The Relationship between Professional Development and School Psychologists’
Self-Reported Multicultural Competence

By

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Dean of Graduate Studies
The Relationship between Professional Development and School Psychologists’ Self-Reported Multicultural Competence

By

Erin Wright, MSE

The University of Wisconsin-Eau Claire, 2020
Under the Supervision of Dr. Melissa Coolong-Chaffin

According to the US Census Bureau (2015), over half of the U.S. population will belong to a racial or ethnic minority group by the year 2044. Due to this growing diversity, it is crucial that schools understand how to best serve diverse children.

However, research in this area is extremely limited, specifically research around school psychologists’ ability to work with CLD students. More studies need to take a data driven approach to evaluating multicultural competence. This study evaluated school psychologists’ self-reported multicultural competencies with the School Psychologist Multicultural Competence Scale (SPMCS) (Malone, 2016). To do this, participants took the SPMCS (Malone, 2016) in the fall of 2018. Throughout the school year, they completed multicultural centered professional development (PD) activities within their school district. These activities were conducted by district personnel, without involvement from the researcher. Once they completed the final PD course, they took the SPMCS a second time in the spring of 2019. Pre- and post- test surveys were compared to examine differences in self-reported multicultural competence.

Dr. Melissa Coolong-Chaffin
Date 5/7/20
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The Relationship between Professional Development and School Psychologists’ Self-Reported Multicultural Competence

**Literature Review**

**Introduction**

By the year 2044, more than half of the population of the United States is projected to belong to a racial or ethnic minority group. In addition, by the year 2060, almost one in five people in the US is projected to be foreign born (US Census Bureau, 2015). The education system has seen a corresponding increase in minority student enrollment. For example, in 2007, the percentage of students from ethnic and racial minority groups made up about 40% of the entire K-12 population of students; however, in 2017 this percentage went up to approximately 50% of the entire K-12 school population (US Census Bureau, 2018). This corresponds to a 10-percentage point increase in diverse students in the educational system in just 10 years. Clearly, the population of culturally and linguistically diverse (CLD) families is growing fast in the United States and schools need to be prepared to serve them. However, educational outcomes for many minority students are concerning, indicating a need to increase culturally responsive practices. For example, research shows that some groups of minority students are offered less challenging classes, are more likely to be retained, are more likely to drop out, are less likely to go on to college, and are more like to underachieve academically when compared to their white peers (Valencia, 2000; Rowley & Wright, 2011). For example, one study administered reading and math tests to both White and African American students. These students completed two sets of assessments. First, students completed a set of reading and math assessments to determine their ability level.
That ability level determined the second assessment they were administered. According to the second assessments administered, the study found that, on average after the second assessment, White students performed within the 55th percentile on these test scores (in both reading and math), whereas Black students were performing only within the 28th percentile on the same tests (Rowley & Wright, 2011).

One problem that is directly impacted by school psychologists’ practice is the disproportionate representation of students from certain minority groups in special education. For example, Gravois and Rosenfield (2006) found that even though the population of African American students only made up 37.6% of the student population, 61% of students who qualified for special education under the category of Intellectual Disability (ID) were African American. Similarly, 50% of all students who qualified for special education under the category of Emotional/Behavioral Disability (EBD) were African American.

**Defining and Addressing the Problem**

Disproportionality in special education is defined as the extent to which membership in a given group, such as gender, race/ethnicity, or socioeconomic strata, is related to the probability of being labeled as having a disability and placed in special education (Cruz & Rodl, 2018, p.50). This problem was first documented by Dunn in 1968 (Cruz & Rodl, 2018). Since then, the issue has continued to be well-documented in the literature (Artiles et al., 2005; Guiberson, 2009; Ochoa et al., 1988, Maydosz & Maydosz, 2013, Morrier, 2012, Omark, 1988, Wiley, Brigham, Kauffman, & Bogan, 2013; Moreno et al., 2014; Balagna, Young, & Smith, 2013; Cruz & Rodl, 2018). Although the other specific variables or characteristics (e.g., age or SES) also impacting
disproportionality in special education are difficult to pinpoint (Cruz & Rodl, 2018), trends typically show that African Americans are over-identified in the categories of emotional/behavioral disturbance (EBD) and intellectual disability (ID), Native Americans are over-identified in the category of specific learning disability (SLD), and Hispanics and Asian Americans are proportionally represented or under-represented across all categories (Sullivan & Proctor, 2016).

This issue has also been addressed in various court cases such as Larry P. v. Riles (1972), PASE v. Hannon (1980), and Diana v. State Board of Education (1970, 1973). The Larry P. v. Riles (1972) court case found intelligence assessments to be biased measures when evaluating CLD students, specifically, African American students. Therefore, at that time, intelligence assessments were not allowed to be used in the evaluation of CLD students for special education. PASE v. Hannon (1980) overturned the Larry P. v. Riles (1972) court case and determined that the information gathered from intelligence assessments was still vital in the evaluation of African American students for special education. However, the court decision suggested that this information must be supported with other sources of data (e.g., interviews, observation, etc.). The Diana v. State Board of Education (1970, 1973) court case determined that intelligence assessments were inappropriate to use with individuals who do not speak the English language (specifically Spanish speaking in this case). This case determined that students must be evaluated in their native language for it to be an accurate representation of their current abilities.

