awareness and sensitivity to cross-cultural issues” (p. 274). Lopez and Rogers then go on to say that this definition is based on the research on multicultural counseling competencies (Arredondo et al., 1996; Sue, Arredondo, & McDavis, 1992; Sue et al., 1982). Because these studies in school psychology were so strongly influenced by the research in counseling psychology, it should come as no surprise that the school psychology multicultural competencies fit within this conceptual framework. It was noted previously that the competencies conceptualized in the Lopez and Rogers (2001) study had more of an emphasis on multicultural awareness, while the competencies identified in the Rogers and Lopez (2002) study focused on knowledge and skills. Between these two studies, school psychology has a set of multicultural competencies that fit within the three-domain model developed by Sue and colleagues (1982).

One component of the knowledge domain of multicultural competence is an understanding of the generic characteristics of counseling and therapy. Coleman (1998) explored the relationship between general counseling competence and multicultural counseling competence further. The purpose of the study was to test the hypothesis that

general and multicultural counseling competencies provide independent contributions to perceptions of counseling competence. Participants were graduate students in counseling psychology who had multicultural training and undergraduate students in social psychology without any multicultural training. They viewed two counseling vignettes: one vignette in which the psychologist was counseling in a culturally sensitive manner and one vignette in which the psychologist was counseling a culturally neutral manner. The participants completed the Cross-Cultural Counseling Inventory-Revised (CCCI-R) to assess the psychologists' cross cultural counseling competence and the Counselor Effectiveness Rating Scale (CERS) to assess four dimensions (expertness, trustworthiness, attractiveness, and utility) of general counseling competence. Both groups of participants perceived the psychologist to have less multicultural and general counseling competence in the condition that was designed to be culturally neutral. The psychologist's attempts to be culturally neutral were perceived as representing a lower level of cultural competence. This was especially true for the ethnic minority participants with no multicultural training. The results of this study suggest that the general and multicultural competencies are highly correlated and that a multicultural perspective is the framework in which effective counseling can occur.

With a clear definition of and the characteristics associated with multicultural competence, assessment tools can be developed to measure this competence of psychologists.

Assessment Tools to Evaluate Multicultural Competence

As part of the research in multicultural and diversity issues in the practice of psychology, counseling psychologists have developed assessment tools based on the

multicultural counseling competencies. These tools have been used to conduct research regarding the development of these competencies and the effectiveness of psychologists who are competent in this area.

There are six main multicultural counseling competence assessments that have been used in research: the Cross-Cultural Counseling Inventory-Revised (CCCI-R), the Multicultural Counseling Awareness Scale-Form B: Revised (MCAS:B), the Multicultural Counseling Inventory (MCI), Multicultural Awareness-Knowledge-Skills Survey (MAKSS), the Multicultural Counseling Awareness and Knowledge Scale (MCKAS), and the Multicultural Counseling Competence and Training Survey (MCCTS) (Hays, 2008; Ponterotto, Rieger, Barrett, & Sparks, 1994). All of these instruments, with the exception of the CCCI-R, are self-report measures. The CCCI-R is completed by an evaluator observing the psychologist in a cross-cultural interaction with a client. Although each of these individual assessments is based upon the multicultural counseling competence domains of awareness, knowledge, and skills, they differ in which domains they specifically address. The CCCI-R assesses cultural awareness and beliefs, cultural knowledge, and flexibility in counseling skills. The MCAS:B, the MAKSS, the MCI, and the MCKAS assess multicultural awareness, knowledge, and skills. But the MCI also examines the multicultural counseling relationship. The MCCTS measures multicultural awareness, knowledge, and skills as well as multicultural terminology and racial identity development (Hays, 2008; Ponterotto et al., 1994). These individual multicultural competence assessment tools were primarily designed for counseling and clinical psychologists working with adults in a clinical setting. School psychologists work with children and adolescents in school settings, conducting assessments and providing

interventions in addition to counseling. These existing multicultural competence assessments do not address all these areas and, as a result, may underestimate the multicultural competence of school psychologists.

In addition to the individual multicultural assessment tools, Hays (2008) described program evaluation tools. These program evaluation tools assess the effectiveness of training programs in implementing multicultural competence. The two evaluation tools described are the Multicultural Counseling Checklist (MCC) and the Multicultural Environmental Inventory (MEI). The MCC addresses six themes: CLD student and faculty representation in the training program, curriculum issues, counseling practice and supervision, research considerations, student and faculty competency evaluation, and physical environment. While the MCC is focused on the specific characteristics of training programs, the MEI evaluates programs based on individuals' perceptions of multiculturalism within the program, and addresses diversity and accreditation issues. The previously mentioned TOMIS for faculty and handbooks (Training on Multicultural Issues Scale; Kearns et al., 2002) can also be considered a program evaluation tool. These program evaluation tools could also be used to evaluate school psychology programs because they focus on overall program characteristics that make a program environment more conducive to the development of multicultural competence. However, their utility is limited if there are not corresponding tools to measure the multicultural competence of school psychology graduate students. The program evaluation tools can describe if a school psychology training program has an environment that facilitates the growth of multicultural competence. But if the multicultural competence of the graduate students in the program cannot be measured,

then it would not be possible to ascertain a causal relationship between the program environment and the development of multicultural competence among school psychologists.

The field of school psychology can still benefit from research conducted using both individual multicultural competence assessment tools and program evaluation tools. The individual multicultural competence assessments used in counseling psychology can provide a model for how the field of school psychology can develop their own assessment measures based on the school psychology multicultural competencies developed in previous studies (Gopaul-McNicol, 1997; Lopez & Rogers, 2001; Rogers & Lopez, 2002). Additionally, the research conducted using these measures provides insight about the characteristics of counseling psychology programs that have been conducive to the development of multicultural competence in counseling psychologists. These same characteristics may be applicable to school psychology programs to determine what experiences, learning environments, and personal characteristics are conducive to the development of multicultural competence among school psychologists.

Multicultural Training and the Development of Multicultural Competence

Several studies have been conducted in the counseling psychology field to explore the role that coursework and the program environment have on the development of multicultural competence in trainees. The general purpose of these studies is to evaluate the effectiveness of multicultural and diversity issues focused coursework and practicum experiences and to inform how training programs address these issues in the curriculum.

Several studies have indicated that the experience of multicultural training has a positive impact on the development of multicultural competence. Carlson and colleagues

(1998) surveyed masters and doctoral level counseling students at different stages of curriculum completion about their self-reported exposure to multicultural training and activities, their overall confidence in being a counselor, and their multicultural competence. Participants were administered the Multicultural Awareness-Knowledge-Skills Survey (MAKSS), a demographic questionnaire to assess their attitudes toward studying about and working with diverse populations, and the Counselor Rating Scale to measure counselor confidence. The results from the study indicated that students who experienced multicultural training activities perceived themselves to have greater multicultural awareness, knowledge, and skills than those students who had not participated in such activities. The results also suggested that students who perceived themselves to have high levels of multicultural awareness, knowledge, and skills were also more confident in their competence as counselors. This particular finding is consistent with Coleman (1998) in that there is a relationship between perceptions of multicultural competence and general counseling competence.

Other studies have reported similar findings. Holcomb-McCoy (2005), in a study with school counselors, found that taking a multicultural counseling course was positively correlated with higher scores on the multicultural knowledge and multicultural terminology scales of the Multicultural Counseling Competence and Training Survey (MCCTS). Multicultural awareness is also positively impacted by taking a multicultural counseling course as demonstrated in a study conducted by Castillo and colleagues (2007). They found that students enrolled in a multicultural counseling course reported greater gains in their multicultural awareness on the Multicultural Counseling Inventory (MCI) than did students enrolled in a general counseling course. The impact that a

multicultural counseling course has on multicultural competence is not limited to self-reported multicultural competence. Cartwright, Daniels, and Chang (2008) found that independent observers rated counseling psychology graduate students higher in observed multicultural competence on the Multicultural Counseling Assessment Survey (MCAS) after these students completed a multicultural counseling course. These graduate students, enrolled in a program which infuses multicultural content in all coursework, also reported an increase in their perceived multicultural competence on the Multicultural Awareness-Knowledge-Skills Survey (MAKSS-CE-R).

Not surprisingly, the number of multicultural counseling courses taken is related to the development of multicultural competence. In a study that was focused on school counselors, Constantine and Yeh (2001) explored the role of prior academic training in multicultural counseling in predicting self-reported multicultural competence. The school counselor participants completed the Cross Cultural Counseling Inventory-Revised (CCCI-R), which was modified for self-report use, and a demographic questionnaire which asked about participants' counseling experiences and number of academic courses previously taken related to multicultural or cross cultural issues. They found that the number of previous multicultural counseling courses was significantly predictive of self-reported multicultural counseling competence.

The training experiences that occur outside of didactic coursework also play a role in the development of multicultural competence. Allison and colleagues (1996) conducted a survey of APA members with doctorates in clinical, counseling, or school psychology to see their self-ratings of competence in providing clinical or counseling services to individuals in groups defined by ethnicity, sexual orientation, gender, physical

or sensory challenges, and economic disadvantages. Across all of the groups, the number of training cases with individuals from a particular diverse group was the best predictor of self-rated competence. In a study examining the multicultural competence of mental health counselors, Vereen and colleagues (2008) found that conducting counseling with non-White clients and receiving clinical supervision related to multicultural issues were significant in generating higher scores on the Multicultural Awareness-Knowledge-Skills Survey (MAKSS).

In addition to the aforementioned studies examining the relationship between multicultural coursework and experiential training to the development of multicultural competence, Smith and colleagues (2006) conducted a meta-analysis to estimate the typical magnitude of the effects of multicultural education. Published and unpublished studies from 1973-2002 were reviewed for the meta-analysis. Inclusion criteria were that the study had to be written in English and that it had to provide quantitative data on a dependent variable as a function of multicultural education. The meta-analysis examined retrospective survey studies and outcome studies. For the retrospective survey studies, Smith and colleagues found that someone with multicultural education will report moderately higher multicultural competence than an individual who has not. For the outcome studies, it was found that individuals reported large increases in multicultural competence after receiving multicultural education. Together, the results of the two meta-analyses suggest that multicultural education interventions are associated with positive outcomes.

