Multilingual and Multicultural Education: The Intersectionality of Culture Mindset and Instructional Practices

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**Recommended Citation**

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Introduction

Although the current geopolitical climate in the United States is tense, schools continue to receive non-English speaking students on a regular basis. Newcomers make up a large percentage of the English language learner (ELL) population. According to a study by Ballantyne et al. (2008), most teachers had at least one ELL student in their classroom and only 29.5% of educators received the appropriate professional development to support the students’ linguistic and cultural needs. In the 2018-2019 school year, California documented approximately 1.196 million ELLs in their public schools. In Texas, the Houston Independent School District documented more than 1,397 newcomers enrolled in their schools the 2015-2016 school year (Stevens, 2016). During the 2017-2018 school year, Missouri identified 38,952 ELLs.

Linguistic theorists such as Chomsky (1965), Cummins (2009), Gardner and MacIntyre (1991), and Krashen (2003) identified the conditions needed for a learner to be successful in acquiring a first and/or a second language. Educational researchers in the 21st century have compiled a plethora of teaching strategies and supports to aid teachers in working with current ELLs. However, due to the stipulations of the Every Student Succeeds Act (ESSA) and the ever-changing political landscape, educators need more research to determine the best conditions needed for language learners to succeed and graduate in this era.

Often, the type of English Language Development (ELD) program varies from district to district due to the ELL population or the funding received from the state. This often leads to difficulties in trying to select the appropriate program. Student needs, district leadership, and
local or national politics all play a role in deciding which ELL should be utilized. Fredrickson (2018) identified five program models that may even vary depending on the population of learners. States such as California or New Mexico with large populations of Spanish-speakers may even utilize dual-language programs to meet the needs of their students.

Educators and educational policymakers have struggled to identify the best way to support ELLs. Many of the students arrive as refugees or originate from countries where their educational infrastructures limit their educational experiences (DeCapua & Marshall, 2015). Others escaped poverty, crime, and famine. As Przymus (2016) pointed out, most of these immigrants struggle with intercultural communicative interaction. The loss of one identity and the desire to make a new one may be difficult. The challenge is creating an ideal language program that recognizes and supports student needs while enabling ELLs to graduate alongside their peers.

Considering the increasing number of non-native English speakers in the United States, what conditions directly affect their academic success in a 21st century school? How prepared are regular-education teachers and ELD teachers to meet their needs? New state and national policies (U.S. Department of Education, 2015) hold school districts to higher accountability when it comes to student growth and achievement, including subpopulations like ELLs. Extensive research already exists on educational topics related to self-efficacy and trauma sensitive schools; however, little research analyzes teacher mindsets on language learners in the United States and how mindsets may affect culturally competent teaching practices.

Newcomers make up a large portion of the ELL student population. As required by the U.S. Department of Education (2016), “EL programs must be designed to enable ELs to attain both English proficiency and parity of participation in the standard instructional program within
a reasonable length of time” (p. 1). As noted by the U.S. Department of Education (2015), if basic services and programs are not satisfactory, ELLs are at risk of dropping out of school, not graduating by age 21, and in some cases serving time in prison.

The significance of this study was key to understanding the struggles and tribulations of secondary teachers in the teaching of ELLs in the current sociopolitical climate. It sheds light on the impact ESSA has made on language learners in the United States. As Liddicoat et al. (2017) pointed out, “Until structures are seen as social and cultural constructs rather than as the natural way of working, they are not available for critique and thus for change” (p. 12). As such, the research question is posed: Does cultural competency and mindset significantly predict responsive ELL teaching practices? The results of this study provide considerations for teachers and educational leaders when ready to evaluate or change the type of ELL program used in their school district.

In this rapidly changing landscape, educators and policymakers need to know how to better support language learners. The Houston Independent School District (Stevens, 2016), with its 65,000 ELLs, recognizes that refugees and immigrants with trauma all have disparate experiences in their formal education. It is vital to understand how current ELL programs function, so that improvements are made for ongoing supports for ELLs.