In response to the disproportionality in special education, various professional agencies have developed position statements related to the topic. Two examples of these
agencies are the American Psychological Association (APA) and the National Association of School Psychologists (NASP). According to NASP’s (2017) core values, “NASP honors individual, cultural, and other contextual differences in our own interactions and as they shape students' development” (p. 1). In addition to professional agencies, federal regulations have also attempted to address the issue. Specifically, two examples of federally enacted laws related to combating disproportionality in special education are the Every Student Succeeds Acts (ESSA) (2015) and the Individuals with Disabilities Education Improvement Act (IDEIA) (2004).

First, ESSA was put in place in part to address the achievement gap between white and minority students. ESSA attempts to combat this gap by holding all students accountable to high academic standards (including those from low-income and minority backgrounds). In addition, ESSA also requires schools to track students’ academic progress through state-wide standardized assessments (Department of Education, 2015). On the other hand, IDEIA “is a law that makes available a free appropriate public education to eligible children with disabilities throughout the nation and ensures special education and related services to those children” (IDEIA, 2004). IDEIA tackles disproportionality by requiring schools to track the proportion of minority students being represented in special education categories. Together, these laws attempt to ensure CLD students are receiving adequate education and are being educated in the least restrictive environment (LRE). However, even though these acts have been put in place to help prevent over- and under-representation in special education, researchers (Zhang et al., 2014) have found little change from 2004 to 2008. Through the years 2004 (when IDEA was implemented) to 2008, special education placement percentages across all ethnicities
remained consistent (over-representation) for EBD, ID, and SLD. One category that showed an improvement in disproportionality was a decrease of African-American students qualifying under the category of ID.

**Reasons for Disproportionality**

When we look at the statistics for disproportionality, it is important to ask how and why this is happening. Two potential explanations for disproportionality are bias in the assessment tools used and implicit biases of school personnel making referrals and placement decisions. First, assessment tools are commonly critiqued based on their level of cultural sensitivity. Many believe that assessments such as intelligence tests used are not culturally sensitive and that they are biased toward the white-middle class (Ford et al., 2008). In the *Larry v. Wilson Riles* (1977) court case, the ruling determined that assessments themselves are faulty in placing minority students (specifically, African American students) in special education. Due to this, the use of intelligence tests to place African American in special education was banned (Lambert, 1981). The claim was that many assessments would throw out questions that minority students answered correctly, based on the predominantly white middle-class standardization sample answering those incorrectly. However, much current research does not support the idea that bias exists in the tests themselves. Skiba et al. (2008) has suggested that most of this research is from the 1970-80s and based on old versions of tests which are no longer in use. In fact, the majority of research has shown empirically that intelligence tests and achievement tests not are culturally biased (Skiba, Knesting, & Bush, 2002). In addition, the *Larry v. Wilson Riles* (1977) ruling was overturned in the *PASE v. Hannon* (1980) case which stated that the assessment tools are not biased if they are taken into consideration with
other pieces of data and information. Therefore, the question of why we still see a disproportionate representation of CLD students in special education remains.

Another explanation for disproportionality in special education may be implicit biases held by the school personnel who work with these students. For example, teacher expectations have historically been positively correlated with student academic achievement; however, teacher expectations for African American students are lower than their White peers (Skiba, Knesting, & Bush, 2002). In addition, research suggests that teachers refer students from lower socio-economic status (SES) and ethnic/racial minority students for special education more frequently than white students (Ford et al., 2008; Skiba et al., 2008). Another obstacle in this area is that minority students’ parents are contacted less frequently to participate in the special education meetings, and the recommendations to minority parents were more restrictive and less comprehensive than recommendations for nonminority parents (Tomlinson, Acker, Canter, and Lindborg, 1978).

Clearly, the implicit biases of professionals working with CLD students impacts students’ success and placement in special education. When talking about evaluation biases, it is important to consider the role heuristics play. Heuristics are mental shortcuts that develop from a person’s experience (Wilcox & Schroder, 2015). They can be beneficial in that they help humans manage and store data and information quickly and efficiently. However, they become problematic when they are applied incorrectly to an individual and hence may lead to inappropriate diagnostic decisions (Wilcox & Schroeder, 2015). Wilcox and Schroeder (2015) argue that heuristics and cognitive biases (collectively referred to as thinking errors) can impact a school psychologist’s
conceptualization of a referral problem during various points of the student’s evaluation. For example, if school psychologists have a thinking error (i.e., a stereotype) that a certain racial group struggles in reading, then they may seek out information that confirms that belief (i.e., confirmation bias) (Wilcox & Schroeder, 2015). Therefore, the authors suggest that school psychology training programs should teach school psychologists proper reasoning abilities to avoid applying a stereotype to a student.