Program evaluation tools have also been used to demonstrate the relationship between multicultural training and the development of multicultural competence.

Tomlinson-Clarke (2000) performed a qualitative study to examine counselor training outcomes in a multicultural counseling course taught in a counseling psychology program. This particular counseling psychology program infused multicultural content in all didactic and experiential courses and practicum training experiences. The participants were doctoral and masters level counseling psychology students. The measures used in this study were the Multicultural Counseling Checklist (MCC) to assess the multicultural climate of the counseling psychology program and a student questionnaire to obtain students' perceptions of the class and the impact they believed it had on their multicultural counseling competence. Additionally, participants were interviewed four months after the class ended to determine if the multicultural training was integrated into perceptions of self in personal and professional development. On the Multicultural Counseling Checklist (MCC), the program met 16 out of 22 multicultural competencies. Overall, the counseling psychology students thought that the course helped to broaden their future interests in the research and practice of multiculturalism and believed the texts and readings for the course were helpful in understanding multicultural issues and developing multicultural knowledge. Students also expressed the need for additional coursework to be offered in this area and the importance of having a safe learning environment to discuss these issues. On follow-up, students stated that the multicultural knowledge obtained through the class was useful and transferable to developing culturally sensitive interventions.

Dickson and Jepsen (2007) also found that a training program's cultural ambience, along with multicultural instructional strategies and clinical training experiences, contributed to counseling psychology graduate students' predictions of their

self-reported multicultural competence. Students who perceived higher levels of integration of multicultural issues in the curriculum and in supervision, as reported on the Multicultural Environmental Inventory-Revised (MEI-R), reported higher levels of multicultural knowledge and awareness on the MCI. Additionally, the researchers found that reports of exposure to multicultural practicum were related to higher reported levels of multicultural relationship and awareness on the MCI.

An additional study which used a multicultural program evaluation tool was conducted by Dickson and colleagues (2008). The purpose of this study was to identify the influences of program cultural ambience, multicultural instructional strategies, and multicultural clinical training experiences in predicting cognitive and affective attitudes toward racial diversity and gender equity. The participants were administered several measures in addition to the MEI-R: the Quick Discrimination Index (QDI) to assess attitudes regarding racial diversity and gender equity, the Multicultural Social Desirability Scale, and a questionnaire to address traditional (e.g., lectures and reading assignments), exposure (e.g., guest presentations by different cultural groups), and participatory (e.g., class discussions, simulations, and role plays) strategies for multicultural competency training. They found that exposure to participatory training strategies predicted greater levels of comfort with interracial content for counseling graduate students. This suggests that effective multicultural training involves interactive and process oriented instruction and systemic support. While not explicitly measuring participants' multicultural competence, attitudes towards racial diversity can be considered essential to the awareness dimension of multicultural competence.

The research examining the relationship between multicultural training and multicultural competence is not limited to psychology and counseling. There has also been research in education and teacher training. Cho and DeCastro-Ambrosetti (2005) explored the effect of a multicultural education course on pre-service teachers' attitudes about the experiences, needs, and resources of CLD student populations. They found that the course positively influenced the pre-service teachers' attitudes towards working with diverse student populations and increased their awareness, understanding, and appreciation of other cultures.

In examining these studies, it is possible to identify the program, course, and personal qualities that are related to the development of multicultural competence. While any exposure to coursework focused on multicultural and diversity issues was related to an increased in perceived multicultural competence, courses with an experiential or practicum component had the greatest impact on the development of multicultural competence. In addition to coursework, these studies indicated that the program environment also impacted the development of multicultural competence. When trainees perceive that their particular program is attentive to multicultural issues and provides a safe environment in which to discuss these issues, they are more likely to experience growth in their multicultural competence.

Multicultural Competence Assessment for School Psychology

The research that has been conducted in counseling psychology about the relationship between training and the development of multicultural competence informs how counseling psychology training programs create curricula that are conducive to the development of multicultural competence. In order for school psychologists to conduct

similar research, there needs to be a comprehensive measure with which to address the multicultural competence of school psychologists. There was a previous attempt to develop a multicultural competence assessment tool for school psychologists, the Multicultural School Psychology Counseling Competency Scale (MSPCCS; Rogers & Ponterotto, 1997); however, the purpose of that instrument was to assess the multicultural counseling competence of school psychologists. Because it was focused on counseling, it did not address the other broad domains of service delivery in school psychology (i.e., assessment, consultation, and intervention). As a result, this instrument, as well as the other assessment tools used in counseling psychology, would have limited utility in determining how school psychology coursework affects the development of multicultural competence.

As mentioned previously, school psychology training programs which are NASP approved and/or APA accredited are required to address multicultural and diversity issues in the delivery of school psychology services. Beyond these requirements, there is an ethical obligation to ensure that school psychology trainees are prepared to work with CLD populations. Roberts and colleagues (2005) discuss the need for psychology to develop a culture of competence and of assessment. That involves continuous assessment of competence throughout all aspects of professional psychology and the career path of the professional psychologist. The psychology discipline has an ethical obligation to ensure that psychologists are competent and to provide evidence of this competence to stakeholders. To that end, school psychology training programs must take steps to evaluate the extent to which coursework and practicum experiences provided to students

develop their multicultural competence and, in turn, prepare them to competently work with CLD populations.

In order to advance school psychology as a professional field and ensure that trainees and practitioners are equipped with multicultural awareness, knowledge, and skills to work effectively, there must be a way to assess the multicultural competence of school psychologists in all domains of service delivery. To meet this need, the School Psychology Multicultural Competence Scale (SPMCS) was developed. The items on the SPMCS were derived from the school psychology multicultural competencies identified in the Lopez and Rogers (2001) and Rogers and Lopez (2002) studies; as a result, the SPMCS is a comprehensive multicultural competence assessment tool which addresses all areas of school psychological service delivery. Through a modified Delphi procedure, school psychologists with expertise in multicultural and diversity issues indicated the degree to which they believed an affirmative response to any item was reflective of an individual's multicultural competence. There were high levels of agreement for each item among the experts which suggests that the SPMCS has high content validity.

The purpose of this study is to determine the underlying factor structure of the SPMCS and to replicate previous studies which have demonstrated a relationship between multicultural coursework and practicum and higher levels of self-reported multicultural competence. This study also seeks to determine the personal and program characteristics that are associated with higher self-reported multicultural competence.

CHAPTER 3

METHODS

Participants

Participants in this study were graduate students enrolled in NASP approved school psychology programs. The participants were recruited in two waves. In the first wave of participant recruitment, the directors of 36 school psychology graduate programs received invitations for their students to participate in the study. Eighteen of the 36 invited programs were self-nominated for inclusion on NASP's list of school psychology programs with a focus on multiculturalism and/or bilingualism. The other 18 programs were NASP approved, school psychology programs matched with the self-nominated programs based on the degrees offered in school psychology and geographic region in which the program is located.

Due to the low response rate during the first wave of recruitment, participation in the study was opened up to all school psychology graduate students regardless of program affiliation. Invitations to participate in the study were disseminated using a snowball technique in which the invitation letter was posted to the Student Affiliates of Division 16 listserv and recipients were encouraged to forward the invitation to other school psychology graduate students.

The final participant pool consisted of 312 school psychology graduate students. Demographic characteristics of the participant pool are detailed in the Table 3.1.

Table 3.1. Demographic characteristics of the participants

	(n=312)
Gender, <i>n (%)</i>	
Male	42 (13.5)
Female	270 (86.5)
Race/ethnicity, <i>n (%)</i>	
Asian/Asian American/Pacific Islander	12 (3.8)
Black/African-American	22 (7.1)
Caucasian	248 (79.5)
Hispanic	19 (6.1)
Other/Multi-Racial	11 (3.5)
Speak Languages Other than English, <i>n (%)</i>	
Yes	104 (33.3)
No	207 (66.3)
No Response	1 (0.3)
Geographic Region of School Psychology Program, <i>n (%)</i>	
Northeast (ME, NH, VT, MA, RI, CT, PA, NJ)	125 (40.1)
Midwest (WI, MI, IL, IN, OH, MO, ND, SD, NE, KS, MN, IA)	73 (23.4)
South (DE, MD, DC, VA, WV, NC, SC, GA, FL)	40 (12.8)
West (ID, MT, WY, NV, UT, CO, AZ, NM, AK, WA, OR, CA, HI)	46 (14.7)
No Response	4 (1.3)
School Psychology Degree Pursued, <i>n (%)</i>	
MA/MS	48 (15.4)
EdS/CAGS	104 (33.3)
PhD/PsyD/EdD	158 (50.6)
No Response	2 (0.6)
Year in School Psychology Program, <i>n (%)</i>	
1 st year	79 (25.3)
2 nd year	94 (30.1)
3 rd year	71 (22.8)
4 th year	27 (8.7)
5 th year or beyond	41 (13.1)
Currently on Internship, <i>n (%)</i>	
Yes	61 (19.6)
No	246 (78.8)
No Response	5 (1.6)
Number of Courses Taken with a Primary Focus on Multicultural and/or Diversity Issues in Education or School Psychology, <i>n (%)</i>	
Zero	74 (23.7)
One	137 (43.9)
Two	64 (20.5)
Three or more	35 (11.2)
No Response	2 (0.6)
Completion of Practicum with Culturally and Linguistically Diverse Clients, <i>n (%)</i>	

Table 3.1. (continued)

Yes	226 (72.4)
No	85 (27.2)
No Response	1 (0.3)

The sample of graduate students can be considered to be a fair representation of school psychology graduate students as a whole. In the most recent demographic survey of school psychology graduate students, Thomas (1998) found that approximately 80% of school psychology graduate students are female and 17% identified as racial/ethnic minorities. As noted in the table above, approximately 87% of the graduate students in the participant pool are female and approximately 21% identify as racial/ethnic minorities. Although the demographic information about school psychology graduate students is over 10 years old, this information, along with data suggesting that there has been an increase in the enrollment of females and racial/ethnic minority students in school psychology training programs (Curtis et al., 2004), suggests that the graduate student sample recruited for this study is a fair representation of school psychology graduate students as a whole.