**Review of the Literature**

**Introduction**

Carol Dweck’s seminal research into mindset frames paved a way in psychology and education for enhancing teaching and learning practices for students and teachers. Although many psychologists tend to use the phrase *implicit theories* (Yeager et al., 2013), others have gone so far to use the phrase *lay theories* (Plaks et al., 2009). In this literature review, *mindsets*
refers to implicit theories and lay theories in the context of education. Haimovitz and Dweck (2017) defined mindsets as “beliefs about the capacity to grow one’s abilities” (p. 1849). Most educators and pre-service teachers know the foundations of Dweck’s growth and fixed mindsets; however, many contemporary studies explore the implications of mindset frames through the lens of deficit views and cultural frames of mind.

Common themes that emerge from mindset studies involve educator teaching practices and professional learning. In a study conducted by Rattan et al. (2012) on teachers with an entity theory, or fixed mindset, researchers significantly found that college instructors with a stronger entity theory of math intelligence more often diagnosed students with having a lower ability after one single poor performance in class (i.e., exam). Surprisingly, those teachers also engaged in educational practices with students with a “presumed” low ability in a manner that would reduce engagement with the content in class. This included receiving easier math tasks and not being called on as often during class. In a similar university student on 150 STEM professors and more than 15,000 students, Canning et al. (2019) noticed a large achievement gap pertaining to race. Instructors with a fixed mindset unknowingly made students feel less motivated and this resulted in negative experiences for the students. The researchers discovered that “instructor’s mindset predicted student achievement and motivation above and beyond other characteristics, such as gender, race or ethnicity, age, teaching experience or tenure status” (Canning et al., 2019, p. 5). Striking differences in teacher instructional practices and the environments they create in the classroom impact student achievement greatly when it comes to their mindsets.

In a comparison of a growth versus fixed mindset in Finland, researchers Rissanen et al. (2018) conducted a case study of two teachers demonstrating an incremental (i.e., growth) or entity (i.e., fixed) theory. They found that the teacher with a growth mindset interacted with
students in a process-focused manner. The teacher focused on students’ emotional status, personalities, styles of learning, etc., whereas the teacher with a fixed mindset interpreted and addressed his students through their achievements or talents, which is referred to as performance/personal manner. The researchers also noticed that in math class, the teacher with the growth mindset sometimes referred to a student as mathematical, implying a fixed mindset. Dweck (2018), in recent years, came back with a major rebuttal on mindsets. She found a common misconception pertaining to growth mindset: effort is not everything. Teachers must provide students with a repertoire of strategies or approaches in the form of constructive feedback or input to be successful. As Rissanen et al. (2018) pointed out, sometimes it is difficult to balance growth mindset idealism with fixed mindset realism.

Paramount to educator success is the idea that educators embody the idea of life-long learning. Personal or staff professional development represents continuous self-improvement. In Gero’s (2013) investigation into the relationship between teacher professional development tendencies and teacher mindset, goal-orientation, locus of control and self-efficacy, he found “both in regression analyses and the path analyses, teacher mindset appeared more frequently than any other variable” (p. 133). Those educators with a growth mindset tended to have a higher learning goal orientation and reflective practice related to professional development. A teacher’s mindset also served as a strong predictor of a teacher’s self-efficacy in regard to professional growth. This was also observed in Gleason’s (2016) study of elementary teachers in a suburban school district in the Northeast. Not only did Gleason find that most teachers with a dominant mindset utilized teaching practices aligned with that same mindset, but that those teachers with a fixed mindset demonstrated a growth mindset professionally. When being evaluated, they stated that they would prefer constructive criticism on ways to improve. Gleason (2016) stated,
The findings here suggest that teachers have more of a growth mindset for their own learning, but more of a fixed mindset for their teaching. The former is consistent with their stated beliefs, whereas the latter is more inconsistent with stated beliefs. (p. 76) Mindsets tend to shift depending on the content area the teacher teaches or specific field in education.

Many studies try to explore the implications of mindsets related to specific age groups and different sub-groups of students. Haimovitz and Dweck (2017) explored the impact of parental mindsets about intelligence on a young child’s mindset. A parent’s mindset did not significantly influence a child’s mindset, but rather their beliefs about failure and how to motivate a child influenced their mindset. If a parent utilized a “failure-is-enhancing mindset” versus a “failure-is-debilitating mindset,” children fostered a different view about the malleability of intelligence. In adolescents, Yeager et al. (2013) explored the relationship between mindsets and hostile behaviors. They not only found that a fixed mindset predicted characteristics of hostile intent, but also observed that by helping adolescents change their mindset towards a growth view, it would substantially lessen aggressive behavior and negative responses towards provocation. Educators, parents, or any individual who works closely with children must think about the messages they consciously or subconsciously convey related to fixed traits of individuals. It affects the way they respond in and out of the classroom, and ultimately their academic success and growth.

