Spring 2021

Self-Reported Multicultural Teaching Knowledge and Skills of School Professionals

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Self-Reported Multicultural Teaching Knowledge and Skills of School Professionals

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May 24th, 2021

Abstract

Diverse learners face a variety of challenges, such as achievement gaps, behavior problems, and absenteeism. Therefore, it is important for their educators to have both multicultural teaching knowledge and skills to address these challenges and work towards a successful school experience for all students. Although research has sought to measure the cultural competence of teachers, not many studies have examined cultural competence in other school professionals (administrators, school psychologists, social workers, interventionists, instructional assistants, and other individuals who directly work with students in the school environment). In the current study, 185 teachers and other school professionals completed an adapted version of the Multicultural Teaching Competency Scale (MTCS). The MTCS includes a total score as well as two sub-scores (multicultural teaching knowledge and multicultural teaching skills). The average total MTCS score was 73.2 out of 96 for teachers and 72 out of 96 for other school professionals, indicating that most participants surveyed reported having adequate multicultural teaching knowledge and skills. There was no significant difference between the scores of teachers and other school professionals. However, results suggested that participants who completed their training 0-5 years ago scored significantly higher on the total MTCS and the multicultural teaching knowledge sub-score than those who completed their training 11 or more years ago. Implications and future directions are discussed.

Keywords: cultural competence, culture, diverse learners, measures of cultural competence, multicultural teaching, school professionals, teacher training

Acknowledgements

I would like to thank my thesis chair, Dr. Haile Mariam, for her constant support and guidance throughout my thesis. Despite the challenges posed by the COVID-19 pandemic, she was always there for me to answer questions and share her wisdom. I would also like to express my gratitude to my thesis committee members, Dr. Floress and Dr. Bernas, for their valuable feedback on my work and for offering ideas that would improve my study. Finally, I am incredibly thankful for my family and friends who also supported me in this process.

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Introduction

One of the many factors that all educators should consider is the contextual experience of their students, such as culture, and the impact it has on their education. Culture can be broadly defined as "A unique meaning and information system, shared by a group and transmitted across generations, that allows the group to meet basic needs of survival, pursue happiness and well-being, and derive meaning from life." (Matsumodo & Juang, 2017, p. 8). Culture is a contextual experience that both students and educators bring to the learning environment. Past research (Byrd, 2016; Cabello & Burstein, 1995) has highlighted the importance of this topic and called for more studies related to what schools can do to give students from all cultures a positive academic experience. The primary purpose of this study is to understand school professionals' knowledge and skills related to the role of culture in teaching and learning interactions to inform appropriate professional development, if indicated.

In this study, school professionals are those who regularly work with students in a school setting, such as administrators, regular and special education teachers, paraprofessionals, interventionists, school psychologists, social workers, and occupational/physical therapists. In addition, for the purpose of this study, multicultural knowledge/teaching skills, cultural competence, and culturally responsive teaching are used interchangeably. In the following paragraphs, societal changes and challenges that impact diverse learners and necessitate further investigation of the relationship between culture and learning experiences are discussed.

Demographic Shift and Related Adaptation Needs

According to census data, populations of racial and ethnic minorities in the U.S. have been rising faster than the population of White Americans (U.S. Census Bureau, 2017). The phrases "melting pot" or "tossed salad," although often well-intentioned and presented as an attempt to express the diversity of the nation, run the risk of lumping people together and minimizing the importance of each individual culture and what it can offer (Samovar et al., 2011). On the other hand, as discussed below, the teaching profession is not as diversified as the country.

Student and Teacher Demographics. Public schools in the U.S. tend to reflect the country's population. According to the National Center for Education Statistics (2019), significant changes in racial and ethnic distributions in public schools have occurred in recent years. Between 2000 and 2015, the percentage of White students enrolled in public schools decreased from 61% to 49%, and the enrollment of Black students dropped from 17% to 15%. However, the percentage of Hispanic students increased from 16% to 26% and Asian/Pacific Islander enrollment also increased from 4% to 5% during the same period. Data suggest that these trends will continue and student populations will continue to become more diverse (National Center for Education Statistics, 2019).

With an increasingly diverse student population, the need to consider impact of culture on learning will continue to be a topic of concern in the school systems. In addition, it is just as important to understand the demographic makeup of the educators who come into contact with the students, especially administrators and teachers. Research shows that there is a significant and persistent mismatch between student and teacher race and ethnicity. Even though the percentage of racial/ethnic minority children in public schools is growing, only a small portion of

their teachers are racial/ethnic minorities (Bitterman et al., 2013). Data collected by the U.S. Department of Education (2016) revealed most elementary and secondary educators (about 82%) were White. This trend holds true for educational leaders and administrators, as only 20% of public school principals were individuals of color. Additionally, White teachers had higher retention rates than their Black and Hispanic counterparts. Addressing this mismatch can be an important step to ensuring the success of all students.

Children are put at a disadvantage when their educators do not consider their culture or do not understand the role cultural context plays in learning. For example, the majority culture in the U.S. has different basic values from the various cultures that exist alongside it. One basic difference that students encounter in their education is the value placed on individual achievement versus group achievement. Cross-cultural psychologists often focus on this key difference, as it impacts how individuals see the world and conceptualize their relationships with others. In an individualistic culture, like the dominant U.S. culture, assertiveness and individual achievement is admired. According to this orientation, the child is seen as an individual and is taught to be independent. Competition between individuals is accepted and often encouraged. In more collectivistic cultures (e.g., Japan, China, India), relatedness and group achievement is valued over individual achievement. Group success is emphasized and the child is viewed as part of a family. The child is taught that helpfulness and interdependence are necessary (Triandis, 1989). Moreover, collectivistic cultures promote adherence to social norms, respect for authority, and group consensus (Trumbul et al., 2000).

U.S. schools, although filled with diverse learners, reflect the individualistic views of the dominant culture. Schools are environments where the dominant culture is the norm and the norms of the dominant culture values are practiced. This can cause difficulty for students who do

not identify with that dominant culture. When a student from a collectivistic culture is placed in a school system that values individualism, conflict may occur as a result of the hidden values and assumptions. This conflict can manifest itself in different ways in the classroom. For example, a student who is from a collectivistic culture may try to help another student on a task instead of working independently, which could be construed as cheating (McLeskey et al., 2010). Additionally, because competition is not emphasized in collectivistic cultures, students from those cultures often perform poorly when forced to compete with other students (Faitar, 2006). As a result, they may be viewed by their educators and peers as less assertive and independent, which is seen as a deficit in the dominant U.S. culture. Ignoring the role of culture in education may contribute to negative consequences for culturally diverse students, such as achievement gaps, behavior problems, and absenteeism.

Achievement Gaps. As stated above, the role of culture in education may lead to negative consequences for students. For example, achievement gaps have been a concern in schools for many years. The National Center for Education Statistics (2019) states that, "achievement gaps occur when one group of students (grouped by race/ethnicity, or gender) outperforms another group and the difference in average scores for the two groups is statistically significant (that is, larger than the margin of error)." Achievement gaps have been observed in different groups of students, and one of the more apparent gaps can be seen in the performance of English Language Learners (ELL) when compared to their English-speaking peers.

English Language Learners are identified as "students who are unable to communicate fluently or learn effectively in English, who often come from non-English-speaking homes and backgrounds, and who typically require specialized or modified instruction in both the English language and in their academic courses" (The Glossary of Education Reform, 2013). English

Language Learners often come from different cultures than their teachers and most of their classmates, which can make it difficult for them to succeed in the classroom and cause them to feel like outsiders (Alsubaie, 2015). Data from the U.S. Department of Education (2021) shows that 77.8% of ELL students are Hispanic, 10.7% are Asian, 3.6% are Black, and 5.9 % are White.

Eighth grade mathematics measures show that ELL students lag significantly behind non-ELL students in almost every state (Murphey, 2014). Another example comes from California, a state with one of the highest populations of ELL students. In 2004, only 10% of ELL students passed the Language Arts portion of the California Standards Test (Murphey, 2014). States usually have rigorous academic requirements when it comes to comprehension and test scores, and ELL students may not be absorbing enough information to meet these requirements. Lack of success on state assessments causes problems for ELL students when it comes to graduation, secondary education, and eventually, future employment. Further, because of their lower achievement, ELL students have a long history of being wrongly placed in special education programs and identified as having learning disabilities (Xu et al., 2007). Dray (2008) found that referrals for special education for Spanish-speaking students were disproportionately higher when compared to their English-speaking peers, and this was especially true in schools that did not provide the students with sufficient home language supports. On the other hand, ELL students who may actually require additional supports can be overlooked, as educators may not know whether their academic issues are a result of a true disability or a language barrier. Other times, when they are being evaluated, the person administering the assessment may only have access to commercially available instruments that are written for English-speaking students (Espinosa, 2010).

