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Effects of Fundamentals of Culture on Teacher-Student Relationship in Middle School: A Quantitative Correlation Study

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A dissertation submitted in partial fulfillment

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Dedication

This dissertation is dedicated to all front-line educators and educational leaders wishing to strengthen relationships in their learning communities.

Acknowledgement

I wish to thank my family members who selflessly gave me the encouragement, time, and space to pursue this achievement: my husband Daniel and my children Nathaniel, Sebastian, Nicholas, Cassidy, and Alison.

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Abstract

The purpose of this study was to explore whether teacher-student relationships could be strengthened if we knew what impacted the cultural background of middle school teachers. Using a quantitative correlation research design and a multiple linear regression analysis, I examined the relationship between one dependent variable, Teacher-Student Relationship (TSR) and four predictor variables, Individualism versus Collectivism (IvC), Monochronic versus Polychronic values (MvP), Universalism versus Particularism (UvP), and Activism versus Fatalism (AvF). This research relied on prior studies centered around teacher-student relationship, the theory of cultural humility (Foronda, 2020), and values orientation theory (Kluckhohn & Strodtbeck, 1961). The analysis explored teacher-student relationship as measured by self-reporting of 81 middle school teachers and resulted in a significant relationship among individualism, universalism, activism and teacher-student relationship. A regression equation was found ($F(3,77) = 9.094$, $p < .001$), with an adjusted R^2 of .233. Participants' predicted Teacher-Student Relationship was equal to 3.825 -.181 (Individualism) -.225 (Universalism) + .238(Activism) when individualism, universalism, and activism were measured by a Likert-type scale from 1 to 5, 1 being low and 5 being high.

Keywords: teacher-student relationship, student-teacher relationship, cross-cultural awareness, cultural humility, cultural self-awareness, intercultural communication

Chapter 1: Introduction

Teacher-student relationship is broadly considered to be a key factor in influencing student outcomes, both behaviorally and academically. Recent data from climate surveys in a local school district indicated a downward trend in middle school students' positive relationships with adults despite an increase in budgeted resources towards diversity, equity, and inclusion intervention programs and professional development. Panorama Education (2023) shows how student responses to climate surveys from a district in the Pacific Northwest region of the United States suggested a downward trend of positive teacher-student relationship over the past few years (see Appendix A). Furthermore, demographic data from the National Center for Education Statistics (NCES) indicated the percentage of non-White teachers was disproportional to non-White students and that the gap was widening (*COE - Characteristics of Public School Teachers*, n.d.).

A number of theories have described the nature of relationships associated with the construct of teacher-student relationship and the impact of strong or weak teacher-student relationship on student outcomes. For example, Verschueren and Koomen (2012) used attachment theory (Bowlby, 1958) to explain the role of teachers as attachment figures important to young children and adolescents who recognized the benefits of strong social relationships with teachers. Studies have not addressed, however, whether teacher-student relationship could be strengthened if we knew what impacted the cultural background of teachers. Cultural humility and self-awareness factors, if influential, could inform teachers and educational institutions on how to improve relationships with students. The theory of cultural humility (Foronda, 2020) provided a framework to

examine the importance of self-reflection in examining relationships. Fundamentals of culture (Storti & Bennhold-Samman, 1997) including the concept of self, personal-societal obligation, the concept of time, and locus of control provided a structure for self-reflection from a cultural background perspective. A review of literature supported the importance of teacher-student relationship in education and the cultural foundations that communicate this relationship. Understanding the nature of these foundations and their impact on teacher-student relationship could assist institutions in refining teacher education programs and encourage policy interventions that promote openness and flexibility of faculty.

Fundamentals of culture refer to the latent values of individuals brought about by their background and upbringing. In a classroom setting, the teacher is expected to set the boundaries in terms of rules and expectations. Sometimes these are developed with groups of students, although they tend to adhere to the teacher's principles. Teacher autonomy is the norm and expected by evaluators. Evaluations of teachers are predictable as long as evaluators and teachers have similar assumptions about the ideal classroom environment. Important features include managing behavior in a controlled manner, setting boundaries, ensuring that students follow rules, and having consequences in place for when rules are broken. This suggests that amicable, predictable relationships would occur with students valuing the same norms as educators or who were brought up with similar values, but that less predictable relationships would occur if students were brought up differently.

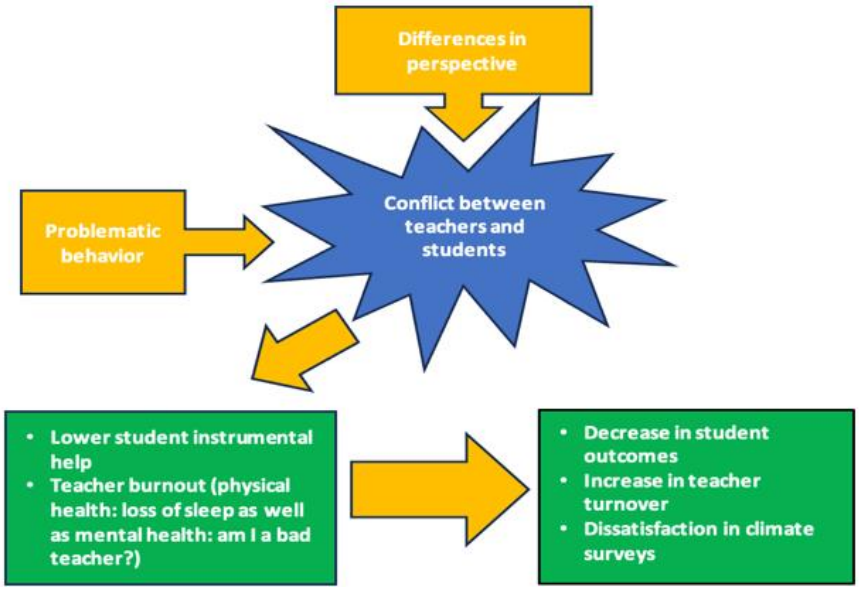
Knowing that fundamentals of culture influenced teacher-student relationships could give educators a structure to measure effectiveness in terms of building

relationships, rather than guessing and checking, or deciding that if something worked for one teacher it would work for another. By measuring the fundamentals of culture educators could scrutinize reactions to conflict in each of these areas. For example, how one teacher responded to students who needed help on assessments could be different from another teacher if they came from a background that valued individualism and universalism because they might value work ethic and fairness attributes differently from other teachers.

Thus, is it necessary to examine student-teacher relationships and the perception of conflict with students. In a meta-analysis Aloe et al. (2014) indicated a significant relationship between problem behavior and teacher burnout, concluding that teachers' symptoms of burnout were caused by conflictual situations related to student behavior. Measuring dimensions related to fundamentals of culture could help to minimize conflict. When teachers begin working with populations of students, they may know very little about that population. It may take three to four months to get to know students. Meanwhile, conflicts may arise on which teachers must spend time, and they may be tempted to prejudge causes for those conflicts. Many times, the assumption is that students are not following expectations. Those expectations, however, could have been built upon a culture of mostly a homogeneous group of teachers and educators that may differ markedly from a student population. Figure 1 illustrates potential outcomes of differing perspectives in situations involving conflict with students.

Figure 1

Outcomes Related to Differences in Perspective



Note. This figure illustrates potential outcomes of differing perspectives in situations involving conflict with students.

Minimizing the number of situations that result in conflict helps to facilitate an environment that maximizes joy and productivity. If students felt happy and productive in class, they would look forward to coming to class, absences would be minimized, and more time would be allotted to excitement about learning. This would ultimately coincide with a teacher's goal of making sure students met academic standards. By understanding from where values and behaviors stemmed, educators could approach content with a more flexible set of expectations for students, for example, through differentiation. Ultimately both teachers and students should anticipate joy as they experience the process of education rather than stress and burnout associated with conflict (Ramsey et al., 2011).

Conceptual Framework

In terms of theory, researchers have investigated how cultural humility improved relationships in fields such as medicine, law, psychology, and social work (Fisher-Borne et al., 2015). The field of education has yet to collect data on how aspects related to the theories of cultural humility and cultural self-awareness could be beneficial. Specific research is needed to guide educational institutions on the use of data from cultural humility studies to improve classroom management courses for new teachers and professional development for experienced teachers. This could lead to more effective programs implemented in lieu of experiments with interventions aimed at improving responses to climate surveys. Determining that a relationship exists between measures of fundamentals of culture and teacher-student relationship could provide the data-driven incentives for follow-up programming and literature to better guide an educator's practice. Less time could be spent on diagnosing conflict in schools, and educators could be reminded of the importance of life-long learning when it comes to navigating intercultural relationships, a reality facing public-schools in our current environment.

Two theories that support this study are cultural humility (Foronda, 2020) and cultural self-awareness (Xiatong, 2015) through their emphasis on the important connection between culture and relationship-building. Cultural humility identified the ownership of self-reflection and awareness of one's cultural background, the acknowledgement of power present in systems, and the responsibility to hold institutions accountable to address necessary changes. Cultural self-awareness explained the obligation of recognizing cultural background and its influence on students and also acknowledged the importance of conducting culturally oriented research. Two of the five

attributes used to measure cultural humility, which were self-reflection and self-awareness and critique, created the structure for which fundamentals of culture were examined. These fundamentals of culture, which have been studied in various forms over the last 70 years, included the concept of self, personal-societal obligation, the concept of time, and locus of control.

Statement of the Problem

For this study, the main hypothesis was that teacher-student relationship is influenced by the cultural background, cultural norms, and upbringing of the teachers with whom students interact on a daily basis in a public-school setting. In other words, the focus was on the culture of the teacher, not the student. Researchers have studied the importance of teacher-student relationship in improving academic outcomes as well as social and behavioral outcomes (Birch & Ladd, 1998; Furrer & Skinner, 2003). In addition, studies have measured culture in settings other than educational environments and have found specific cultural values connected with individuals from certain countries by surveying workers in multinational corporations in different regions around the world (Hofstede & Bond, 1984). In the United States, public school classrooms resemble the merging of individuals from many countries, as individuals possess different cultural influences. It can no longer be assumed, with any certainty, that students or teachers in America represent American culture, for which there exists no precise definition (Ryan, 2015).

Interventions for responding to the downward trend in teacher-student relationship have included funneling more resources into diversity and equity training without understanding how the cultural background of teachers impact their behaviors

and day-to-day decision-making that impact relationships in the classroom. One of the questions I investigated was whether there was a significant correlation between teacher-student relationship and the various fundamentals of culture. For this question, I researched historical ways that teacher-student relationship was measured and ways that cultural background and values were measured. The second question was whether a model of fundamentals of culture could explain the variance in teacher-student relationship. The implied null hypothesis, therefore, was that there was no significant association between fundamentals of culture and teacher-student relationship. The alternative hypothesis was that certain factors related to fundamentals of culture influenced teacher-student relationship efficacy, or the belief by teachers that they have a positive relationship with students (Bandura, 2006). This question required an analysis to determine if any or all of the fundamentals of culture could predict teacher-student relationship. To measure this, I used a linear multiple regression model. In general, the higher the adjusted R^2 was in a model, the more variability the model explained. A preliminary model used teacher-student relationship as the dependent variable (DV) and Monochronic Value, Individualism, Universalism, and Activism as the independent variables (IVs). The final model did not include monochronic value and indicated that individualism, universalism, and activism accounted for 23.3% of the variance in teacher-student relationship with individualism being the most influential.

It was important to consider how self-efficacy, or more importantly teacher-student relationship efficacy influenced the data on teacher-student relationship. Bandura (1997) defined self-efficacy as the belief that one could be successful at a specific task. In a study on problematic behavior and teacher self-efficacy, researchers examined a

specific intervention, Key2Teach, concluding that an increase in closeness helped to mediate the effects of the program on teacher self-efficacy (Hoogendijk et al., 2018). In terms of teacher-student relationship and this study, relationship efficacy referred to the belief by teachers that they had the skill to develop good relationships.

Purpose of the Study

Through this research I attempted to understand how cultural background factors, or fundamentals of culture, influenced teacher-student relationship in a sample of 81 middle school teachers. I examined teachers in the context of middle schools in the northwest and northeast regions of the United States to better understand the phenomenon of teacher-student relationship in terms of culture. If teacher-student relationship could be predicted by certain value-driven behaviors, teachers could become better at diagnosing conflict and adjusting behavior so as not to perpetuate the conflict with students (McGrath & Van Bergen, 2014).

Relationships have been studied as important aspects of all systems because organizations run more efficiently in the absence of problems caused by conflictual relationships. The unique nature of diverse communities is that intercultural relationships become increasingly important as a community diversifies. Intercultural relationships and cross-cultural relationship training became increasingly important for organizations in the mid-20th century. One of the earliest intercultural relationship studies involved interviews with participants from small, homogenous, non-White communities in the Southwest U.S. Kluckhohn and Strodtbeck (1961) examined dimensions of culture-related values of five different cultural groups, including Navaho, Mexican-Americans, Texan homesteaders, Mormon villagers, and Zuni pueblo dwellers. From this study they

attempted to create profiles of each group to show similarities and differences (Hills, 2002). Since then, the fields of medicine, law, psychology, social work and education have engaged in practices to improve relationships in recognition of the increasingly heterogeneous communities and systems that exist in the United States (Cross et al., 1989; O'Donnell & Johnstone, 2012; Rinfret-Raynor & Raynor, 1983; Tervalon & Murray-García, 1998).

In education-related research, Joshi (2009) studied early childhood teachers and parents and found that cultural notions of education were one factor that impacted perceptions in India. Fredriksen and Rhodes (2004) further suggested that the quality of teacher-student relationship was impacted by the behaviors, beliefs, and expectations of teachers. Sabol and Pianta (2012) proposed that cultural context may play an important role in how teacher-student relationship operated within a classroom environment. One of the most under-studied areas in education research related to teacher-student relationship and cultural background is the public school system.

My study proposed to address this gap by integrating elements of cultural humility theory (Foronda, 2020) and cultural self-awareness as a framework to examine the nature of teacher-student relationship that exists in public schools and how it relates to the background culture of teachers, as explained by Storti and Bennhold-Samman's (1997) fundamentals of culture. Hamman (2017) suggests the theory of cultural humility has evolved as a more complete understanding of intercultural relationship than the competing theory of cultural competence which has been associated with ignorance, elitism, and stereotyping (see Appendix B for a visual reference of similarities and differences between cultural competence and cultural humility).

The purpose of this study, therefore, was to explore whether or not factors of a teacher's background and culture contributed to teacher-student relationship. The exploratory nature of this study combined culture, rooted in anthropology with both culture-related behavior, rooted in psychology, and behavior-related perceptions of teacher-student relationship, rooted in education. By examining fundamentals of culture, which are factors related to cultural self-awareness, the goal was to determine the best set of predictors of teacher-student relationship from a teacher's perspective. This could vary across the P-12 population, which is why it was important to consider grade bands separately and why I chose a specific band, middle school, for this study.

Using a quantitative correlational design, I analyzed the different combinations of fundamentals of culture including concepts of self and time, personal-societal obligation, and locus of control that independently or in combination could impact teacher-student relationships in middle schools from a teacher's perspective. Considering the classroom as the environment, the concept of self was explained by a dimension ranging from individualist attitudes and goals to collectivist attitudes and goals (Gudykunst & Kim, 1992). It referred to the level of psychological or emotional attachment of individuals to one another in peer groups in terms of individualist compared with collectivist attitudes (Storti & Bennhold-Samman, 1997). The concept of time was explained by a dimension ranging from monochronic, characterized by doing one thing at a time, to polychronic, characterized by doing two or more things simultaneously (Bluedorn et al., 1992). Personal-societal obligation was explained by a dimension ranging from universalism, where everyone is treated the same and communication with strangers is the same in a variety of situations, to particularism, where communication is adjusted according to a

particular situation (Gudykunst & Kim, 1992). Locus of control related to fate; the ability to control one's destiny, versus the idea of being controlled by life's circumstances (Storti & Bennhold-Samman, 1997).

Significance of the Study

The role of education has pivoted between the demand for rigor and the demand for engaging environments (Rexhepi & Torres, 2011). For example, schools are required to report how well students perform on standardized assessments as well as on climate surveys. If either of these measures indicate a decline, adjustments are made. Educators in today's schools confront the reality that there exists a subgroup of students that does not form a lasting relationship with school and does not desire to continue the routine of school from year to year (İlter, 2023). Teacher education programs and professional development are two ways that educators gain skills or insights into their practice to improve the design, delivery, and implementation of rigorous curriculum through embedded routines that are transparent to students. The embedding of routines is where some educators could benefit through reflection on their own cultural values before implementing practices based on assumptions of what the classroom environment should look like.

Definitions of Key Terms

Definitions that guided the understanding of this dissertation are included in the next section. Each term was defined in relation to the purpose of the study and conceptual framework (see Appendix C for list of these terms).

Concept of Challenging vs. Easygoing Student

Specific to this study, the terms challenging and easygoing student referred to

teacher perceptions of the teacher-student relationship as negative, unpleasant, and conflictual versus a relationship that is free from conflict and negative exchanges (Ang, 2005).

Concept of Self

One of the four fundamentals of culture discussed in this study, the concept of self was explained by a dimension ranging from individualist attitudes and goals to collectivist attitudes and goals (Gudykunst & Kim, 1992). It referred to the level of psychological or emotional attachment of individuals to one another in peer groups in terms of individualist compared with collectivist attitudes (Storti & Bennhold-Samman, 1997). In a school setting, for example, teachers that valued individualism could create a classroom environment requiring more time for independent work compared with group work. A school administrator that valued collectivism could encourage the routine of sitting with friends during lunchtime versus eating as quickly as possible.