A teacher’s mindset also influences the academic success of students with disabilities or diverse linguistic needs. In the past decade, research pertaining to pedagogical practice and mindset views began to emerge; however, limited research on the relationship between teacher mindset and student mindset exists (Gutshall, 2013). To determine if the view of stability of
ability in teachers affects view of stability of ability in children with learning disabilities, Gutshall (2013) conducted a quantitative study with more than 43,000 students and their teachers in a southeast school district. After teachers completed a survey identifying their mindset (i.e., growth versus fixed), they answered several scenario questions pertaining to students with and without disabilities. Gutshall found that “mindset scores that were almost identical to one another, suggesting that mindset for hypothetical scenario was not particularly impacted by either gender or disability status” (p. 1080). Arguably, this is because educators try to balance the supports students with disabilities need with the positive effect of labeling a child as special needs.

Creator and chief investigator into the cultural mindset, Afsaneh Nahavandi’s work branched out from Dweck’s work on growth mindset. Nahavandi (n.d.) defined cultural mindset as:

People…aware of their own cultural backgrounds and the fact that culture provides a meta-context, a way of thinking and a frame of mind or reference that shapes their thinking, feelings, actions and interactions with others. They consider culture as a factor when assessing other people and situations, and when making decisions and acting on them. They are effective across cultures because they know how to shift their frame of reference from one situation to another and have the cultural knowledge to act accordingly. (para. 1)

Several studies exist on the impact a cultural mindset has on both a learner and educator. Psychologists heavily studied the relationship in cognition and cultural differences of individualistic and collectivist cultures (Arieli & Sagic, 2018). In their seven-study methodology, Arieli and Sagic (2018) explored problem-solving patterns of American Jews, ultra-Orthodox
Jews, and Arabs living in Israel. By providing situational cues (i.e., language priming), the researchers confirmed that language and cultural identity predicted the participants’ success in answering riddle-type problems. By the end of their study, the researchers concluded that no cultural mindset is better than another and that individualistic versus collectivistic cultures influenced the type of problem-solving approach and process the participants facilitated.

In her work with 20 White pre-service teachers at a university, Endo (2015) utilized Nieto’s Model of Multicultural Competence continuum ranging from a one to five as a means of measuring teacher growth in linguistic and cultural acceptance of diversity in the classroom. Endo noted that although this model addresses characteristics of K-12 educational institutions, it can be adapted for individuals and their exploration towards affirming diversity. The participants in the study completed an initial survey to identify their level of multicultural competence. Then they participated in a diversity course that addressed various topics pertaining to oppression, gender, and culture. Endo’s findings showed that 40% of participants moved from level two to level three and 30% of participants moved from level one to level three. The interviews provided insights into the implications of deficit views toward language diversity. Students of color that speak a non-standard form of English and ELLs often experience public forms of “speech correction” and are treated differently from their White classmates. Unfortunately, “the monolingual practices occurring in many U.S. schools are complexly entangled with issues of racial privilege…” (Endo, 2015, p. 213). The impact of a cultural mindset on student achievement stems from a lack of multicultural competency of educators.

Like Nieto’s continuum for multicultural competence, Cross and colleagues recommend the Cultural Proficiency Continuum. The first three areas on the continuum—cultural destructiveness, cultural incapacity, and cultural blindness—described unhealthy actions that
result from barriers to cultural competence (Kelly, 2017). On the opposite end of the continuum are healthy actions—cultural pre-competence, cultural competence, and cultural competency—that represent values and behaviors needed to support change within an organization. In Yzquierdo’s (2017) work with supporting newcomers, she found, “As your cultural intelligence and cultural sensitivity increase, you will move toward cultural proficiency on the continuum, which is the ideal stage for teachers of newcomers” (p. 54). She also provided a plethora of descriptions, examples, and scenarios of what each stage might look like in a school to help educators move along the continuum. Kelly’s (2017) extensive research into the Cultural Proficiency Continuum found that pre-service teachers need more training into this in order to enhance their culturally responsive teaching practices. Although her justification for the use of the continuum supports students of color, it provides educators a tool to identify and positively improve upon their cultural biases.