Behavior Problems. Aside from academic outcomes, cultural mismatch may contribute to students' behavior at school. Behavior problems and limited social interaction skills have been observed in ELL students (Xu et al., 2007). Teachers of dual language learners, for example, have often reported that ELL children exhibit challenging behaviors. It is possible that some of the challenging behaviors may be the result of frustration due to limited English proficiency, inability to communicate effectively, and inability to develop peer relationships. In addition to the language barriers, these children often face structural challenges, such as poverty (and related stress), immigration-related problems, and the overall unfamiliarity with the dominant culture (Nemeth & Brillante, 2019). Commonly reported behavior problems in these populations include aggression, frustration, refusal to eat, toileting accidents, self-injurious behavior, withdrawal, mutism, ignoring directions, refusing to participate, and much more. In general, students who are not part of the majority culture may also face discrimination, which has a negative impact on their development and behavior.

Marcelo and Yates (2018) found that children as young as seven years old who had experienced discrimination were more likely to later display both internalizing and externalizing behavior problems, such as anxiety, depression, and oppositionality. However, a well-developed ethnic-racial identity (beliefs and attitudes individuals have about their ethnic/racial groups) appears to be a protective factor. Students with a well-developed ethnic-racial identity were not as negatively affected by discrimination as students with a below-average ethnic-racial identity. Additionally, teachers may be able to manage undesirable behaviors and increase students' academic engagement by implementing culturally relevant behavior plans (Fallon et al., 2018). Keeping this information in mind, we must examine whether school professionals understand the

contributing factors to behavior problems that diverse students show and whether they enable students to develop adaptive behaviors.

Absenteeism. A student's race or culture can be a predicting factor of how likely that student is to have chronic absenteeism from school. The U.S. Department of Education (2019) defines chronic absenteeism as a student missing more than 15 days in one school year. The number of students who were chronically absent during the 2015-2016 school year rose to 7 million students, which is about 16% of the student population, or 1 in 6 students. These students face the risk of falling significantly behind in school. This has been called a hidden educational crisis by experts (U.S. Department of Education, 2019). Data revealed that American Indian and Pacific Islander students were over 50% more likely to miss at least three weeks of school during the academic year when compared to their White peers. Black students were 40% more likely to miss at least three weeks. Hispanic students were 17% more likely to miss at least three weeks of school (U.S. Department of Education, 2019).

Researchers have attempted to discover why some students are more likely to miss school than others. However, there is not just one, simple answer to this question. It is likely that the absenteeism rates come from several different factors that are more prevalent in disadvantaged communities, such as poor health, limited transportation, and a lack of safety. Additionally, students may be frustrated with school if their educational needs are not being met, resulting in apathy for school. Unfortunately, chronic absenteeism can have an impact on students' lives far into the future. In early grades, chronic absenteeism can result in students not being able to read at grade level. This has long-lasting consequences—a reading gap is much harder to close after the student finishes third grade (Weyer, 2018). Absenteeism rates have also been linked to higher dropout rates. Once students drop out of school, they are more likely to experience challenges

like poverty, diminished health, and involvement in the criminal justice system as adults (U.S.

Department of Education, 2019), which are some of the same factors that contribute to student

absenteeism in the first place. This cycle will likely continue if the problem is not addressed.

Teacher Stress. Because diverse learners have unique educational, social, and

psychological needs, their teachers are often faced with challenges and stressors in their efforts

to support their students. Teacher stress occurs when teachers experience negative emotions

resulting from some aspects of teaching (Sandilos et al., 2018). It has been suggested that the

difficulties associated with teaching culturally and linguistically diverse students can lead to

diversity-related teacher burnout that is empirically distinguishable from general teacher burnout

(Gutentag et al., 2018). Also, teachers who feel inadequate or as if they are not equipped to

perform their duties experience higher levels of stress (Prilleltensky et al., 2016). Therefore,

when teachers of diverse learners are faced with the challenge of educating students with these

additional needs, they may be at risk for stress and burnout. This, in turn, has the potential of

negatively impacting the teacher-student relationship and can influence students' social

adjustment, academic competence, and stress levels (Mashburn et al., 2008; Raver et al., 2016).

Regarding the education of diverse learners, it is necessary to consider that teachers who are not

equipped with the proper knowledge, skills, or resources regarding culturally competent teaching

experience higher levels of stress and burnout. Assessing the multicultural knowledge and skills

of school professionals can inform potential training.

The above-discussed factors (achievement gaps, behavior problems, absenteeism, and

teacher stress), show a handful challenges that diverse learners and their educators face. Students

bring their culture to school, whether this is done consciously or not. The culture they bring to

school encompasses their whole lives: the values and beliefs learned from their families, their

unique cultural practices, and various languages and communication styles (HaileMariam, 2013).

Therefore, it can be argued that it is the ethical and professional responsibility for school staff,

especially teaching professionals, to be prepared to consider these students' worldview in their

teaching and learning interactions.

Theoretical Framework

The cultural aspects outlined by Clayton (2003) reiterate the importance of culture in the

classroom. Culture is pervasive, meaning that cultural forces impact all areas of a student's life.

This can be seen in various forms in the classroom, including but not limited to, attitudes towards

the classroom teacher, attitudes about asking for help, and interactions with peers. It is also

crucial to acknowledge that culture is shared. Smaller cultures and communities are often formed

within larger cultures. The underlying beliefs and assumptions that make up an individual's

culture are understood within a context. Therefore, the same behavior or occurrence in one

culture may mean something completely different in another. Culture is also learned; students are

not born with a sense of their culture. Instead, information is transmitted to them from the people

and contexts that surround them from birth. This includes communication (both verbal and

nonverbal), the hierarchy of family and society, and moral principles. In the context of schools,

educators may have assumed and expected behaviors that are different from those that diverse

learners have been previously taught. Culture is usually not explicitly discussed among its

members and people may not notice the nuances of their culture until they come into contact

with something or someone who is not congruent with their own cultural beliefs. Additionally,

culture changes over time. What was once seen as the norm or expected behavior of a culture

does not necessarily hold true in the present. Because of these characteristics of culture, it is an

essential part to the individual's identity, and it serves as a lens through which to see the world

(Clayton, 2003). With this backdrop, the cultural difference theory is the foundation for understanding how a student's culture plays various roles in education.

Cultural Difference Theory. The cultural difference theory emphasizes that students from different cultural settings approach education in different ways that do not necessarily match the dominant culture of their educational setting. The theory also builds on Jean Piaget's thoughts that learning is a result of a transfer of information from prior learning and experiences (Beilin, 1992). When looking at this through the lens of culture, teachers may be able to educate diverse learners more effectively if they consider their previous knowledge and the values that they have already acquired from their culture. Proponents of the theory attempt to analyze the elements of a person's culture to gain a better understanding of that person's life. Erickson (1987) described that struggles between teachers and students come from "inadvertent misunderstandings" and that teachers and students were "playing into each other's cultural blind spots."

The cultural difference theory has been applied in research studies to illustrate the impact of culture on education. For example, Susan Philips studied the education problems faced by students from the Warm Springs Indian Reservation who attended Anglo middle-class schools. The children had problems with comprehending what was being communicated by their teacher and they struggled to pay attention. They also did not talk in the classroom as frequently as their Anglo peers. Philips traced some of these behaviors back to critical components of the Native American children's culture, especially the implicit values associated with attention structure and turn-taking (e.g., she noted that Native American speakers, when compared to the children's classroom teachers, used limited body movements and less gaze, spoke quieter, and spoke at a slower pace; Philips, 1999). To promote an inclusive environment for students, the cultural

difference theory supports the idea that teachers should understand the role of culture in learning. If so, given that the majority of teachers are from the dominant culture (82%, U.S. Department of Education, 2016), how do they become culturally competent? It is logical to think that teacher education programs have assumed this responsibility.

Teacher Education

Despite the increasing number of multicultural students in the U.S., many educators are not given adequate training or strategies regarding key cultural issues, including those of race and class (Samuels, 2014). Gay (1993) suggested that teachers' knowledge about cultural diversity should be acquired through studying research on various cultural groups as well as obtaining first-hand experiences through observations and working with cultural groups. For example, pre-service teachers can partner with ELL teachers to gain cross cultural experiences and improve their ability to work with diverse learners (Keengwe, 2010). Creating a climate of expanded cultural knowledge and inclusiveness is important, as teachers' preparedness in this matter has the potential to increase positive student outcomes (National Center for Education Statistics, 1999).