Measures

School Psychology Multicultural Competence Scale (SPMCS). The SPMCS is a 45-item, self-report measure designed to assess the multicultural competence of school psychologists and school psychology trainees. A copy of the scale can be found in Appendix E. The three domains (awareness, knowledge, and skills) of the multicultural counseling competencies (Sue, Arredondo, & McDavis, 1992) provided the conceptual framework for the SPMCS and the items were derived from the cross cultural school psychology competencies identified by Lopez and Rogers (2001) and Rogers and Lopez (2002). To determine the content validity of the SPMCS, experts in multicultural school psychology were first identified based upon their number of presentations and publications on multicultural school psychology, and their history of research in this area.

A total of nine participants then completed a 13 question demographics questionnaire in which they were asked to describe their training, research, and clinical interests in multicultural school psychology. Next, a modified Delphi procedure (Murry & Hammons, 1995; Rowe, Wright, & Bolger, 1991) was used to validate the scale. That process required participants to rate the extent to which an affirmative answer to each of the scale's items was indicative of a school psychologist's multicultural competence. Participants could also provide comments and/or suggest revisions to any of the items. In the second round survey, participants confirmed or changed their original ratings for the statements and provided additional comments. A final version of the SPMCS was developed based upon the responses obtained from the questionnaires.

The final version of the SPMCS consists of three subscales (Awareness, Knowledge, Skills) with each subscale composed of 15 items. Participants completing the SPMCS indicate their level of agreement with each statement on a Likert scale of 1 (strongly disagree) to 4 (strongly agree).

Demographic Questionnaire – Program Directors. Program directors were asked to complete a 10 item questionnaire about the training program. Specifically, program directors were asked to provide demographic information about the program including the training model, degrees offered, geographic location and setting of the program, and the number of students in the program. They were also asked to describe the multicultural training experiences provided to graduate students and the number of faculty who have research interests in multiculturalism and diversity issues in school psychology.

Training Questionnaire – Graduate Students. In addition to the online version of the SPMCS, student participants also completed a 10 item training questionnaire about

their training on multicultural and diversity issues in school psychology and their experiences in working with CLD populations.

Design and Procedure

In the first phase of participant recruitment, the director of each training program was emailed a letter describing the study, a questionnaire to collect information about the training program, and a request for them to forward the student survey to their graduate students. Once the program director completed the demographic questionnaire, he/she was emailed a link to the SPMCS and the training questionnaire to forward to the students enrolled in the graduate program. Both the SPMCS and the training questionnaire were accessible to participants through the Survey Gizmo website. Consent was obtained through completion of the online forms. If a participant did not consent to the study, he/she did not complete the questionnaires. As an incentive to increase the number of participants in the study, those who completed the measures were entered into a raffle to win one of five \$20 gift cards. To preserve the anonymity of the graduate student participants, they had the option to enter their email address and contact information in a separate web link if they wished to be entered into the raffle.

In order to maximize the number of participants included in the study, reminder emails were sent to the training program directors. After the initial questionnaire was emailed to the training program directors, reminder emails were sent every two weeks for eight weeks to remind them to complete the demographic questionnaire. Once the training program agreed to forward the SPMCS and training questionnaire to the graduate student participants, reminder emails were sent to the program director to forward to their

students every three weeks for 12 weeks. Sixty seven graduate students were recruited during this first phase of participant recruitment.

Because this recruitment method did not yield a sufficient number of participants, additional graduate student participants were recruited using a snowball technique.

Invitations to participate in the study were disseminated through the Student Affiliates of Division 16 of the American Psychological Association listserv. Recipients of the email were encouraged to forward the invitation to other graduate students. An additional 245 graduate student participants were recruited for a total of 312 participants.

CHAPTER 4

RESULTS

Factor Analysis of the School Psychology Multicultural Competence Scale

To address the first research question which asked about the underlying factor structure of the SPMCS, a principal components analysis (PCA) with an oblimin rotation of the 45 SPMCS items was conducted on data gathered from 312 participants. To determine if the items were factorable, the Kaiser-Meyer-Olkin measure of sampling adequacy, a test to determine whether the partial correlations among variables are small, and Bartlett's test of sphericity, a test to examine the hypothesis that the variables are uncorrelated, were conducted. The Kaiser-Meyer-Olkin measure of sampling adequacy was .903, above the recommended value of .5. Bartlett's test of sphericity was significant ($\chi^2 (990) = 5781.592, p < .05$) indicating that the SPMCS items were correlated.

Principal components analysis was used because the primary purpose was to identify and compute composite multicultural competence scores for the factors underlying the SPMCS. The oblimin rotation was selected because it was anticipated that some of the factors of the SPMCS would be correlated. There were ten factors with eigenvalues greater than one. The initial eigenvalues showed that the first factor explained 26% of the variance, the second and third factors 6% of the variance, and the fourth and fifth factors 4% of the variance. Factors six through ten each explained approximately 3% of the variance. Three, four, and five factor solutions were examined using oblimin rotations of the factor loading matrix. The four factor solution, which explained 42% of the variance, was preferred because of the leveling off of eigenvalues

on the scree plot after four factors, the insufficient number of primary loadings on the other factors, and the difficulty of interpreting the fifth factor and subsequent factors.

During several steps, a total of nine items were eliminated because they did not contribute to a simple factor structure and failed to meet a minimum criteria of having a primary factor loading of .4 or above, and no cross-loading of .3 or above.

A principal components factor analysis of the remaining 36 items using oblimin rotation was conducted with four factors explaining 46% of the variance. All items had primary factor loadings over .4 with no cross-loadings. The factor loading matrix for this final solution is presented in Table 4.1.

Table 4.1. Factor loadings for exploratory factor analysis with direct oblim rotation of the SPMCS items

	Factor 1 Cultural Knowledge / Skills	Factor 2 Cultural Appreciation	Factor 3 Basic Skills	Factor 4 Cultural Awareness	Communalities
I know how to use translators appropriately during the assessment process.	.741			-.200	.504
I know how to adapt instruments to assess linguistically diverse students.	.724				.501
I can explain test information to culturally diverse parents.	.715				.565
I am skilled in terms of being able to provide appropriate intervention services to culturally diverse students.	.705			.133	.565
I am knowledgeable of evidence-based intervention strategies used with culturally and linguistically diverse students.	.692			.138	.512
I can make culturally relevant curriculum and classroom management recommendations.	.658				.476
I can identify the strengths and weaknesses of psychological tests in terms of their use with students from cultural, racial, linguistic, and ethnic backgrounds.	.651	.123			.472
When working with linguistically diverse parents and students, I can interpret information obtained from interpreters.	.633			-.131	.390
I have knowledge of research on assessing culturally and linguistically diverse children.	.616				.393
I am knowledgeable of effective assessment strategies used with culturally and linguistically diverse clients.	.593			.166	.424
I am skilled in implementing home-school collaboration programs and interventions.	.583				.379
I know how to use alternate assessment methods such as dynamic assessment and ecological assessment.	.556	-.101		.148	.348

Table 4.1. (continued)

I understand the process of second language acquisition and its impact on the acquisition of academic skills.	.521		-.161	.322
I can effectively secure information and resources to better serve culturally diverse students and families.	.499	.274	-.108	.406
I can effectively assess the mental health needs of a student from a cultural background significantly different from my own.	.470		.141	.165
I can work with culturally and linguistically diverse children, parents, and school staff.	.470	.226	.101	.391
When consulting, I know how culturally related factors may affect accurate assessment of the “problem” in the problem solving process.	.441	.264		.384
I respect and appreciate socioeconomic and cultural background of a child and his/her family.		.750	.111	.545
I am aware that members of cultural groups may have different attitudes towards disabilities or exceptionalities.		.704		.483
I know that cross-cultural variables may affect performance on and interpretation of standardized assessments.		.597		.387
I consider sociocultural variables and perspectives when evaluating research.	.179	.576		.438
It is important to integrate cultural and language background of a student into a psychoeducational report.		.571		.327
I understand the need to retain one’s cultural identity.		.550	.167	.378
I believe that all school psychologists should engage in ongoing professional development around multiculturalism and diversity issues.		.498		.255
I engage in ongoing efforts to reduce and eliminate biased beliefs and behaviors.	.168	.412		.304
I am accepting and respecting of other’s cultures.	.174	.409		.274

Table 4.1. (continued)

There are basic intervention skills that are applicable to create successful outcomes regardless of the student's cultural background.			.936	.875
There are basic assessment skills that are applicable to create successful outcomes regardless of the student's cultural background.			.916	.832
There are basic consultation skills that are applicable to create successful outcomes regardless of the consultee's and client's cultural background.			.912	.833
I understand how my cultural background has influenced the way I think and act.	-.161	.289	.668	.569
I am aware of how culture impacts learning and behavior.	.192		.663	.538
I can discuss how culture influences parenting practices.	.164		.645	.498
I can accurately compare my own cultural perspective to that of a person from another cultural background.	.199		.570	.453
I am aware of the cultural differences that exist among the faculty and staff at my school.			-.104	.565
I have a sense of the values, strengths, and limitations of my own culture.		.317	.546	.463
Factor 1	---			
Factor 2	.365	---		
Factor 3	.138	.115	---	
Factor 4	.305	.294	.052	---

Note. Factor loadings >.40 are in boldface. Factor loadings <.10 are suppressed.

The factor labels proposed for each factor are as follows: Factor 1 – Cultural Knowledge/Skills, Factor 2 – Cultural Appreciation, Factor 3 – Basic Skills, and Factor 4 – Cultural Awareness. Internal consistency for each of the scales was examined using Cronbach's alpha. The alphas were moderate to strong -- .914 for Cultural Knowledge/Skills (18 items), .783 for Cultural Appreciation (9 items), .922 for Basic Skills (3 items), and .752 for Cultural Awareness (6 items). No substantial increases in alpha for any of the scales could have been achieved by eliminating more items.