**Mindsets and Instructional Strategies**

What does strong cultural mindset or high cultural competency look like in the classroom? The National Council for Accreditation of Teacher Education (NCATE) released 12 standards in 2008 that outlined specific practices teachers must utilize to enhance cultural competence and support students from diverse ethnic, racial, and cultural backgrounds. These standards address content area knowledge, assessment and evaluation, diversity, professionalism, and skills needed to work with state and national standards. In 2013, the Council for Accreditation of Teacher Education (CATE) updated the standards to include working with individual differences and with families and communities. See Table 1 for examples of intercultural competency described by CAEP (2013).
Although a large body of research exists measuring teacher cultural competency using various instruments, few studies look at the relationship between teacher cultural competency and the instructional practices teachers implement. Qualitative studies highlight how in-service teachers feel about culturally responsive teaching (CRT) prior to, and after, workshops educating them on the practice. In a study exploring how a workshop for music teachers would influence their CRT practice, McKoy et al. (2016) found that the workshops resulted in an increased awareness and better understanding of CRT for the participants. In the pre- and post-assessments, participants’ ratings of the importance of CRT increased. Participants’ comfort level related to CRT did not increase, as “Many teachers articulated that they would like to learn

Table 1

CAEP Intercultural Competency Examples

<table>
<thead>
<tr>
<th>Competency</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example One</td>
<td>Teacher incorporates various perspectives in the content, including information related to learner’s family, community experiences, and cultural norms.</td>
</tr>
<tr>
<td>Example Two</td>
<td>Teacher has a deep awareness and understanding of diverse learner’s strengths and needs and adjusts instruction to incorporate experiences, histories and representations related to student and family.</td>
</tr>
<tr>
<td>Example Three</td>
<td>Teacher utilizes verbal and nonverbal communication skills that demonstrate a respect for, and receptiveness to, the various cultural backgrounds and differing perspectives students and their families bring to the classroom.</td>
</tr>
<tr>
<td>Example Four</td>
<td>Teacher effectively interprets and shares learner assessment data with family to support student learning in all educational environments.</td>
</tr>
<tr>
<td>Example Five</td>
<td>Teacher has an understanding of own frames of reference (e.g. gender, culture, abilities, ways of knowing, and language) and the potential biases related to these frames. This includes the relationship of power and privilege in schools and the impact these frames have on teacher’s relationships with, and expectations for, learner and family.</td>
</tr>
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more, some were uncertain as to how to learn about or reach their students, and others were dissatisfied with the resources available to them” (McKoy et al., 2016, p. 8).

Utilizing focus groups in his study of in-service teachers in an urban school district in the Southeast, Samuels (2018) found similar results. After the participants participated in a three-hour CRT session, they engaged in open dialogue about how to better foster CRT in the classroom. Although the researcher did not measure each participant’s CRT level, he found that the participants viewed CRT as an advantageous framework with long-lasting benefits. Unfortunately, many participants expressed concerns about utilizing CRT, including concerns about controversial topics, conflict between classmates, existing biases, and White privilege. In order to improve on professional development needed to enhance teacher cultural competency, Samuels suggested that teachers explore their values, assumptions, biases, beliefs, and experiences about diversity; engage in open dialogue about controversial topics to increase comfort level when facilitating these conversations in class; continue to learn inclusive educational strategies and reflect on how to best incorporate them into the classroom; and facilitate an open dialogue with students on how to foster inclusive climates and cultures in the classroom.

In a quantitative study of pre-service teachers, teacher educators, and in-service teachers, Lopes-Murphy and Murphy (2016) measured cultural competency of participants in two regions: the Midwest and Mid-Atlantic. They not only found that Mid-Atlantic in-service teachers demonstrated the highest average on all forms of the assessment, but that Midwest pre-service teachers demonstrated the lowest average. By measuring cross-cultural experiences (i.e., language proficiency, travel abroad, friends from other cultures) and their impact on cultural...
competency, Lopes-Murphy and Murphy found the two to be positively correlated (.20, .25, and .43). The results from this study highlight a regional phenomenon. They stated:

One possible explanation for the differences we observed between locations in the extent of cross-cultural experiences could be that the two locations differ in the extent to which frequent interactions with individuals from diverse cultures occur...Alternatively, the observed differences in cross-cultural experiences could be due to differences in the social importance placed on these experiences.” (Lopes-Murphy & Murphy, 2016, p. 64)

Although the Mid-Atlantic serves a higher non-White and foreign-born population compared to the Midwest, future research could shed light on this phenomenon.