Gallavan (2007) suggested that, "The process of developing cultural competence involves incorporating awareness of and sensitivity to our own thoughts, words, actions, and interactions related to culture in both formal and informal settings and expressions from other individuals" (p.9). Teachers sometimes find it difficult to discuss sensitive topics related to diversity and may not recognize how their own perspective shapes student-teacher interactions (Van Hook, 2002). Past research has attempted to assess the preparedness of teachers (both pre-service and in-service) to teach in diverse settings by examining their beliefs. This has included reflecting on their exposure to students from diverse groups as well as exploring their beliefs about individuals

from these groups. Terrel and Marck (2000) investigated the expectations of pre-service teachers regarding school settings with racially and linguistically diverse students. Most respondents were White and reported low comfort and safety levels associated with more diverse schools. Additionally, this study revealed that the teacher candidates had little experience teaching minority children and preferred to teach in mostly White suburban schools.

In response to the issue discussed above, some colleges and universities have attempted to create more opportunities for pre-service teachers to improve their skills and attitudes related to teaching diverse learners. Whitaker and Valtierra (2018) conducted a two-year, mixed-method case study on a teacher preparation program to study the motivation of the teacher candidates to teach culturally and linguistically diverse learners. During the study, diversity and inclusion were a top priority in the teacher education program, resulting in courses and student outcomes being redesigned to emphasize inclusive pedagogy and multicultural education. At the end of their program, the candidates experienced statistically significant changes in self-confidence for teaching diverse learners, self-efficacy for culturally responsive pedagogy, perception of value of multicultural teaching, and interest in teaching diverse students.

Aside from working with culturally diverse individual students, teachers should be prepared to work with diverse families as well. This notion comes from the decades-long belief that parents and teachers need to collaborate to support student development and learning, as children are influenced by the multiple systems that surround them (Bronfenbrenner, 1986). Teacher-parent collaboration can be challenging enough when the two parties share a culture, so this task can become even harder when their backgrounds are completely different. Therefore, factors like parent involvement, teachers' awareness of cultural beliefs and practices, the understanding of culture's impact on education, and planning culturally responsive instruction all

play into the big picture of educating diverse learners. This process can be difficult for families,

especially those who do not belong to the dominant culture of the school. The majority of

immigrant parents, for example, are not familiar with the United States school system (Gerena,

2011). In some cultures, the idea of parent-school collaboration is foreign. Students whose

parents are not involved in the school system may be seen more negatively by school

professionals. Also, their children may feel different than their peers whose parents are more

involved. To empirically assess teachers' knowledge and perceptions about communicating with

the families of diverse learners, a survey was distributed to 40 teachers who taught grades Pre-K

through 5th grade. Participants reported several reasons for why they believed parent involvement

is sometimes insufficient: other parental time commitments, difficulty in comprehending the

English language, educational constraints, and parents' difficulty of understanding the school

culture. Being aware of these challenges is necessary to move towards a school climate where all

students and families feel appreciated and respected. In general, an effective teacher education

program that strives to teach cultural competence should also strive to not only instill culturally

responsive teaching but also culturally responsive parent involvement. Further, teacher educators

should emphasize that socioeconomic status, language, as well as other cultural components play

a large role in learning (Smolcic & Katunich, 2017).

Culturally Responsive Teaching. Cultural competency is a valuable professional skill in

the field of education. It is defined as "a set of congruent behaviors, attitudes, and policies that

come together in a system, agency or among professionals and enable that system, agency or

those professionals to work effectively in cross-cultural situations" (Cross et al., 1989). Those

who possess it are able to understand, appreciate, and interact with people from various cultures,

especially those different from their own (DeAngelis, 2015). In education, this skill has been

manifested as culturally responsive teaching. Institutions have aimed to give pre-service teachers experiences in culturally diverse settings in to better prepare them for addressing the needs of a multicultural classroom. Culturally responsive teaching aims to emphasize the importance of culture in education by incorporating cultural references into learning. Gay (2002) identified five essential elements of culturally responsive teaching, which aims to teach culturally diverse students more effectively by considering their cultural characteristics, experiences, and perspectives. Teachers can do this by developing a knowledge base about cultural diversity, including ethnic and cultural diversity content in the curriculum, demonstrating caring and building learning communities, communicating with ethnically diverse students, and responding to ethnic diversity in the delivery of instruction (Gay, 2002). Similarly, Villegas and Lucas (2002) offered a vision of culturally responsive teaching that incorporated sociocultural consciousness, having affirming views of students from diverse backgrounds, accepting responsibility for change to make schools more equitable, understanding how learners construct knowledge, knowledge about students' lives, and instruction that builds on what students already know. The National Education Association (2020) lists several practices and beliefs that reflect culturally competent teaching, including diversifying pedagogical practices, incorporating contributions of racial and ethnic minorities into the curriculum, and viewing cultural competence as an ethical responsibility.

Similarly, multicultural education is a school reform movement that arose from the civil rights movement of the 1960's and 1970's and promotes ideas related to culturally responsive teaching. The five dimensions of multicultural education as explained by Banks (2012) are content integration, the knowledge construction process, prejudice reduction, equity pedagogy,

and empowering school culture and social structure. The five dimensions are defined in Table 1,

below.

Table 1.

Five Dimensions of Multicultural Education (Banks, 2012)

Dimension	Definition
Content Integration	Incorporate examples and content from a diverse variety of cultural groups
Knowledge Construction Process	Implement activities and ask questions that promote understanding of how cultural perspectives influence how knowledge about culture is created
Prejudice Reduction	Implement strategies that promote democratic values and reject attitudes that hinder multicultural education
Equity Pedagogy	Modify teaching/instruction to facilitate achievement of all student groups
Empowering School Culture and Social Structure	Promote the idea that the school is a complex social system; all parts must be involved for meaningful change to occur

The *content integration* dimension encourages teachers to diversify their instruction by

incorporating content from a variety of cultural groups. For example, when selecting texts to

present to the class, a teacher can include authors and topics that represent a variety of cultural

experiences and viewpoints. Through the *knowledge construction* process, teachers ought to

implement activities and present questions about how cultural perspectives and biases impact the

ways in which we think and learn about culture. This can be done by asking students to think

about experiences and beliefs they possess and how this differs from the viewpoints of others.

The *prejudice reduction* dimension encourages teachers to employ strategies that align with

democratic values and attitudes, as well as to avoid any strategies, attitudes or beliefs that may

hinder multicultural education. For example, teachers should ensure that the opinions of all

students are heard and respected, even if they do not align with the dominant culture. The *equity pedagogy* dimension, which is most aligned with the concepts outlined for culturally responsive teaching, has to do with teachers modifying their teaching to facilitate the achievement of all student groups, including students from diverse racial and cultural backgrounds. In other words, different students may require different kinds of instruction, so teachers should pay attention to these differences and respond accordingly. Lastly, with an *empowering school culture* and social structure, educators recognize that the school as a complex social system. As a result, all parts of the system must be reconstructed to produce any effective reform. Educators need to look at all the systems that a student functions in, analyzing the classroom environment as well as the larger system of the whole school, district, and community (Banks, 2012). Ideally, teacher education programs should provide teacher candidates with knowledge and skills that reflect these five components.

Cultural Competence of Other School Professionals

Although it is important to monitor and increase the cultural competence of classroom teachers, it is also crucial to consider the other school professionals that students interact with in the school environment. To create a culturally competent school, all stakeholders should be involved in educating diverse students (Lee, 2001; Simcox et al., 2006). School psychologists, for example, are expected to support inclusive educational environments and promote cultural competence in all areas of school psychology service delivery (National Association of School Psychologists, 2019). This includes improving their cross-cultural communication as well as ensuring that consultation, intervention, and assessments are appropriate to meet the needs of students and families. Rogers (2006) examined school psychology training programs which focused on multicultural training and found that these programs incorporated several useful

practices, such as providing courses that address multicultural issues or increasing faculty and student diversity through specific recruitment practices.

Building multicultural competencies has been identified as an area of growth for school counselors as well (Alexander et al., 2005). School counselors need to be prepared to work with a diverse population of students. Holcomb-McCoy (2004) outlined nine cultural competence categories for school counselors to incorporate into their practice. These include multicultural counseling, multicultural consultation, understanding racism and student resistance, multicultural assessment, understanding racial identity development, multicultural family counseling, social advocacy, developing school-family community partnerships, and understanding cross-cultural interpersonal interactions. To be prepared for counseling diverse learners, Holcomb-McCoy (2004) argued that continuous self-evaluation is important.

Several other school-related professions have emphasized the need for practitioners to possess the necessary cultural competencies to work with diverse populations. This includes social workers (Garran & Werkmeister-Rozas, 2013), occupational therapists (Wray & Mortenson, 2011), physical therapists (Hayward & Charrette, 2012), speech-language pathologists (Guiberson & Atkins, 2012), and school principals (Hernandez & Kose, 2012), to name a few. Despite the efforts of training institutions and programs, it is not known whether various school professionals have mastered culturally responsive teaching. Therefore, assessing both the multicultural knowledge and skills of these individuals could provide useful information about areas of strength and growth for the various school professionals involved in the education of diverse students.