Composite scores were created for each of the four factors, based on the mean of the items which had their primary loadings on each factor. Higher scores indicated higher levels of perceived multicultural competence in that particular area. Although an oblimin rotation was used, only small to moderate correlations between each composite score existed -- .365 between Cultural Knowledge/Skills and Cultural Appreciation, .138 between Cultural Knowledge/Skills and Basic Skills, .305 between Cultural Knowledge/Skills and Cultural Awareness, .115 between Cultural Appreciation and Basic Skills, .294 between Cultural Appreciation and Cultural Awareness, and .052 between Basic Skills and Cultural Awareness.

Descriptive Statistics of SPMCS Subscale Scores

To address the second research question, in what area do extent school psychology graduate students perceive themselves to be most multiculturally competent based on the factors of the SPMCS, descriptive statistics were calculated. Composite scores were created for each of the four factors based on the mean of the items which had their primary loadings on that factor. Higher scores indicated greater perceived competence in that particular area. Overall, participants indicated that they perceive

themselves to be most competent in the area of Cultural Appreciation and least competent in the area of Cultural Knowledge/Skills. The skewness and kurtosis were well within a tolerable range for assuming a normal distribution. The descriptive statistics for the total sample and each demographic group are presented in Table 4.2.

Table 4.2. Mean subscale scores by demographic group

Demographic Group	Cultural Knowledge/Skills			Cultural Appreciation			Basic Skills			Cultural Awareness		
	M	SD	Kurtosis	M	SD	Kurtosis	M	SD	Kurtosis	M	SD	Kurtosis
Total Sample	2.77	.42	.13	3.53	.32	-.35	3.12	.62	-.29	3.27	.38	-.62
Gender												
Male	2.65	.42	.13	3.43	.30	-.06	3.23	.58	-.18	3.13	.34	-.02
Female	2.79	.42	.13	3.54	.32	-.41	3.11	.62	-.29	3.29	.38	-.05
Race/Ethnicity												
Asian/Asian American/Pacific Islander	2.46	.46	.80	3.46	.35	-.85	2.75	.91	.20	3.38	.36	-.13
Black/African American	2.91	.43	.00	3.64	.29	-.47	3.08	.70	-.16	3.48	.40	-.13
Caucasian	2.75	.41	.02	3.51	.31	-.27	3.14	.60	-.30	3.22	.36	-.06
Hispanic	3.03	.52	.40	3.69	.30	-.97	3.23	.60	.08	3.58	.44	-.77
Other/Multi-Racial	2.81	.24	-.06	3.61	.33	-.81	3.15	.52	.57	3.36	.35	-1.02
Speak Language Other than English												
No	2.71	.39	-.28	3.52	.32	-.31	3.12	.59	-.13	3.22	.37	-.10
Yes	2.88	.48	.32	3.56	.31	-.46	3.12	.67	-.49	3.37	.38	-.16
Geographic Region of School Psychology Program												
Northeast	2.77	.40	.53	3.49	.34	-.30	3.09	.59	-.14	3.22	.39	-.01
Midwest	2.67	.42	.12	3.53	.31	-.28	3.03	.68	-.52	3.28	.34	-.02
South	2.80	.47	-.16	3.58	.28	-.33	3.21	.62	-.13	3.35	.38	-.33
South Central	2.68	.45	-.63	3.59	.33	-.77	3.26	.61	-.04	3.34	.43	-.03
West	2.95	.40	.18	3.56	.29	-.24	3.18	.62	-.31	3.28	.37	.18
School Psychology Degree Pursued												
MA/MS	2.71	.43	.42	3.47	.34	-.22	3.11	.60	-.34	3.22	.44	-.05
EdS/CAGS	2.80	.42	.22	3.54	.31	-.32	3.14	.60	-.01	3.26	.35	-.17
PhD/PsyD/EdD	2.77	.43	.00	3.54	.31	-.41	3.12	.64	-.45	3.29	.38	.07

Table 4.2. Mean subscale scores by demographic group

Year in School Psychology Program																
1 st year	2.58	.44	.30	.27	3.51	.33	-.21	-.86	3.03	.67	-.05	-.41	3.25	.38	-.09	-.49
2 nd year	2.79	.39	.12	.90	3.53	.31	-.43	-.90	3.18	.57	-.11	-.34	3.26	.37	.16	-.97
3 rd year	2.87	.45	.18	.30	3.55	.32	-.33	-1.12	3.15	.51	.38	-.05	3.23	.40	.02	-.26
4 th year	2.74	.38	.21	.35	3.48	.26	.05	-.20	2.90	.65	-.88	2.18	3.27	.39	.02	-.26
5 th year or beyond	2.92	.33	.54	.61	3.54	.34	-.74	.20	3.26	.75	-.91	.58	3.38	.36	-.30	-.57
Currently on Internship																
Yes	2.87	.40	-.12	1.22	3.50	.31	-.30	.06	3.19	.62	-.16	-.50	3.28	.42	-.17	-.82
No	2.74	.42	.15	.30	3.54	.32	-.36	-.94	3.10	.62	-.33	.42	3.26	.37	.02	-.53
Number of Courses Taken with a Primary Focus on Multicultural and/or Diversity Issues in Education or School Psychology																
Zero	2.56	.41	-.26	-.65	3.46	.34	-.24	-.57	3.18	.69	-.41	-.43	3.26	.39	-.33	-.35
One	2.77	.40	.46	.72	3.57	.30	-.35	-.83	3.11	.60	-.21	.29	3.21	.37	.22	-.62
Two	2.83	.40	-.03	.30	3.51	.33	-.33	-1.11	3.04	.57	-.49	2.23	3.28	.35	-.21	-.49
Three or more	3.08	.36	.84	.71	3.57	.31	-.38	-.83	3.17	.62	-.24	-.55	3.50	.37	-.12	-1.28
Completion of Practicum with Culturally and Linguistically Diverse Clients																
No	2.55	.44	.45	.55	3.44	.33	.02	-.98	3.20	.58	-.20	-.24	3.17	.42	.05	-.58
Yes	2.85	.38	.22	.67	3.56	.30	-.47	-.56	3.09	.63	-.30	.32	3.27	.38	-.01	-.62

Group Membership and Self-Reported Multicultural Competence

To address the third research question, which asked if school psychology graduate students' perceived multicultural competence differed based on selected participant variables, a series of one-way ANOVAs were computed comparing each demographic group (gender, race/ethnicity, bilingual/multilingual status, geographic region, degree pursued, year in program, internship status, multicultural/diversity courses taken, practicum with CLD clients) across the factor subscales obtained through factor analysis (Cultural Knowledge/Skills, Cultural Appreciation, Basic Skills, and Cultural Awareness) to determine whether there were significant differences between the groups. Because the Hochberg GT2 test is relatively unaffected by unequal group size and unequal variance, it was selected for the post-hoc analyses. Post-hoc analyses were computed to specifically identify which groups differed from each other when the ANOVA was statistically significant. Statistically significant differences were found on three of the four SPMCS subscales. The effect size (η^2) was calculated and interpreted for all of the analyses (Cohen, 1992).

Statistically significant ANOVAs were obtained for several of the demographic groups on the Cultural Knowledge/Skills subscale: race/ethnicity, geographic region, year in program, internship status, multicultural/diversity coursework, practicum with CLD clients, and bilingual/multilingual status. Race/ethnicity had a moderate effect on the differences in subscale scores [$F(4, 307) = 4.46, p = .002, \eta^2 = .06$]. Post-hoc analyses indicated that Hispanic students had significantly higher mean scores than Asian American and Caucasian students. Black students also had significantly higher means than Asian American students. Geographic region had a small effect on the Cultural

Knowledge/Skills subscale scores [$F(4, 303) = 3.63, p = .007, \eta^2 = .05$]. Students who attended school psychology programs in the West reported significantly higher mean scores than students attending programs in the Midwest. A moderate to large effect was found for year in program's effect on mean subscale scores [$F(4, 307) = 6.89, p < .001, \eta^2 = .08$]. Post-hoc analyses indicated that students who were in their second, third, or fifth or more year in their school psychology program had significantly higher mean scores than first year students. Having a school psychology internship in process had a small effect on subscale scores [$F(1, 305) = 4.53, p = .034, \eta^2 = .02$]. The number of multicultural/diversity courses taken had a large effect on subscale scores [$F(3, 306) = 14.16, p < .001, \eta^2 = .14$]. Students who had taken three multicultural/diversity courses had significantly higher mean scores than those students who had fewer than three courses. Practicum with CLD clients also had a large effect on Cultural Knowledge/Skills subscale scores with students who had completed practicum with CLD clients having higher mean scores than students who had not completed such a practicum [$F(1, 309) = 32.87, p < .001, \eta^2 = .10$]. In addition to the other demographic factors discussed, language had a small effect on the subscale scores with bilingual/multilingual students having significantly higher mean scores than students who were monolingual [$F(1, 309) = 11.51, p = .001, \eta^2 = .04$]. However, Levene's test indicated that the assumption of variance had been violated. As a result, this result should be interpreted with caution.

On the Cultural Appreciation subscale, there was a significant difference in mean scores by race/ethnicity [$F(4, 307) = 2.50, p = .043, \eta^2 = .03$]. However, the post-hoc analysis did not indicate that any one race/ethnicity group had a significantly higher mean

than any of the other groups. Additionally, students who completed practicum with CLD clients had higher mean scores than students who had not completed such a practicum [$F(1, 309) = 10.11, p = .002, \eta^2 = .03$]. Both of these demographic variables had a small effect on the subscale scores.

No statistically significant ANOVAs were obtained for the Basic Skills subscale. There was no meaningful difference between the Basic Skills subscale scores for any of the demographic groups.