**Role of School Psychologists**

Knowing that school psychologists receive extensive training in special education evaluation and cultural responsiveness, this puts school psychologists in a central position to combat this issue. Specifically, school psychologists are to “recommend strategies to reduce disproportionate practices, design culturally responsive interventions, conduct culturally competent assessments and consultation to reduce disproportionate special education referrals, and provide comprehensive mental and behavioral health services to meet the needs of all students” (NASP, n.d., p. 1). Therefore, the epidemic of disproportionality in special education highlights the need for school psychologists to gain competence in working with CLD students. As defined by Miranda (2014) multicultural competence is “the ability to work effectively with people from a variety of cultural, ethnic, and religious backgrounds often different from themselves” (p. 13). Another important factor to consider is the demographic characteristics of school psychologists themselves. From a NASP sample, Olvera (2015) found that 92% of school psychologists are Caucasian. As noted in Grapin, Lee, and Jaafar (2015) this lack of diversity within the education profession poses two problems: 1) it limits the range of
perspectives and experiences within the field, and 2) it potentially impacts the likelihood that previously underserved individuals will have their needs met and understood.

In response to the lack of diversity within the field of school psychology, Ochoa (1997) surveyed school psychologists’ perceptions of their graduate programs’ preparation to work with CLD students. They found that on average school psychologists do not feel adequately prepared to understand, conduct, and interpreting bilingual assessments. However, many school psychologists who reported not feeling prepared to evaluate multi-lingual students also report the need to work with these populations. Overall, these studies demonstrate the need for school psychologists to continue building their multicultural competence.

**Professional Development**

As we recognize the need to build multicultural competence in school psychologists, we should consider the impact of professional development (PD). PD can be a perfect avenue to help school psychologists improve their practice and combat biases. As described by Wise et al. (2010), PD is the maintenance of competence, the improvement of services, and the protection of the public. Although the literature has only recently begun to reflect research on the impact of PD on educators’ actual effectiveness, the existing research has documented that participating in PD has a positive relationship with educators’ abilities (Desimone, 2009; Garet et al., 2001; Williams, 2007; Further, Hill, Rowan, & Ball, 2005). In fact, Desimone (2009) argues that PD is one of the key factors to improving the quality of US education. The majority of studies examining the effects of PD focus on participants’ self-reported perceptions and practices (Garet et al., 2001; Williams, 2007; Malone, 2016). Specifically, most studies evaluated
teachers’ perceptions about the quality of learning materials, perception of learning gains, and satisfaction of the instruction (Williams, 2007). While self-report does contain multiple limitations, these studies show promising effects for teachers’ self-reported knowledge and skills (Garet et al., 2001). Further, Hill, Rowan, and Ball (2005) found that teacher knowledge about content had a positive relationship with student academic achievement.

It is possible that participating in PD can have a positive impact on educators’ overall knowledge and their ability to use this knowledge to support students’ academic achievement; however, little research has focused on professional development within the field of school psychology. Specifically, little research has looked at the relationship between PD and school psychologist’s multicultural competence. This is concerning as school psychologists play a central role in the special education evaluations of CLD students as discussed earlier. Future research needs to begin evaluating the effectiveness of multicultural competence PD on school psychologists.

There is research in allied professions, however. For example, Williams (2007) looked at the implementation of multicultural competence training sessions (i.e., four 3-hour sessions) for social workers. Quantitative results from this study indicated that participants were able to apply the skills taught to hypothetical situations, and qualitative results indicated that participants were able to apply their knowledge in real practice situations (Williams, 2007). Therefore, we know, PD can be an effective avenue for building multicultural competence in other professions and could also be beneficial for school psychologists as well.
To further examine the importance of PD, many studies have focused on what types of PD have been found to be most beneficial for educators (Barrett, Butler, & Toma, 2013; Desimone, 2009). While this area it is clear that some PD is better than none, we have also learned that some types of PD are better than others (Barrett, Butler, & Toma, 2013). For example, Desimone (2009) argues that for PD to be most effective it must (a) be content focused, (b) have active learning, (c) be coherent, (d) last longer, and (e) have collective participation. These variables must be in place to improve teacher knowledge and skills, and practice, which in turn will improve student achievement.

**Summary and Hypothesis**

The population of minority students is growing in the United States. This growing diversity in the population is also reflected in the United States education system. With this comes the need for educators to be better prepared to work with culturally and linguistically diverse (CLD) students. However, we have not improvement in CLD students’ academic achievement and appropriate placement in special education. In fact, many minority students continue to be disproportionately represented in special education. Specifically, African Americans are over-identified in the categories of emotional/ behavioral disturbance (EBD) and intellectual disability (ID), Native American students are over-identified under the category of specific learning disability (SLD), and Hispanic and Asian American students are proportionally represented or under-represented across all categories.

Various acts of legislation have been put into place in response to this problem (e.g. the Every Student Succeeds Act (ESSA) and the Individuals with Disabilities Improvement Act (IDEIA). However, even with the implementation of these acts, there
has not been a significant change in the representation of minority students in special education.