Assessment of School Professionals' Multicultural Teaching Competency

Despite the need for assessing educators' cultural competence to successfully work with diverse populations, there are limited measuring tools. Several of the currently available instruments focus on pre-service teachers, which does not always reflect the knowledge or skills of teachers who have been in the field longer. An early attempt to measure the self-reported multicultural awareness and sensitivity of teacher candidates was the Teacher Multicultural Attitude Survey (TMAS). This 20-item scale was developed by Ponterotto et al. (1998). The instrument was used in several replications. For example, it was used as a pre and post-test to determine whether an entry-level teacher education course had an impact on pre-service teachers' multicultural attitudes (Szabo & Anderson, 2009). Another application (Cho & Cicchelli, 2012) compared the multicultural attitudes of pre-service teachers in urban settings to those in suburban settings.

Patel (2017) created an instrument, the Educators Scale of Student Diversity (ESSD), with the goal of measuring educators' cultural competency. The 22-item scale used four subscales: Race and Bias, Culturally Responsive Instruction, Sociopolitical Context, and Diversity in Education and was able to reliably and validly measure educators' cultural competence. The study used an Exploratory Factor Analysis to develop the four subscales. Reliability measures showed that Cronbach's alpha for the entire instrument was .88, which was higher than the suggested minimum of .70.

Prior to Patel, Boyd (2003) surveyed pre-service and in-service teachers to explore how multicultural competency was used in the classroom. Twelve in-depth case studies were analyzed and combined with data from two survey instruments, the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) and the Multicultural Education & Cultural Competency

Assessment (MECCA; Boyd, 2003). The author looked at three major components: knowledge and skills for multicultural education, teacher attitudes/beliefs/expectations, and awareness of teachers' own racial and/or ethnic identity. Results indicated that most teachers had minimal knowledge of multicultural education approaches, and it was suggested that factors including high expectations, empathy, empowerment strategies, and racial consciousness may help teachers develop higher levels of multicultural competency.

As discussed above, it is necessary for all school professionals to develop cultural competence. The Quick Racial and Ethical Sensitivity Test (Quick-REST) was developed by Sirin et al. (2010). This is a video-based measure that aims to evaluate school professionals' sensitivity towards instances of racial intolerance that occur in schools. Participants who completed this instrument included teachers, administrators, psychologists, coaches, and other student teachers. Additionally, The School Psychology Counseling Competency Scale (Rogers & Ponterotto, 1997) has been used to assess the cultural competency of school psychologists. However, there is a need for an updated specific measurement tool that measures the cultural competence of school psychologists (Malone, 2010). Moreover, there is a lack of recent research studies that assess the cultural competence of different individuals in the school system who interact with diverse learners.

Multicultural Teaching Competency Scale. Spanierman et al. (2010) developed the Multicultural Teaching Competency Scale (MTCS), a 16-item scale that included two factors: multicultural teaching knowledge and multicultural teaching skills. The authors differentiated between the multicultural teaching knowledge and multicultural teaching skills. Multicultural teaching knowledge was defined as "knowledge of culturally responsive pedagogy and instructional strategies related to diverse populations, major sociohistorical and sociopolitical

realities, and the cultural dynamics that may affect between- and within-group differences," and

multicultural teaching skills as the "ability to (a) actively select, develop, implement, and

evaluate strategies that facilitate the academic achievement and personal development of all

students; (b) select and implement culturally sensitive behavioral management strategies and

interventions; and (c) participate in ongoing review and evaluation of school policies,

procedures, and practices with regard to cultural responsiveness" (Spanierman et al., 2010,

p.445). Results of an exploratory factor analysis suggested that the two-factor, 16-item scale was

appropriate. This was then confirmed by a confirmatory factor analysis. This scale was originally

administered to both pre-service and in-service teachers, and it was found to be related to

measures of racism awareness and multicultural teaching attitudes. The authors suggested that

the MTCS may be used in a variety of ways to measure self-reported multicultural skills and

knowledge, including assessing whether teacher training programs are effectively preparing

teachers for working with diverse learners or using the scale in the field to provide baseline data

about teachers to be evaluated by administrators.

Kucuktas (2016) used the MTCS to measure higher educators' self-reported multicultural

teaching ability at a four-year public institution and found that educators who were more

involved in multicultural activities rated themselves as being more culturally competent than

those who were less involved in multicultural activities. Harrison et al. (2010) administered the

MTCS to physical education teachers in an attempt to compare the cultural competence of

teachers of color compared to White teachers and to examine differences in self-reports between

White teachers in diverse school settings compared to those in more racially homogenous

schools. Results indicated that teachers of color scored higher in multicultural teaching

knowledge and skills.

The current study adapted the MTCS to collect similar data about a variety of school professionals. This scale was selected for a variety of reasons. First, the psychometric properties of the MTCS are strong. As mentioned previously, exploratory and confirmatory factor analyses supported the 16-item, two-factor structure. The scale demonstrated adequate internal consistency and the authors were able to show through correlations that the scale was related to measures of racism awareness and multicultural teaching attitudes (Spanierman et al., 2010). Because the scale consists of only 16 items, it can be easily adapted into an online survey format that does not require participants to spend much time on answering questions. Further, the scale can be easily adapted to reflect the multicultural teaching knowledge and skills of various school professionals, as most items did not require modification to apply to other school professionals. It was determined that this would be the most appropriate scale to use for the current study and that the overall scale score, as well as the two factor scores, would provide valuable information regarding multicultural knowledge and skills of various school professionals. Although other studies have studied these factors when measuring teachers' competence, there is a lack of research when it comes to other school professionals, who also interact with students and should therefore possess multicultural knowledge and skills as well. Moreover, the current study begins to fill this gap in research by including individuals such as school psychologists, school counselors, social workers, instructional assistants, and administrators in the assessment of multicultural teaching knowledge and skills. The MTCS was adopted with permission from the creator and it is discussed in more detail in the Methods section.

Current Study

The foregoing summarized the wide range of challenges that diverse learners' (e.g., English Language Learners, ethnic/racial minorities, immigrant children) and their educators

face that significantly impact their education. Previous research has revealed that not all teachers receive adequate training to work with diverse populations and they are not adequately prepared to help students succeed in school. This often results in achievement gaps, behavior problems, absenteeism, and school dropout for culturally diverse students, along with teacher stress and burnout. Thus, educators should develop multicultural teaching knowledge and skills that can help them understand, educate, and form positive relationships with diverse learners, and reduce stress and burnout for themselves.

As a reminder, in this study, a school professional is defined to include professionals like administrators, regular and special education teachers, paraprofessionals, interventionists, school psychologists, social workers, counselors, and occupational/physical therapists. These individuals need to have cultural competence to work with diverse students as well as to create a school wide support system. Therefore, the purpose of the current study is to gain information about the cultural competence of a variety of school professionals that diverse learners encounter in their educational experiences using the Multicultural Teaching Competency Scale (MTCS). The following research questions were examined:

1. Will participating school professionals score low on multicultural teaching knowledge and skills? It is hypothesized that most participants will not show mastery of multicultural teaching knowledge and skills, as the literature on this topic shows that educators are often unprepared to work with diverse learners (Boyd, 2003; Harrison et al., 2010; Samuels, 2014; Whitaker & Valtierra, 2018).

2. When compared to teachers (regular and special education teachers), how will other school professionals (i.e., interventionists, school psychologists, social workers, and occupational/physical therapists, etc.) score on self-reports of multicultural knowledge

and skills? No hypothesis is made about the multicultural teaching and skill of other school professionals when compared to classroom teachers, as there has not been enough literature on this topic.

3. Will school professionals who completed their training more recently score significantly higher on multicultural teaching knowledge and skill than those who completed their training longer ago? There is not enough literature about the relationship between the time of receiving training and level of cultural competence. However, existing literature has emphasized the importance of culturally responsive teaching in the past decade more so than in previous years. Additionally, a difference in courses offered to education majors can be seen when comparing courses from the past to current courses offered (Humphreys, 2021). This suggests that school professionals who completed training more recently may score higher on measures of multicultural teaching.

Method

Participants

A total of 185 school professionals who work in Pre-K through High School settings participated in the study. School professionals included teachers (general education, special education, ELL), instructional assistants, school psychologists, social workers, school counselors, speech/language pathologists, occupational/physical therapists, and administrators. Any school professional who worked directly with students in a school setting was able to participate in the study. Of the participants, 11 worked primarily at the Pre-K level, 82 at the Elementary level, 71 at the Middle School level, and 21 at the High School level. Additionally, 39 participants had completed their training 0-5 years ago, 28 had completed their training 6-10 years ago, and 118 had completed their training 11 or more years ago. In regards to occupation,

125 participants were teachers (general education or special education) and 60 participants were other school professionals. All participants completed a demographic questionnaire and the adapted MTCS. Participant demographic information can be found in Table 2. It should be noted that survey data were collected during the COVID-19 Pandemic. This potentially could have had an impact on the number of participants recruited for the study.