Concept of Time

One of the four fundamentals of culture discussed in this study, the concept of time was explained by a dimension ranging from monochronic, characterized by doing one thing at a time, to polychronic, characterized by doing two or more things simultaneously (Bluedorn et al., 1992). Individuals with a monochronic orientation tended to document everything and value being on time, being efficient, and planning carefully. Monochronic systems could include a structure for break times and time off; timers and punch clocks as essential to ensure productivity. In contrast, individuals with a polychronic orientation believed time was to be used to the advantage of the individual. Deadlines could be extended, meetings could start late and end late, and work time could

be flexible. In most American schools, an emphasis on bells, student time in class, teacher instruction time, and task completion could be consistent with monochronic time.

Cultural Awareness

Cultural awareness referred to an understanding of the differences between individuals and people from other countries or other backgrounds, especially differences in attitudes and values (Green, 1982).

Cultural Competence

In considering relationships among individuals from different cultural backgrounds, cultural competence referred to the behaviors, attitudes, and policies that help to establish effective practitioner-client relationships by understanding perspectives of others, especially those of minorities (Cross et al., 1989).

Cultural Humility

As a concept, cultural humility was defined as a process of openness, self-awareness, being egoless, and incorporating self-reflection and critique after interacting with diverse individuals (Foronda et al., 2016).

Cultural Self-Awareness

Different from understanding other cultures, cultural self-awareness described how culture has influenced the self (Lu & Wan, 2018) and the implications of this on behavior.

Cultural Variability

Cultural variability was defined as a concept that emerged from the work of Hofstede (1980) and that referred to the dominant values, principles, beliefs, attitudes, and ethics that are shared by an identifiable group of people that constitute a culture

(Storti & Bennhold-Samman, 1997).

Culture

For purposes of this study, culture referred to a set of unspoken rules that shape values, beliefs, habits, patterns of thinking, behaviors, and styles of communication (Scott, 2008).

Flexibility

In considering teacher-student relationship, flexibility referred to level of accommodation offered by teachers (Reimann, 2005).

Fundamentals of Culture

Fundamentals of culture referred to the four dimensions of culture that underlie and affect a wide range of human interaction. They included the concept of self, personal versus societal obligation, the concept of time, and locus of control (Storti & Bennhold-Samman, 1997). Fundamentals of culture were considered sensible, relatable, and easy to use in making comparisons within a classroom setting (see Appendix D for a tabular comparison of the dimensions).

Intercultural Understanding

In considering teacher-student relationship, intercultural understanding was the ability to understand and value cultural differences (Gudykunst, 1983), especially as it related to situations in education.

Locus of Control

One of the four fundamentals of culture discussed in this study, locus of control was explained by a dimension ranging from valuing activism, or the belief that destiny was impacted by effort, to valuing fatalism, or the idea that the fate of an individual was

controlled by life's circumstances (Storti & Bennhold-Samman, 1997). In the classroom this could be reflected through engagement and motivation, both by the teacher and the student.

Middle School Teacher

In this study, a middle school teacher was anyone who instructed students in the 6th, 7th, or 8th grades.

Openness

In considering teacher-student relationship, openness was characterized by honesty, sincerity, respect and non-defensiveness, especially as it referred to teachers in a classroom setting (Valenzuela, 1999).

Personal-Societal Obligation

One of the four fundamentals of culture discussed in this study, personal-societal obligation was explained by a dimension ranging from universalism, where everyone is treated the same way and communication with strangers is the same in a variety of situations, to particularism, where communication is adjusted according to a particular situation (Gudykunst & Kim, 1992). It included the transfer of information relating to how a communicator interpreted the information, judged its importance, and chose to deliver it. Universalism described the preferred interaction with individuals as the expectation to follow the same laws. Particularism, in contrast, described a belief that rules were not always the most important thing. In a classroom, this could be seen through the types of daily expectations students are instructed to follow. For example, a student could lose trust in a teacher who promised to give an exam but then delayed it. The communication of rules could be perceived as the groundwork for developing

communication style in classroom environments.

Teacher-Student Relationship

Teacher-student relationship concerned behavior related to interactions between teachers and students, including communication of expectations, provisions of help, and provisions of safety (Wentzel, 2010).

Research Questions

Two primary research questions drove the approach and analysis of this study.

Research Question 1

Is there a significant correlation between teacher-student relationship and the various fundamentals of culture?

Research Question 2

Can a model of fundamentals of culture explain the variance in teacher-student relationship?

Other peripheral influential questions considered in this study:

- Could self-reflection and self-awareness and critique, attributes used to measure cultural humility, be elements of a structure through which fundamentals of culture could be examined?
- What impact does a teacher's culture have on how they perceive conflict?
- Does cultural self-awareness matter?
- Could this study lead to research-based intervention for strengthening teacher-student relationships?

Assumptions related to educational research were important in this study. The first was that schools in the study served populations of students within the same general age bracket and with different ethnicities. Second, it was assumed that those same schools employed teachers with varied demographic characteristics of age, experience teaching, and ethnicity. To check this assumption, demographic statistics were collected as part of the questionnaire. Another assumption was that participants in the study received diversity training as required by public school districts and that responses on the questionnaire accurately reflected the cultural values, experiences, and relationships of educators. Finally, participants presumably completed the questionnaire honestly and without reservation. To facilitate this, recruitment letters ensured anonymity and confidentiality.

Summary

This study attempted to understand correlations related to cultural values of teachers in several schools located in the northwest and northeast regions of the U.S. and the impact of those values on teacher-student relationship, as exhibited in self-report measures specific to relationships with students. Chapter two reviewed extant literature on this topic, including the most relevant studies on teacher-student relationship, dimensions of human values, cultural self-awareness, and cultural humility. It also addressed how relationships, and more specifically, cross-cultural relationships, were a critical area of interest historically in several different client-oriented fields and sparked the development of the concepts related to fundamentals of culture. Chapter three gave a comprehensive analysis of the research design chosen for this study, including procedure, participants, sampling techniques, and statistical analysis. Chapter four provided a

detailed results section of all parts of the study including demographics, teacher-student relationship, and fundamentals of culture in an attempt to answer the research questions. Chapter five summarized the research including limitations to the study and other questions that surfaced. It also offered suggestions for future research.

Chapter 2: Review of Related Literature

> People's effectiveness in intercultural communication could be improved by increasing their cultural self-awareness, that is, their ability to recognize cultural influences in their own cognitions. This should have several beneficial results. Most importantly, it should enhance people's skill in diagnosing difficulties in intercultural communication. (Kraemer, 1973, p. 5)

Introduction

The review of literature included primary and secondary research, both quantitative and qualitative, as well as academic books and papers related to teacher-student relationship, cultural humility, intercultural relationship, and dimensions of culture. Articles and books were located using scholarly search engines linked through the Seattle Pacific University library, Research Rabbit, and Google Scholar. TestLink and other testing databases were used to identify primary sources of relevant instruments. Historical research on the origins of fundamentals of culture dimensions and instruments measuring those dimensions and teacher-student relationship included research from 1940 to 2010. Other articles were located by a narrow search ranging from 2010 to 2023. Each item included in this review supported the research questions in my study and the theoretical framework that undergirded it. In the following section, I reviewed relevant literature that connected organizational environments and intercultural relationship concepts to theoretical foundations that support the role of fundamentals of culture in impacting teacher-student relationship. The Statistical Package for the Social Sciences (SPSS) was used to analyze results from the questionnaire.

Over the past thirty years, public school districts in the United States have become increasingly aware of the problem of access and equity in education as they adjust to the changes in demographics of the student population. Non-White students in schools currently make up more than 53% of the student population (National Center for Education Statistics, 2021), while Whites represent 79% of teachers (National Center for Education Statistics, 2022). Non-White students include African American, Latinx, Native American, Pacific Islander, Asian, and multi-racial students. Teachers, institutes of higher education, and policymakers regularly seek guidance in planning for the future. They are provided with resources for diversity, equity, and inclusion programs to address the lack of sensitivity toward other cultures and subgroups of populations, without recognizing the importance of self-awareness. Teachers participate in professional development trainings that focus on cultural responsibility when what may be missing are elements of cultural self-awareness which include an openness to understanding one's behavior based on cultural background and social norms. Cultural background is influenced by family upbringing and tradition. Social norms refer to beliefs or morals that shape decision-making and communication. Flexibility, openness, and cultural awareness are some of the areas that need to be more closely measured (see Appendix C for these terms and other related terms and definitions).

Decades of research have confirmed the importance of teacher-student relationship in impacting student motivation, social outcomes, and classroom learning (Davis, 2003; Deci & Ryan, 1990; Klem & Connell, 2004; Pianta, 1999; Pianta et al., 2002; Pianta & Stuhlman, 2004; Wentzel, 1997, 2002). Between 2010 and 2021, according to the National Center for Education Statistics (2023), non-White students

from multi-cultural backgrounds began to outnumber White students in public schools. Those same schools, however, continued to employ a White majority faculty from varied backgrounds. Policies created by individuals from cultural backgrounds made up of similar values could unintentionally create barriers to access for those coming from dissimilar backgrounds, resulting in the perception of inappropriate behavior or conflict. McGrath and Van Bergen (2014) described how teachers defined and reacted to deviant behavior differently, illustrating how reactions to conflict in a classroom setting could vary according to how the teacher perceived their relationship with individual students. They suggested that a teacher's interpretation of student aggression could cause them to respond with either reassurance or reactive aggression, and that this depended on their relationship with the student. Hargreaves et al. (1975) found that teachers subtly communicated their ideals to students such as being helpful, rule-oriented, motivated, and hard-working. This was problematic because it reflected a value system that was goal-oriented and determined by the teacher's ideal learning environment without taking into consideration students who could have different learning styles because of having been raised in a low-structured or differently structured environment.

The quality of teacher-student relationship has often been linked to academic achievement. Through the framework of attachment theory, students who reported more closeness and less conflict with teachers scored significantly higher on standardized tests (Birch & Ladd, 1997). Teacher-student relationship has additionally been shown to predict social, behavioral, and academic outcomes throughout the primary school years (Birch & Ladd, 1997; Furrer & Skinner, 2003). Though policies have been developed from this research based on teacher-student relationship, there is a dearth of studies that

consider the role that cultural background plays in teacher-student relationship or in how cultural self-awareness and self-reflection aspects of cultural humility could prepare middle school teachers to work in a multi-cultural setting.

Studies in education noted that teachers have different personalities and different teaching styles (Daniels, 2009) burdening students with figuring out how to navigate a classroom environment that involves a wide spectrum of learning experiences.

The literature was less clear on how teaching styles and a teacher's cultural background impacted relationships with students. Understanding this phenomenon could guide teachers, policy makers, and educational administrators to engage in practices that support cultural self-awareness and fund programs that are targeted to specific needs to improve school environments. It might also assist institutions of higher learning in adjusting curriculum to better meet the needs of new teachers. In the following section, I investigated the underlying factors of teacher-student relationship in terms of a teacher's cultural self-awareness, social norms and cultural background that could lead to a teacher having a greater propensity to relate to students of all cultural backgrounds in a positive way. First, I described the conceptual framework supported by theories of cultural humility and cultural self-awareness that formed the theoretical foundation for connecting teacher-student relationship and fundamentals of culture. Next, I discussed how intercultural communication has been prioritized in different organizations over the last half century. I then explored the research on the importance of teacher-student relationships in education and explained the concept of intercultural relationships. Finally, I discussed the fundamentals of culture used to study value orientations related to

different cultures and described how they influenced relationships and were particularly important in understanding teacher-student relationships.

Conceptual Framework

The theoretical construct connecting the concept of teacher-student relationship with foundational concepts that contribute to those relationships utilized cultural humility theory as a theoretical framework and cultural self-awareness as a conceptual framework. Both identified ways of recognizing cultural influences on one's own value system and beliefs, shifting the paradigm of behavior when considering interactions with others. Rather than building relationships based on cognitive awareness of the tendencies or assumptions about why students from particular racial or ethnic backgrounds behaved in certain ways, one must first possess knowledge and understanding of self. Knowing where one's own behavior came from should help to clarify situations involving conflict.

Cultural Humility

Cultural humility was introduced by Tervalon and Murray-Garcia in 1998 as a way for healthcare and social workers to better connect with their clients. The theory, developed by Cynthia Foronda in 2020, was based on three tenets. The first was the attitude of engaging in lifelong learning and reflection on one's values, and openness. In contrast, cultural competence, also examined as a way to connect with clients, presumed the ability to become proficient in another culture as an end goal (Taş & İskender, 2017). The second was the awareness of power and privilege in society. This tenet observed how less powerful members of institutions, such as students or families in schools, accepted the unequal nature of power distribution. The third tenet recognized the accountability of institutions toward change. This acknowledged the responsibility of all educators to

reshape systems and advocate for more favorable outcomes in education. In terms of teacher-student relationships, the fundamentals of culture interconnected with the first and second tenets, which suggested an understanding of personal values related to culture, and with the third which required attention to the continuous improvement of the system in which individuals work.

The five attributes used to examine cultural humility in counseling were openness, self-awareness, ego-less, supportive interactions, and self-reflection and critique (Gonzalez et al., 2021). A concept analysis of the term "cultural humility" found that these attributes were used in a variety of contexts in the field of nursing and contributed to mutual empowerment, partnerships, and lifelong learning. In the analysis, antonyms for the term "cultural humility" included prejudice, intolerance, stereotyping, mistrust, and oppression. The same cultural humility attributes of self-reflection and a recognition of power imbalances that were found in nursing could also be found in education. According to Foronda (2020), conflict occurred when differences in perspective were misunderstood, leading to an interference of accomplishing goals and building positive relationships. The goal for teachers after reflection and recognition of power should be accountability to advocate for systemic changes in the educational institution, which ultimately benefits students.

Cultural Self-Awareness

The term cultural self-awareness has existed in literature since the 1970s when it was used to structure training for the Human Resources Organization of the U.S. government (Kraemer, 1973). Awareness of one's behavior related to cultural background could make the behavior more transparent as opposed to discovering it as a hidden entity.

This was especially true for those who attempted to understand others and their backgrounds in the workplace.

Cultural self-awareness as presented by Fei Xiaotong (1997/2016, 2002/2015) was used to understand how cultural norms of teachers influenced their interaction with students, given a student population composed of many different cultures. The framework emphasized engagement with multiple types of knowledge and intercultural experiences and the overlap with fundamental culture appreciation attitude, referring to self and others. Finally, it suggested the importance of conducting culturally oriented research. Although it is unclear whether researchers have established cultural self-awareness as a theory, those who have written about it refer to it as a theory (Yang & Gao, 2020).

Organizational Environments

Educational Setting

The classroom setting has been observed as an environment involving power and control of time and space unique to other settings. Culturally responsive teaching (Hammond, 2014) was used extensively for professional development in schools to help teachers better interact with students, especially students of color who identified as African American. The limitation with this approach was that it generalized how content was delivered across many cultures without taking into consideration a teacher's approach based on their own culture. For example, Hammond (2014) suggested that most of the population of the U.S. aligned with individualist behavior while many other cultures were more collectivist and therefore, teachers in the U.S. needed to learn how to teach using collectivist approaches. The challenge, however, may have been that teachers needed to understand the building blocks of their approaches, in terms of their cultural

foundation, in order to know what kind of adjustments to make when interacting with students individually.

Settings Similar to Educational Settings

In the late 20th century organizations became increasingly aware of the need for creating culturally friendly environments connecting workers, clients, and patients. The need for improvement in cross-cultural relationships was recognized through satisfaction surveys about the delivery of services. Cultural competency became a major focus in training programs with client-centered disciplines including law, medicine, social work, and psychology (Hamman, 2017). While the intention was to improve systems, Fisher-Borne et al. (2015) argued that competency was not enough since training practitioners to be more comfortable, or "educated in the culture of others" merely reinforced power imbalances (see Appendix B for a sample timeline of culture-related studies in settings similar to education).

Dissimilar Settings

Behavior in the workplace was studied in various forms over the last several decades. In the 1940's, the Meyers-Briggs Type Indicator was developed and later published with mixed results due to its relatively low reliability because responses of individuals were shown to change over a five-year period (Norman, 2016). The idea was that if individuals in organizations could classify themselves as an extroverted, intuitive, feeling, perceptive person (ENFP) or an introverted, sensory, thinking, judging person (ISTJ) they could better negotiate their surroundings. Kluckhohn and Strodtbeck (1960) developed a values concept theory which led to organizational development research aimed at explaining patterns of human behavior. In a report and subsequent training

module on the importance of cultural self-awareness, Kraemer (1973) proposed that by increasing self-awareness using 21 cultural aspects (see Appendix D) difficulties in intercultural communication would be more easily diagnosed. Kaufman et al. (1991) explored the importance of matching time styles of individuals with time styles of organizations. Researchers surveyed 310 employed adults in southern New Jersey and concluded that their sample was fairly representative of the U.S. population ($M = 3.128$) when measured on the Polychronic Attitude Index on a scale of 1 (monochronic) to 5 (polychronic). Organizational training in the 1990's also focused on a need for employees to know themselves in a positive way in order to minimize problems with communication. The Johari Window (Luft & Ingham, 1961) was one such model, where managers were trained in employee relations through an understanding of personalities and how individuals interacted with one another. What is missing from such models, however, especially in relation to teachers, is the need to address cultural self-awareness and indicators that map this awareness before trying to understand the culture of a classroom.

Peace Corps

The United States Peace Corps is a publicly funded agency that invests in cross-cultural training for volunteers who are sent to communities for a period of two years. It aims to develop human capital by sending volunteers to different countries in various programs as teachers, consultants, or trainees (Busch, 2018). One of the earliest examples of cross-cultural relationship questionnaires was the Survey of Interpersonal Values and Survey of Personal Values (Gordon, 1960, 1967) used by the Peace Corps to develop site-based cross-cultural training in foreign countries. Since its establishment in 1961 the

Peace Corps has provided cross-cultural orientation for volunteers, who regularly engage in teaching or training people with backgrounds different from their own (Busch, 2018; Haigh, 1966; Hartzell, 1991). The rationale behind cross-cultural training for volunteers was essentially the same as for teachers: to understand how best to communicate with and meet the needs of a community.