There was a significant difference between groups on the Cultural Awareness subscale for gender, race/ethnicity, bilingual/multilingual status, multicultural/diversity coursework, and practicum with CLD clients. Female students obtained higher subscale scores than male students [$F(1, 310) = 6.02, p = .015, \eta^2 = .02$]. This characteristic had a small effect on Cultural Awareness subscale scores. Race/ethnicity had a moderate to large effect on the subscale scores [$F(4, 307) = 6.93, p < .001, \eta^2 = .08$]. Post-hoc analyses indicated that Caucasian students had lower mean subscale scores than Black and Hispanic students. Students who identified as bilingual/multilingual obtained higher subscale scores than monolingual students [$F(1, 309) = 10.81, p = .001, \eta^2 = .03$]. This characteristic had a small effect on Cultural Awareness subscale scores. The number of multicultural/diversity courses taken had a moderate effect size [$F(3, 306) = 5.76, p = .001, \eta^2 = .06$]. Students who had taken three or more multicultural/diversity courses obtained higher scores than students who had taken fewer than three courses. Practicum with CLD clients had a small effect on subscale scores with students who had completed practicum with CLD clients having higher scores than students who had not completed such a practicum [$F(1, 309) = 8.31, p = .004, \eta^2 = .03$].

Table 4.3. One-way analysis of variance for the effect of gender on SPMCS subscale scores

Variable and source	SS	MS	F(1, 310)	<i>p</i>	η^2
Cultural Knowledge/Skills					
Between	.68	.68	3.79	.053	.01
Within	55.33	.18			
Cultural Appreciation					
Between	.49	.49	4.96	.027	.02
Within	30.70	.10			
Basic Skills					
Between	.56	.56	1.46	.227	.01
Within	118.40	.38			
Cultural Awareness					
Between	.86	.86	6.02	.015	.02
Within	44.05	.14			

Table 4.4. One-way analysis of variance for the effect of race/ethnicity on SPMCS subscale scores

Variable and source	SS	MS	F(4, 307)	<i>p</i>	η^2
Cultural Knowledge/Skills					
Between	3.07	.77	4.46	.002	.06
Within	52.94	.17			
Cultural Appreciation					
Between	.98	.25	2.50	.043	.03
Within	30.21	.10			
Basic Skills					
Between	1.98	.49	1.30	.271	.02
Within	116.98	.38			
Cultural Awareness					
Between	3.72	.93	6.93	.000	.08
Within	41.19	.13			

Table 4.5. Mean score on SPMCS subscales as a function of race/ethnicity

SPMCS Subscale	<u>Asian/Asian American/Pacific Islander</u>		<u>Black/African American</u>		<u>Caucasian</u>		<u>Hispanic</u>		<u>Other/Multi- Racial</u>	
	M	SD	M	SD	M	SD	M	SD	M	SD
Cultural Knowledge/Skills	2.46 _{a,b}	.46	2.91 _a	.43	2.75 _c	2.46	3.03 _{b,c}	.52	2.81	.24
Cultural Appreciation	3.46	.35	3.63	.29	3.51	.31	3.69	.30	3.61	.33
Basic Skills	2.75	.91	3.07	.70	3.14	.60	3.23	.60	3.15	.52
Cultural Awareness	3.37	.36	3.48 _a	.40	3.22 _{a,b}	.36	3.58 _b	.44	3.36	.35

Note. Means in a row sharing subscripts are significantly different from each other according to the Hochberg GT2 test.

Table 4.6. One-way analysis of variance for the effect of second language on SPMCS subscale scores

Variable and source	SS	MS	F(1, 309)	<i>p</i>	η^2
Cultural Knowledge/Skills					
Between	2.01	2.01	11.51	.001	.04
Within	53.97	.18			
Cultural Appreciation					
Between	.13	.13	1.34	.248	.00
Within	30.88	.10			
Basic Skills					
Between	.00	.00	.00	.977	.00
Within	118.19	.38			
Cultural Awareness					
Between	1.52	1.52	10.81	.001	.03
Within	43.32	.14			

Table 4.7. One-way analysis of variance for the effect of geographic region on SPMCS subscale scores

Variable and source	SS	MS	F(4, 303)	<i>p</i>	η^2
Cultural Knowledge/Skills					
Between	2.53	.63	3.63	.007	.05
Within	52.76	.17			
Cultural Appreciation					
Between	.44	.11	1.10	.359	.01
Within	30.09	.10			
Basic Skills					
Between	1.64	.41	1.06	.375	.01
Within	116.48	.38			
Cultural Awareness					
Between	.68	.17	1.20	.313	.02
Within	43.25	.14			

Table 4.8. Mean SPMCS subscale scores as a function of geographic region

SPMCS Subscale	<u>Northeast</u>		<u>Midwest</u>		<u>South</u>		<u>South Central</u>		<u>West</u>	
	M	SD	M	SD	M	SD	M	SD	M	SD
Cultural Knowledge/Skills	2.77	.40	2.67 _a	.42	2.80	.47	2.68	.45	2.94 _a	.40
Cultural Appreciation	3.49	.34	3.53	.31	3.58	.33	3.59	.33	3.56	.29
Basic Skills	3.09	.59	3.03	.68	3.21	.62	3.27	.61	3.18	.62
Cultural Awareness	3.22	.39	3.27	.34	3.35	.38	3.34	.43	3.28	.37

Note. Means in a row sharing subscripts are significantly different from each other according to the Hochberg GT2 test.

Table 4.9. One-way analysis of variance for the effect of degree on SPMCS subscale scores

Variable and source	SS	MS	F(2, 307)	<i>p</i>	η^2
Cultural Knowledge/Skills					
Between	.29	.14	.79	.453	.01
Within	55.71	.18			
Cultural Appreciation					
Between	.17	.09	.86	.425	.01
Within	30.98	.10			
Basic Skills					
Between	.06	.03	.07	.931	.00
Within	18.48	.39			
Cultural Awareness					
Between	.22	.11	.77	.464	.01
Within	44.25	.14			

Table 4.10. One-way analysis of variance for the effect of year in program on SPMCS subscale scores

Variable and source	SS	MS	F(4, 307)	<i>p</i>	η^2
Cultural Knowledge/Skills					
Between	4.62	1.15	6.89	.000	.08
Within	51.39	.17			
Cultural Appreciation					
Between	.14	.78	.34	.851	.00
Within	31.05	.38			
Basic Skills					
Between	3.12	.78	2.07	.085	.03
Within	115.84	.38			
Cultural Awareness					
Between	.62	.15	1.07	.371	.01
Within	44.29	.14			

Table 4.11. Mean SPMCS subscale scores as a function of year in program

SPMCS Subscale	<u>1st Year</u>		<u>2nd Year</u>		<u>3rd Year</u>		<u>4th Year</u>		<u>5th Year or Beyond</u>	
	M	SD	M	SD	M	SD	M	SD	M	SD
Cultural Knowledge/Skills	2.58 _{a,b,c}	.44	2.79 _a	.39	2.87 _b	.45	2.74	.38	2.92 _c	.33
Cultural Appreciation	3.51	.33	3.54	.31	3.55	.32	3.48	.26	3.54	.75
Basic Skills	3.03	.66	3.18	.57	3.14	.51	2.90	.65	3.26	.75
Cultural Awareness	3.25	.38	3.26	.37	3.23	.40	3.27	.39	3.38	.36

Note. Means in a row sharing subscripts are significantly different from each other according to the Hochberg GT2 test.

Table 4.12. One-way analysis of variance for the effect of internship status on SPMCS subscale scores

Variable and source	SS	MS	F(1, 305)	<i>p</i>	η^2
Cultural Knowledge/Skills					
Between	.80	.80	4.53	.034	.02
Within	53.66	.18			
Cultural Appreciation					
Between	.07	.07	.70	.405	.00
Within	30.84	.10			
Basic Skills					
Between	.35	.35	.91	.341	.00
Within	116.35	.38			
Cultural Awareness					
Between	.02	.02	.13	.723	.00
Within	44.01	.14			

Table 4.13. One-way analysis of variance for the effect of number of multicultural and diversity courses taken on SPMCS subscale scores

Variable and source	SS	MS	F(3, 306)	<i>p</i>	η^2
Cultural Knowledge/Skills					
Between	6.72	2.24	14.16	.000	.14
Within	48.38	.16			
Cultural Appreciation					
Between	.63	.21	2.14	.096	.02
Within	30.22	.10			
Basic Skills					
Between	.72	.24	.62	.600	.01
Within	117.45	.38			
Cultural Awareness					
Between	2.39	.80	5.76	.001	.06
Within	42.27	.14			

Table 4.14. Mean SPMCS subscale scores as a function of number of multicultural and diversity courses taken

SPMCS Subscale	<u>Zero</u>		<u>One</u>		<u>Two</u>		<u>Three or more</u>	
	M	SD	M	SD	M	SD	M	SD
Cultural Knowledge/Skills	2.56 _{a,b,c}	.41	2.77 _{a,d}	.40	2.83 _{b,e}	.40	3.08 _{c,d,e}	.36
Cultural Appreciation	3.46	.33	3.57	.30	3.51	.33	3.57	.31
Basic Skills	3.18	.69	3.11	.60	3.04	.57	3.17	.62
Cultural Awareness	3.26 _a	.39	3.21 _b	.37	3.27 _c	.35	3.50 _{a,b,c}	.37

Note. Means in a row sharing subscripts are significantly different from each other according to the Hochberg GT2 test.

Table 4.15. One-way analysis of variance for the effect of practicum with CLD clients on SPMCS subscale scores

Variable and source	SS	MS	F(1, 309)	<i>p</i>	η^2
Cultural Knowledge/Skills					
Between	5.30	5.30	32.87	.000	.10
Within	49.80	.16			
Cultural Appreciation					
Between	.99	.99	10.11	.002	.03
Within	30.14	.10			
Basic Skills					
Between	.68	.68	1.78	.183	.01
Within	117.51	.38			
Cultural Awareness					
Between	1.18	1.18	8.31	.004	.03
Within	43.67	.14			

Multiple Regression

As a follow-up to the third research question, stepwise multiple regressions were conducted to determine which demographic variables, singly or in combination, were most related to SPMCS subscale scores. The following demographic variables were entered into the regression equations: gender, non-White status, bilingual/multilingual status, degree pursued, internship status, multicultural/diversity coursework, and practicum with CLD clients. None of the demographic variables entered into a regression equation for the Basic Skills subscale. The results for the final regression equations for the remaining subscales are displayed in Table 4.16, Table 4.17, and Table 4.18.