Measures

The current study included two measures: The demographic questionnaire and the adapted Multicultural Teaching Competence Scale (MTCS; Spanierman et al., 2010). The demographic questionnaire was created by the primary researcher and the MTCS was adapted by the primary researcher with permission. All measures are described below.

Participant demographic questionnaire. The participant demographic questionnaire (Appendix B) included seven questions. Each participant will be asked to provide their sex, race, occupation, level (Pre-K, elementary, middle, or high school), number of years in occupation, and highest degree held. Participants will also be asked to report how long ago they completed training for their current occupation.

Multicultural Teaching Competency Scale. To assess school professionals' multicultural teaching knowledge and skills, an adapted version of the Multicultural Teaching Competency Scale (MTCS) (Spanierman et al., 2010) was used (Appendix C). Spanierman et al. (2010) developed the survey to assess multicultural knowledge and skills of teachers; therefore, the wording was altered to assess the multicultural teaching knowledge and skill of all school professionals. The MTCS is a 16-item measure in which participants respond on a 6-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree." Each possible answer is associated with a point value (e.g., Strongly Disagree = 1, Strongly Agree = 6). Each item is associated with

one of the two factors: multicultural teaching skills and multicultural teaching knowledge. The multicultural teaching skill factor consists of ten items and includes items regarding teachers' integration of multicultural competence into their practice. The multicultural teaching knowledge factor consists of six items and assesses teachers' knowledge of multicultural teaching issues (e.g., understanding of culturally responsive pedagogy). Each factor is scored by adding the points associated with the questions which belong to that factor. Sample items of the MTCS include "I have a clear understanding of culturally responsive pedagogy" and "I establish strong, supportive relationships with racial and ethnic minority parents" (Spanierman et al, 2010). The original MTCS aims to measure multicultural teaching competency using the following operational definition:

> Multicultural teaching competency is an iterative process in which teachers continuously (a) explore their attitudes and beliefs about multicultural issues, (b) increase their understanding of specific populations, and (c) examine the impact this awareness and knowledge has on what and how they teach as well as how they interact with students and their families. This dynamic process involves complex interaction among micro-level systems or proximal factors (e.g., teachers and other educational personnel, students and their families, and so forth) and macro-level systems or more distal factors (e.g., political economy, race relations, public policy, and so forth; (p.444).

> This definition reflects the ideas presented in the cultural difference theory, which asserts

that students from different cultural settings approach education in different ways, based on previous knowledge and values acquired from their culture, as well as the information they have gathered from prior learning experiences.

For the purpose of this study, the MTCS was adapted for use with all school professionals. This was done by altering wording geared towards teachers to include all school professionals: For example, "I understand the various communication styles among different racial and ethnic minority students in my classroom," will read as, "I understand the various communication styles among different racial and ethnic minority students I work with."

The original MTCS was initially constructed and validated by Spanierman et al. (2010). The authors used both exploratory and confirmatory factor analyses to determine the appropriate number of factors. Both analyses suggested that a two-factor solution was appropriate. Therefore, the two factors used in the MTCS are multicultural teaching knowledge and multicultural teaching skill. Spanierman et al. (2010) demonstrated internal consistency with the MTCS and that it met the assumptions of normality. The multicultural teaching skills factor had internal consistency of $\alpha = .80$ (skewness = -.25; kurtosis = -.52). The multicultural teaching knowledge factor has internal consistency of $\alpha = .78$ (skewness = -.58; kurtosis = -.05; Spanierman et al., 2010). Group differences were assessed, and the authors found that teachers with a greater number of hours of multicultural training scored higher on the two above-mentioned factors (Spanierman et al., 2010). Higher scores on the MTCS indicate higher levels of multicultural teaching competence.

In the current study, each participant obtained three different scores: a total multicultural teaching competency score and two sub-scores (one for multicultural teaching knowledge and one for multicultural teaching skills). As described above, questions are presented in a 6-point Likert scale format. The total possible score a participant can obtain on the MTCS is 96 (60 for skill, 36 for knowledge). For the purpose of this study, a "non-mastery" score is considered to be 64 or lower. For the sub-scores, a "non-mastery" score is considered 40 or lower for

multicultural teaching skill and 24 or lower for multicultural teaching knowledge. To obtain

these scores, participants would have to rate themselves an average of 4 or lower on the 6-point

scale. The answer option that would result in a score of 4 is "Slightly Agree." It can be

concluded that if a participant chose "Slightly Agree" as the most accurate representation of their

knowledge or skill, they have not mastered the knowledge or skill that the item is assessing. It

should be noted that adapting certain MTCS questions so that they can be used to assess the

multicultural teaching competency of various school professionals has the potential to change the

psychometric properties of the scale. To identify changes in psychometric properties, the internal

consistency of the adapted scale was analyzed using Cronbach's alpha.

Procedures

After obtaining approval from Eastern Illinois University's Institutional Review Board,

school principals received an email (Appendix D) requesting school professionals' participation

in the study. Principals' email addresses were obtained from school district websites. Once

permission was granted, an email that introduced the study and directed participants to a link to

the survey (Appendix E) was sent to the principals to distribute to school professionals.

Additionally, the primary researcher emailed school professionals directly by collecting emails

from district websites.

School professionals completed the MTCS and demographic questionnaire using the

Qualtrics survey program, a web-based online survey software. Participants were informed that it

would take about 10 minutes to complete the surveys. Consent (Appendix A) was obtained

electronically.   Prior to completing any survey items, participants were presented with a

description of the study and prompted to give electronic consent. Participants were informed that

the study is voluntary and that their responses will be kept confidential. If a participant declined

to participate, they were able to exit the page and no information was gathered from the participant. No identifying information was collected as a part of the study.

Data Analysis

To answer the first research question (Will participating school professionals score low on multicultural teaching knowledge and skills?), the total multicultural teaching competency score reported by participants was analyzed. Using the criteria described under Measures in the Methods section ("non-mastery" score = 64 or lower) the percentage of participants with a "non-mastery" score was reported. The same was done for each individual factor ("non-mastery" = 40 or lower for multicultural teaching skill and 24 or lower for multicultural teaching knowledge).

For the second research question (When compared to teachers, how will other school professionals score on self-reports of multicultural knowledge and skills?), a t-test for independent means was used to determine if there were statistically significant differences between the scores of teachers and the scores of other school professionals. The same was done for each individual factor (knowledge and skill). For the purpose of this t-test, other school professionals were combined into one group and compared to the group of teacher participants.

For the third and final research question (Will school professionals who completed their training more recently score significantly higher on multicultural teaching knowledge and skill than those who completed their training longer ago?), a one-way ANOVA test was conducted to determine if there were significant differences between three groups based on when they completed their training (0-5 years ago, 6-10 years ago, and 11 or more years ago), as grouped in the demographic questionnaire. Post hoc tests were conducted to reveal any significant differences between the groups.

Results

Internal Consistency

To measure the internal consistency of the adapted version of the MTCS, Cronbach's

alpha was used. This was done to ensure that the psychometric properties of the scale were

sufficient after some scale items were adapted to be inclusive of other types of school

professionals. The Cronbach's alpha coefficient was .92 for the 16-item scale. The same was

done for each of the two sub-scores: multicultural teaching knowledge and multicultural teaching

skill. The multicultural teaching knowledge Cronbach's alpha coefficient, based on the six items

in that factor, was .84. The multicultural teaching skill Cronbach's alpha coefficient, based on

the ten items in that factor, was .87. The Cronbach's alpha coefficients for both the total MTCS

and the two factors were sufficient, given that the acceptable range is .7 to .95 (Tavakol &

Dennick, 2011).

Research Question 1

A total of 185 participants completed the demographic questionnaire and adapted MTCS survey

(125 teachers and 60 other school professionals). To answer the first research question (Will

participating school professionals score low on multicultural teaching knowledge and skills), the

total MTCS score was first analyzed. Participants who obtained a total score of 64 (out of 96) or

lower were considered in the "non-mastery" range. The average teacher total score was 73.2 (*SD*

=13.24). Of the 125 teacher participants, 32 (25.60%) scored in the non-mastery range for the

total MTCS score. The average total score of other school professionals was 72 (*SD*=9.9). Out of

60 other school professionals, 11 (18.3%) scored in the non-mastery range for the total MTCS

score.

Participants who obtained a score of 24 (out of 36) or lower on the multicultural teaching knowledge sub-score were considered in the non-mastery range. The average teacher knowledge score was 27.8 (*SD* =5.26). Of 125 teacher participants, 30 teachers (24%) scored in the non-mastery range. The average knowledge score of other school professionals was 27.6 (*SD*=4.1). Out of 60 other school professionals, 10 (16.7%) scored in the non-mastery range.