One explanation for this disproportionate representation is the assessment tools themselves are potentially biased in assessing minority students. Another explanation for the disproportionate representation is the implicit biases of those who evaluate students for special education. Research has shown that school psychologists, on average, do not feel prepared to work with CLD students; however, they frequently do have to work with these students even with their lack of preparation.

As discussed, many school psychologists do not feel prepared to work with CLD students. This lack of preparation could have a major impact on the disproportionate representation of CLD students in special education. Therefore, participating in professional development (PD) is one avenue to continue building multicultural competence in school psychologists. Research has shown that educators who participate in PD self-report higher skills and knowledge in the content. In addition, they also see that PD has an impact on students’ academic achievement. However, little research on PD has focused on school psychologists. Therefore, the current study aims to add to the literature regarding school psychologists and PD. Specifically, the purpose of this study is to examine school psychologists’ self-reported multicultural competence in a large urban school district before and after multicultural centered PD.

The following hypotheses guided this study:

1. We expected to see changes in school psychologists self-perceived cultural skills from fall to spring after participating in district delivered professional development.
2. We expected to see changes in school psychologists self-perceived cultural
   *knowledge* from fall to spring after participating in district delivered professional
development.

3. We expected to see changes in school psychologists self-perceived cultural
   *appreciation* from fall to spring after participating in district delivered professional
development.

4. We expected to see changes in school psychologists self-perceived cultural *awareness*
   from fall to spring after participating in district delivered professional development.

5. We expected to see changes in school psychologists self-perceived overall
   multicultural competence from fall to spring after participating in district delivered
   professional development.

It was hypothesized that participants would report higher levels of multicultural
competence in all areas after participating in the multicultural competence professional
development activities across the school year.

**Method**

**Participants**

**School Psychologists.** Participants were recruited from a large urban school
district in the Midwest. This school district employs approximately 150 school
psychologists, all of whom were asked to participate in this study. Of the 150 participants
invited to participate, 45 gave consent to use their surveys (30% response rate). See Table
1 for a summary of these data.
Table 1  
Participant Demographics

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<tr>
<th>Variables</th>
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<tr>
<td>Male</td>
<td>13</td>
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<tr>
<td>Female</td>
<td>32</td>
<td>71%</td>
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<td><strong>Race</strong></td>
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<tr>
<td>White</td>
<td>39</td>
<td>87%</td>
</tr>
<tr>
<td>Black or African American</td>
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<td>2%</td>
</tr>
<tr>
<td>Asian</td>
<td>3</td>
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</tr>
<tr>
<td>Other/ Multi-Race</td>
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<td>4%</td>
</tr>
<tr>
<td><strong>Highest Degree Completed</strong></td>
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<td>EdS/ CAGS</td>
<td>33</td>
<td>73%</td>
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<td>PhD/ PsyD, EdD</td>
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<td>7%</td>
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<td><strong>Second Language</strong></td>
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<tr>
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<td>33</td>
<td>73%</td>
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<td><strong>Multicultural Practicum</strong></td>
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<td>1</td>
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<td>2</td>
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<tr>
<td>3+</td>
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<td><strong>Currently on Internship</strong></td>
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<td>3</td>
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<td>4</td>
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<tr>
<td>5+</td>
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</tr>
<tr>
<td>5+</td>
<td>17</td>
<td>38%</td>
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School District. There are a total of 75,000 students within this school district. Twenty percent of these students receive special educational supports. Eighty-two percent come from economically disadvantaged homes and 15% are English Language learners. 54% of these students are African American, 7% are Asian, 27% are Hispanic, 11% are White, and 1% are other.

Measures

Demographics. Participants first completed a short demographic questionnaire. The questionnaire consisted of 11 questions related to gender, race/ethnicity, years working as a school psychologist, years working in this school district, degree earned, school type, second languages, and multicultural practicum experience. In addition, two questions were created to ensure there would be matched pairs. Specifically, participants were asked the first three letters of their mother’s maiden name and the street they grew up on. This was asked during both administrations of the survey to match pre- and post-surveys with each other.

School Psychologist Multicultural Competence Scale (SPMCS). The SPMCS was created by Malone (2016). To date, the SPMCS is the only tool thus far that can be used to evaluate school psychologists’ multicultural competence. According to Malone (2016), an exploratory factor analysis of the SPMCS demonstrated that a four-factor solution was best fit. The four factors revealed during the study were cultural skills, cultural awareness, cultural knowledge, and cultural appreciation. Alpha scores on each of these subscales were moderate to strong (Malone, 2016). The scale consists of 28 questions and rated on a 5-point Likert scale (1-strongly disagree to 5-strongly agree).
See Appendix A for the survey. Some information has been removed to maintain confidentiality of the school district.