Table 4.16. Regression analysis summary for demographic variables predicting SPMCS Cultural Knowledge/Skills subscale score

Variable	B	SE B	β	<i>T</i>	<i>p</i>
Practicum Experiences with CLD Clients	.21	.05	.22	3.88	.000
Multicultural/Diversity Issues Courses	.16	.06	.16	2.84	.005
Bilingual/Multilingual Status	.18	.05	.20	3.75	.000
Gender	.19	.06	.15	2.95	.003
Year in School Psychology Program	.05	.02	.15	2.67	.008

Note. $R^2 = .205$

Table 4.17. Regression analysis summary for demographic variables predicting SPMCS Cultural Appreciation subscale score

Variable	B	SE B	β	<i>T</i>	<i>p</i>
Practicum Experiences with CLD Clients	.15	.04	.20	3.63	.000
Gender	.13	.04	.14	2.47	.014
Non-White Status	.11	.04	.14	2.45	.014

Note. $R^2 = .067$

Table 4.18. Regression analysis summary for demographic variables predicting SPMCS Cultural Awareness subscale score

Variable	B	SE B	β	<i>t</i>	<i>p</i>
Non-White Status	.23	.05	.25	4.50	.000
Practicum Experiences with CLD Clients	.16	.05	.19	3.50	.001
Gender	.19	.06	.17	3.21	.001
Bilingual/Multilingual Status	.11	.05	.14	2.44	.015

Note. $R^2 = .147$

For the Cultural Knowledge/Skills subscale, the regression equation that accounted for the most variance in subscale scores included the demographic variables of practicum with CLD clients, multicultural/diversity coursework, bilingual/multilingual status, gender, and year in school psychology program [$F(5, 292) = 15.04, p < .001$]. The independent variables accounted for approximately 21% of the total variance in the Cultural Knowledge/Skills subscale scores ($R^2 = .205$).

For the Cultural Appreciation subscale, the regression equation that accounted for the most variance in subscale scores included the demographic variables of practicum with CLD clients, non-White status, and gender [$F(3, 294) = 8.16, p < .001$]. The independent variables accounted for approximately 7% of the total variance in the Cultural Appreciation subscale scores ($R^2 = .067$).

For the Cultural Awareness subscale, the regression equation that accounted for the most variance in subscale scores included the demographic variables of non-White status, practicum with CLD clients, gender, and bilingual/multilingual status [$F(4, 293) = 13.78, p < .001$]. The independent variables accounted for approximately 15% of the variance in the Cultural Awareness subscale scores ($R^2 = .147$).

CHAPTER 5

DISCUSSION

The primary objectives of this study were to determine the underlying factor structure of the School Psychology Multicultural Competence Scale (SPMCS) and to determine which training program and individual trainee characteristics were related to higher self-reported scores of multicultural competence. It was hypothesized that the SPMCS would reflect the three dimensional construct of multicultural competence as defined in the existing literature (Arredondo et al., 1996; Sue, Arredondo, & McDavis, 1992; Sue et al., 1982). Based on a review of previous research, it was also hypothesized that school psychology trainees who have had multiple experiential and didactic courses in multicultural and diversity issues would have higher self-reported scores of multicultural competence.

Factor Analysis of the School Psychology Multicultural Competence Scale (SPMCS)

The first hypothesis suggested that the SPMCS would factor into three subscales, Awareness, Knowledge, and Skills, that represent the three domains of multicultural competence as defined in the literature (Arredondo et al., 1996; Sue, Arredondo, & McDavis, 1992, Sue et al., 1982). However, the results of the factor analysis demonstrated that a four factor solution best fit the data obtained from the sample of graduate students who completed the SPMCS. The four factor subscales were Cultural Knowledge/Skills, Cultural Appreciation, Basic Skills, and Cultural Awareness. The Cultural Knowledge/Skills subscale assessed the respondents' knowledge of the skills associated with culturally competent practice and their ability to use those skills with diverse groups. The items on the Cultural Appreciation subscale assessed the

respondents' appreciation of other cultures and the values and norms associated with those cultures. The Basic Skills subscale looked at the relationship between the acquisition of skills and general competence in assessment, intervention, and consultation and culturally competent practice. The items on the Cultural Awareness subscale reflected an awareness of how culture influences worldview and shapes behaviors.

Although the SPMCS did not factor into three subscales, the obtained subscales were still related to the tripartite definition of multicultural competence. The Cultural Appreciation and Cultural Awareness subscales were related to multicultural awareness. Multicultural awareness, as defined by Arredondo and colleagues (1996), is awareness of one's own cultural heritage and assumptions of human behavior, values, biases, preconceived notions, personal limitations, etc. The items on both the Cultural Appreciation and Cultural Awareness subscales addressed this definition; however, each subscale focused on different parts of this definition. The Cultural Appreciation subscale focused on awareness of values, biases, and preconceived notions while the items on the Cultural Awareness subscale focused on awareness of assumptions of human behavior. The fact that the items based on this definition of multicultural awareness factored into two subscales suggested that each subscale represents a separate and distinct component of multicultural awareness and that the existing definition of multicultural awareness may be overly broad.

It is not surprising that knowledge and skills were grouped into one factor. Knowledge and skills are very closely related, in that both can be explicitly taught through didactic coursework. The knowledge focused items determined if the respondent knows of methods of culturally competent service delivery while the skills focused items

assessed the respondent's ability to utilize these methods. The SPMCS is not the only multicultural competence scale developed with separate knowledge and skills subscales that, upon factor analysis, factored into different scales. The Multicultural Counseling Awareness Scale-Form B: Revised (MCAS:B), Multicultural Counseling Knowledge and Awareness Scale (MCKAS), and the Cross-Cultural Counseling Inventory-Revised (CCCI-R) were also developed with separate multicultural knowledge and multicultural skills subscales. The MCAS:B items factored into a combined knowledge/skills subscale and the MCKAS items factored into a combined knowledge/awareness subscale while the items on the CCCI-R were factored only into multicultural counseling skills (Hays, 2008; Ponterotto et al., 1994).

On the surface, the items of the Basic Skills subscale did not appear to be directly related to the three components of multicultural competence. However, the knowledge domain suggests that general competence, or a clear and explicit knowledge and understanding of the generic characteristics of counseling and therapy, is necessary for multicultural competence (Sue et al., 1982). In order for a school psychologist to provide culturally competent service delivery, he/she needs to have a solid background in and foundational knowledge of assessment, intervention, and consultation. A school psychologist cannot be multiculturally competent in the absence of general competence (Coleman, 1998).

Group Membership and Self-Reported Multicultural Competence

Hypothesis 2 suggested that school psychology trainees who had multiple experiential and didactic courses in multicultural and diversity issues would have higher self-reported scores of multicultural competence than those trainees who did not

complete such coursework. The results of the study supported this hypothesis. Overall, increased education and training (i.e., year in program, coursework, practicum, and internship) were related to higher self-reported scores of multicultural competence. An additional programmatic factor that was associated with a difference in scores was the geographic location of the school psychology training program. In addition to these programmatic factors, personal characteristics of trainees also impacted scores on multicultural competence. Female trainees, ethnic minority trainees, and bilingual/multilingual speakers reported higher multicultural competence than male trainees, Caucasian trainees, and monolingual trainees. Possible explanations for these differences are explained below.

Programmatic factors (e.g., year in program, coursework, practicum, and internship) appeared to have the strongest impact on the Cultural Knowledge subscale. Advanced standing in the training program, taking at least one multicultural or diversity issues course, completing practicum with CLD clients, and being on internship were all related to higher scores on the Cultural Knowledge subscale. It would be expected that increased training would lead to increased multicultural knowledge and skills. Knowledge and skills can be explicitly taught within a classroom setting. Even in the absence of explicit multicultural and diversity coursework, multicultural content may have been infused in existing coursework thereby exposing trainees to this content and developing their knowledge and skill base. Practicum and internship provide trainees with the opportunity to apply and practice these skills under supervision. Previous studies have noted the impact of training, specifically multicultural and diversity coursework, on the development of multicultural knowledge and skills and overall multicultural

competence. This was an expected outcome and it is consistent with findings of previous research. Previous studies have found that trainees and practitioners who have taken a multicultural course rate themselves as having more multicultural knowledge and skills than those who have not completed such coursework (Constantine & Yeh, 2001; Holcomb-McCoy, 2005; Sammons & Speight, 2008; Smith et al., 2006).

Multicultural and diversity coursework also had an impact on scores on the Cultural Awareness subscale. There was a slight increase in cultural awareness as trainees took additional coursework; however, a significant difference in scores was only found with those trainees who had taken three or more multicultural and diversity courses. While trainees are able to increase their cultural knowledge and skills by taking only one multicultural or diversity course, additional exposure to multicultural content is needed to impact their cultural awareness and understanding of the relationship of culture and behavior. Previous findings in the research have been mixed. Some studies have found that taking one multicultural course significantly increased cultural self-awareness (Castillo et al., 2007; Cho & DeCastro-Ambrosetti, 2005). Another study found that taking one multicultural course resulted in slight, but not significant, increases in multicultural competence (Cartwright et al., 2008). The results of the current study suggest that while a single course can lead to the development of multicultural competence in some areas, additional coursework, along with opportunities to practice learned skills through practicum and internship, is more effective in increasing multicultural competence.