In the 1990s this training included cultural self-awareness elements based on Storti and Bennhold-Samman's (1997) fundamentals of culture. The training modules for volunteers suggested that the concept of self, personal-societal obligation, the concept of time, and locus of control influenced adaption to multi-cultural environments. Volunteers learned what to expect when entering a community and what cross-cultural barriers to anticipate. The model helped identify values that each volunteer embodied during the beginning of a training program and acknowledged that the dimensions of each trainee could be different and were prone to slight changes over time. Peace Corps continues to collect data on volunteer satisfaction during and after a volunteer's service and uses the data to compare volunteer experiences from country to country.

Like Peace Corps, public education is publicly funded. Just as volunteers need training in how to integrate successfully into a foreign culture, teachers frequently encounter students from different backgrounds in their classrooms and are ill-equipped to bridge the culture gap. Simply learning about other cultures is not enough to fully appreciate the dyadic nature of intercultural relationships.

Teacher-Student Relationship

Educators struggle to achieve positive relationships with all students in classrooms. Climate surveys are used in many districts to collect data from students to

use in making decisions about school policies. On one example item from a local school district climate survey (see Appendix A), the statement “I feel comfortable talking with adults at my school if I have a problem” showed that 30% of middle school students disagreed (Panorama Education, 2023). The graph suggests that relationships did not improve from 2021 to 2023, despite a more than 27% average annual increase in budgeted resources during those same years towards diversity, equity, and inclusion intervention programs and professional development (ABC Public Schools, 2020, 2022). While the downward trend could have been triggered by a combination of factors including post-pandemic issues, climate surveys indicated that teacher-student relationships were valued and made a difference in student satisfaction, and multiple theories have supported the association of relationships with student outcomes.

Related Theories

Common theories used to examine teacher-student relationships include attachment theory (Bowlby, 1969) and self-determination theory (Deci & Ryan, 1985). In terms of young students, attachment theory has been used to support teacher-student relationship impact on student retention and long-term benefits of positive teacher-student relationship on academic outcomes (Ansari et al., 2020; Pianta, 2001; Pianta & Nimetz, 1991; Pianta & Stuhlman, 2004). A 1997 study by Birch and Ladd used attachment theory to explain the association of closeness, conflict, and dependency with the ability of young children to adjust to school. According to attachment theory, students responded predictably in a positive way to adults or caregivers with whom they had a secure attachment and in a negative way to those with whom they had an insecure attachment (Bowlby, 1982). In another study, insecure attachment of kindergarteners was

associated with disciplinary problems later in school, especially for boys, as well as low academic performance, and fewer positive work habits (Hamre & Pianta, 2001). Similarly, secure attachment was linked to improvements in behavior and efforts to learn as well as higher grades and standardized test scores (Mitchell-Copeland et al., 1997; Wentzel, 1997).

Self-determination theory (Deci & Ryan, 1985) was used to examine teacher-student relationship among school children, concluding that it positively influenced student confidence and competence as well as behavior (Ryan & Deci, 2000). Self-determination theory posits that students will engage confidently in the social and academic tasks of the classroom when their needs for relatedness, competence, and autonomy are met. Cultural values are of interest when considering self-determination theory because individuals from different cultures often exert extra effort to be recognized and elevated within a dominant White culture.

Wentzel (1993) used attachment theory and self-determination theory to examine middle school students and social behavior and reported significant correlations between social behavior and academic outcomes, concluding that prosocial and antisocial behavior were significantly related to teacher's preferences for students. In a 2014 study on teacher-student relationship in an ethnically diverse sample, researchers using goal achievement theory (Nicholls, 1984) observed that students from Turkish or Moroccan cultures, considered more collectivistic and relatively weak on the dimension of locus of control, exhibited higher levels of dependency on their teachers (Thijs & Fleischmann, 2015). Other theories related to specific aspects of teacher-student relationship included self-system theory (Sullivan, 1953), which used a student's selective inattention to

explain teacher-student relationship as a prominent influencer of student achievement (Ansari et al., 2020; Birch & Ladd, 1997; Pianta & Nimetz, 1991; Roorda et al., 2011), theories of motivation and social cognition (Bandura, 2006; Deci & Ryan, 1985; Marsh 2007; Pajares et al., 2007; Zimmerman, 2008), and expectation demand theory (LaFrance & Hecht, 1999, 2000; LaFrance, Hecht, & Paluk, 2003).

With the recognition by leaders in public education systems of the demographic trend in the national population towards a majority of non-White students, studies have focused on the importance of teachers being aware of other cultures (Ertesvag, 2011) as indicated by diversity pedagogy theory (Sheets, 2005). This theory explained how teachers should be more culturally aware by recognizing the differences in their students. Subsequent to these studies, models were introduced as interventions offered as professional development or training to fix the lack of awareness of other cultures. Culturally Responsive Teaching and the Brain (Hammond, 2014), for example, was used extensively to facilitate intervention in educational institutions.

Measuring Teacher-Student Relationship

Research on teacher-student relationship and how and why it is effective was extensive (Koca, 2016; Roorda et al., 2011). Teacher-student relationship has been measured in a variety of ways and has been associated with different theories depending on the nature of the study and the age of participants. Some data have been extracted through climate questionnaires within which relationship questions were embedded in a larger instrument. For example, a study regarding immigration and teacher-student relationship (Peguero & Bondy, 2011) used the Educational Longitudinal Study of 2002 containing only four questions related to teacher-student relationship to conclude that

first-generation immigrant students had stronger relationships with teachers than subsequent generations. In other studies, instruments such as Wubbles' 48 item Questionnaire on Teacher Interaction (QTI, 1993) were designed specifically to measure teacher-student relationship from the student perspective. Additional questionnaires to measure teacher-student relationship included Ang's 2005 Teacher-Student Relationship Inventory (TSRI) and teacher version of the Teacher-Student Relationship Inventory (T-TSRI), Pianta's 1991 Student-Teacher Relationship Scale (STRS), and Caballero's 2010 Teacher Student Relationship Questionnaire (TSRQ) for students.

Ang's 2005 study set out to determine the elements that supported positive academic achievement scores with students in grade four through junior high school when self-reported by teachers. The results showed instrumental help was statistically significant in predicting positive academic achievement scores, conflict was statistically significant in predicting negative academic achievement scores, and satisfaction was non-significant in predicting academic achievement scores. These three subscales were linked to specific items on the instrument.

Using a socio-educational environment questionnaire, Goulet and Morizot (2023) validated a climate survey that related teacher-student relationship to school engagement. Other studies focused on outcomes of positive teacher-student relationship. Decker et al. (2007) examined the teacher-student relationship between teachers and K-6 African American students in a mid-western state. Participants included 44 students and 26 teachers. Researchers asked teachers to identify students with problem behaviors. Using a multi-rater, multi-method approach, they concluded that improvement in teacher-student relationship correlated with increases in behavioral and academic outcomes. Similarly,

Ansari et al. (2020) found correlations between teacher-student conflict and student outcomes. Of particular importance, researchers concluded that even though students often changed teachers from year to year, the influence of the teacher-student relationship had lasting consequences. Few studies have investigated the building blocks of this relationship, however. One exception is a study on mother–child attachment at 54 months predicting the quality of teacher–child relationship of students and their teachers in a K-1 setting (O'Connor & McCartney, 2006). Another study found that teacher communication style was subject to change during a teacher's career and a positive correlation was suggested between dominant behavior of teachers and student cognitive and affective outcomes (Brekelmans et al., 1992).

Teacher-student relationship as a means for measuring teacher effectiveness was popular in regions that used the Danielson Framework for evaluation (Snyder, 2014). For example, Domain 2 of the framework described a distinguished teacher as one who maintained strong relationships. The construct indicators included teachers' abilities to establish an environment of respect and rapport and to know students and the backgrounds of students.

Intervention models have approached problems of conflict, miscommunication, and lack of warmth by suggesting the need for teachers to understand other cultures. For example, Culture Specific Pedagogy (CSP), primarily designed for counselors, addressed ways that practitioners could learn to be more aware of the background of others (Marbley et al., 2007) without specifically addressing aspects of understanding personal values and beliefs. Studies indicating changes in relationships with teachers were rare. Some researchers have documented that an increase in perceived teacher support was

associated with improvements in behavior and academic performance (Mitchell-Copeland et al., 1997) as well as in efforts to learn and behave appropriately (Wentzel, 1997) from one year to the next.

In the present study, I used the T-TSRI in combination with fundamentals of culture items to investigate the undertheorized phenomenon of teacher-student relationship as it related to cultural background, which could be a key component to improving education in the face of changing demographics.

Intercultural Relationship

The concept of teacher-student relationship was rooted in communication since it could be described as a form of intercultural communication. This communication could further be explained as the exchange of information between teachers and students in relation to the interpretation of expectations, provisions of help, and provisions of safety (Wentzel, 2010). Intercultural communication, in comparison, was the verbal and non-verbal exchange of ideas and messages through the use of language and gestures that involved an element of understanding on the part of the participants (Arasaratnam & Doerfel, 2005).

Related Concepts

Mondillon et al. (2005) observed that countries like Japan were considered more team-oriented, exhibiting less emotion and more non-verbal communication compared to the United States which was perceived as more individualistic in nature, dominated by emotions and verbal communication. In explaining the development of intercultural relationships, Gudykunst and Kim (1992) distinguished emic from etic and described the differences between low and high context interactions. Emic referred to an understanding

of differences in culture from one's own point of view while etic referred to an understanding by comparing one culture with another (Pike, 1966; Smith, 1966). Emic used predetermined categories, such as those explained by fundamentals of culture, to examine selected aspects of a culture related to self-concept (Akande, 2009) and is therefore what was used in this study. Low and high context referred to differences in a predominate communication style depending on cultural background (Gudykunst & Kim, 1992).

In a multi-cultural environment such as the classroom, the terms teacher-student relationship and intercultural relationship were related. Since this study looked at teacher-student relationship from a perspective of cultural background, the linguistic properties of the two terms were considered. Teacher-student relationship assumed a certain power dynamic and a dimension of positive and negative experiences. Intercultural relationship, in comparison, was observed by Gudykunst and Kim (1992) to occur along a positive-negative dimension on a continuum that ranged from strangers, to acquaintances, to friendly relations, to friendships, to romantic relationships. The second of these stages, acquaintances, is where teacher-student relationship occurs because it described casual interactions with non-intimate friends. Altman and Taylor (1973) referred to this stage as friendly and relaxed with commitments that are only temporary. The classroom setting was considered temporary because students and teachers are generally together for a school year.

Measuring Intercultural Relationship

Measuring culture and intercultural relationship was complex due to the existence of shared universal traits among cultures. One way to understand this complexity was by

distinguishing human behavior as being comprised of cultural, personal, and universal aspects. *Cultural* referred to the commonalities found within a particular group of people and how they differed from every other group. It was explained as the set of ideas selected by individuals as they moved about the world and understood themselves and others, with the flexibility of moving between cultural options throughout the day (Arvanitakis & Hornsby, 2016). *Personal* applied to the ways individuals differed from one another, even from those within their own family. Assumptions about one's behavior or that of other groups would not always apply at the personal level and certainly not in equal measure. *Universal* described the commonalities all people within all groups shared, for example, the idea of universal communication by writing, speech, and body language (Storti & Bennhold-Samman, 1997). Because of this, there would always be some similarities when considering intercultural relationships and the behavior and communication of individuals in a new environment.

Cultural Aspects of Relationship

Researchers have studied culture and examined values that differed across cultures and impacted relationships in a variety of forms and in different fields. In a meta-analysis of 210 studies related to culture and organizations other than education, Schaffer and Riordan (2003) concluded that 79% used country as a proxy for culture. In considering cultural influences, country no longer seemed a valid way to understand human behavior since individuals may have ties to multiple countries and be influenced by values from those countries.

Particular behaviors as well as virtues worth striving for were considered important in all cultures. In order to understand the concepts related to culture,

Gudykunst (1983) described three contributing levels. The base level was norms and rules defined by parameters of the next level which was values. Additionally, there were dimensions that sorted those values into attributes. For example, a religious rule (base level) could be related to a value (secondary level) held by most individuals in a culture, which in turn could be placed along the dimension of personal-societal obligation (final level). Understanding self in terms of dimensions of fundamentals of culture could guide behavior and increase the ability to accurately interpret and predict behavior of self and others which could decrease the likelihood of misunderstandings and help create more effective communication (Gudykunst & Kim, 1992).

In measuring culture, 121 instruments were developed over the last 50 years to quantify culture and study it in different ways, although few were related to culture as it affected human behavior and none aimed to explain behavior as it related to teacher-student relationship in educational settings (Taras et al., 2009). The Cultural Intelligence Center, founded in 2004, assembled assessments and developed needs-based training for organizations. Dimensions measured by this organization were not limited to four concepts but included a combination of dimensions from several other studies. For example, one assessment from this organization attempted to measure ten different dimensions including individualism versus collectivism, low versus high power distance, low versus high uncertainty avoidance, cooperative versus competitive, short term versus long term, direct versus indirect, being versus doing, universalism versus particularism, non-expressive versus expressive, and linear versus nonlinear. In researching cultural dimensions, the inclusion of a large number within a study risks the possibility of

overlap, or in terms of regression studies, the interaction effect requiring mediation of independent variables that would need to be checked for causal sequence.

In understanding factors influential to culture and cultural dimensions, three historical studies contributed to the development of my study. Parsons' (1951) concept of pattern variabilities described six dimensions including self-orientation/collective orientation, affective-affective neutrality, universalism-particularism, diffuseness-specificity, ascription-achievement, and instrumental-expressive orientation. According to Parsons, cultural behaviors were dichotomous and required an individual to choose one side before determining the meaning of a situation in an intercultural relationship and before acting with respect to that situation. Kluckhohn and Strodtbeck's (1960) concept of value orientations outlined five dimensions including human nature orientation, person-nature orientation, time orientation, activity orientation, and relational orientation. Kluckhohn and Strodtbeck proposed that cultural orientations defined the principles which governed human behavior and could be instrumental in solving human problems. Hofstede's (1980) empirically derived dimensions of cultural variability included individualism-collectivism, uncertainty avoidance, power distance, and masculinity-femininity. Hofstede found that high uncertainty avoidance was connected to countries with cultures that resisted change, leading to higher levels of anxiety, ambiguity, and concern for the future, and lower levels of motivation for achievement and risk-taking (see Appendix E for a comparison of conceptual dimensions developed to understand intercultural communication). In 2010 Hofstede expanded his study to include other countries that administered the Trends in International Mathematics and Science Study (TIMMS), even though the results were analyzed as country indicators derived from

studies on multinational organizations. Hofstede added two additional values to the study including long-term orientation, which described the degree to which a society valued long-term goals over immediate results, and indulgence versus restraint which referred to the degree with which individuals tried to control desires and impulses (Fang et al., 2016). Hofstede's Values Survey Module (VSM, 2013) used an instrument designed to measure these six dimensions. The items were designed for employees in international business and not appropriate for use with teachers.

Fundamentals of Culture

In 1987 Craig Storti, in the first extensive cross-cultural workbook for Peace Corps volunteers, assimilated and later published a collection of four cultural dimensions similar to those studied by Parsons, Kluckhohn and Strodtbeck, and Hofstede to prepare volunteers to live in a different culture and adapt to another culture's values. Included were the concept of self, as explained by the dimension of individualism-collectivism; personal-societal obligation, as explained by the dimension of universalism-particularism; concept of time, as explained by the dimension monochronic-polychronic; and locus of control, as explained by the dimension activism-fatalism. Within all of the intercultural relationship studies, the dimensions of individualism-collectivism and personal-societal obligation were most prominent, followed closely by attributes within the concepts of time and locus of control.

Concept of Self. The concept of self described the dimension on which individualism and collectivism were located at opposite ends of a spectrum. It explained the level of psychological or emotional attachment of individuals to one another in a peer group, family, or social community (Storti & Bennhold-Samman, 1997). Bolman and

Deal (2017) referenced this dimension to understand relationships and reactions of individuals to one another and within an organizational system. Recent scales to measure individualism and collectivism in various cultures included the Auckland Individual and Collectivism Scale (AICS, 2011) developed by Shulruf et al. (2011), the Horizontal and Vertical Individualism and Collectivism Scale (HVIC, 1998), and the Individualism and Collectivism Scale (INDCOL, 1988). McInerney (2008) used two instruments, the Inventory of School Motivation (ISM) and the Facilitating Conditions Questionnaire (FCQ) and a multiple regression analysis design with subgroups of Lebanese, Asian, Aboriginal Australian, and Anglo students. He concluded that Lebanese and Asian subgroups responded to more individualist, goal-oriented instruction while Aboriginal Australian subgroups performed better in collectivist environments where peer support was high and pressure to meet extrinsic goals was low. Individualism referred to the importance of taking care of oneself before others, valuing independence and self-reliance. For example, independent work time was described as a space where the individualist thrived and remained psychologically and emotionally distant from others. Hammond (2014) discussed the importance of knowing which of these characteristics should be valued and modeled in the classroom, emphasizing that students from non-White families more often than not were from collectivist cultures.

Personal-Societal Obligation. The second factor was personal versus societal obligation. This dimension addressed communication for predicting the behavior of strangers (Gudykunst & Kim, 1992). One way to measure this dimension was the range of universalism to particularism (Schwartz, 1992). Universalism stressed the importance of rules and viewing the world as a system that worked if everyone played by the rules. In

a recent study on behavioral integrity and power dynamics, researchers looked at communication style and hierarchical relationships and concluded that individuals from East and West cultures interpreted spoken commitments differently (Friedman et al., 2018). For example, Indians, Koreans, and Taiwanese individuals tended not to react to broken promises through negative behavior as much as American individuals.