**Procedures**

Participants completed both surveys via paper/pencil format. Participants first took the survey at the beginning of the school year (October 2018). Then, throughout the school year (2018-2019) they participated in professional development (PD) activities (e.g., small work groups, book study, presenters, etc.). These activities were planned and facilitated by school district personnel and focused on building multicultural competence in school psychologists. They completed these activities approximately two times per month. Once they completed the final PD activity (April 2019), they took the survey a second time via paper/pencil format. At that time, they also received a cover letter describing the current study and asking if they would like their data to be included. Due to the matched pairs research design, participants who gave consent during the post-test survey to use their data remained anonymous but also allowed us access to their pretest data.

**Results**

To address the first hypothesis regarding reported change in cultural *skills* from fall to spring, a paired samples *t*-test was performed. Items 13-22 assessed cultural *skills*. Similar to findings from Malone et al., the items on the subscale measuring cultural *skills* showed high internal reliability (Cronbach’s *α* = .797); therefore we used the average responses on these items to create a cultural *skills* composite. On average, ratings at both points in time were high (*M*<sub>T1</sub> = 3.99, *SD*<sub>T1</sub> = 0.45; *M*<sub>T2</sub> = 4.05, *SD*<sub>T2</sub> = 0.43). On the cultural *skills* subscale, ratings did not differ, *t*(44) = 1.15, *p* = .255, Cohen’s *d* = 0.17.
The pre-test cultural *skills* ratings and post-test cultural skills ratings were similar. The difference (M_{diff} = 0.06 [95% CI: -0.04, 0.17]) was negligible. See Figure 1 for mean ratings in the fall and spring.

*Figure 1. Average pre- and post- rating of cultural skills.*

To address the second hypothesis regarding reported change in cultural *knowledge* from fall to spring, a paired samples *t*-test was performed. Items 23-29 consisted of the cultural *knowledge* subscale. Similar to findings from Malone et al., the items on the subscale measuring cultural *knowledge*, these items showed high internal reliability (Cronbach’s α = .746); therefore, we used the average responses on these items to create a cultural *knowledge* subscale. The hypothesis that the post- cultural knowledge subscale would be higher than the pre- cultural *knowledge* subscale was supported, *t*(44) = 3.07, *p* = .004, Cohen’s *d* = 0.46. Post-test cultural *knowledge* ratings (M=3.75, *SD* = 0.08) were less than half a point higher (M_{diff} = 0.21 [95% CI: 0.07,0.35]) than pre-test cultural knowledge ratings (M = 3.54, *SD* = 0.08). The difference is shown in Figure 2.
To address the third hypothesis regarding reported change in cultural appreciation from fall to spring, a paired samples t-test was performed. Items 30-35 consisted of the cultural appreciation subscale. Similar to findings from Malone et al., the items on the subscale measuring cultural appreciation, these items showed high internal reliability (Cronbach’s α = .799); therefore, we used the average responses on these items to create a cultural appreciation subscale. On average, ratings during both points in time were high ($M_{T1} = 4.70$, $SD_{T1} = 0.40$; $M_{T2} = 4.76$, $SD_{T2} = 0.32$). Ratings for the pre- and post-cultural appreciation subscales did not differ, $t(44) = 1.19$, $p = .239$, Cohen’s $d = 0.18$. Figure 3 shows that difference ($M_{diff} = 0.06$ [95% CI: -0.04, 0.17]) was negligible.
Figure 3. Average pre- and post- rating of cultural appreciation.

To address the fourth hypothesis regarding reported change in cultural awareness from fall to spring, a paired samples t-test was performed. Items 36-40 consisted of the cultural awareness subscale. Similar to findings from Malone et al., the items on the subscale measuring cultural awareness, these items showed high internal validity (Cronbach’s α = .828); therefore, we used the average responses on these items to create a cultural awareness subscale. On average, during both points in time ratings were high ($M_{T1} = 4.36, SD_{T1} = 0.08; M_{T2} = 4.50, SD_{T2} = 0.07$). The hypothesis that the post- cultural awareness subscale would be higher than the pre- cultural awareness subscale was supported, $t(44) = 2.24, p = .030$, Cohen’s $d = 0.33$. As shown in Figure 4, post-test cultural awareness ratings were slightly higher ($M_{diff} = 0.14 [95\% CI: 0.01, 0.26]$) than pre-test cultural awareness ratings.
To address the fifth research question regarding reported change in overall multicultural competence from fall to spring, a paired samples $t$-test was performed. The previously mentioned items and subscales showed high internal consistency (Cronbach’s $\alpha = .805$); therefore, the subscales were combined to create an overall scale sum score for each participant. On average, ratings at both points in time were high ($M_{T1} = 4.15$, $SD_{T1} = 0.39$; $M_{T2} = 4.27$, $SD_{T2} = 0.36$). The hypothesis that the average post-test ratings would be higher than the average pre-test ratings was supported, $t(44) = 2.96$, $p = .005$, Cohen’s $d = 0.44$. The pre-test ratings were about 1/10th of a point lower ($M_{\text{diff}} = 0.12$ [95% CI: 0.04, 0.20]) than post-test ratings. This difference is displayed in figure 5.
Figure 5. Average pre- and post- ratings of overall self-reported multicultural competence.