Participants who obtained a score of 40 (out of 60) or lower for the multicultural teaching skill sub-score were considered in the non-mastery range. The average teacher skill score was 45.5 (*SD* =8.73). Of 125 teacher participants, 26 (20.8%) scored in the non-mastery range. The average skill score of other school professionals was 44.5. Out of 60 other school professionals, 17 (28.3%) scored in the non-mastery range. Average scores of teachers and other school professionals are displayed in Table 3.

Research Question 2

For the second research question (When compared to teachers, will other school professionals score significantly higher on self-reports of multicultural knowledge and skills?), a t-test for independent means was calculated to analyze whether there was a significant difference between teachers (*N*=125) and other school professionals (*N*=60). At an alpha of .05, results indicated that there was not a significant difference between the total MTCS score of teachers (*M*=73.24, *SD*=13.28) and other school professionals (*M*=72.02, *SD*=9.86), *t*(183)= .70, *p*=.48 (two-tailed), *d*=.10. Second, at an alpha of .05, there was no significant difference between the multicultural teaching knowledge sub-score of teachers (*M*=27.78, *SD*=5.26) and other school professionals (*M*=27.57, *SD*=4.12), *t*(183)=.30, *p*=0.77 (two-tailed), *d*=.04. Third, at an alpha of .05, there was no significant difference between the multicultural skills sub-score of teachers

(M=45.46, SD=8.73) and other school professionals (M=44.45, SD=6.61), t(183)=.80, p=.43 (two-tailed), d=.13.

Research Question 3

For the third research question (Will school professionals who completed their training more recently score significantly higher on multicultural teaching knowledge and skill than those who completed their training longer ago?) a one-way ANOVA test was performed to reveal whether there were significant differences between the MTCS scores of participants who completed their training at different times. To group participants, each participant was asked to indicate whether they completed their training for their current occupation 0-5 years ago, 6-10 years ago, or 11 or more years ago. At an alpha of .05, results showed that there were significant differences in the total MTCS scores of participants based on when training was completed, F(2, 182)=3.42, p=.04, η^2=.04. Results of a Tukey's HSD test indicated that participants who completed their training 0-5 years ago received significantly higher total MTCS scores than those who completed their training 11 or more years ago (p=0.04). All other pairwise comparisons were not found to be statistically significant.

Similar one-way ANOVA tests were run to determine whether there were significant differences in sub-scores depending on when training was completed. At an alpha of 0.5, results showed that there were significant differences in the multicultural teaching knowledge sub-scores based on when training was completed, F(2, 182)=5.79, p=0.004, η^2=.06. Results of a Tukey's HSD test indicated that participants who completed their training 0-5 years ago received significantly higher knowledge scores than those who completed their training 6-10 years ago (p=.04) and those who completed their training 11 or more years ago (p=.003). However, results showed that at an alpha of .05, there were no significant differences in the multicultural teaching

skills sub-score based on when training was completed, $F(2, 182)=1.84$, $p=.16$, $\eta^2=.02$. Means and standard deviations of the three groups for the total MTCS and both sub-scores can be found in Table 4.

Discussion

This study measured the self-reported multicultural teaching knowledge and skills of school professionals. According to census data, populations of racial and ethnic minorities in the U.S. have been rising faster than the population of White Americans (U.S. Census Bureau, 2017). Data suggest that these trends will continue, and student populations will continue to become more diverse as well (National Center for Education Statistics, 2019). Research shows that diverse learners face a wide array of school-related challenges, including achievement gaps, (Alsubaie, 2015), behavior problems (Nemeth & Brillante, 2019), and absenteeism (U.S. Department of Education, 2019). To address these challenges, educators can engage in culturally competent teaching practices. The National Education Association (2020) lists several practices and beliefs that reflect culturally competent teaching, including diversifying pedagogical practices, incorporating contributions of racial and ethnic minorities into the curriculum, and viewing cultural competence as an ethical responsibility.

Although some information is known on the preparedness of educators to work with multicultural populations, much of it is dated and focuses on teachers, not including the various other school professionals that diverse students interact with throughout their education. Cultural competence has been identified as a necessary skill for school psychologists (National Association of School Psychologists, 2019), school counselors (Alexander et al., 2005), social workers (Garron & Werkmeister-Rozas, 2013), occupational therapists (Wray & Mortenson,

2011), physical therapists (Hayward & Charrette, 2012), speech-language pathologists (Guiberson & Atkins, 2012), and school principals (Hernandez & Kose, 2012).

A total of 185 school professionals completed an adapted version of the Multicultural Teaching Competency Scale (Spanierman et. al, 2010). This included 125 teachers and 60 other school professionals (school psychologists, instructional assessments, administrators, speech and language pathologists, occupational therapists, etc.). First, participants' MTCS score and each sub-score (multicultural teaching knowledge and multicultural teaching skills) were analyzed. Of the 125 teacher participants, 30 teachers (25.6%) scored in the non-mastery range for the total MTCS score. Similarly, 30 teachers (24%) scored in the non-mastery range for the multicultural teaching knowledge sub-score. Finally, 26 teachers (20.8%) scored in the non-mastery range for the multicultural teaching skill sub-score. Scores of other school professionals were also included and results indicated that 18.3% of other school professionals scored in the non-mastery range for the total MTCS score. Further, 16.7% scored in the non-mastery range for the knowledge sub-score and 28.3% scored in the non-mastery range for the skill sub-score. It was hypothesized that most participant scores would not indicate mastery of multicultural teaching knowledge and skills. Literature on this topic shows that educators are often unprepared to work with diverse learners (Boyd, 2003; Harrison et al., 2010, Samuels, 2014, Whitaker & Valtierra, 2018). This hypothesis was not supported, as most participants obtained self-report scores that were above the non-mastery range. However, it is important to note that a significant portion of the sample rated themselves in the non-mastery range. A possible explanation for this hypothesis not being supported is that educator training programs have started to place more of an emphasis on culturally competent practices over the past few decades (Humphreys, 2021). The increase of literature and professional development on cultural competence and related topics may have

helped educators feel more prepared to work with diverse populations. Further, the possibility of a social desirability bias (when participants respond in ways to help present themselves in socially acceptable terms) may have impacted participants' self-ratings (Edwards, 1957). Participants may perceive themselves as having multicultural teaching knowledge and skills; therefore, it would be beneficial to include other objective measures in addition to self-report to assess multicultural teaching knowledge and skills.

For the second research question, scores were analyzed to determine whether there was a significant difference between the scores of teachers and other school professionals. Results indicated that there was not a significant difference between the total MTCS scores of the two groups. The same was true for each sub-score (multicultural teaching knowledge and multicultural teaching skills). No hypothesis was made for this research question, as there has not been enough literature on the topic of measuring cultural competence in other school professionals. Despite lack of research on this topic, reasons for the similarity of responses between teachers and other school professionals may be examined. For example, employer-provided professional development opportunities related to cultural competence may be offered to all types of school professionals, which could increase knowledge and skills in teachers and others. Further, the impact of culturally competent educational leaders may have an impact on the knowledge and skills of school staff. Principal preparation programs tend to impact leaders' overall cultural competence, cultural beliefs and motivation, and cultural knowledge (Barakat, et al., 2018). Leaders who are educated on cultural competence and related topics may be more likely to implement such practices at their schools and set expectations that reflect culturally competent practices for all staff.

For the third and final research question, scores were analyzed to determine whether school professionals who completed their training more recently scored significantly higher on the measure than those who completed their training longer ago. Colleges have continued to increase their offerings of culture-related courses (Humphreys, 2021), suggesting that higher scores could be expected from those who completed their training more recently. Participants were divided into three groups based on when they completed training: 0-5 years ago, 6-10 years ago, or 11 or more years ago. Results revealed that there were significant differences between these groups' scores on the total MTCS, and post hoc tests showed that participants who completed their training 0-5 years ago scored significantly higher on the total MTCS than those who completed their training 11 or more years ago. This may be due to the heightened awareness of the importance of cultural competence in recent years and the increase of related literature, as well as courses, used in training programs. Similarly, when looking at differences in the multicultural teaching knowledge sub-score, those who completed their training 0-5 years ago received significantly higher scores than those who completed their training 11 or more years ago. Finally, there were no significant differences in the multicultural teaching skills sub-scores based on when training was completed. It is not known why there were significant differences in these groups for self-reported knowledge, but not skills. Perhaps, participants who completed their training 11 or more years ago reported lower levels of multicultural knowledge due to less exposure to cultural competence training in their programs. Although they may be able to practice skills through their work with students, they may not feel that they are as knowledgeable about topics like racial/ethnic identity theories, historical experiences that affect learning, and current evidence-based strategies that affirm students' racial/ethnic identities.