Other considerations within personal-societal obligation included variations in communication styles that used direct or indirect messaging as well as verbal or non-verbal expression. A relaxed, indirect style supported some types of learning in some cultures while direct styles were more acceptable in others. Studies were inconclusive, however, in terms of how communication style varied among cultures. Arguing against the generalization of communication styles to countries of origin, a cross-cultural study used face-negotiation theory to observe individual and cultural variations in communication style and concluded that there was no direct relation to communication style by culture and that relationships varied across cultures (Park et al., 2012).

Concept of Time. The concept of time referred to how individuals conceptualized time differently and was described through the dimensions of monochronic and polychronic cultural orientations (Hall, 1981). Sabha and Al-Assaf (2012) explored faculty awareness and value of time as a resource in Amman, Jordan and found that faculty time management approaches were high in relation to planning and low in relation to execution. Participants were aware of time constraints to complete specific tasks, but the concept of time controlling the execution of the tasks was a challenge. This, in turn, impacted how they related to others.

In 2022, a survey of 75 preschool principals from Sweden found that parents' cultural backgrounds were not taken into consideration when relying on digital communication and that this was due to differences between monochronic and polychronic values (Riddersporre & Stier, 2022). Other studies looked at the relationship between time and work in various cultures and concluded that the perceptions of time impacted work patterns (Guzmán-Valenzuela & Barnett, 2013; Nuttall & Thomas, 2015).

Locus of Control. The dimensions of activism and fatalism helped to explain the way individuals experienced the world, often as a function of cultural upbringing. Activism referred to the concept of causality in terms of an individual's ability to control events as opposed to luck or fate (Rotter, 1990). The General Locus of Control (GLoC) questionnaire (1966) measured the degree to which locus of control impacted individual interpretation of events as being associated with one's own actions compared to external factors (Calado et al., 2018). This was based on Rotter's (1954, 1966) locus of control construct which connected personal history to individual expectations of life occurrences.

In a study of Teacher Growth Mindset (TGM), Mesler et al., (2021) looked at an analytic sample of 57 teachers and 1957 students and revealed mild positive and statistically significant associations between teacher growth mindset and student growth mindset over time. The concept of growth mindset (Boaler, 2016; Dweck, 2012) supported the idea that individuals could be successful in what they chose, for example math, as opposed to the belief that one could be born with a particular math gene. A 2005 study by Ho and Hong used data from the U.S. Department of Education to study the impact of parental involvement on students' locus of control and found significant differences in academic achievement associated with different ethnic backgrounds of

students. For example, results of indirect effects via locus of control indicated that in some subgroups, parent educational aspiration impacted both learning and growth. In terms of the locus of control of teachers in Istanbul, Taş and Iskender (2017) found that locus of control differed by gender.

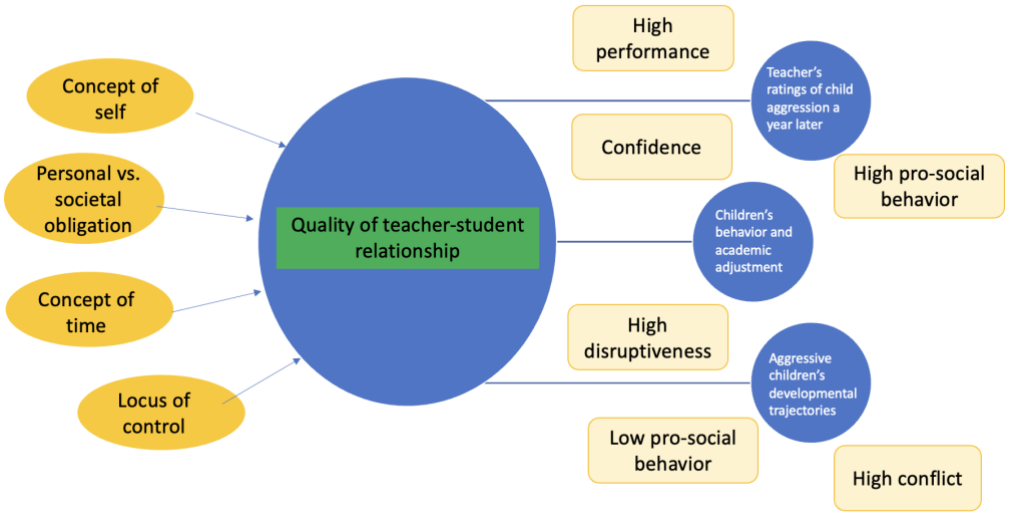
Summary

Teacher-student relationships affect student social, emotional, and academic outcomes; therefore, understanding what affects teacher-student relationships has implications for educators, faculty of teacher education programs, and policymakers seeking to improve educational systems. In addressing problems relevant to education, research with a cross-cultural emphasis has not effectively investigated the interaction effect of cultural foundation factors. This is important in the current environment because more than half of the student population is non-White while four-fifths of public-school educators and administrators are White. Districts are emphasizing and resourcing training for multi-language learner interventions, racial equity teams, and other programs in reaction to this trend, yet broad-based initiatives have not reduced the need for understanding how to strengthen teacher-student relationships in the current climate. The extant literature calls out the importance of teacher-student relationships to positive student outcomes. It also supports the roles that the concepts of self, time, personal-societal obligation, and locus of control play in shaping perceptions. There is a lack of existing research, however, on how these concepts interact with each other to impact teacher-student relationship. Studies support cultural humility as a framework to examine relationships in similar professions. Combining factors of cultural humility and cultural foundations should lead to a deeper understanding of how to support teacher development

more effectively and efficiently in the area of teacher-student relationship. The gap in research is not whether there is a need for diversity training, in all of the complexity that it suggests, but in whether institutions and policymakers need to pay attention to training and program development resources geared towards cultural self-awareness in addition to awareness of other cultures. Figure 2 illustrates the proposed model to determine if fundamentals of culture influence teacher interaction with students and the potential outcomes of that relationship.

Figure 2

Influences and Outcomes of Positive and Negative Teacher-Student Relationship



Note. Ovals represent inputs, rectangles represent possible student outcomes depending on positive (upper) or negative (lower) relationships. Small circles represent known, research-based outcomes.

Chapter 3: Method

Research Design

Shwartz (1992) used Kluckhohn and Strodtbeck's theory of values orientations to make between-group and within-group comparisons of individuals from different cultures. The aim of this study was to use a correlational design to investigate similar associations between factors of fundamentals of culture and teacher-student relationship on a population of middle school teachers through the use of Pearson's correlation and multiple regression analysis. The goal was to determine if there existed a set of underlying cultural values that correlated with teacher-student relationship and to discover if a model in the form of a prediction equation could explain teacher-student relationship using scores on each of the dimensions of fundamentals of culture. Knowing what factors contributed to negative teacher student relationship could impact teachers who have difficulty interacting with students, especially those with problem behaviors (Aloe et al., 2014). An additional goal was to examine data that could provide a set of results for reference in future studies since each of the dimensions has previously been studied in relation to teacher performance or educational outcomes. This study also considered patterns of values that could be mapped to teacher-student relationship efficacy in terms of perceptions of conflict or absence of conflict. The questions involved uncontrolled variables and required a correlation method (Gall et al., 2007) and quantitative analysis.

Participants and Sampling Process

Participants included 81 middle school teachers from the northwest and northeast regions of the U.S. Demographic analysis showed that 37% were male and 60.5% were

female. Non-binary or other was 2.5%. Approximately half, or 48%, were between 22 and 40 years of age, while 52% were 41 years of age or older. The majority, or 91%, were White/Caucasian, 5% were Asian/Pacific Islander, 2% were Hispanic/Latinx, 1% were mixed ethnicity, and 1% chose not to answer. Black/African American was not selected by any participant. In terms of the size of the school district, 62% were from districts with a student population greater than 50,000, and 38% were from districts with a student population less than 50,000 (see Appendix F for the demographic breakdown of participants in tabular format, along with a general overview of the district size where schools included were located). While it would have been appropriate to measure all teachers for this construct, middle school teachers were chosen as participants based on the review of the literature on teacher-student relationship and adolescents (Wentzel, 1993) as well as on my knowledge and experience with this type of classroom setting.

Ten educators and trusted colleagues were asked to help distribute the recruitment letters and questionnaires. Each educator was associated with a school in a particular region or district. Of the ten, seven responded favorably. The initial questionnaire was distributed to approximately 250 teachers at 14 middle schools from seven districts. The recruitment message (see Appendix G) described the purpose of the study, the informed consent provision, assurance of confidentiality and anonymity, and contact information in the event that there were questions or concerns. It also included a link to the Microsoft Forms questionnaire. Participants completed the questionnaire consisting of 78 items. If participants chose to include an e-mail address, or if they e-mailed me separately, they were awarded a $5 Starbucks gift card. There were no duplicate e-mail addresses or names from those that collected the award.

Participant recruitment was restricted to middle school teachers in order to control for confounding variables, such as differences in how teachers in elementary or high schools related to students. Participants were selected based on the essential characteristics of homogeneity, time, space, and quantity (Molina-Mula, 2022). In terms of homogeneity, all participants were teachers in the same general community of a middle school environment. As for time, it was necessary to consider the present time as I was interested in examining the current nature of teacher-student relationship in middle schools. Space referred to selected schools in the northwest and northeast regions of the U.S. Quantity referred to minimum sample size.

Participation in the survey was voluntary. Participants were recruited in person or received the link to the electronic survey during the months of October and November 2023. District and school names were coded for anonymity. Participants were selected based on the following criteria:

- They were currently working with middle school students.
- They were employed by a public school district in the northwest or northeast region of the U.S.

After initial selection, a snowball sampling method (Small, 2009) was used to recruit participants. A limited number of public middle school teachers outside of the northwest region of the U.S. were recruited in order to ensure an adequate sample size.

Since the population of middle school teachers was considered homogeneous as to the phenomena studied, a sample of 50 could have provided reasonable reliability (Deregowski et al., 1983). Using more robust criteria, however, I considered the specific model which required 74-90 participants with three or four predictors or a 25%-35%

return rate on the questionnaire. Green (1991) discussed the cases-to-IV ratio and suggested that a reasonable sample size could be determined by the formula for testing multiple correlation where *N* represented the sample size and *m* the number of IVs. In my model, there were initially four IVs, so a reasonable sample size was 50 + 8(4) = 82 for multiple correlation for four predictors and 50 + 8(3) = 74 for three predictors. An a priori power analysis was conducted using G*Power version 3.1.9.6 (Faul et al., 2007) to determine the minimum sample size required to test the study hypothesis. Results indicated the required sample size to achieve 80% power for detecting a medium effect, at a significance criterion of $\alpha = .05$, was $N = 77$ for linear multiple regression fixed model for three predictors and $N = 85$ for four predictors.

Materials and Measures

TSRI

The teacher version of the Teacher-Student Relationship Inventory (T-TSRI; Ang, 2005) was used to measure teacher-student relationship perception in middle school teachers. The inventory consisted of 14 Likert-type questions with subscales for satisfaction, instrumental help, and conflict. Cronbach's alpha was high .95, .95, and .88 respectively, indicating sufficient internal consistency. An example item was "I enjoy having this student in my class." The instrument was first used in Singapore in 2005 and was used for validation purposes in Italy (Settanni et al., 2015). Even though satisfaction did not emerge as a statistically significant predictor in Ang's (2005) study, it was considered in the current study since the items relating to satisfaction were relevant in the context of the study.

Ang's 2005 TSRI was originally used to measure the dyadic relationship between teacher and student and required each teacher to fill out one form per student. The questionnaire used in this study, in comparison, asked teachers to think of two students in one of their classes, one who was "challenging" and one who was "easygoing," and to answer each teacher-student relationship item twice with those students in mind. The terms "challenging" and "easygoing" referred to their students based on teacher perceptions of the teacher-student relationship as negative, unpleasant, and conflictual versus a relationship that was free from conflict and negative exchanges (Ang, 2005). In the questionnaire instructions, teachers were asked to think of one student characterized by each of the words "challenging" and "easygoing" in terms of relationships that occasionally produced conflict compared with those that were amicable and formulate their responses accordingly.

Fundamentals of Culture

Multiple studies were examined (Hofstede, 1984; Kluckhohn & Strodtbeck, 1961; Parsons, 1979) to determine items to measure fundamentals of culture as discussed in the literature review. The complexity of measuring cultural background required understanding behavior as it related to many different situations. Selected fundamentals of culture items from *Culture Matters* (Storti & Bennhold-Samman, 1997) were used to measure subscales of cultural background including concept of time, concept of self, personal-societal obligation, and locus of control. The items were selected among items from other instruments because they were similar to questions used to measure these dimensions on other instruments but were more appropriate to use with teachers. They were also published more recently than other instruments measuring intercultural

relationship and have been associated with Peace Corps training programs since the 1990's.

The original 78 items were written as pairs of questions at either end of each of four dimensions. These included the dimension of concept of self, measured along the spectrum from collectivist to individualist values, concept of time, measured along the spectrum of monochronic to polychronic values, personal versus societal obligation, measured along the spectrum of universalism to particularism values, and locus of control, measured along the spectrum of activism to fatalism. For example, for monochronic value, the participant was asked to choose between a) "Interruptions usually cannot be avoided and are often quite beneficial" and b) "Interruptions should be avoided whenever possible." Responses for the latter were coded as having a strong monochronic value. The items were adapted to fit the same Likert-type scale used in the teacher-student relationship portion of the survey. This required an adjustment to the scoring to account for a range of responses from 1 to 5. For example, the statement "Interruptions should be avoided whenever possible" was coded as strong monochronic value if the response was 5 and weak monochronic if the response was 1.

TSR-FoC Questionnaire

The TSRI and Fundamentals of Culture items were then combined into one Teacher-Student-Relationship-Fundamentals of Culture (TSR-FoC) questionnaire. All of the items from the T-TSRI were used, and 40 of the 78 items measuring the four fundamentals of culture were used to allow for ten items per independent variable. Items that were eliminated were based on feedback after piloting the questionnaire with four teachers (see Appendix H for a sample questionnaire and scoring rubric). The internal

consistency reliability for each of the scales was calculated through an item analysis using Cronbach's coefficient alpha, and adjustments made to the final instrument by eliminating additional items that contributed to unacceptable results for the scale. After the eliminations, Cronbach's alpha coefficient for the items relating to the TSRI was .90. For items related to individualism Cronbach's alpha was .59, for items related to activism it was .56, and for items related to universalism it was .57. A multiple regression analysis was then re-run for the final model. The intercorrelation matrix was examined for correlations between the independent variables as well as between each of the independent variables and the criterion variable.

The questionnaire examined teachers' perceptions of their relationship with students and teachers' perceptions of their fundamentals of culture. Two items related to giving consent and an option for participants to record an e-mail address to have study results sent to them. Six items collected demographic information. Fourteen items were teacher-student relationship items from Ang's 2005 T-TSRI and one item was an item related to cultural humility in that it required teachers to consider their attitude towards learning in a situation where there is a power differential between teacher and student. The teacher-student relationship and culture items required two responses for each item to account for challenging and easygoing students. Forty items pertained to values related to the fundamentals of culture from Storti and Bennhold-Samman's *Culture Matters* (1997).

The questionnaire was developmentally appropriate since the items were designed for participants 18 years of age or older, which was the same age-bracket as teachers. Some items phrased for a binary response were altered to accommodate a non-binary

response. Items were culturally relevant because they pertained to previously researched aspects of fundamentals of culture. One item "I can learn from students" was added based on a suggestion from the pilot responses in order to specifically address cultural humility in the context of an attitude of life-long learning and acknowledgement of power and privilege. This item was considered separately during the analysis for correlational purposes.

Content validity was addressed through the grounding in theory and piloting of the questionnaire. Problems of validity were minimized by determining the range of tests available and collecting detailed information about each of them prior to selecting instruments or items. An extensive review of the literature was made on the concepts being measured to understand the theory of how they worked. Content validity was also addressed through face validity by respondents who piloted the instrument and discussions that took place with teachers about how to refine item wording for some items measuring the fundamentals of culture. Construct validity was considered through the theoretical knowledge that supported item classification along each dimension, and the verification that each dimension had been used to examine value orientations in prior studies.

In order to test reliability of the questionnaire which combined the two sets of items, I used repeated measurement and coefficient alpha. A test-retest method was used with two participants to see if the instrument would produce similar scores at both points in time (Field, 2013). For each participant, answers were 90% similar to their original answers, with 10% dissimilar responses, such as responding "sometimes true"

one time and “seldom true” the second time or “often true” one time and “seldom true” the second time.

Procedure

A preliminary questionnaire was designed that incorporated items measuring the constructs of teacher-student relationship and fundamentals of culture on the same instrument. To pilot the study, paper copies of the questionnaire were distributed to four teachers for feedback. They included a member of the Race and Equity Team (RET) at a middle school who was also a social studies teacher, the assistant principal at a middle school who was a former middle school math teacher, a former district employee who was also a middle school special education and science teacher, and an international teacher who had spent time as a middle school teacher in the U.S. Minor adjustments were made to specific questions and instructions based on feedback. The questionnaire was then converted to a Microsoft Forms document for ease of distribution and tracking of responses by school and district.

Statistical Analysis

First, I inspected demographic information by school, gender, ethnicity, and size of district. Next, responses for each variable were averaged to obtain an index for each variable. These were transformed using SPSS. For example, items that represented teacher-student relationship were grouped using both statistical mean and statistical median. After comparing all models using both measures, statistical mean was chosen in order to best represent all scores of challenging and easygoing students. Simple dot plots of each measure from the final model were constructed and scores for variables were placed along a set of dimensions.