Discussion

Summary

The current study aimed to add to the literature on school psychologists’ professional development related to multicultural competence. Specifically, the purpose of this study was to determine the relationship between multicultural professional development and school psychologists’ self-reported multicultural competence. The study tested the expectations that 1) we expected to see changes in school psychologists self-perceived cultural skills from fall to spring after participating in district delivered professional development, 2) we expected to see changes in school psychologists self-perceived cultural knowledge from fall to spring after participating in district delivered professional development, 3) we expected to see changes in school psychologists self-perceived cultural appreciation from fall to spring after participating in district delivered professional development, 4) we expected to see changes in school psychologists self-
perceived cultural *awareness* from fall to spring after participating in district delivered professional development, and 5) we expected to see changes in school psychologists self-perceived overall multicultural competence from fall to spring after participating in district delivered professional development.

Our first hypothesis was regarding whether participants’ had a change in their cultural *skills* from fall to spring. According to Malone (2016), the cultural *skills* composite assessed participant’s perception of their “ability to use skills associated with culturally competent practice” (p. 236). Our first hypothesis was not supported. Ratings during both points in time were high and did not differ from one another.

As defined by Malone (2016) cultural *knowledge* measured a participant’s perception about their “knowledge of culturally appropriate assessment and intervention strategies” (p. 236). Our second hypothesis was whether participants’ had a change in their cultural *knowledge* from fall to spring. This hypothesis was supported with a small to medium effect size ($d = 0.46$).

The cultural *appreciation* composite evaluated participants’ perceptions about their “appreciation of other cultures and their values and norms” (Malone, 2016, p. 236). Our third hypothesis was whether participants’ had a change in their cultural *appreciation* from fall to spring. This hypothesis was not supported and the difference was negligible.

Malone (2016) defined the cultural *awareness* composite as a participant’s perceptions about their “awareness of how culture influences worldview and shapes behaviors” (p. 236). Our fourth hypothesis was whether participants’ had a change in their cultural *awareness* from fall to spring. This hypothesis was supported; however, the effect size was small ($d = 0.33$).
Our fifth hypothesis was whether participants had a change in their overall multicultural competence from fall to spring. This hypothesis was supported with a small to medium effect size (\(d = 0.44\)).

In conclusion, we found support for three out of our five hypotheses with small to medium effect sizes. Specifically, participants reported a change in their cultural knowledge, cultural awareness, and overall multicultural competence from the fall to the spring. Although the effect sizes were not strong, this may be due to a variety of factors such as the small sample size and high ratings overall. In addition, it is possible the PD facilitated by the school district targeted some areas of multicultural competence more than others. However, the researcher was not involved in the development of the PD, and this information is unknown. Past studies researching the impact of professional development on self-reported competence across various areas have found statistically significant findings with high effect sizes. For example, Doherty-Restrepo, Harrelson, Swinnie, and Montalvo (2017) looked at the impact of stimulation-based training on healthcare professional’s ability to conduct cardiovascular screenings. They found statistically and clinically significant findings in the healthcare professionals self-reported confidence (\(\eta^2 = 0.789\)) and competence (\(\eta^2 = 0.952\)) in performing these screenings. Similarly, Kumar, Brand, and Courtois (2019) looked at the impact of trauma centered PD for mental health professionals. They also found that PD had a statistically significant impact on mental health professional’s self-reported knowledge about trauma as well as large effect sizes (Cohen’s \(d = 0.88\)) and confidence/ comfort with trauma (Cohen’s \(d = 0.83\)).
Limitations

While this study adds to our understanding of multicultural competence in school psychologists, there are several limitations. First, there was a relatively small sample size (i.e., 45 school psychologists). Having a larger sample size might help detect smaller effects and potentially provide a wider range of scores. Related to this, participants gave consent to use their surveys only after completing both surveys. It possible that those who felt more comfortable with their cultural competency (i.e., reporting themselves as having more multicultural competence) were the ones who gave consent to use their data in this survey). Third, another limitation is the fact that this study is limited to only one school district. Fourth, this study relies of self-reported perceptions of competence and was not able to evaluate the school psychologists’ ability to apply these new skills. Fifth, since the PD put on in the school district was without involvement from the researcher, it is unknown the exact nature of the PD. For example, we do not know how many people participated in the PD, how many hours of PD participants went to, the exact content of the PD, methods of presenting information, etc. Sixth, this study was unable to use an experimental design, which means there is no way to determine if the PD caused a change in self-reported multicultural competence. The changes found in this study could also be due to confounding variables such as exposure to working with CLD students, or response bias. Last, while the scale created by Malone (2016) is the only current, research-based scale for multicultural competence in school psychologists, it contains limitations. First, all items on the scale are positively reported. Therefore, there may have been a response bias within this study (i.e., social desirability bias). Specifically, participants may have over-reported their multicultural competence. Within the scope of
this paper, this may have also impacted the sensitivity to changes in pre- and post-test scores. Second, as reported by Malone (2016), this scale only evaluates cultural competence for CLD students. This excludes culturally diverse individuals such as sexual orientation, socioeconomic status, etc.