Overall, results indicated that there were no differences among the scores of participants based on the type of educator (teacher versus other school professionals). However, there were some significant differences in scores based on when training was completed, indicating that those who completed training more recently perceive themselves to be more prepared to work with diverse populations than those who completed training longer ago. In general, although most participants obtained self-report scores above the non-mastery range, several participants obtained scores that suggested that they may not possess the recommended multicultural teaching knowledge and skills to work with the diverse students who make up today's schools.

Limitations and Future Directions

This study attempted to measure the self-reported multicultural teaching knowledge and skills of school professionals. Although some significant results were found, there are some limitations that should be identified to improve future research on this topic. First, this study expanded on previous studies by not just examining the self-reported, cultural competence of teachers, but also including other school professionals who work with students in the school setting. However, the total number of teacher participants was larger than the number of other school participants who completed the survey. When looking for significant differences between the groups, it would be helpful for future studies to obtain an equal or near equal number of teachers and other school professionals to make more adequate comparisons. Further, when assessing the cultural competence of other school professionals, future studies could create comparisons of more specific groups of other school professionals. For example, research could seek to find differences between school psychologists versus teachers, speech pathologists versus teachers, administrators versus teachers, and so on. Future research can also compare the multicultural teaching knowledge and skills of school professionals who work in different

settings. For example, are there differences between educators who work in urban, suburban, and rural settings? This type of study could also look at the exposure of educators to diversity, and whether their level of exposure to diverse populations is correlated with their self-reported scores on the MTCS. To explore this topic further, future studies may also include students who are old enough to assess their multicultural experiences, (i.e., the multicultural knowledge and skills of their teachers and other school professionals.

  Additionally, the nature of surveys in general can create some limitations. First, answers to the survey questions can be interpreted differently by different participants. For example, the answer option of "slightly agree" may be interpreted differently, making the answers more subjective. Also, survey responses may sometimes be affected by the phenomenon of social desirability bias, which is when participants give socially desirable responses instead of those that most accurately represent them or their knowledge/skills (Edwards, 1957; Grimm, 2010). This effect has been observed in studies in which practitioners are asked to report on their own cultural competence (Larson & Bradshaw, 2017). Further, as mentioned above, self-reported scores do not necessarily reflect the actual knowledge or skills of participants. To minimize this effect, future studies can use other methods of data collection, such as classroom observations, parent/student ratings, and examination of curricula/lesson plans combined with the survey responses to more precisely assess cultural competency in educators. Perhaps individuals could be asked scenario questions regarding cultural competency and responses could be evaluated by experts in the field. Adding other forms of data can help determine whether the participant reports of their knowledge and skills are consistent with their performance (Spanierman et al., 2010).

Finally, future research may use the MTCS to examine whether there are differences in multicultural teaching knowledge and skills between educators belonging to different racial/ethnic groups. In the present study, the vast majority (90.8%) of participants identified as White/Caucasian. Future research should strive to obtain a more diverse sample that is more representative of the population. Having large group sizes for all races/ethnicities can enable researchers to make comparisons between racial/ethnic groups and see whether participants who identify with a certain race/ethnicity score higher than others on measures of cultural competence.

Implications

When discussing the increasingly diverse population of the United States, it is necessary to consider that the population of students in school is also becoming more diverse (National Center for Education Statistics, 2019). To adequately support the needs of all students, educators are encouraged to implement culturally competent practices (National Education Association, 2020). To reflect on the current state of cultural competence and multicultural teaching, it is important to have a way of measuring these characteristics in all educators. The MTCS is a measure with strong psychometric qualities that has previously been used to assess both multicultural teaching knowledge and skills of teachers (Spanierman et al., 2010). By adapting the scale to include both teachers and other school professionals, a wider range of information was collected. Having current information about the current knowledge and skills of school professionals is one way that schools can work to build a culturally responsive environment for all students and reflect on their use of culturally responsive approaches. By using instruments like the MTCS, school leaders can collect that kind of information and identify areas of improvement, for all educators or a specific group of educators that may require more training.

Additionally, Spanierman et al. (2010) identified other applications of the MTCS that can be used to collect meaningful information, potentially impacting the field of education. For example, the MTCS can be used to evaluate teacher training programs and ask whether they are effective in preparing teachers for working with diverse groups of students. Also, the MTCS could be used to collect pre- and post- training data regarding the multicultural teaching knowledge and skills of educators, both in teacher training programs and schools. For example, it could be used to assess the effectiveness of cultural competence professional development training. Knowing how school professionals perceive their own cultural competence can highlight areas of growth as well as guide future professional development. The same can be said for the uses of the MTCS when studying the cultural competence of other school professionals. Because students interact with several other school professionals (not just teachers), this information is relevant.

In sum, this study opens the door for using the MTCS in a broader way. Many education-related programs can be assessed for their adaptability for serving diverse student populations; the multicultural knowledge and skills of all kinds of educators can be measured.

Conclusion

In conclusion, results from this study suggest that the most educators surveyed believe that they have adequate multicultural teaching knowledge and skills. However, a significant portion of participants reported their multicultural teaching knowledge and skills to be within the non-mastery range. This shows room for improvement when it comes to fostering these important educator characteristics. There was not a significant difference in scores based on the type of educator. In other words, teachers and other school professionals did not rate themselves much differently on either multicultural teaching knowledge or skills. This suggests that different

kinds of educators may perceive themselves to be similarly prepared to work with diverse

student populations. However, larger sample sizes would have allowed for more specific and

informative comparisons. Lastly, the results of this study suggest that there are some differences

in perceived multicultural teaching knowledge and skills, depending on when training was

completed. On the overall multicultural teaching measure and the multicultural teaching

knowledge sub-score, those who completed their training within the past five years obtained

higher scores than those who completed training 11 or more years ago. This demonstrates a need

for continued education for educators who have been in the field for a decade or longer to help

them gain valuable knowledge and feel more competent when working in increasingly diverse

schools. Therefore, assessing educators' multicultural teaching knowledge and skills, and then

using that information to better train all educators, should be a priority in the field of education.

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Appendix A: Informed Consent

Informed Consent to Participate in Research Study

Title: Self-reported Culturally Responsive Teaching Knowledge and Skills of School

Professionals

Investigators: Julia Kedzior, B.S., Assege HaileMariam, Ph.D.

PURPOSE OF THE STUDY

The primary purpose of this study is to assess the self-reported culturally responsive teaching

knowledge and skills of school professionals.

PROCEDURES

Once you have clicked the link, you will be introduced to the purpose of the study and the

minimal risk involved. If consent to participate is given (by clicking NEXT at the bottom of this

page), you will be asked to fill out some demographic information (such as sex, race, and

occupation). Next, you will be asked to answer some questions about your multicultural

knowledge and skills. Finally, you will be asked to answer questions related to your perceived

job stress. Step by step directions will be given throughout the survey.

POTENTIAL RISKS AND DISCOMFORTS

Minimal risk is involved, such as recalling stressful work experiences. There are no safety or

physical risks associated with this study.

CONFIDENTIALITY

In order to ensure confidentiality, no identifying information is sought (e.g., name) and IP

addresses will not be collected. Anonymous survey data are username and password protected

and only accessible to the primary investigator. During the course of the study, the data will be

stored on an online survey creation website that requires a username and password to retrieve the

data. Again, only the primary investigator will have access to the username and password.

Finally, please note that your participation will advance the knowledge of multicultural teaching

skills and knowledge, which can help school professionals to better support diverse populations

of students.

PARTICIPATION AND WITHDRAWAL

To participate in this study, you must be 18 years of age or older. Participation in this research

study is voluntary and not a condition for being the recipient of benefits from Eastern Illinois

University or the school district you are affiliated with. If you volunteer to participate in this

study, you may withdraw at any time without consequences of any kind. There is no penalty if

you withdraw from the study. If you have any questions or concerns about this study, please

contact:

Julia Kedzior, Primary Investigator

jwkedzior@eiu.edu

Or

Dr. Assege HaileMariam, Thesis Chair

ahailemariam@eiu.edu

Please note that by clicking NEXT, you are consenting to participate and indicating that you are

18 years old or older. If you wish not to participate or are younger than 18, click the "exit this

survey" link found at the top right corner of the page. Thank you.

Appendix B: Demographic Information Form

The following questions provide non-identifying information about you and your current

position as a school professional. Please check one that applies to you.