Preliminary analysis of the data was conducted using the disaggregated items from the conflict scale relating to teacher-student relationship (see Appendix I for illustrated correlations between items associated with conflict in terms of challenging students compared with individualism, universalism, monochronic value, and activism). This process provided insight to better understand the interaction of the predictor variables and teacher-student relationship in terms of conflict.

Inferential statistical tests were used to examine the extent of the relationship between fundamentals of culture and teacher-student relationship. A paired samples *t*-test was conducted to examine differences between scores reflecting responses for "challenging" and "easygoing" students.

A multiple regression analysis was conducted with the outcome as Teacher-student Relationship (TSR) representing level of teacher-student relationship as scored by 14 items in the TSRI (Ang, 2005) and an additional item related to cultural humility. The analysis was conducted to examine each of the dimensions as predictors affecting the teacher-student relationship scores for all students. The analysis looked for statistically significant predictors. Due to the exploratory nature of this study, I considered different models to determine which model resulted in the best or simplest prediction. The four predictors were the fundamentals of culture including concept of self as measured by Individualism (IvC), personal-societal obligation as measured by Universalism (UvP), locus of control as measured by Activism (AvF), and concept of time as measured by Monochronic Value (MvP). The IVs were measured using a Likert-type scale ranging from 1 (almost never true) to 5 (almost always true). Participants were asked to think of two different students from a subgroup they taught, categorize them as "challenging" or

"easygoing" in terms of conflict, and record their responses to the 15-item scale. Since there were two responses per item depending on the student identifier, there were 30 total items in this section. The criterion used to identify challenging and easygoing students was the teacher's perception of conflict. The fundamentals of culture scale contained 40 items. The outcome of interest was teacher-student relationship.

Mediation of any of the IVs were checked for causal sequence. Factors which justified the use of this method included the ability to analyze the influence of one or multiple predictor variables which was the basis for one of the research questions. It also allowed for the identification of outliers and variables that were clearly non-predictors.

Caution was taken to minimize Type I error through use of an adequate sample size as well as careful analysis of the items to increase the accuracy of the instrument and calculation of *p*-values. In the final model, the significance level for entry of predictor variables was set at .05 and .10 for removal. After all assumptions were met for normality, independence, collinearity, and homoscedasticity, a multiple regression analysis was conducted and concept of time or monochronic value (MvP) was rejected. To validate the findings using multiple regression, all combinations of variables were analyzed, each of which led to a non-significant outcome for concept of time.

To minimize the risk of a Type II error, the backward method was used starting with a saturated model of all predictors and eliminating non-significant predictors. To create the equation model, a simultaneous multiple regression analysis was conducted to view each of the different possible models and entered into the simple linear regression for each of the different combinations. A list of all of the models was compiled, indicating which predictors were non-significant in each model. Only models that

included significant predictors were used to create the final model and prediction equation.

Since the statistics were run using a sample of 81 participants, it was important not to over or underestimate the importance of each of the IVs (Tabachnick & Fidell, 2013). During cross-validation, statistical regression on 80% of the sample was run and predicted scores created for the 20% sample using the regression coefficients.

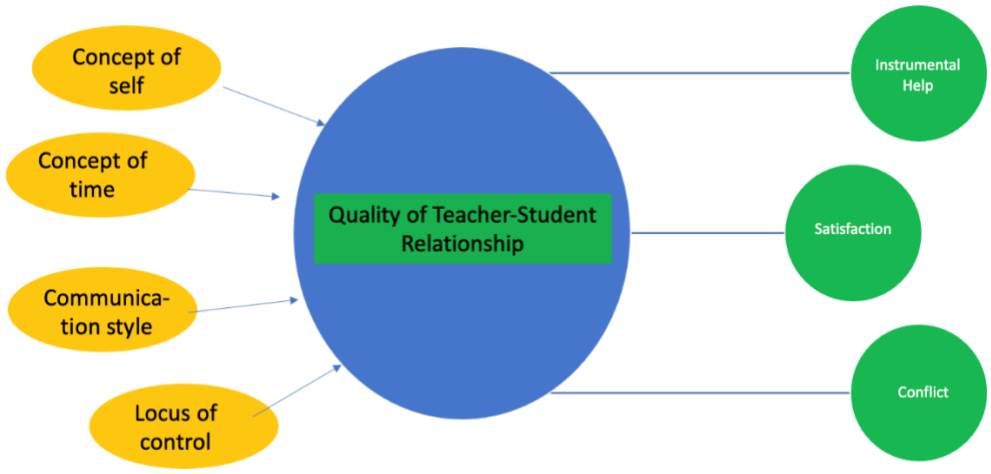
A checklist was used to ensure appropriate considerations, both major and additional, for multiple regression analysis. Major analyses included multiple R^2, adjusted R^2, and semi-partial correlations. Additional analyses included unstandardized and standardized weights as well as the prediction equation from multiple regression analysis (Tabachnick & Fidell, 2013). In general, an examination of the overall data was completed first, then additional analyses were conducted for subgroups of easygoing students and challenging students, for gender compared with easygoing and challenging students, and for the additional item in the instrument related to cultural humility.

Chapter 4: Results

This section presented results from the research questions as well as additional analyses conducted with disaggregated data for challenging and easygoing students. Tables summarized quantitative information based on the theoretical construct shown in Figure 3.

Figure 3

Influences on Teacher-Student Relationship



Note. Ovals to the left represent inputs. Small circles represent known, research-based outcomes.

Data Screening

Data were collected from the Microsoft Forms files and stored in separate Excel documents. The files were then screened for missing cells or unusual entries. Of the 89 responses collected, seven were excluded from the study for not meeting the study criteria. One was incomplete, three were high school teachers, one was a K-5 teacher, and

two selected that they were not teachers and did not select grades 6-8. Completion time for the questionnaire averaged six minutes.

Because there were only seven responses with one blank cell, the missing scores were replaced with the average score for those variables and the cases were included in the analysis. As a result, the standard deviation was suppressed but because the sample size was adequate, and the number of missing values small, this was not a serious consideration (Field, 2013). The data were then combined into a single Excel spreadsheet and appropriate items from each scale were reverse-scored to match the phrasing of those items. After data screening, one case was an extreme outlier and was not included in the analysis.

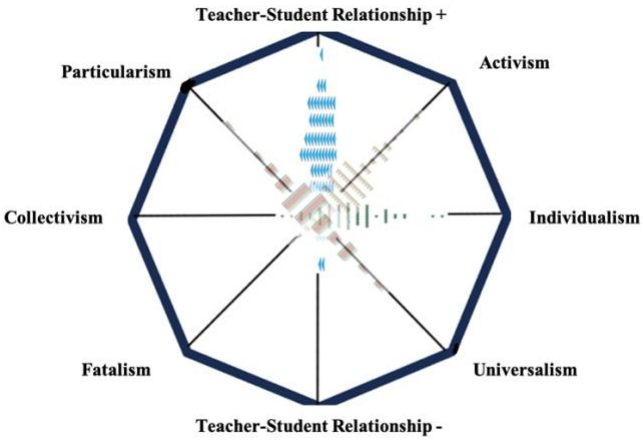
Selected items in each scale were reversed and each subscale was grouped using SPSS and the statistical mean. For each item on the questionnaire, scores were reversed in terms of how strongly they measured each dimension according to the scoring rubric. For example, to measure teacher-student relationship (TSR), conflict items were reversed so that higher scores indicated a stronger perceived relationship. To measure concept of self (IvC), higher scores indicated stronger individualism. For personal-societal obligation (UvP), higher scores indicated stronger universalism. For concept of time (MvP), higher scores indicated stronger monochronic values. For locus of control (AvF), higher scores indicated stronger activism.

For analysis of the data, IBM-SPSS Statistics version 29.0.1.0 was used. Results illustrated in Figure 4 provided a visual representation of responses. Parsons' value orientations model (1961) which used previously studied cultural dimensions provided the structure from which to visualize the results of the DV and the three IVs from the

final model. In all models that measured concept of time (MvP), this predictor was found to be a poor fit and therefore was excluded from the final model. Examining a profile of all participants, the structure contributed additional information through the representation of the sample on specific dimensions of fundamentals of culture and strong or weak teacher-student relationships. As described by Storti and Bennhold-Samman (1997), cultural foundations helped to explain differences in individuals in terms of concept of self, illustrated from left to right as collectivism versus individualism; personal-societal obligation, illustrated as particularism versus universalism; or locus of control, illustrated as fatalism versus activism. Results indicated that while teacher-student relationship appeared stronger overall, differences existed along the various dimensions.

Figure 4

Dimensions of Fundamentals of Culture and Teacher-Student Relationship



Note. Each of the dimensions were measured using a Likert-type scale from 1 to 5 with 5 measuring strong Teacher-student Relationship and a high value for each of the IVs Individualism, Universalism, and Activism.

After screening the data to determine whether multiple regression was appropriate, the analysis was conducted. Assumptions for linearity, independence, homoscedasticity, multicollinearity, and normality were met. There was no perfect multicollinearity, and there was non-zero variance of the predictors (Field, 2013). Table 1 shows the descriptive statistics and correlation matrix for the criterion and predictor variables. The intercorrelations among the predictor variables were moderate to low (< .5). The intercorrelations between the predictor variables and the criterion variable were also low, the strongest suggesting a negative association between individualism and teacher-student relationship.

Table 1

Descriptive Statistics and Pearson Correlations for Study Variables

Variable	*N*	*M*	*SD*	TSR	IVC	UVP	AVF	MVP
TSR	81	3.6	.48	—				
IvC	81	3.3	.32	-.353**	—			
UvP	81	2.9	.43	-.293**	.250*	—		
AvF	81	3.4	.35	.196	.088	.137	—	
MvP	81	3.5	.39	-.120	.241*	.178	.313**	—

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

Mahalanobis distance was calculated to determine any outliers. One extreme case, number 34, was identified and deleted since the metric determined that it was more than three box-lengths distant from outside the box. To check normality, a scatter plot matrix was constructed. Initial analysis used a linear model which resulted in a moderate negative correlation between teacher-student relationship and individualism ($r(77) = -.353$, $p < .001$), universalism ($r(77) = -.293$, $p < .05$), and monochronic value ($r(77) = -$

.120, p = .278) and a positive correlation between teacher-student relationship and activism ($r(77)$ = .196, p = .079).

Variables were then assessed to test assumptions of linearity, normality, independence of errors, multicollinearity and homoscedasticity. All assumptions were met. To determine the relationship between the predictor IVs and the outcome DV, a scatter plot matrix was conducted to verify that outcomes were linear. A histogram for the regression standardized residual for the dependent variable, TSR, was constructed showing relatively normal distribution. Scatterplot shapes in the scatterplot matrix were also close to elliptical indicating that the assumption of normality was met. There was no multicollinearity in the data since tolerance was above 0.2 and VIF was below 10. Since the independent latent variables of individualism, universalism, monochronic value, and activism could not be observed directly, correlations were observed to check that covariances were close to zero (Austin & Brunner, 2007). The assumption of independence of errors and homoscedasticity was tested through observation of the standardized residual scatterplot which was roughly rectangular indicating that the assumption of independence was met and that there was no worrisome level of correlation between the residuals. To test normality, the variance of the residuals was observed using the normal P-Plot of regression and found to be normally distributed. Points were mostly on the line. There was a very slight s-shape but no sag. Skewness and kurtosis values for all variables used were well below two and seven respectively. To check the assumption of bias, Cook's distance was examined after case 34 was removed. The resulting data showed no influential cases biasing the model since no values were over one.

Bivariate Correlation Analysis

For the first research question, "*Is there a significant correlation between teacher-student relationship and the various fundamentals of culture"* a Pearson bivariate correlation was conducted resulting in individualism as the only factor influencing conflict (see Appendix I). Teacher-student relationship with challenging students in terms of conflict tended to have a low to moderate negative association with individualism: ($r(77) = -.230$, $p < .05$). This was similar to the results from the regression analysis.

Regression Analysis

In answering the second research question, *"Can a model of fundamentals of culture explain the variance in teacher-student relationship?"* analyses were initially conducted on the criterion variable TSR and all four predictors IvC, UvP, MvP, and AvF. One predictor, MvP was non-significant in the final model. Significance was set at the .05 level.

Starting with 81 responses from middle school teachers and a set of indicators for possible predictors of Teacher-Student Relationship (TSR), an initial analysis used forced entry to reveal multiple models and correlations between teacher-student relationship and the different predictors individually as well as in combination. Resulting *p*-values for R^2 indicated how likely it was that I would have found a relationship in my sample if it did not exist in the population (see Table 2).

Table 2

Preliminary Correlations of Predictor Models

Model	Description	R square	*p*
1	Individualism (Indiv)	.125	.001**
2	Universalism (Univ)	.086	.008
3	Monochronic value (Mono)	.014	.287
4	Activism (Act)	.038	.079
5	Mono-Indiv	.126	.005
6	Mono-Univ	.091	.025
7	Mono-Act	.075	.048
8	Indiv-Univ	.169	.001**
9	Indiv-Act	.177	.001**
10	Univ-Act	.066	.069
11	Mono-Indiv-Univ	.170	.002
12	Mono-Indiv-Act	.189	.001**
13	Mon-Univ-Act	.164	.003*
14	Indiv-Univ-Act	.235	.001**
15	Mono-Indiv-Univ-Act = full model	.242	.001**

Note. Preliminary correlations resulted from linear regression analysis entry method with each of the independent variables and the criterion variable, TSR.
**$p < .001$

A multiple linear regression analysis was used to identify predictors of the outcome, TSR, from the fundamentals of culture variables which were Individualism (IvC), Universalism (UvP), Activism (AvF), and Monochronic Value (MvP). The model added the variables based on *p*-values. In the next analysis, all predictors were randomly entered into the regression analysis. The total number of variables included in the final model was based on exclusion of variables that exceeded .10 significance.

After an initial model was obtained with one predictor eliminated, an item analysis was conducted using Cronbach's coefficient alpha to determine the internal consistency reliability of each variable with all items. This led to the elimination of some items which, without elimination, resulted in a Cronbach's alpha < .50. The final version retained the 15 teacher-student relationship items for challenging and easygoing students and 19 fundamentals of culture items (see Table 3). Items 6, 9, and 10 were retained for IvP, 2-10 for UvP, and 1, 4, and 6-10 for AvF. After the eliminations, Cronbach's alpha coefficient for the TSRI items and the item related to cultural humility was .90. For items related to individualism Cronbach's alpha was .59, for items related to activism it was .56, and for items related to universalism it was .57.

Table 3

Reliability Statistics for Items Measuring Variables

Measure	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
TSR	.896	.889	30
IvC	.589	.578	3
AvF	.558	.537	7
UvP	.574	.571	9

A second multiple regression analysis was conducted using the retained items to obtain the final model results as illustrated in Table 4. Entry method criteria was based on the probability of F, with .05 for entry and .10 for removal. Using this criterion, the variable MvP was removed. In the final model, 23.3% of the variance of TSR was explained by variation in the independent variables IvC, UvP, and AvF. This model

included the significant predictors individualism (p = .003), universalism (p =.025), and activism (p = .031). The p-values were useful indicators, but relative importance was also measured by effect size. This model represented a large-sized effect f = 0.596 (f^2 = .355) according to Cohen's (1988) guidelines, indicating an important influence from the independent variables. The Akaike Information Criterion (AIC), a goodness of fit measure (Field, 2013) indicated that the second model fit the data better because the value represented by the AIC was smaller. After checking for assumptions, a final model was considered and examined for statistical significance. The final model included three of the four predictors, Individualism (IvP), Universalism (UvP), and Activism (AvF).

Table 4

Regression Results for Teacher-Student Relationship

Model	*b*	*SE B*	β	95%CI		*p*	Bivariate R	Partial R
				LL	*UL*			
Step 1								
Constant	4.281	.181		3.920	4.624	.001		
IvC	-.234	.060	-.404	-.353	-.115	.001	-.404	-.404
Step 2								
Constant	4.791	.284		4.225	5.357	.001		
IvC	-.195	.061	-.336	-.316	-.074	.002	-.404	-.342
UvP	-.231	.101	-.239	-.432	-.030	.025	-.334	-.251
Step 3								
Constant	3.825	.521		2.789	4.862	.001		
IvC	-.181	.060	-.312	-.299	-.062	.003	-.404	-.342
UvP	-.225	.099	-.233	-.421	-.028	.025	-.334	-.251
AvF	.238	.108	.217	.022	.454	.031	.269	.243

Note: α to enter = .05, α to remove = .10

A significant regression equation was found (F (3,77) = 9.094, p < .001), with an adjusted R^2 of .233. Cohen's f^2 was calculated for an effect size of 0.355, or f = 0.596.

According to Cohen's (1988) guidelines, $f^2 \geq .35$ represented a large effect size. Participants' predicted Teacher-Student Relationship was equal to 3.825 -.181 (Individualism) -.225 (Universalism) + .238 (Activism) when individualism, universalism, and activism were measured by a Likert-type scale from 1 to 5, 1 being low and 5 being high. Participants' average Teacher-Student Relationship decreased by .181 points for each point of individualism and .225 points for each point of universalism and increased .238 points for each point of activism. Individualism (IvC), Universalism (UvP), and Activism (AvF) were significant predictors. In other words, every additional unit of individualism was associated with almost a fifth of a point less in teacher-student relationship if the effects of universalism and activism were held constant. This suggested that teachers with individualistic preferences tended to have weaker relationships with students. Every additional unit of universalism was associated with almost a quarter point less in teacher-student relationship if the effects of individualism and activism were held constant. This suggested that teachers who expected everyone to follow rules in the same way tended to have weaker relationships with students. Every additional unit of activism was associated close to a quarter of a point more in teacher-student relationship if the effects of individualism and universalism were held constant. This suggested that teachers who believed that effort could change outcomes tended to have stronger relationships with students. In the final model, 15.2% of the variation in TSR was explained by differences in IvC. When the second variable, UvP was added, the adjusted R^2 increased to 19.5%. When the third variable, AvF was added, adjusted R^2 increased to 23.3% (see Table 5).