**Future Research**

Future research should attempt to more rigorously evaluate the impact that professional development (PD) has on building multicultural competence. This study found statistically significant differences between the pre- and post-surveys; however, these findings did not have large effect sizes. This may be due to various factors, such as a small sample size and response bias. Therefore, future studies should replicate and extend this study to see if there are similar or different findings. Future research should also look at the maintenance of professional development’s impact of multicultural competence. For example, future studies can re-send out a third survey once the PD has completed (a few weeks or months later) to see if the impact has continued to benefit self-reported multicultural competence. Second, future studies should consider editing and updating the Malone (2016) scale to include both positively and negatively items to prevent social desirability bias. Last, future research can look at the impact PD has on school psychologists’ practice. Within the scope of this study, we relied on self-report; however, future research should consider evaluating the changes in school psychologists’ actual practices and/or behaviors when working with CLD students.

**Implications for Practice**

Past research has documented the disproportionate representation of culturally and linguistically diverse students in special education. The educators working with these
students, namely school psychologists, are in a perfect situation to reduce this disproportionality. However, research has also documented that educators do not feel prepared to work with these populations. The literature is clear in recognizing the need to build multicultural competence in educators. The current study added to that research. Although this study did not find strong effect sizes, there were statistically significant findings. For this reason, practicing school psychologists should consider attending professional development to improve their abilities. In addition, school districts should provide their staff with professional development opportunities to help build multicultural competence.

This study also highlights the need for more research in this area. Little research has addressed the development of multicultural competence in school psychologist, or educators of any nature. In a field that has a high prevalence of culturally and linguistically diverse children, there needs to be more research on this topic. For this reason, it is crucial that future studies and school districts take a data-drive approach to professional development activities. In addition, replications of this study may lead to higher (or lower) effect sizes. The lower effect sizes of this study may be impacted by a lower sample size and overall high ratings on the survey. Past research has documented through the years the disproportionate representation of culturally and linguistically diverse students in special education. However, the educators working with these population (e.g. school psychologists) report not feeling prepared to work with these populations. The literature is clear in recognizing the need to build multicultural competence in educators. The current study added to that research. Although this study did not find strong effect sizes, there were statistically significant findings. For this
reason, practicing school psychologists should consider attending professional development to improve their abilities. In addition, school districts should provide their staff with professional development opportunities to help build multicultural competence.

Conclusions

Overall, this study found some evidence of self-perceived growth in multicultural competence after professional development. Specifically, school psychologists had changes in their cultural knowledge, cultural awareness, and overall multicultural competence from the fall to the spring. These smaller effect sizes may be due to a small sample size and/or high ratings overall. Future studies should attempt to replicate these findings with larger sample sizes to see if there is a difference in clinical significance. In addition, future research should evaluate the impact of professional development on school psychologists’ practices when working with culturally and linguistically diverse students. Finally, educators should continue to participate in all professional development activities with a data-driven approach to determine effectiveness of these activities.
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Life-long learning for psychologists: Current status and a vision for the future.

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Appendix

School Psychologist Self-Reported Multicultural Competence Scale

1. Gender
   ○ Male
   ○ Female
   ○ Other

2. First 3 letters of your mother's maiden name

________________________________________________________________

3. Name of the street you grew up on

________________________________________________________________

4. Race/ Ethnicity
   ○ White
   ○ Black or African American
   ○ American Indian or Alaska Native
   ○ Asian
   ○ Native Hawaiian or Pacific Islander
   ○ Hispanic
   ○ Other/ Multi-racial

5. Speak other languages
   ○ Yes
   ○ No
   ○ No Response
6. School Psychology degree
   - MA/ MS
   - EdS/ CAGS
   - PhD/ PsyD, EdD
   - No Response

7. Currently on internship
   - Yes
   - No

8. Years working as a School Psychologist
   - 0 (on internship year)
   - 1
   - 2
   - 3
   - 4
   - 5+

9. Years working in this school district
   - 0 (on internship year)
   - 1
   - 2
   - 3
   - 4
   - 5+
10. Number of courses taken with a primary focus on multicultural and/or diversity issues in education or school psychology
   ○ 0
   ○ 1
   ○ 2
   ○ 3+

11. Completion of practicum with culturally and linguistically diverse clients
   ○ Yes
   ○ No
   ○ No Response

12. Overall, I consider myself a culturally competent school psychologist
   ○ Strongly agree
   ○ Somewhat agree
   ○ Neither agree nor disagree
   ○ Somewhat disagree
   ○ Strongly disagree

13. I can explain test information to culturally diverse parents
   ○ Strongly agree
   ○ Somewhat agree
   ○ Neither agree nor disagree
   ○ Somewhat disagree
   ○ Strongly disagree
14. I can make culturally relevant curriculum and classroom management recommendations
   ○ Strongly agree
   ○ Somewhat agree
   ○ Neither agree nor disagree
   ○ Somewhat disagree
   ○ Strongly disagree