1. What is your sex?

    a. male

    b. female

    c. other/choose not to answer

2. What is your race or ethnicity? Please check the term that best applies to you:

    a. White/Caucasian

    b. African-American

    c. Hispanic/Latino

    d. Asian/Pacific Islander

    e. Other

3. How old are you?

    a. 18-25

    b. 26-35

    c. 36-45

    d. 46-55

    e. 56-65

    f. 66 or older

4. What is your current occupation?

    a. Teacher (general education, special education, ELL, etc.)

    b. School Psychologist

    c. Social Worker

    d. Administrator

    e. Interventionist

    f. School Counselor

    g. OT/PT

    h. Paraprofessional/Instructional Assistant

    i. Other

5. How many years ago did you complete your training for your current profession?

    a. 0-5 years ago

    b. 6-10 years ago

    c. 11 or more years ago

6. The highest degree you hold

    a. Bachelors

    b. Masters

    c. Specialist

    d. Doctoral (Ph.D. Ed. D, PsyD)

7. What school level do you primarily work in?

    a. Pre-K

    b. Elementary

    c. Middle

    d. High School

Appendix C: Adapted Multicultural Teaching Competency Scale

For each of the following statements, please select the option that best describes your practice.

1. I plan many activities to celebrate diverse cultural practices with the students I work with.

    a. Strongly Disagree
    b. Moderately Disagree
    c. Slightly Disagree
    d. Slightly Agree
    e. Moderately Agree
    f. Strongly Agree

2. I understand the various communication styles among different racial and ethnic minority

students that I work with.

    a. Strongly Disagree
    b. Moderately Disagree
    c. Slightly Disagree
    d. Slightly Agree
    e. Moderately Agree
    f. Strongly Agree

3. I consult regularly with other school professionals to help me understand multicultural issues

related to instruction.

    a. Strongly Disagree
    b. Moderately Disagree
    c. Slightly Disagree
    d. Slightly Agree
    e. Moderately Agree
    f. Strongly Agree

4. I have a clear understanding of culturally responsive pedagogy.

    Strongly Disagree
    b. Moderately Disagree
    c. Slightly Disagree
    d. Slightly Agree
    e. Moderately Agree
    f. Strongly Agree

5. I often include examples of the experiences and perspectives of racial and ethnic groups with

the students I work with.

     a. Strongly Disagree
     b. Moderately Disagree
     c. Slightly Disagree
     d. Slightly Agree
     e. Moderately Agree
     f. Strongly Agree

6. I plan school events to increase students' knowledge about cultural experiences of various

racial and ethnic groups.

     a. Strongly Disagree
     b. Moderately Disagree
     c. Slightly Disagree
     d. Slightly Agree
     e. Moderately Agree
     f. Strongly Agree

7. I am knowledgeable about racial and ethnic identity theories.

     a. Strongly Disagree
     b. Moderately Disagree
     c. Slightly Disagree
     d. Slightly Agree
     e. Moderately Agree
     f. Strongly Agree

8. My materials integrate topics and events from racial and ethnic minority populations.

     a. Strongly Disagree
     b. Moderately Disagree
     c. Slightly Disagree
     d. Slightly Agree
     e. Moderately Agree
     f. Strongly Agree

9. I am knowledgeable about how historical experiences of various racial and ethnic minority

groups may affect students' learning.

    a. Strongly Disagree
    b. Moderately Disagree
    c. Slightly Disagree
    d. Slightly Agree
    e. Moderately Agree
    f. Strongly Agree

10. I make changes within the general school environment so racial and ethnic minority students

will have an equal opportunity for success.

    a. Strongly Disagree
    b. Moderately Disagree
    c. Slightly Disagree
    d. Slightly Agree
    e. Moderately Agree
    f. Strongly Agree

11. I am knowledgeable about particular strategies that affirm the racial and ethnic identities of

all students I work with.

    a. Strongly Disagree
    b. Moderately Disagree
    c. Slightly Disagree
    d. Slightly Agree
    e. Moderately Agree
    f. Strongly Agree

12. I rarely examine the materials I use with students for racial and ethnic bias.

    a. Strongly Disagree
    b. Moderately Disagree
    c. Slightly Disagree
    d. Slightly Agree
    e. Moderately Agree
    f. Strongly Agree

13. I integrate the cultural values and lifestyles of racial and ethnic minority groups into my

work with students.

    a. Strongly Disagree
    b. Moderately Disagree
    c. Slightly Disagree
    d. Slightly Agree
    e. Moderately Agree
    f. Strongly Agree

14. I am knowledgeable about the various community resources within the city that I work.

    a. Strongly Disagree
    b. Moderately Disagree
    c. Slightly Disagree
    d. Slightly Agree
    e. Moderately Agree
    f. Strongly Agree

15. I often promote diversity by the behaviors I exhibit.

    a. Strongly Disagree
    b. Moderately Disagree
    c. Slightly Disagree
    d. Slightly Agree
    e. Moderately Agree
    f. Strongly Agree

16. I establish strong, supportive relationships with racial and ethnic minority parents.

    a. Strongly Disagree
    b. Moderately Disagree
    c. Slightly Disagree
    d. Slightly Agree
    e. Moderately Agree
    f. Strongly Agree

Appendix D: Letter to School Principals

Dear [name of school principal],

I am currently training to be a school psychologist at Eastern Illinois University. For my thesis, I am seeking the participation of school professionals including teachers, administrators, school psychologists, social workers, interventionists, and occupational/physical therapists for a survey regarding self-reported multicultural knowledge and skill. I am writing to ask for your permission to send this survey to your school staff.

All information will be collected anonymously and participation is completely voluntary. The survey will take about 10-15 minutes to complete. The link to the survey is below. If you are able to forward this link on to your school staff, I would greatly appreciate it!
[survey link]

Thank you for your time and consideration! I look forward to hearing back from you soon,

Julia Kedzior

School Psychology Graduate Student

Eastern Illinois University

Appendix E: Letter to Educators

Dear [name of school professional],

I am currently training to be a school psychologist at Eastern Illinois University. For my thesis, I am seeking the participation of school professionals including teachers, administrators, school psychologists, social workers, interventionists, and occupational/physical therapists for a survey regarding self-reported multicultural knowledge and skill.

All information will be collected anonymously and participation is completely voluntary. The survey will take about 10-15 minutes to complete. The link to the survey is below. If you are able to complete the survey, I would greatly appreciate it!
[survey link]

Thank you for your time and consideration!

Julia Kedzior

School Psychology Graduate Student

Eastern Illinois University

Table 1.

Five Dimensions of Multicultural Education (Banks, 2012)

Dimension	Definition
Content Integration	Incorporate examples and content from a diverse variety of cultural groups
Knowledge Construction Process	Implement activities and ask questions that promote understanding of how cultural perspectives influence how knowledge about culture is created
Prejudice Reduction	Implement strategies that promote democratic values and reject attitudes that hinder multicultural education
Equity Pedagogy	Modify teaching/instruction to facilitate achievement of all student groups
Empowering School Culture and Social Structure	Promote the idea that the school is a complex social system; all parts must be involved for meaningful change to occur

Table 2.

Participant Demographics

	n	*%*
Sex		
Female	163	88.1
Male	22	11.9
Race/Ethnicity		
White/Caucasian	168	90.8
African American	7	3.8
Hispanic/Latino	2	1.1
Asian/Pacific Islander.	7	3.8
Other	1	0.5
Age		
18-25	11	5.9
26-35	47	25.4
36-45	59	31.9
46-55	47	25.4
56-65	19	10.3
66 or older	2	1.1
Occupation		
Teacher	125	67.6
School Psychologist	7	3.8
Administrator	9	4.9
Social Worker	6	7.1
Interventionist	5	2.7

	OT/PT	4	2.2
	Instructional Assistant.	13	7.0
	School Counselor	3.	1.6
	Other	13	7.0
Years Since Completing Training			
	0-5	39	21.1
	6-10	28	15.1
	11 or more	118	63.8
Highest Degree Held			
	Bachelors	46	24.9
	Masters	117	63.2
	Specialist	15	8.1
	Doctoral	4	2.2
	Other/No Answer	3	1.6
School Level			
	Pre-K	11	5.9
	Elementary	82	44.3
	Middle	71	38.4
	High School	21	11.4

Table 3.

MTCS Scores

		M	*SD*
Total MTCS			
	Teachers	73.2	13.2
	Other School Professionals	72	9.9
Knowledge Sub-Score			
	Teachers	27.8	5.3
	Other School Professionals	27.6	4.1
Skill Sub-Score			
	Teachers	45.5	8.7
	Other School Professionals.	44.5	6.6

Table 4.

MTCS Scores (Grouped by When Training Was Completed)

		M	SD
Total MTCS			
	0-5 years ago	77.3	8.9
	6-10 years ago	71.3	10.6
	11 or more years ago.	71.7	13.4
Knowledge Sub-Score			
	0-5 years ago	30	8.3
	6-10 years ago	27.1	4.2
	11 or more years ago	27.1	5.4
Skill Sub-Score			
	0-5 years ago	47.3.	6.5
	6-10 years ago	44.1	6.9
	11 or more years ago.	44.7.	8.7