Table 5

Regression Results for Model Analysis

Model	R	R Square	Adjusted R Square	R Square Change	Std. Error of the Estimate	*p*
IvC	.404	.163	.152	.163	.4378337	.001
IvC, UvP	.464	.215	.195	.053	.4265655	.025
IvC, UvP, AvF	.511	.262	.233	.046	.4165097	.031

Note. α to enter = .05, α to remove = .10

The predictors IvC and UvP, and AvF were all significant predictors. From the coefficient table, the value for the constant TSR, 3.825, also showed statistical significance. This suggested that with no influence by fundamentals of culture the TSR score would be moderately positive (see Table 6). Concept of self, or individualism, seemed to best explain teacher-student relationship because it resulted in the greatest proportion of variance followed by universalism. A smaller proportion of variance was activism, and monochronic value was not shown to be an influential predictor.

Table 6

Regression Coefficients

Measure	Coefficient	*SE*	*t*	*p*
TSR	3.825	.521	7.349	<.001
IvC	-.181	.060	-3.034	.003
AvF	-.225	.099	-2.278	.025
UvP	.238	.108	2.194	.031

Note. α to enter = .05, α to remove = .10

To minimize variances and biases in the model, a Pearson bivariate correlation was used with an 80/20 split. The results suggested that there was not overfitting using this model, since both correlation coefficients were similar, 20% = .504, and 80% = .511.

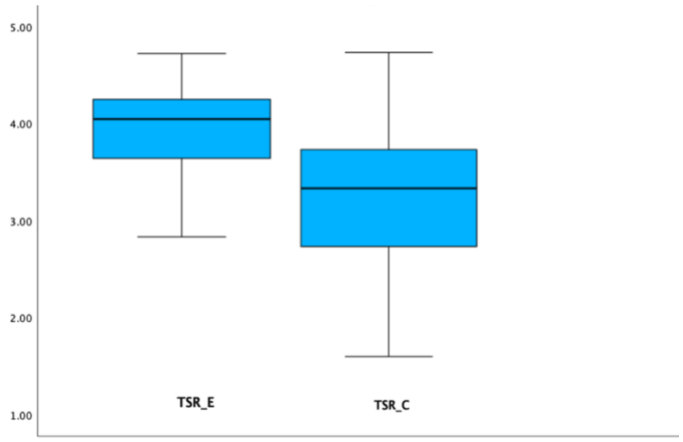
To control for biased estimates, case wise diagnostics were conducted. Using Cook's distance, none of the cases were greater than one, so none had an undue influence on the model. With a sample size of 81, it was expected that 95% of cases would have standardized residuals within about +-2. Therefore, about 4 cases (5%) were expected to have standardized residuals outside these limits. In fact, only one case (1%) was outside the limit, therefore the sample was within 4% of what was expected. There was no cause for concern, except that case 51 had a standardized residual greater than 2, but this did not necessarily require further investigation.

Challenging/Easygoing Students

The study looked at the parameters surrounding what the T-TSRI referred to as satisfaction, instrument help, and conflict. Responses to those questions were used as the base predictors. In other words, there were three characteristics, that when the T-TSRI was used, resulted in values that showed how one teacher was different from or was exactly the same as another. In a completely controlled environment, the expected relationship for challenging students should be the same as with easygoing students. For example, teachers should be expected to follow through with instrumental help for challenging students as much as for easygoing students. Results from the total group of middle school teachers showed that teachers scored higher on teacher-student relationship for easygoing students than for challenging students (see Figure 5).

Figure 5

Teacher-Student Relationship Scores for Easygoing and Challenging Students



Note. Mean scores for each participant were calculated and disaggregated to represent easygoing (TSR-E) and challenging (TSR_C) students.

Though not a research question, a paired-samples *t*-test was conducted to compare the mean scores for challenging and easygoing students to determine if there was a statistical significance in the difference. A graphical test using a histogram and QQ plot was used to confirm normality assumptions for the subgroup easygoing students since a Kolmogorov-Smirnov test for normality was significant for the subgroup easygoing students (p = .003) but non-significant for the subgroup challenging students (p = .200). The percentile bootstrap confidence interval method was used to check that both mean values (bias) were very close to zero. Confidence intervals did not include zero. The paired-samples *t*-test indicated the mean of the teacher-student relationship score for challenging students was 3.23 (SD = 0.673), and the mean for easygoing students was 3.96 (SD = 0.556). A significant difference in positive teacher-student relationship with

easygoing students compared with challenging students was found (t (80) = 10.249, p < .001) and represented a medium-sized effect, d = 0.65 (see Table 7).

Table 7

Challenging vs. Easygoing Students

	Easygoing		Challenging		*t*	*p*	Cohen's *d*
	M	*SD*	*M*	*SD*			
Teacher-Student Relationship	3.96	.456	3.23	.673	10.249	<.001	.646

Overall, the teacher-student relationship score of the 81 middle school teachers was M = 3.596. This was the average of easygoing (M = 3.96, SE = 0.05) and challenging (M = 3.23, SE = .08) responses. The results suggested the tendency to give instrumental help more frequently for easygoing students, a tendency to perceive greater satisfaction in the teacher-student relationship with easygoing students, and a tendency towards experiencing conflict more with challenging students.

Comparing male and female teachers, an independent-samples t-test was calculated to compare the male and female mean score for challenging students to the mean score for easygoing students. A significant difference was found between the male and female participants for easygoing students (t (78) = 3.001, p < .01). The mean of female teachers was significantly higher (M = 4.07, SD = .384) than male teachers (M = 3.77, SD = .494) with a mean difference of 0.29 (95% CI: .100 to .492). This represented a medium-sized effect, d = 0.68. A non-significant difference was found between the male and female participants for challenging students (t (78) = 1.429, p = .157). The

mean of female teachers was not significantly higher (M = 3.31, SD = .627) than male teachers (M = 3.09, SD = .735) with a mean difference of 0.22 (95% CI: -.086 to .526). This represented a small-sized effect, d = 0.32. Female teachers reported stronger teacher-student relationships with easygoing students than did male teachers (see Table 8). For the easygoing student subgroup, female teachers reported having stronger teacher-student relationships with easygoing students than did male teachers.

Table 8

Female vs. Male Teachers

	Female		Male		*t*	*p*	Cohen's *d*
	M	*SD*	*M*	*SD*			
Easygoing students	4.07	.384	3.77	.494	3.001	<.05	.68
Challenging students	3.31	.627	3.09	.735	1.429	.157	.32

A final analysis was conducted to understand the item related to cultural humility, *"I can learn from this student"* resulting in a mean comparison of responses from teachers who believed they could learn more from challenging students (M = 4.280, SD = .850) than from easygoing students (M = 4.085, SD = .905).

Cultural Humility and Teacher-Student Relationship

Comments from participants varied. Some expressed passionate interest in conveying feelings about a teacher's responsibility to tend to all student needs regardless of conflict encountered. Others were interested in the findings of the study and requested copies of the results. Results from the sample of this study indicated that middle school teachers varied in their backgrounds and in their values on the dimensions of

fundamentals of culture. They reported stronger relationships with students they perceived as easygoing than with those they perceived as challenging. They responded positively to the item about the belief that they could learn from all students, yet they responded more positively to this item for challenging students ($M = 4.280$) than for easygoing students ($M = 4.085$). This indicated an inclination towards two of the five attributes used to measure cultural humility, self-reflection and self-awareness and critique.

Chapter 5: Discussion

Research has shown that student-teacher relationship is an important factor in improving social, behavioral, and academic outcomes of students (Birch & Ladd, 1998; Furrer & Skinner, 2003) as well as in decreasing teacher burnout (Aloe et al., 2014). The purpose of the current study was to determine if middle school teachers' cultural background influenced their perspective and behavior when interacting with students and therefore influenced their relationship with students. The design of the research utilized cultural humility theory as a framework, specifically the attributes of self-awareness and self-reflection and critique. The research findings in this study were based on responses to a questionnaire that combined teacher-student relationship items and fundamentals of culture items to determine if fundamentals of culture influenced teacher-student relationship. The following discussion reviews the research, discusses limitations and implications, and offers suggestions for future research.

Summary

Analysis of the results of this study led to a rejection of the null hypotheses for both research questions. For the first question, "*Is there a significant correlation between teacher-student relationship and the various fundamentals of culture?"* individualism resulted in an influential factor, especially as it related to conflict. Teacher-student relationship with challenging students in terms of conflict tended to have a low to moderate negative association with individualism ($r(77) = -.230$, $p < .05$). This was similar to the results from the regression analysis.

For the second question, "*Can a model of fundamentals of culture explain the*

variance in teacher-student relationship?" a predictor equation resulted from a regression analysis in which three out of four independent variables that were measured influenced teacher-student relationship. Individualism and universalism correlated negatively with teacher-student relationship and activism correlated positively with teacher-student relationship. Monochronic value was not shown to influence teacher-student relationship.

The first predictor, individualism had a weak, negative association with teacher-student relationship as did the second predictor, universalism. Activism, on the other hand, had a weak, positive association. In terms of the fundamentals of culture, along the dimension of concept of self, this means that teachers who scored stronger on collectivism, which was at the opposite end of the dimension known as concept of self, tended to score higher on teacher-student relationship. This suggested that teachers who believed that succeeding as a group was more important than individual success tended to perceive their relationship with students more favorably. Those that scored higher on individualism tended to score lower on teacher-student relationship suggesting that teachers who promoted competitiveness tended to score less favorably on the measure of teacher-student relationship. Results supported that a collectivist approach in a classroom setting, as addressed by the practice of culturally responsive teaching (Hammond, 2014), could be beneficial if teachers not only understood the differences between individualism and collectivism in terms of others but also within their own values.

A second predictor, universalism, was also negatively associated with teacher-student relationship. This represented the fundamental of culture dimension of personal versus societal obligation. Teachers who scored higher on universalism tended to score lower on teacher-student relationship. This suggested that teachers who favored holding

everyone in a learning community accountable in the same way without exceptions scored lower on the teacher-student relationship scale while those that believed that rules should be applied differently according to a particular situation scored higher on teacher-student relationship.

A third predictor, activism, was found to have a positive association with teacher-student relationship. This is the fundamental of culture described by the concept of locus of control and represented the dimension of activism versus fatalism. Teachers who scored higher on activism tended to score higher on teacher-student relationship. In other words, teachers who supported the belief that everyone controls their effort and success tended to score higher on teacher-student relationship while those that supported the idea that individuals could do little to change the direction of their lives scored lower on teacher-student relationship. This related to Rotter's (1954, 1966) locus of control construct which was based on the idea that an individual's history led to expectations for the future (Rossier et al., 2005). It also supported findings that positive teacher-student relationship and student motivation resulted from situations where the teacher was both influential and cooperative (Brok et al., 2006).

Findings from this study supported the need for administrators and teachers to reflect on the many subgroups served in their student population and learn how teacher-student relationship, cultural awareness, and conflict are interrelated. For example, the population of multi-language learners (MLLs) and English language learners (ELLs) has grown in districts throughout the U.S. This means that while teachers serve all students with diverse cultural backgrounds, MLLs and ELLs could be monitored as a separate subgroup. Data from this subgroup could be examined to explain differing perspectives in

terms of their expectations from teachers which could lead to further examination and follow-up research. Through openness and flexibility and a better understanding of one's cultural values, teachers could begin to make sense of how their own perceptions interact with the needs of these subgroups, unique to native English speakers.

Responses from the study were originally disaggregated by region. Some regions had a higher-than-expected response rate, while others had a lower than expected or close to zero response rate. An unanticipated result of the data collection process was the consideration of using responses from teachers who worked in districts with student populations above and below 50,000. The responses in both of these categories were considered for analysis as they resulted in a medium sample size of 51 responses, or 62%, from districts with student populations over 50,000 and 31 responses, or 38% from districts with student populations of less than 50,000. After a correlation analysis was made, however, measurements collected for the two district categories based on size of student population did not render any significant results.

Implications for Theory and Practice

In terms of theory, this study shed new light on how to observe and examine teacher-student relationship through the lens of cultural humility. While theories such as goal achievement and attachment theory explained student outcomes from the student perspective, this study focused on teacher-student relationship from the teacher perspective by understanding cultural background dimensions or looking at teacher-student relationship in terms of decisions that teachers make.

For the sample in this study, individualism resulted in a moderate negative association as did universalism, while activism resulted in a weak positive association.

These concepts could be useful as identifiers of potential areas for professional development efforts to better understand conflict in schools. Dimensions of fundamentals of culture, as fixed measures, could be explored in a professional development setting alongside attributes of cultural humility so that teachers could observe their responses to hypothetical situations involving conflict. For example, a teacher could begin to actively structure a response with collectivism, universalism, or activism in mind. In terms of policy, decision makers and faculty at higher education institutions could direct resources at programming to address cultural self-awareness and fundamentals of culture and the role they play in teacher-student relationship. There is a lack of extensive research examining this relationship, providing an opportunity to extend the findings to other groups of teachers or other professions.

Examining teacher-student relationship along the dimensions of fundamentals of culture could be considered useful if planning interventions to address relationships with challenging students. A lack of studies exists that predict relationship scores from teachers within a particular type of district or for subgroups of students based on fundamentals of culture. Understanding that teachers differ in how they relate to challenging versus easygoing students could support interventions aimed at helping teachers respond to the needs of all students equitably.

Individualism and Teacher-Student Relationship

Generally, the findings from this study reinforce the idea that individualism could be an important factor when reflecting on how to improve teacher-student relationships (Hammond, 2014). This demonstrated retrospective validity because collectivism has been observed in a classroom environment, though not through a study such as this one.

Findings further supported that a model of fundamentals of culture could explain some of the variance in teacher-student relationship, though strong correlations were not observed. More research is needed to strengthen the findings from this study and improve upon the measurement of dimensions of fundamentals of culture.

An important finding of this research was that conflict in teacher-student relationships was associated with individualism. Cultural humility theory suggested that the process of self-reflection on values that influenced negative relationships could help individuals recognize power differences and acknowledge the need for change within a system. If teachers understood how individualistic values impacted teacher-student relationship they could use that information to make minor adjustments in a classroom. One result of a self-reflection process could be the recognition that learning about the impact of individualism could be an important factor in improving teacher-student relationships in schools. This could help in diagnosing and responding to conflict so that all parties could benefit from suggestions for interventions on how to identify and adjust actions based on individualistic preferences in a classroom.

Model of Fundamentals of Culture

Of the data collected, it is particularly notable that the fundamental of culture factor measuring the concept of time did not appear to impact teacher-student relationship. In other words, how a teacher feels about interruptions, sticking to an agenda, and multitasking tendencies did not significantly impact teacher-student relationship in the sample studied. In addition, the data from the other variables measured provided clues for optimal learning environments if teacher-student relationship is the focus. Those structured around collaboration, suggesting collectivism; with flexibility,

suggesting particularism; with growth mindset, suggesting activism, and with both teacher and student preferences in mind, may have a stronger impact on teacher-student relationship than simply whether a teacher places a value on doing one thing at a time, reflected by a monochronic value. These findings differed from other research results of how teachers and administrators with strong monochronic cultural foundations sometimes found themselves in conflicting situations with families whose concept of time was more polychronic (Riddersporre & Stier, 2022).

For this study, the implied null hypothesis was that fundamentals of culture did not influence teacher-student relationship. The alternative hypotheses was that there was a significant combination of one or more fundamentals of culture factors that predicted teacher-student relationship. Since results led to the rejection of the null hypothesis, results could be used to suggest focused areas of importance for schools and teacher training programs.

Understanding how the cultural backgrounds of educators might predict the quality of teacher-student interactions could assist educators in better understanding how they relate to students, could help institutions adjust teacher education programs, and could give policy makers data they need to support interventions that promote openness and flexibility within their organizations. An awareness of some of the factors that help explain teacher-student relationship may broaden an understanding of how teachers cope with a changing demographic make-up of their classes and may help teachers engage in self-reflection more often which could impact how they react in situations involving conflict.

Gender of Teachers and Teacher-Student Relationship

For the easygoing student subgroup, female teachers scored higher on teacher-student relationships than did male teachers. While this was not part of the initial research design, it should be noted that a significant difference in was found irrespective of cultural background. This suggests a need for further exploration into how the gender identity of a teacher could influence teacher-student relationship.

Limitations

This study presented a few limitations that had to be considered when interpreting the results. A central limitation was the reliability of the questionnaire given that a test-retest was conducted with only two individuals. If this were a scale validation study, more participants would be needed. Additionally, the use of a questionnaire limited the scope of responses to the items on the questionnaire and contributed to questionnaire bias. The length of the questionnaire as well as respondents' subconscious reaction to items were points of concern. To address these concerns, I included in the recruitment letter the approximate time it would take to complete the questionnaire and a reminder that responses were anonymous and confidential. Threats to internal validity included bias in the design since participants were aware of the purpose of the study.

Bivariate correlation and multiple regression were chosen for analysis for purposes of obtaining an optimal way to answer the research questions. Due to the exploratory nature and correlational design, causal conclusions could not be made; rather relationships were revealed that could inspire, inform, and improve teacher professional development as well as the development of interventions to improve teacher–student relationships. The final set of items used in the questionnaire to measure fundamentals of culture resulted in a Cronbach's alpha of .59, .57 and .56 for IvC, UvP, and AvP

respectively. This was poor but not unacceptable (Affum-Osei et al., 2019; George & Mallery, 2003) compared to other scales such as the Individualism and Collectivism Scale INDCOL (.60 to .70) which has been used to measure individualism and collectivism. A stronger alpha value could have improved the reliability of the study. The predictor MvP achieved the highest reliability score but was eliminated in the final analysis due to the non-significant influence on TSR. To achieve a Cronbach's alpha value of .578, only three of the ten items on the scale measuring individualism were included, which was the minimum suggested number for a scale. In comparison, the analysis retained seven items for universalism and ten for activism. Additional psychometric analysis on the initial instrument containing the items related to fundamentals of culture could have yielded a more reliable set of results.