Although didactic coursework affected multicultural competence, the experiential learning that occurs through practicum appeared to have a stronger impact on the

development of multicultural competence. Trainees who had completed practicum with culturally and linguistically diverse (CLD) clients rated themselves higher on the Cultural Knowledge/Skills, Cultural Appreciation, and Cultural Awareness subscales. While it is important that school psychology trainees have coursework focusing on multicultural and diversity issues, it is essential that they are also provided with opportunities to practice these skills in a supervised setting. The interaction with CLD clients can help trainees feel more comfortable serving individuals of diverse backgrounds and exposes trainees to worldviews and perspectives other than their own. This would contribute to trainee's growth in cultural appreciation and awareness in addition to cultural knowledge and skills. The importance of experiential learning and practicum with CLD clients has been noted in previous studies (Allison et al., 1996; Carlson et al., 1998; Dickson et al., 2008; Dickson & Jepsen, 2007). All these studies found that exposure to participatory training strategies, multicultural practicum, and contact hours with CLD clients was associated with higher self-reported multicultural competence on the Multicultural Counseling Inventory (MCI) and Multicultural Awareness-Knowledge-Skills Survey (MAKSS). The outcomes of the present study are consistent with that of previous research. This study showed that Practicum experiences with CLD clients play a vital role in the development of multicultural competence in school psychology trainees.

Aside from the education and training factors discussed, another programmatic factor that had an effect on self-reported multicultural competence was the geographic region of the training program. Trainees in programs in the West rated themselves higher on the Cultural Knowledge/Skills subscale than trainees enrolled in programs in the Midwest. Programs in the Midwest are more likely to be in rural areas with a majority

White population. As a result, trainees may have limited exposure to or opportunities to work with CLD clients. Exposure to and training experiences with CLD clients are important for the development of multicultural competence. Additionally, training programs located in urban areas may be more successful at recruiting and retaining ethnic minority trainees and providing more community based resources in working with CLD clients (Rogers et al., 1992). As such, urban training programs or training programs with a large number of ethnic minority trainees may provide an environment that is more conducive to discussions about multicultural and diversity issues in school psychology (Dickson & Jepsen, 2007).

In addition to the programmatic factors discussed earlier, there was a difference in self-reported multicultural competence based on personal characteristics such as gender, race/ethnicity, and bilingual/multilingual status. Female trainees had higher scores on the Cultural Appreciation and Cultural Awareness subscales than male trainees. This outcome is similar to that obtained by Constantine (2000), in which women had higher self-reported scores on the knowledge and awareness subscales of the Multicultural Counseling Knowledge and Awareness Scale (MCKAS). Women may have experienced gender issues and discrimination in their own lives and, as a result, may have a heightened awareness and understanding of multicultural and diversity issues (Carter, 1990; Constantine, 2000). For similar reasons, bilingual and multilingual trainees may have obtained higher scores on the Cultural Knowledge/Skills and Cultural Awareness subscales. Bilingual and multilingual trainees may have a stronger sense of their own cultural identity and may be more motivated to learn about culturally competent practice and pursue additional coursework and training opportunities in this area.

For the most part, identifying as an ethnic minority was associated with higher self-reported scores on the Cultural Knowledge/Skills, Cultural Appreciation, and Cultural Awareness subscales. However, increased competence was not reported for all ethnic minority groups. Black/African American and Hispanic trainees had higher scores than Asian/Asian American and Caucasian trainees. Based on previous research (Chao et al., 2010; Smith et al., 2006) as well as the existing definition of multicultural competence (Sue et al., 1982), it was expected that ethnic minority trainees would report higher levels of multicultural competence than Caucasian trainees, but it was not expected that there would be such great variability in scores between ethnic minority groups. Ethnic minority trainees may be more aware of their own cultural heritage and minority status in the United States and in the profession of school psychology. As a result, these trainees may be more motivated to learn about and engage in culturally competent practice so that they can better serve their communities. Additionally, their cultural awareness may make them more sensitive to and aware of others' cultural behaviors.

Implications

One implication of the present study is related to the conceptualization of multicultural competence in professional psychology. As noted previously, multicultural competence is typically described as three components: awareness, knowledge, and skills (Sue et al., 1982). Existing multicultural competence scales (e.g., MAKSS, CCCI-R, MCAS:B, MCCTS) were developed using this model. However, most of these scales, including the SPMCS, do not retain their original subscales (awareness, knowledge, skills) after factor analysis. Ponterotto and colleagues (1994) examined the characteristics

of several multicultural competence scales. While all these scales were based upon the three component conceptual framework, the factor analytic structure of these scales provided little support for the tridimensional conceptualization of multicultural competence. The factor structures of these measures and the SPMCS provide additional insight into the conceptualization of multicultural competence. The SPMCS factored into four subscales: Cultural Knowledge/Skills, Cultural Appreciation, Basic Skills, and Cultural Awareness. Three of the four subscales (Cultural Knowledge/Skills, Cultural Appreciation, and Cultural Awareness) are very similar to the subscales of existing multicultural counseling competence scales. The fourth subscale, Basic Skills, is not reflected in existing measures and may represent an area of multicultural competence that had not previously been studied. The four subscales of the SPMCS may provide a clearer and more accurate description of multicultural competence.

The results of the present study also provide information about the training of school psychologists. While multicultural and diversity issues coursework is needed, it is also important that trainees are provided with the opportunity to practice these learned skills through practicum experiences with CLD clients. The results of this study lend tacit support for an integrated-separate course model of multicultural training. In a separate course model, there is explicit coursework in multicultural issues in school psychology; the integration model infuses multicultural content into all program coursework (Rogers, 2006; Rogers, Hoffman, & Wade, 1998). A recent study of multicultural training in school psychology suggested that the integration-separate course model of multicultural training should be part of a best evidence approach to multicultural training in school psychology. This would provide multiple opportunities for exposure to multicultural

content and it should lead to increased multicultural competence in trainees. The multicultural coursework should be coupled with additional opportunities for practicum with CLD clients along with appropriate multicultural focused supervision (Vereen, Hill, & McNeal, 2008).

In addition to providing additional training to address multicultural and diversity issues, there should continue to be a concerted effort to recruit CLD students into school psychology training programs. Previous studies have noted that exemplary multicultural training in professional psychology goes beyond multicultural coursework and practicum, but also includes having a diverse student population in the program (Kearns et al., 2002; Rogers, 2006; Rogers, Hoffman, & Wade, 1998; Speight et al., 1995). Having a variety of cultural perspectives and experiences represented in training programs may elevate the level of discourse when discussing multicultural and diversity issues in school psychology and help to expand the worldview of trainees in the program. This would prepare trainees to communicate and work with CLD clients, parents, and teachers.

Limitations

There are several limitations to this study. First, there may have been a self-selection bias in the school psychology trainees who chose to participate in the study. Those who responded to the research request may have been interested in multicultural and diversity issues in school psychology. Such a pattern was observed in the first wave of data collection. The only program directors who responded to the original research request were those from programs who self-identified as offering exemplary multicultural training. As such, the graduate students who chose to respond to the research request may be more multiculturally competent than the overall school psychology trainee population. Second, the SPMCS is limited to assessing multicultural competence in working with

CLD clients. There are other areas of diversity (e.g., sexual orientation and socio-economic status) that the SPMCS does not address. Third, respondents were not asked if they had any training experiences outside of their program related to multicultural and diversity issues. Some of the respondents may have earned graduate degrees in other mental health fields and had multicultural and diversity issues coursework in those training programs. Additionally, some respondents may engage in professional development through conference attendance, workshops, and outside supervision that provides them with additional education and training on multicultural and diversity issues in school psychology. As a result, the training experiences that they have had were not captured by the demographic questionnaire and their impact on multicultural competence was not assessed. Finally, the SPMCS is a self-report measure of multicultural competence and, as such, relies on the individual's perceptions of their own multicultural competence, which may or may not be reflective of their actual multicultural competence.

Future Directions

The SPMCS is a new measure designed to assess multicultural competence in school psychology trainees. An exploratory factor analysis was conducted to determine the factor structure of the SPMCS subscales. As a follow-up, confirmatory factor analysis should be conducted to verify the SPMCS subscales. Additionally, SPMCS can be used in concurrent validity studies with other established multicultural competence measures to determine how well the SPMCS correlates with those other measures. Finally, the SPMCS should be modified so that it can be used as an observational tool so training program faculty can corroborate the ratings that trainees give themselves.

Training programs are required to address multicultural and diversity issues so that trainees can be prepared to effectively serve clients of all cultural backgrounds. To determine the relationship between multicultural competence and client outcomes, future studies should be done to examine whether school psychologists who have higher ratings of multicultural competence produce better outcomes for their CLD clients. The SPMCS would be an appropriate measure to use to evaluate multicultural competence because it is the only one focused on school psychologists and it addresses all the domains of school psychological practice.

While this study provided information about the education and training that leads to multicultural competence, additional information is needed about how the environment of the training program affects the development of multicultural competence. The SPMCS can be used along with a training evaluation tool, such as the Multicultural Counseling Checklist (MCC) or the Multicultural Environmental Inventory (MEI) to assess the effectiveness of training programs in developing multicultural competence in their trainees.

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APPENDIX A: INVITATION LETTER FOR PROGRAM DIRECTORS

Dear Training Program Director,

As a part of my dissertation, we are conducting a study about the relationship between multicultural training experiences through coursework and practicum and the perceived multicultural competence of school psychology trainees. We are asking training program directors to complete a brief survey about the demographics of their training programs and the type of multicultural training provided by their programs. We estimate that this should take no more than 10 minutes. In addition to this survey, we also ask that you forward the students in your graduate program a letter inviting them to complete the School Psychology Multicultural Competence Scale (SPMCS).

We will be collecting the names of each individual training program that completes the training survey in order to match students with their respective programs and their multicultural training. However, neither you nor your program will be identified in any publication or presentation of the findings of this study.

You are free to withdraw your consent to participate and may discontinue your participation in the study at any time without consequence. If you have any questions about this research, you may contact Celeste Malone at cmalone@temple.edu. Questions or concerns about your rights as a research participant may be directed to the Institutional Review Board Coordinator at (215) 707-3390. The IRB Coordinator may also be reached by email: IRB@temple.edu or regular mail: Institutional Review Board Coordinator; Temple University Research Administration; Student Faculty Conference Center; 3340 N Broad Street; Philadelphia, PA 19140.