15. I can effectively assess the mental health needs of a student from a cultural background significantly different from my own
   ○ Strongly agree
   ○ Somewhat agree
   ○ Neither agree nor disagree
   ○ Somewhat disagree
   ○ Strongly disagree

16. When working with linguistically diverse parents and students, I can interpret information obtained through translators
   ○ Strongly agree
   ○ Somewhat agree
   ○ Neither agree nor disagree
   ○ Somewhat disagree
   ○ Strongly disagree
17. I can work with culturally and linguistically diverse children, parents, and school staff
   o  Strongly agree
   o  Somewhat agree
   o  Neither agree nor disagree
   o  Somewhat disagree
   o  Strongly disagree

18. I am skilled in understanding nonverbal communication
   o  Strongly agree
   o  Somewhat agree
   o  Neither agree nor disagree
   o  Somewhat disagree
   o  Strongly disagree

19. I am skilled in terms of being able to provide appropriate intervention services to culturally diverse students
   o  Strongly agree
   o  Somewhat agree
   o  Neither agree nor disagree
   o  Somewhat disagree
   o  Strongly disagree
20. I can effectively secure information and resources to better serve culturally diverse students and families

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

21. I am skilled in implementing home-school collaboration programs and interventions

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

22. I can recognize prejudice and prevalent obstacles that may affect consultation

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree
23. I have knowledge of research on assessing culturally and linguistically diverse children
   ○ Strongly agree
   ○ Somewhat agree
   ○ Neither agree nor disagree
   ○ Somewhat disagree
   ○ Strongly disagree

24. I know how to adapt instruments to assess linguistically diverse students
   ○ Strongly agree
   ○ Somewhat agree
   ○ Neither agree nor disagree
   ○ Somewhat disagree
   ○ Strongly disagree

25. I am knowledgeable of evidence-based intervention strategies used with culturally and
linguistically diverse students
   ○ Strongly agree
   ○ Somewhat agree
   ○ Neither agree nor disagree
   ○ Somewhat disagree
   ○ Strongly disagree
26. I know how to use alternate assessment methods such as dynamic assessment and ecological assessment
   ○ Strongly agree
   ○ Somewhat agree
   ○ Neither agree nor disagree
   ○ Somewhat disagree
   ○ Strongly disagree

27. I am knowledgeable of effective assessment strategies used with culturally and linguistically diverse students
   ○ Strongly agree
   ○ Somewhat agree
   ○ Neither agree nor disagree
   ○ Somewhat disagree
   ○ Strongly disagree

28. I am knowledgeable of the most effective consultation strategies used with culturally and linguistically diverse students
   ○ Strongly agree
   ○ Somewhat agree
   ○ Neither agree nor disagree
   ○ Somewhat disagree
   ○ Strongly disagree
29. I understand the process of second language acquisition and its impact on the acquisition of academic skills

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

30. I am aware that members of cultural groups may have different attitudes towards disabilities or exceptionalities

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

31. I respect and appreciate socioeconomic and cultural background of a child and his/her family

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree
32. It is important to integrate cultural and language background of a student into a psychoeducational report
   - Strongly agree
   - Somewhat agree
   - Neither agree nor disagree
   - Somewhat disagree
   - Strongly disagree

33. I know that cross-cultural variables may affect performance on and interpretation of standardized assessments
   - Strongly agree
   - Somewhat agree
   - Neither agree nor disagree
   - Somewhat disagree
   - Strongly disagree

34. I consider sociocultural variables and perspectives when evaluating research
   - Strongly agree
   - Somewhat agree
   - Neither agree nor disagree
   - Somewhat disagree
   - Strongly disagree
35. I understand the need to retain one’s cultural identity
   o  Strongly agree
   o  Somewhat agree
   o  Neither agree nor disagree
   o  Somewhat disagree
   o  Strongly disagree

36. I understand how my cultural background has influenced the way I think and act
   o  Strongly agree
   o  Somewhat agree
   o  Neither agree nor disagree
   o  Somewhat disagree
   o  Strongly disagree

37. I am aware of how culture impacts learning and behavior
   o  Strongly agree
   o  Somewhat agree
   o  Neither agree nor disagree
   o  Somewhat disagree
   o  Strongly disagree
38. I can discuss how culture influences parenting practices
   ○ Strongly agree
   ○ Somewhat agree
   ○ Neither agree nor disagree
   ○ Somewhat disagree
   ○ Strongly disagree

39. I have a sense of the values, strengths, and limitations of my own culture
   ○ Strongly agree
   ○ Somewhat agree
   ○ Neither agree nor disagree
   ○ Somewhat disagree
   ○ Strongly disagree

40. I can accurately compare my own cultural perspective to that of a person from another culture
   ○ Strongly agree
   ○ Somewhat agree
   ○ Neither agree nor disagree
   ○ Somewhat disagree
   ○ Strongly disagree