A limitation in the design of the questionnaire related to the use of a single item that was not from an established measure to assess cultural humility within the same scale as teacher-student relationship. While the item could be related to life-long learning and power and privilege which are attributes of cultural humility, it did not fully capture the construct of cultural humility. Future research could address this by replacing the single item with a minimum of three established cultural humility items appropriate for teachers.

Risks to external validity existed due to a convenience sampling procedure. In terms of scope, this study was designed for 75 to 120 middle school teachers in the northwest and northeast regions of the U.S. The design of the study did not allow for a random sample to be collected from all middle school teachers in the U.S. Since the data were collected through an online questionnaire, future applications could include

administering the survey to participants in other regions of the country or world. Its generalizability would depend on results obtained in those different regions. Comparison studies could be done to determine if there is a difference among regions.

Another design limitation was that the fundamentals of culture items were one set of dimensions used to measure the cultural dimensions of human behavior. Considering that culture was difficult to measure, an assumption of this study was that the four fundamentals of culture were the best set of predictors available, though there may be other aspects that contribute to teacher-student relationship. The study did not include universal or personal influences on human behavior and should not be misinterpreted as measuring specific norms or rules of behavior. The focus was on those values that were influenced by cultural background and social norms.

Limitations that hindered definite conclusions included the lack of control over timing and survey distribution to other schools. To address this, I relied on teachers who expressed interest in distributing the survey to their teams. Due to the uncertainty of the Institutional Review Board (IRB) approval date, I did not contact schools about the questionnaire until I knew that it had been approved. October was a challenging month to ask teachers to spend additional time filling out a questionnaire.

Finally, feedback in some responses reflected teacher decisions about students they chose as easygoing versus challenging and may not necessarily measure their attitudes towards all easygoing or challenging students. This was considered prior to conducting the study and the categories of easygoing versus challenging students were selected in lieu of asking teachers to respond to the questions based on every student in

their class, which would have been a barrier to collecting an adequate number of responses.

Recommendations for Practice

Research confirming that the teacher was the most influential factor in student achievement (Hattie & Clarke, 2019) could be augmented by the consideration of another layer of complexity to what makes a successful learning environment, especially when successful relationships are defined by a lack of conflict or a shared perspective. In terms of practice, teachers considering the dimensions of fundamentals of culture could intentionally build classroom practices and expectations around flexible parameters. Multilingual Learner (ML) coaches could embed conversations relating to these dimensions in their discussions with teachers and families. For example, an ML teacher could discern from dialogue with students and families that the student was more trusting of teachers that give homework or who harshly disciplined disruptive students. On the other hand, a student and their family might insist that all of a student's time outside of school should be dedicated to family. In practice then, the data from this study confirmed that conflict could exist and be defined as a difference in perspective. Furthermore, negative interactions could be perceived when teachers are unaware of making decisions based on their cultural background or when they do not have a firm rationale for their behavior.

Cultural self-awareness, if thoughtfully and intentionally embedded into teacher preparation programs, could help teachers better understand their cultural background and related values before exploring how to develop relationships with students. The exercises in which they could participate would include demographic knowledge of their

preferred area or schools, but more importantly would include knowledge of self, so that wherever they decided to work they would first be grounded in their own values and be conscious of how teacher-student relationship could be more than a haphazard result of the classroom environment.

In terms of professional development, fundamentals of culture could be examined in one or more workshops or through the distribution of materials already written and used for training purposes. Schools that embraced cultural self-awareness practices and comprehension of fundamentals of culture into their school environment could likely improve confidence and satisfaction of educators. New knowledge gained through professional development could provide the data to support improvements in classroom expectations and building-wide policy decisions.

Recommendations for Future Research

The present study attempted to address how teacher-student relationships could be strengthened with heightened knowledge of what influences the background of teachers in terms of their cultural self-awareness. It included schools from seven districts with different proportions of White to non-White students and staff. Future research could explore whether fundamentals of culture influence relationships differently in schools depending on the ratio of White to non-White faculty.

Longitudinal studies could examine cultural humility in the education setting, such as whether cultural humility could be a mediating factor in changing behavior of teachers to improve teacher-student relationship. This could include adapting questions from current scales measuring cultural humility or measuring teacher-student relationship before and after an intervention addressing cultural humility strategies in the classroom.

In addition, this study could be modified to ask the same questions of students about challenging and easy-going teachers. This would require a lengthier study, however, and involve a more sophisticated process of acquiring appropriate consent forms. The possibility of unmeasured confounding bias could also be studied, comparing answers from participants on other criteria such as age or gender that could affect the responses.

Initially I planned to collect samples from separate urban and rural areas to get an idea of how participants responded depending on where they lived. This evolved into separating the school districts into subgroups by size of student population. Results were generalizable to similar schools in similar locations. Results obtained may not be generalizable to all public schools. Future research could include a broader survey to include and compare responses from high-school or elementary school teachers to middle school teachers, or to teachers in other states, other regions of the U.S., or other countries. Sampling procedures could also consider using a random sample at the national level.

To improve this study, funding would be needed to strategically recruit participants from additional regions through site visits, to collect data to validate responses from other districts, and to compare results regionally or internationally. For example, would the same predictors influence teacher-student relationship in a similar way in the southwest or southeast regions of the U.S. or in another country? Results from future research could impact how teacher education programs could share best practices in terms of inclusion of courses based on fundamentals of culture. Results could also benefit school districts seeking to improve school climate, and could inform educational

consultants based in specific regions, states, or countries who may want to embed cultural humility attributes of self-reflection into their work.

Because of the complex nature of culture, the fundamentals of culture are just one way to measure cultural values, specific to one's background and social influences. It is possible that there exists a crossover between universal characteristics of behavior and that of culture or between personal characteristics of behavior and that of culture. In other words, the actual cause for the behavior could be determined by a number of factors. This is beyond the scope of this study but could be a possible topic for further exploration.

Conclusion

In conclusion, results from this study suggested that a set of underlying cultural values consistently associated with teacher-student relationship. Specifically, values of collectivism, particularism, and activism contributed to stronger teacher-student relationship as measured by self-reporting of middle school teachers. Whether we are considering teacher-student relationship, conflict in middle school, or how cultural background influences a teacher’s perception of conflict, the data indicated that there was a subtle, yet important influence of some values measured by fundamentals of culture. Results from this study could provide a set of anchored data for further research.

Public school districts in the United States are adjusting to the trend of non-White students outnumbering White students in public schools, while White teachers continue to dominate the profession. They are also grappling with how to address the issue of race and equity in schools, especially considering questions about cultural sensitivity from teachers. Recognizing a connection between teacher-student relationships and cultural

awareness could begin the conversation to improve campus climates in public schools. A set of predictors of teacher-student relationship efficacy may exist related to cross-cultural awareness that could support interventions. Acknowledgement that teachers differ in their relationships with challenging and easygoing students could inform schools confronted by an overwhelming number of behavior problems in students from various backgrounds. In understanding these factors, public schools should be better equipped to prioritize resources for professional development in the form of targeted, site-based, interventions. Combining factors of cultural humility and cultural foundations should lead to a deeper understanding of how to support teacher development more effectively and efficiently in the area of teacher-student relationship. This, in turn, could lead to an improvement in student satisfaction and learning and an enhancement of the overall learning environment.

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Appendix A

Sample Data From 2023 Student Climate Survey

Figure A1

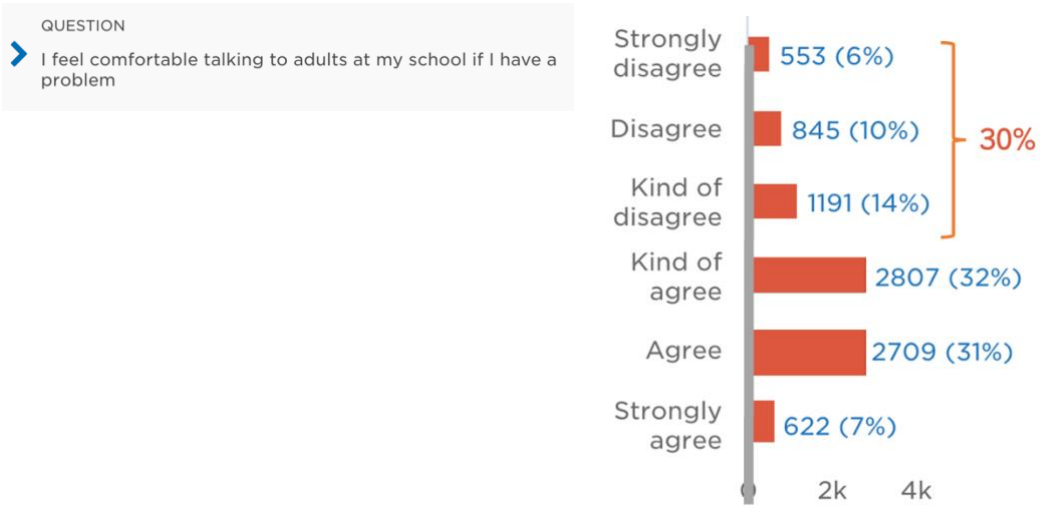
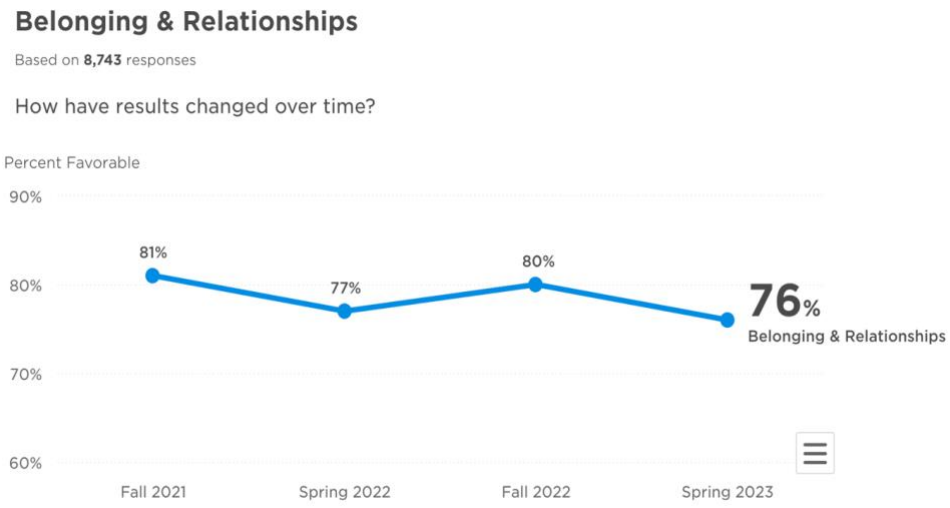


Figure A2



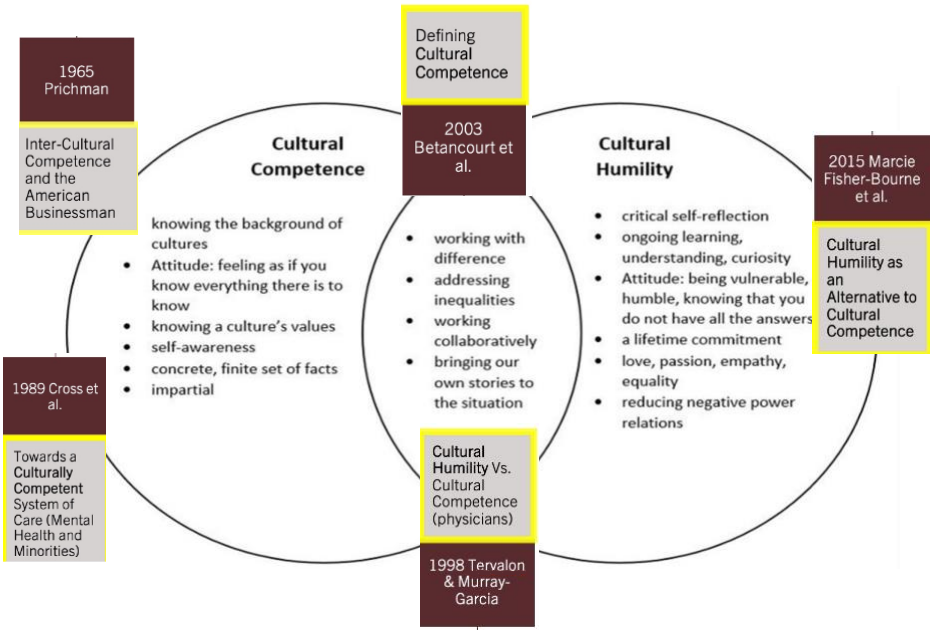
Panorama Education, "Belonging & Relationships Summary." (2023)

Appendix B

Cultural Competence, Cultural Humility, and Related Literature

Figure B1

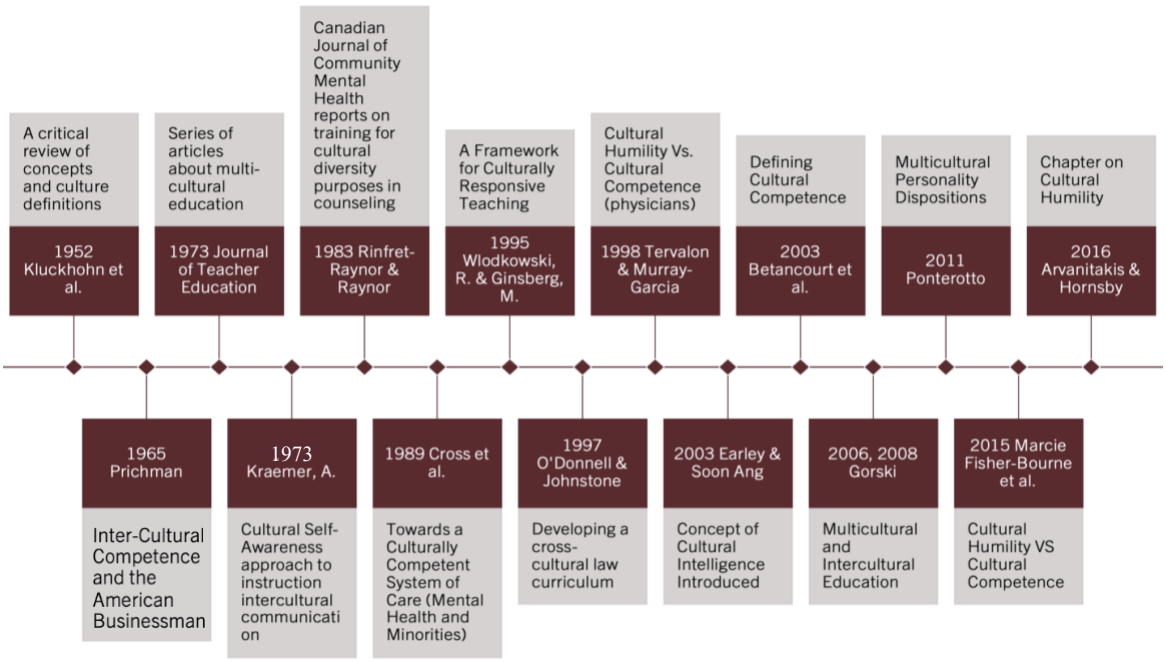
Comparison of Cultural Competence and Cultural Humility



Note. Figure adaption from Harding, 2022 Bringing Cultural Humility to Academic Advising.

Figure B2

Historical Timeline of Culture-Related Literature in Various Fields



Appendix C

Definitions of Key Terms

Word or phrase	Definition
Concept of Self	Refers to the level of psychological or emotional attachment of individuals to one another in peer groups. It was explained by a dimension ranging from individualist attitudes and goals to collectivist attitudes and goals (Gudykunst & Kim, 1992).
Concept of Time	Refers to a dimension ranging from monochronic, characterized by doing one thing at a time to polychronic, characterized by doing two or more things simultaneously (Bluedorn et al., 1992).
Cultural Awareness	An understanding of the differences between oneself and people from other countries or other backgrounds, especially differences in attitudes and values (Green, 1982).
Cultural Self-Awareness	The awareness of how culture has influenced the self (Lu & Wan, 2018).
Culture	A set of unspoken rules that shape values, beliefs, habits, patterns of thinking, behaviors, and styles of communication (Scott, 2008).
Flexibility	Refers to level of accommodation offered by teachers (Reimann, 2005).
Locus of Control	Refers to the belief of how fate in life is decided; it distinguishes valuing activism, or mastering one's destiny, versus valuing fatalism, or the idea that people are servants of life's circumstances (Storti & Bennhold-Samman, 1997).
Openness	Characterized by honesty, sincerity, respect and non-defensiveness, especially as it refers to teachers in a classroom setting (Valenzuela, 1999).

Word or phrase	Definition
Personal-Societal Obligation	Refers to the dimension that ranges from universalism, where everyone is treated the same way and communication with strangers is the same in a variety of situations to particularism, where communication is adjusted according to a particular situation (Gudykunst & Kim, 1992).
Teacher-Student Relationship	Interactions between teachers and students, including communication of expectations, provisions of help, and provisions of safety (Wentzel, 2010).