When looking directly at teacher cultural beliefs and practices on young dual language learners, Ramirez and colleagues (2019) found contradicting results on student academic development in language, early literacy, and numeracy. For example, teacher cultural beliefs and practices did not serve as a significant predictor of any English outcomes, whereas students with culturally competent teachers tended to perform significantly higher in Spanish receptive vocabulary and Spanish spelling (i.e., between phases two and three). Granted, some students might be less likely to show substantial growth if they scored higher than their peers did at the start. Ultimately, Ramirez and colleagues found that teacher cultural and linguistic competency helped dual language learners perform academically.

More recently, researchers have investigated cultural competency in undergraduate programs that prepare pre-service teachers with the skills needed for a multicultural classroom and the skills to foster a strong cultural mindset. Both mixed-method and qualitative studies highlighted the growth and experience pre-service teachers gain when participating in various types of cross-cultural experiences. At a university in southern Georgia, Hogan-Chapman and
colleagues (2017) observed how simulation activities with college students provided them with the opportunity to examine their own biases and experience about being minoritized. The two simulation activities were designed to help pre-service teachers relate to and teach students from racially, ethnically, linguistically, and academically diverse backgrounds. The researchers found that 86% of pre-service teachers felt that the simulations helped them to understand and know themselves better, especially their biases. Of the 35 participants in the study, 72% felt that the simulations assisted them in developing new perspectives to effectively engage students and families from various cultures. Hogan-Chapman and colleagues suggest tracking pre-service teachers through initial teacher certification to assess their integration of CRT practices during their first year of teaching.

Similarly, in a study on undergraduates completing a cross-cultural field experience, Kondor and colleagues (2019) looked at the impact of the experience on pre-service teachers’ cultural competency. Throughout the ten-week tutoring experience, first-year and fourth-year undergraduates in the university’s college of education worked with children and families from local urban elementary schools. Because the participants held cultural deficit and color-blind views, they found it difficult to engage in conversations about cultural diversity with students. They also struggled with engaging and understanding parents from diverse backgrounds. However, the researchers found “…that reflection on cross-cultural interactions, and prospective teachers’ own learning based on those interactions, is critical to their cultural understandings” (Kondor et al., 2019, p. 20). The cross-cultural experience provided pre-service teachers with the opportunity to demystify diversity and reflect critically in a safe environment. This study emphasized the importance of state licensing agencies re-examining their policies to ensure that pre-service teacher requirements include deeper cross-cultural experiences.
To build pre-service teacher’s cultural competency in a university program located in the Southwest, Brooks (2015) utilized Schmidt’s ABC model with 21 pre-service teachers during their field experience at an elementary school with a diverse population. By having participants write an autobiography using specific prompts, write a biography about an individual from a different cultural group, and complete a cross-cultural comparison, Brooks hoped it would develop deeper cultural understanding and communication with students and families of diverse backgrounds. By initially utilizing the Cultural Diversity Awareness Inventory (CDA) to measure participants’ attitudes about multiculturalism and diversity, Brooks found that many of their responses gravitated towards neutral as a way to cope with their conflicting feelings on an issue. In general, the pre-service teachers appeared to possess limited knowledge about multiculturalism and diversity topic. Upon completion of the multiple case studies, Brooks not only observed that the participants became more comfortable interacting with and talking about sensitive topics with students and families, but recognized the importance of a longitudinal study with the ABC model. Similar to the study conducted by Hogan-Chapman et al. (2017), both researchers acknowledged the importance of seeing the impact of these cultural competency experiences on first-year teachers.