Sincerely,

Celeste Malone, MS, MEd
Doctoral Student
Temple University, School Psychology Program

Catherine Fiorello, Ph.D.
Associate Professor
Temple University, School Psychology Program

APPENDIX B: INVITATION LETTER FOR GRADUATE STUDENTS

Dear participant,

As a part of my dissertation, we are conducting a study about the relationship between multicultural training experiences and perceived multicultural competence in school psychology graduate students. Participation in this study will involve completing the School Psychology Multicultural Competence Scale (SPMCS) online along with a brief demographics questionnaire. Completion of both measures should take approximately 15-20 minutes. In order to participate, you must be a graduate student in a school psychology program.

General demographic information will be used only to describe the sample as a group. You do not have to answer any question you do not wish to answer. We cannot and will not trace the identity of participants, therefore, all responses will be anonymous and confidential.

Your participation is very important. If you choose to participate in this study, you will have the option of entering your email into a raffle to win one of five \$20 gift cards. Your email will not be linked to your survey responses.

You are free to withdraw your consent to participate and may discontinue your participation in the study at any time without consequence. If you have any questions about this research, you may contact Celeste Malone at cmalone@temple.edu. Questions or concerns about your rights as a research participant may be directed to the Institutional Review Board Coordinator at (215) 707-3390. The IRB Coordinator may also be reached by email: IRB@temple.edu or regular mail: Institutional Review Board Coordinator; Temple University Research Administration; Student Faculty Conference Center; 3340 N Broad Street; Philadelphia, PA 19140.

Sincerely,

Celeste Malone, MS, MEd
Doctoral Student
Temple University, School Psychology Program

Catherine Fiorello, PhD
Associate Professor
Temple University, School Psychology Program

APPENDIX C: DEMOGRAPHIC QUESTIONNAIRE FOR PROGRAM DIRECTORS

1. School psychology program:
2. How many students are enrolled in the school psychology program?
3. How many culturally and linguistically diverse (i.e., Asian/Pacific Islander, African American/Black, Hispanic, Native American/Alaskan Native, Multiracial) students are enrolled in the school psychology program at the pre-internship level?
4. How many full time faculty members are affiliated with the school psychology program?
5. How many of the full time faculty members identify as culturally and linguistically diverse?
6. How many faculty members have research interests in multicultural and diversity issues in school psychology?
7. In what geographic region is the school psychology program located?
 - a. Northeast (ME, NH, VT, MA, RI, CT, NY, PA, NJ)
 - b. Midwest (WI, MI, IL, IN, OH, MO, ND, SD, NE, KS, MN, IA)
 - c. South (DE, MD, DC, VA, WV, NC, SC, GA, FL)
 - d. South Central (KY, TN, MS, AL, OK, TX, AR, LA)
 - e. West (ID, MT, WY, NV, UT, CO, AZ, NM, AK, WA, OR, CA, HI)
8. In what geographic setting is the school psychology program located?
 - a. Urban
 - b. Suburban

- c. Rural
9. Please indicate the training model of the school psychology program.
- a. Clinical science
 - b. Practitioner
 - c. Practitioner-scholar
 - d. Pragmatic
 - e. Scientist-practitioner
 - f. Other: _____
10. What degrees are offered by the school psychology program?
- a. MA/MS
 - b. EdS/CAGS
 - c. PhD/PsyD/EdD
11. Please select the statement(s) that best describe the multicultural training provided by your school psychology program.
- a. Infused multicultural content throughout the curriculum
 - b. Specific multicultural and/or diversity issues coursework
 - c. Exposure to culturally and linguistically diverse students during practicum and/or internship
 - d. Second language requirement
 - e. Other: _____

APPENDIX D: TRAINING QUESTIONNAIRE FOR GRADUATE STUDENTS

1. Please indicate your gender.
 - a. Male
 - b. Female
2. Please indicate your race/ethnicity.
 - a. Asian/Pacific Islander
 - b. Black/African-American
 - c. Caucasian
 - d. Hispanic
 - e. Native American/Alaska Native
 - f. Other/Multi-Racial
 - g. Decline to Respond
3. Do you speak any language other than English?
 - a. Yes
 - b. No
4. What school psychology training program are you currently attending?
 - a. Ball State University
 - b. Brigham Young University
 - c. Brooklyn College, City University of New York
 - d. East Carolina University
 - e. Gallaudet University
 - f. Georgia State University

- g. Idaho State University
- h. Illinois State University
- i. Lehigh University
- j. Louisiana State University
- k. Millersville University of Pennsylvania
- l. New Mexico State University
- m. Northeastern University
- n. Northern Arizona University
- o. Ohio State University
- p. Pennsylvania State University
- q. Queens College, City University of New York
- r. Rhode Island College
- s. Rutgers University
- t. San Diego State University
- u. Southern Connecticut State University
- v. St. Johns University
- w. Texas A&M University
- x. Tufts University
- y. University of California – Santa Barbara
- z. University of Central Florida
- aa. University of Colorado – Denver
- bb. University of Kansas
- cc. University of Massachusetts – Boston

- dd. University of Memphis
- ee. University of Montana
- ff. University of Nebraska – Lincoln
- gg. University of Oregon
- hh. University of Southern Maine
- ii. University of Wisconsin – Madison
- jj. University of Wisconsin – Stout
- kk. Other: _____

5. What degree are you currently pursuing in school psychology?

- a. MA/MS
- b. EdS/CAGS
- c. PhD/PsyD/EdD

6. What year are you in your school psychology program?

- a. 1st year
- b. 2nd year
- c. 3rd year
- d. 4th year
- e. 5th year or beyond

7. Are you currently on internship?

- a. Yes
- b. No

8. How many courses in which the primary focus was on multicultural and/or diversity issues in education or school psychology have you taken during your current program?
 - a. 1
 - b. 2
 - c. 3 or more

9. Have you completed practicum experiences with culturally and linguistically diverse clients?
 - a. Yes
 - b. No

APPENDIX E: SCHOOL PSYCHOLOGY MULTICULTURAL COMPETENCE

SCALE (SPMCS)

Below is a list of statements related to a variety of issues related to multicultural issues in school psychology. Please read each statement carefully. On a scale of 1 (strongly disagree) to 4 (strongly agree), please indicate the degree to which you agree with each statement.

	Strongly Disagree	Disagree	Agree	Strongly Agree
There are basic assessment skills that are applicable to create successful outcomes regardless of the student's cultural background.	1	2	3	4
There are basic intervention skills that are applicable to create successful outcomes regardless of the student's cultural background.	1	2	3	4
There are basic consultation skills that are applicable to create successful outcomes regardless of the consultee's and client's cultural backgrounds.	1	2	3	4
I am aware of the cultural differences that exist among the faculty and staff at my school.	1	2	3	4
I can recognize when my beliefs and values are interfering with providing the best services to my students	1	2	3	4
I believe that all school psychologists should engage in ongoing professional development around multiculturalism and diversity issues.	1	2	3	4
I can discuss how culture influences parenting practices.	1	2	3	4
I am aware of how culture impacts learning and behavior.	1	2	3	4
I understand how my cultural background has influenced the way I think and act.	1	2	3	4
I am comfortable with racial differences that may exist between me and others.	1	2	3	4
I have a sense of the values, strengths, and limitations of my own culture.	1	2	3	4
I can accurately compare my own cultural perspective to that of a person from another culture.	1	2	3	4
I am accepting and respecting of other's cultures.	1	2	3	4
I can identify when my own biases negatively influence my services to my students.	1	2	3	4
I understand the need to retain one's cultural identity.	1	2	3	4
I am knowledgeable of effective assessment strategies used with culturally and linguistically diverse students.	1	2	3	4
I know how to adapt instruments to assess linguistically diverse students.	1	2	3	4
I know that cross-cultural variables may affect performance on and interpretation of standardized assessments.	1	2	3	4
I know how to use alternate assessment methods such as dynamic assessment and ecological assessment.	1	2	3	4
I have knowledge of research on assessing culturally and	1	2	3	4

linguistically diverse children.				
It is important to integrate cultural and language background of a student into a psychoeducational report.	1	2	3	4
I am knowledgeable of evidence-based intervention strategies used culturally and linguistically diverse students.	1	2	3	4
I understand the process of second language acquisition and its impact on the acquisition of academic skills.	1	2	3	4
I am knowledgeable of the most effective consultation strategies used with culturally and linguistically diverse consultees.	1	2	3	4
When consulting, I know how culturally related factors may affect accurate assessment of the “problem” in the problem solving process.	1	2	3	4
I understand my role as a school psychologist in my school and in my school district.	1	2	3	4
I am aware that members of cultural groups may have different attitudes towards disabilities or exceptionalities.	1	2	3	4
I consider sociocultural variables and perspectives when evaluating research.	1	2	3	4
I know how language influences a child’s academic performance.	1	2	3	4
I have an understanding of cultural differences of the groups that reside in my geographic region.	1	2	3	4
I know how to use translators appropriately during the assessment process.	1	2	3	4
I can identify the strengths and weaknesses of psychological tests in terms of their use with students from difference cultural, racial, linguistic, and ethnic backgrounds.	1	2	3	4
I can explain test information culturally diverse parents.	1	2	3	4
I can make culturally relevant curriculum and classroom management recommendations.	1	2	3	4
I am skilled in terms of being able to provide appropriate intervention services to culturally diverse students.	1	2	3	4
I am skilled in implementing home-school collaboration programs and interventions.	1	2	3	4
I can recognize prejudice and prevalent obstacles that may affect consultation.	1	2	3	4
I am skilled in understanding nonverbal communication.	1	2	3	4
I can work with culturally and linguistically diverse children, parents, and school staff.	1	2	3	4
I can effectively assess the mental health needs of a student from a cultural background significantly different from my own.	1	2	3	4
I can effectively secure information and resources to better serve culturally diverse students and families.	1	2	3	4
I can consult with institutions to work towards eliminating biases, prejudice, and discriminatory practices.	1	2	3	4
When working with linguistically diverse parents and students, I can interpret information obtained through translators.	1	2	3	4
I respect and appreciate the socioeconomic and cultural background of a child and his/her family.	1	2	3	4
I engage in ongoing efforts to reduce and eliminate biased beliefs and behaviors.	1	2	3	4