Appendix D

Aspects of American Culture, from "Development of a Cultural Self-Awareness Approach to Instruction in Intercultural Communication." (Kraemer, 1973)

- Individualism-The belief that each person is a distinct entity and ought to assert and achieve independence from others.
- Egalitarianism-The belief that all human beings are equal in their intrinsic worth.
- Action orientation.
- Perception of interpersonal encounters primarily in terms of their immediate utility and downgrading of the social significance of such encounters.
- Universalism-The value attached to being guided in one's action in a given situation primarily by an obligation to society (i.e., by general standard, of conduct-laws, regulations, rates, established procedures, etc.).
- Definition of persons (including oneself) in terms of their work and achievements.
- The belief that the collective wisdom of the group is superior to that of any individual.
- The idea that the process of decision making requires evaluation of the consequences of alternative courses of action, and selection of the one that, on balance, seems most advantageous.
- The belief that competition is a good way of motivating people.
- The idea that there is usually, a best way of doing something, which should be determined and then followed.
- The belief that knowledge gained through observation is superior to knowledge gained in other ways.
- Unnecessary quantification-The tendency to quantify aspects of experience that require no quantification.
- Placing a higher value on utilitarian aspects of experience than on aesthetic ones.
- Problem orientation-The tendency to perceive "problems" in the world, and in one's existence in it, and to look for "solutions."
- The belief that thoughts cannot directly influence events. Reasoning in terms of probability.
- Impatience-The tendency to be annoyed by the pace of activities if it is slow by one's own standards.
- The tendency to make comparative judgments. The willingness to offer one's services for the benefit of "the common good."
- The belief in the existence of a behavior pattern called "self-help."
- The use of absurd suppositions to communicate ideas or to elicit ideas from other persons.

Appendix E

Comparison of Conceptual Dimensions

Name	Pattern Variabilities	Value Orientations	Cultural Variability	Cultural Foundations
Author	Talcott Parsons	Florence Kluckhohn & Fred Strodtbeck	Geert Hofstede	Craig Storti & Laurette Bennhold-Samman
Date	1951	1960	1980	1997
Characteristics	• Self-Orientation vs. collective orientation • Affective-affective neutrality • Universalism-particularism • Diffuseness-specificity • Ascription-achievement • Instrumental-expressive orientation	• Human nature orientation • Person-nature orientation • Time orientation • Activity orientation • Relational orientation	• Individualism vs. collectivism • Uncertainty avoidance • Power distance • Masculinity vs. femininity	• Individualism vs. collectivism • Universalism-particularism • Monochronic-polychronic • Activism-fatalism

Appendix F

Demographics of Participants and Student Population of Districts

Table F1

Demographics of Participants

Category	Options	N
Age	22-30	12
	31-40	27
	41-50	18
	51-60	18
	60+	6
Gender	Female	49
	Male	30
	Non-binary	1
	Other	1
	Prefer not to say	0
Ethnicity	White/Caucasian	73
	Hispanic/Latinx	2
	Black/African American	0
	Asian/Pacific Islander	4
	Mixed Ethnicity	1
	Other	0
	Blank	1
Born and/or raised	Northwest U.S.	48
	Southwest U.S.	6
	Northeast U.S.	12
	Southeast U.S.	2
	Other*	13

*Of the 13 "other" chosen, eight grew up in the Midwest, one in the Bay area of California, one in Mexico, one in India, one in Canada, one in Japan, and one in the Pacific Region.

Table F2

Middle School Student Population of Districts

Name	*N*	Student Population
District A	39	51,443
District B	13	28,311
District C	14	10,236
District D	5	1,255
District E	1	19,510
District F	1	30,730
District G	8	56,893
Total	81	

Appendix G

Recruitment Letter to Participants

Thank you for your interest in participating in this research study (SPU IRB Approved #232406002, effective October 2023, expires October 2024) on middle school teachers' cultural awareness related to how they perceive their relationship with students.

How Do Fundamentals of Culture Affect Teacher-Student Relationship?

Your responses to this ANONYMOUS questionnaire could help answer this question. As a middle school math teacher, I want to explore how reflection of our values and backgrounds helps schools improve classroom environments. You may choose to retain a copy of your answers and skip any questions you do not wish to answer. Please note that all responses are anonymous, but if you would like to know the results of this study, please input your e-mail address in the first response box. Please note that if you provide an e-mail address, your data is no longer anonymous, but confidential. **If an e-mail address is provided, the first 80 participants will receive a $5.00 Starbucks e-gift card for participating.**

The questionnaire takes 5-10 minutes to complete. Click here to begin.

To learn more about the study, please continue reading.

The purpose of the study is to survey middle school teachers' perceptions regarding their cultural self-awareness and relationship with students. Results of the study could help guide professional development to improve teacher-student relationship and cultural awareness confidence for the population of teachers at specific schools. As a doctoral candidate and math teacher who has lived and worked in different countries around the world, I am interested in better understanding the patterns of conflict in schools. The better the data on classroom environments, the more efficient we can be as leaders to address interventions. With your support through the distribution and/or participation in this questionnaire, I can provide schools with the data they can then use to process and have conversations with their teams about how best to address conflict in their environment.

For questions about this research, please contact:

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For information about the rights of human subjects in SPU-approved research, please contact the IRB office:
IRB@SPU.edu

Appendix H

Questionnaire and Scoring Rubric: Teacher-Student Relationship and Fundamentals of Culture (TSR-FoC)

Can understanding backgrounds help build better relationships?

As a middle school math teacher, I want to understand how we, as educators, can help schools improve collective environments by examining our values and backgrounds. Your answers on this ANONYMOUS questionnaire will not result in an individual profile but will help collect data on your overall school culture. You may choose to retain a copy of your answers and skip any questions you do not choose to answer.

1. Thank you for your participation in this ANNONYMOUS survey. Please note that all responses are anonymous, but if you would like to know the results of this study (SPU IRB Approved #232406002, effective October 2023, expires October 2024), please input your e-mail address in the box below. Please note that if you provide an e-mail address, your data is no longer anonymous, but confidential.

Enter your answer _____

2. Choose one:

- o I acknowledge that my participation is anonymous unless indicated above, and I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost.
- o I no longer wish to participate.

Part I Demographics

3. Which grade level do you teach?

- o K-5
- o 6-8
- o 9-12
- o Other
- o I am not a teacher

4. How old are you?

- o 22-30
- o 31-40

- 41-50
- 51-60
- 60+

5. What is your gender?

- Female
- Male
- Non-binary
- Other
- Prefer not to say

6. What is your ethnicity?

- White/Caucasian
- Hispanic/Latinx
- Black/African
- American Asian/Pacific Islander
- Mixed ethnicity
- Other

7. Where were you born OR which of the following do you most closely associate with the area where you grew up?

- Northwest region of the U.S.
- Southwest region of the U.S.
- Northeast region of the U.S.
- Southeast region of the U.S.
- Other

8. If you answered "Other" to the previous question, please explain in the space below:

Enter your answer _____

Part II

Relationships: Please think about students in your Advisory/Homeroom class or, if you don't have one, please think of your 1st period, or another subgroup. Then think of two students from this group, one who MOST CLOSELY resembles the word "challenging" and one who MOST CLOSELY resembles the word "easy- going" with the understanding that this will vary from class to class. Consider relationships that occasionally produce conflict compared with those that are amicable. Please only consider students you currently interact with this year. Choose the number that best matches one of the following descriptions below for each of the statements and each of the students you chose.

Advisory/Homeroom ☐ **If other class or subgroup, please specify:** _____

1	2	3	4	5
Almost never true	Seldom true	Sometimes true	Often true	Almost always true

1. I enjoy having this student in my class.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5
2. If the student has a problem at home, they are likely to ask for my help.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5
3. I would describe my relationship with this student as positive.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5
4. This student frustrates me more often than most other students in my class.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5
5. If this student is absent, I will miss them.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5
6. The student shares with me things about their personal life.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5
7. I cannot wait for this year to be over so that I will not need to teach this student next year.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5

8. If the student is absent, I feel relieved.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5
9. If this student needs help, they are likely to ask me for help.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5
10. The student turns to me for a listening ear or for sympathy.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5
11. If this student is not in my class, I will be able to enjoy my class more.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5
12. The student depends on me for advice or help.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5
13. I am happy with my relationship with this student.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5
14. I like this student.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5
15. I can learn from this student.		*challenging* *easygoing*	1 2 3 4 5 1 2 3 4 5

Part III: Fundamentals of culture

Below is a list of statements. For each of the following, circle the number that best describes the way you feel about the particular topic. Please don't linger too long on a statement but be as honest as you can.

1	2	3	4	5
Almost never true	Seldom true	Sometimes true	Often true	Almost always true

1. Educators and administrators should be hired from within the organization, based mainly on their seniority.		1 2 3 4 5
2. Educators and administrators should be hired on the basis of the skills they have and previous experience in similar jobs.		1 2 3 4 5
3. Before making a decision, it is best to make sure everyone agrees with it.		1 2 3 4 5
4. Before making a decision, you should get at least half of the people to agree with it.		1 2 3 4 5
5. I am embarrassed by individual recognition.		1 2 3 4 5
6. If I do a good job, I feel I have earned individual recognition.		1 2 3 4 5
7. Confrontation is sometimes necessary to clear the air.		1 2 3 4 5
8. Confrontation almost always causes more problems than it solves.		1 2 3 4 5
9. In the end you can always rely on other people.		1 2 3 4 5
10. In the end you can only rely on yourself.		1 2 3 4 5
11. In society we should help those who are the neediest.		1 2 3 4 5
12. In society we should help the neediest of those who depend on us.		1 2 3 4 5
13. There are no absolutes in life you always have to look at the particular situation.		1 2 3 4 5
14. There are certain absolutes which apply across the board.		1 2 3 4 5
15. You often have to make exceptions for people because of circumstances.		1 2 3 4 5
16. Exceptions should be very rare; otherwise, you open the floodgates.		1 2 3 4 5
17. Contracts aren't necessary between friends.		1 2 3 4 5
18. Contracts guarantee that friends stay friends.		1 2 3 4 5
19. What is ethical in a given situation depends on who you are dealing with.		1 2 3 4 5
20. Ethics are ethics no matter who you are dealing with.		1 2 3 4 5
21. Interruptions usually cannot be avoided and are often quite beneficial.		1 2 3 4 5
22. Interruptions should be avoided whenever possible.		1 2 3 4 5

23. It's more efficient if you do one thing at a time.		1 2 3 4 5
24. I can get as much done if I work on two or three things at the same time.		1 2 3 4 5
25. You shouldn't take a call or acknowledge a visitor when you are meeting with another person.		1 2 3 4 5
26. It would be rude not to take a call or to ignore a visitor who drops by.		1 2 3 4 5
27. It's important in a meeting or a conversation not to become distracted or digress. You should stick to the agenda.		1 2 3 4 5
28. Digressions and distractions are inevitable. An agenda is just a piece of paper.		1 2 3 4 5
29. I tend to be people oriented.		1 2 3 4 5
30. I tend to be task oriented.		1 2 3 4 5
31. If I'm unhappy, I should do something about it.		1 2 3 4 5
32. Nothing's broken if I'm unhappy; it's just part of life's ups and downs.		1 2 3 4 5
33. You should see life as it really is.		1 2 3 4 5
34. It is important to have a positive attitude about life.		1 2 3 4 5
35. I make my own luck.		1 2 3 4 5
36. Many things happen because of chance or luck.		1 2 3 4 5
37. Every problem has a solution if you look hard enough.		1 2 3 4 5
38. Some problems don't have a solution.		1 2 3 4 5
39. If a friend is depressed, I would try to cheer them up.		1 2 3 4 5
40. If a friend is depressed there is no need for me to do anything.		1 2 3 4 5

Fundamentals of Culture-Teacher Student Relationship (FoC-TSR) Scoring Rubric

The following table provides guidance with how to score the FoC-TSR questionnaire, based on the scoring rubrics (Ang, 2005; Ang et al., 2008) provided for the teacher version of the Teacher Student Relationship Inventory (T-TSRI) items and the Fundamentals of Culture items from *Culture Matters* (Storti & Bennhold-Samman, 1997). The items were designed to be completed by teachers. All items are measured using a 5-point Likert-type scale with 5 as strong and 1 as weak. Scores are calculated by summing items related to the subscale. Subscale items for teacher-student relationship can be averaged to find one score.

Subscales

- Instrumental Help: Teacher perceives that student more willing to view the teacher as a resource – approaching him/her for support, advice, sympathy.
- Satisfaction: Teacher more satisfied with teacher-student relationship
- Conflict: Teacher perceives greater conflict between teacher/student.
- Cultural Humility: Single item "I can learn from this student."
- Individualism: Teachers valued a classroom environment of self-starters and independent work.
- Universalism: Teachers valued a preferred interaction with individuals as the expectation that everyone followed the same rules.
- Monochronic Value: Teachers valued doing one thing at a time.
- Activism: Teachers believed that destiny was impacted by effort.

Reverse-scored Items According to Scale

Scale	Item
Part II	
Teacher-Student Relationship	4, 7, 8, 11*
Part III	
Individualism-Collectivism	1, 3, 5, 8, 9
Universalism-Particularism	12, 13, 15, 17, 19
Monochronic-Polychronic	21, 24, 25, 28, 29
Activism-Fatalism	32, 33, 36, 38, 40

* The items in Part I included two responses per item to reflect responses for challenging and easygoing students.

Reverse-scored Items According to Subscale

Section in Instrument	Subscale	Item	Reverse Scored?
Part I: Teacher-Student Relationship	Satisfaction	1	No
	Instrumental Help	2	No
	Satisfaction	3	No
	Conflict	4	Yes
	Satisfaction	5	No
	Instrumental Help	6	No

	Conflict	7	Yes
	Conflict	8	Yes
	Instrumental Help	9	No
	Instrumental Help	10	No
	Conflict	11	Yes
	Instrumental Help	12	No
	Satisfaction	13	No
	Satisfaction	14	No
	Cultural Humility	15	No
Part II: Fundamentals of Culture	Individualism	1*	Yes
	Individualism	2*	No
	Individualism	3*	Yes
	Individualism	4*	No
	Individualism	5*	Yes
	Individualism	6	No
	Individualism	7*	No
	Individualism	8*	Yes
	Individualism	9	Yes
	Individualism	10	No
	Universalism	11	No
	Universalism	12	Yes
	Universalism	13	Yes
	Universalism	14	No
	Universalism	15	Yes
	Universalism	16	No
	Universalism	17	Yes
	Universalism	18	No
	Universalism	19	Yes
	Universalism	20*	No
	Monochronic Value	21*	Yes
	Monochronic Value	22*	No
	Monochronic Value	23*	No
	Monochronic Value	24*	Yes
	Monochronic Value	25*	Yes
	Monochronic Value	26*	No
	Monochronic Value	27*	No
	Monochronic Value	28*	Yes
	Monochronic Value	29*	Yes
	Monochronic Value	30*	No
	Activism	31	No
	Activism	32*	Yes
	Activism	33*	Yes
	Activism	34	No
	Activism	35*	No
	Activism	36	Yes
	Activism	37	No
	Activism	38	Yes
	Activism	39	No
	Activism	40	Yes

*Item removed for stronger correlation in final model.

Appendix I

Bivariate Correlation Analysis: Challenging Students

Correlations associated with conflict in terms of challenging students compared with Individualism (IvC), Universalism (UvP), Monochronic Value (MvP), and Activism (AvF).

Relationship (Conflict)	d.f.	Pearson Correlation	*p*
Challenging and IvC	77	-.230	.039*
Challenging and UvP	77	-.206	.065
Challenging and MvP	77	-.154	.170
Challenging and AvF	77	.152	.177
IvC and UvP	77	.266	.016*
IvC and MvP	77	.236	.034*
IvC and AvF	77	.057	.616
UvP and MvP	77	.191	.088
UvP and AvF	77	.110	.326
MvP and AvF	77	.347	.002*

*$p < .05$ (2-tailed)

Cohen's (1988) benchmarks indicated a coefficient of 0.50 as large, 0.30 as medium, and 0.10 as small in terms of judging the strength of a correlation. Using these benchmarks, the correlations for the subgroup of challenging students and conflict compared to individualism, universalism, and activism were considered low to medium in strength. Significant results included all variables related to fundamentals of culture.

- A Pearson correlation coefficient was calculated for the relationship, using conflict items, between teacher-student relationship with challenging students and individualism. A low to moderate negative correlation was found $r(77) = -.230$, $p < .05$ level (2-tailed). Teacher-student relationship with challenging students in terms of conflict tended to have a low to moderate negative association with individualism: ($r(77) = -.230$, $p < .05$).

- A Pearson correlation coefficient was calculated for the relationship, using conflict items, between individualism and universalism. A low to moderate correlation was found $r(77) = .266$, $p < .05$ level (2-tailed). Individualism tended to have a low to moderate association with universalism ($r(77) = .266$, $p < .05$).

- A Pearson correlation coefficient was calculated for the relationship, using conflict items, between individualism and monochronic value. A low to moderate correlation was found $r(77) = .236$, $p < .05$ level (2-tailed). Individualism tended to have a low to moderate association with monochronic value ($r(77) = .236$, $p < .05$).

- A Pearson correlation coefficient was calculated for the relationship, using conflict items, between monochronic value and activism. A moderate correlation was

found $r(77) = .347$, $p < .05$ level (2-tailed). Monochronic value tended to have a moderate association with activism ($r(77) = .347$, $p < .05$).

The low to moderate positive relationship between the predictor variables individualism and universalism, individualism and monochronic value, and individualism and monochronic value were noted for issues of covariance. Based on the strength and direction, higher scores for individualism correlated with higher scores for universalism and higher scores for monochronic value. Higher scores for monochronic value tended to correlate with higher scores for activism. However, because the teacher-student relationship measure included the instrumental help scale and satisfaction scale as well as the conflict scale, it was difficult to conclude that a particular variable should be excluded. A future research study could be done for a more in-depth investigation.