In the Midwest region, Sandell and Tupy (2015) attempted to look at the impact of a cross-cultural course called Skilled Dialogue: Strategies for Responding to Cultural Diversity in Early Childhood. Utilizing the Intercultural Development Inventory developed by Hammer and Bennett, the researchers measured the participants’ cultural competency before and after instruction to see if there was any statistically significant difference between the means. Sandell and Tupy found the Fall 2010 semester scores not significantly different. However, by adjusting the course assignments to include high-impact activities for students at an entry level of
competency, Spring 2011 semester scores after instruction were significantly higher. Similar to what Brooks (2015), Kondor et al. (2019) and Hogan-Chapman et al. (2017) described, many of the participants in the studies and future teachers reflect today’s current population of teachers: female, White, or not identified as an ethnic minority, and a U.S. citizen that never lived in another country. As Sandell and Tupy stated, “Characteristics of this study’s sample (when compared to the changing demographics of children in public education) reinforce the significance of attempts to foster intercultural competency among teacher candidates” (p. 375).

To develop a healthy cultural mindset in teachers at any stage of their career involves intentional work utilizing various strategies and activities.

Exploring the long-term impact of an international student teaching experience on health and physical education pre-service teachers at a university in the Northeast, Constantinou (2015) found three strong themes develop in the participants: teacher identity, cultural competencies, and communication skills. Their experiences teaching in an elementary school in Cyprus evoked a deeper analytical outlook of their own culture, and therefore a stronger awareness of their cultural identity. Their cultural competencies grew as they became more comfortable with uncertainty and unpredictability, seeing challenges more like learning opportunities. The empowering experience helped them in overcoming language barriers and working with linguistically diverse students, including how to embrace students’ native expressions and communication skills. As expressed in the other studies, Constantinou intends to finish this longitudinal study to include the impact of this international student teaching experience after the participants finish their first year of teaching. These studies emphasized the importance of preparing pre-service teachers for the challenges of a multicultural and multilingual classroom of the 21st century. Is it possible to still develop these cultural competencies as a veteran teacher?
Research Methodology

The main objective of this study was to determine if secondary teachers’ growth mindset and cultural mindset significantly predicted culturally responsive ELL teaching practices (RELTP). Carol Dweck’s mindset survey was utilized to measure teacher mindset (growth or fixed) in this study. Patel’s (2017) Educator Scale of Student Diversity (ESSD) was adapted as a multicultural competency continuum to measure teacher cultural mindset. An adapted version of Honigsfeld’s (2019) student vignettes was utilized to evaluate teacher instructional practices with ELLs.

Research Participants

Across the Midwest region, each state follows a different protocol when determining whether a school district must implement a language assistance program for ELLs versus providing services (i.e., weekly minutes with students). States such as Illinois, Missouri, and Indiana utilize a “rule of 20.” In Illinois, for example, if a program has more than 20 students enrolled in the district, schools must utilize a transitional bilingual program (Illinois State Board of Education, 2010). However, with 19 or less students, schools may utilize a transitional program of instruction so that students may receive their minutes. In Missouri, if a school district has 20 or more ELLs enrolled, they must implement an ELD program (Missouri Department of Elementary and Secondary Education, 2018). In states such as Iowa, Kansas, and Nebraska, school districts have the freedom to decide the number of ELLs needed to utilize a traditional program versus push-in/pull-out services (Nebraska Department of Education, 2018; Iowa Department of Education, 2015; Kansas State Department of Education, 2018).

Each Midwestern state represents a unique demographic of ELLs in public schools. According to the U.S. Department of Education (2018), as of 2015 Missouri had 16,232 Spanish-
speaking ELLs and 1,426 Arabic-speaking ELLs. Illinois had approximately 157,852 Spanish-speaking ELLs and 6,413 Arabic-speaking ELLs. Kansas had 43,829 Spanish-speaking ELLs and 1,413 Vietnamese-speaking students. Indiana had 44,521 Spanish-speaking ELLs and 2,825 Burmese-speaking students.

Sugarman (2019) found that more than 29,500 ELLs were enrolled in public school in the 2016-2017 school year in Missouri. That same year, Illinois reported more than 197,000 ELLs enrolled. Iowa reported more than 28,500 ELLs, with common languages such as Spanish, Vietnamese, Arabic, Bosnian, and Karenic languages. The diversity across each state in the Midwest makes for a unique selection of participants in this study.

The selection of participants not only depended on if the public school has a traditional ELD, ELL, or ESL program, but also the number of ELLs enrolled. To ensure that teachers completing the survey and student scenarios had adequate experience with student diversity and working with ELLs, only school districts with a minimum of 500 ELLs enrolled participated. This ensured that high school teachers interact with ELLs on a regular basis. Only high school teachers with one or more years of experience participated. Charter schools did not participate in this study.

A large geographic region in the Midwest was identified with many school districts that met the criteria for the study. The data from this region was generalized to the rest of the Midwest. The most recent demographic information on ELL enrollment from each school district was obtained to identify qualifying school districts.

Data Collection Procedure

After IRB approval but prior to distributing the surveys, each high school’s principal received an email requesting permission to survey teachers. The district’s superintendent was
carbon copied on each email. Those school districts that gave permission for their teachers to participate in the study were forwarded the email with survey information and a survey link. In order to obtain informed consent from teachers that participate in this study, the survey contained a small introduction describing the purpose of the study and a statement reiterating that all participant personal information and responses remain anonymous and will be scrubbed at the completion of the study. Participants clicked a box agreeing to complete the survey as their informed consent.

**Instrumentation**

This study utilized two surveys: (a) the *Educator Scale of Student Diversity* and (b) the Growth Mindset Assessment. Patel’s (2017) ESSD was adapted for this study to include a Likert scale response (*strongly disagree* to *strongly agree*). In his pilot study of cultural competency of educators in the Pacific Northwest, Patel found that his survey had a high reliability rate of 88%. Between the four subscales (Race and Bias, Culturally Responsive Instruction, Equity, and Diversity), he found individual reliabilities between .62 and .81. Patel also conducted a correlational analysis that supports convergent validity and ran a multivariate analysis of variance (MANOVA) to confirm that no statistically significant differences existed between demographic variables (e.g., gender).

The Growth Mindset Assessment designed by Carol Dweck is widely used amongst educators in the classroom. Although primarily utilized for children to identify their mindset (growth, fixed, or neutral), versions exist for adolescents and adults. This survey, known as the *Theories of Intelligence*, employs an eight-question Likert scale (*strongly disagree* to *strongly agree*) assessment to identify an individual’s mindset on a “continuum.” Across the board, Dweck’s survey has high reliability and validity. Burgoyne and Macnamara (2020) found that
with 992 undergraduate students a high reliability of 0.94. Garcia-Cepero and McCoach (2008) utilized the same survey with teachers and professors from a nearby college of education and found a high reliability of 0.92.

The hypothetical scenarios describing ELLs were adapted from Andrea Honigsfeld’s book *Growing Language and Literacy: Strategies for English Learners*. The author provided vignettes of students in language programs across the country. On the RELTP questionnaire, participants read the five scenarios and chose, what they believed, was the best instructional practice to utilize with that student from a drop-down menu. Participants had the option of choosing one of four instructional practices provided in each scenario. Each responsive teaching practice was ranked as “highly culturally competent,” “moderately culturally competent,” “slightly culturally competent,” or “not at all culturally competent.” When a participant completed the RELTP, their raw score would be out of twenty points. Permission has been granted to use Dr. Patel’s ESSD and Dr. Honigsfeld’s vignettes in this study.

**Data Collection**

The sampling technique used was convenience sampling of high school teachers with school districts with 500 or more ELLs enrolled. Participants in the study would not be first-year teachers to ensure that the sample of teachers had sufficient background knowledge and classroom experience. Survey distribution consisted of emailing a survey link to building principals with a description to participants explaining the purpose of the study and measures taken to ensure participant confidentiality. With principal approval, the survey was forwarded to building teachers (non-ELL staff).

To ensure confidentiality of research participants, all information was stored on a password-secure laptop. All data stored on Qualtrics were encrypted with state-of-the-art security.
including network monitoring and single-sign-on. Each survey was assigned an identification number (e.g., 001, 002). Upon completion of the study, all identification markers linking participants back to the study were properly scrubbed.

**Data Analysis**

Qualtrics software assisted with data collection and management of data. The Core XM package offered a survey tool, research and insights, and conjoint analysis. The package designs, sends, and analyzes surveys for researchers. The Statistical Package for the Social Sciences (SPSS), created by IBM, was also utilized to assist with the two-way ordinal regression.

Quantitative analysis of the data included numerical ratings obtained from the Growth Mindset Assessment. The Likert scale (*strongly disagree* to *strongly agree*) was converted into numerical scale (one to five) in order to average a participant’s responses. This was then used to measure their mindset level. To better understand Dweck’s conversion, an individual that obtained a scaled score of four or higher was considered to have a growth mindset. An individual with a score between a three and four had a neutral mindset and a score less than three was a fixed mindset. To guarantee high reliability, a Cronbach’s Alpha test was conducted to measure internal consistency of the ESSD ($\alpha \geq 0.90$).

Quantitative analysis of the data included numerical ratings obtained from the ESSD. Like the Growth Mindset Assessment, a Likert scale was utilized (*strongly disagree* to *strongly agree*) with a conversion into a numerical scale (one to five). To better understand Patel’s ESSD, an individual with an extremely high cultural competency had an average score between four and five. A score between three and four signified a high cultural mindset. A score between two and three signified a moderate cultural competency. A score between one and two signified a slight cultural competency. Less than one represented a complete lack of cultural competency. Three
questions were added to this 22-question survey specifically related to ELLs and linguistically diverse students. In order to guarantee high reliability, a Cronbach’s Alpha test was conducted to measure internal consistency of the ESSD ($\alpha \geq 0.80$).

Quantitative analysis of the data included numerical ratings obtained from the responsive ELL teaching practices (RELTP) questionnaire. Each option in a scenario corresponded to a specific point value (low, medium, high, very high). “Low” was worth a value of one, “medium” was worth a value of two, “high” was worth a value of three, and “very high” was worth a value of four. An individual with a score closer to twenty was considered to have a highly informed responsive teaching practice, whereas an individual that obtained a score closer to zero had limited responsive teaching practice. An individual with a score closer to ten was considered to have a mixed responsive teaching practice. As part of this quantitative analysis, in-depth descriptive and inferential statistics of the data were calculated.

Descriptive statistics were utilized to analyze the results of the two predictor variables, ESSD and growth mindset. SPSS was used to generate a mean, median, mode, standard deviation, skewness value, and kurtosis value for each of these variables. A skewness between one and negative one represents a normal distribution of data, with little to no skew. A negative value represents a distribution skewed left and a positive value represents a distribution skewed right. In order to accurately describe the data, a kurtosis value was also calculated. A positive kurtosis value means that more values lie in the tails than that of a normal distribution, whereas a negative value means that less values lie in the tail than that of a normal distribution.

Prior to running inferential statistics, the assumptions of regression were determined to see if the data violated any of those assumptions, such as homoscedasticity or multicollinearity. If either existed, path analysis would be utilized. Inferential statistics were utilized to analyze the
relationship between the two predictor variables and the dependent variable, responsive ELL teaching practices. A linear regression analysis of each individual predictor variable with the dependent variable provided insight into how each predictor variable impacts the RELTP. The Researcher also utilized SPSS to generate a two-way ordinal regression model with both predictor variables used, providing an R-squared adjusted value for the model. In addition to determining if the entire model was significant, calculations determined how much each individual predictor variable explained the variance on ELL instruction, and the amount of variance each predictor variable uniquely explains the variance on ELL instruction not accounted for by other variables. This was accomplished by calculating partial regression coefficients.

**Results**

This study measured high school teachers’ growth mindset (GM) and cultural competency (CC) to determine if the two constructs predict responsive teaching practices with English language learners (ELL). High school teachers from three states in the Midwest voluntarily completed the survey.

The descriptive statistics include mean, standard deviation, variance, skewness, and kurtosis for each predictor variable as well as for each individual item on the GM and CC surveys. Additionally, based on teacher responses on the responsive ELL teaching practices (RELTP) questionnaire, participants were grouped into either a low or high group based on their score. To understand each group, descriptive statistics are provided for each predictor variable as well as for each individual question on the surveys.

Initially, a two-way ordinal regression was utilized to analyze the relationship between the two predictor variables and dependent variable (RELTP). Several ad hoc tests were also conducted to compare averages of CC and GM between high and low RELTP groups and to
compare individual items on the cultural competency survey. These tests include an independent t-test, median test, and Mann-Whitney test. A Cronbach’s Alpha test was also used to measure internal consistency of the two predictor variable surveys. Growth mindset measured 0.94 and CC measured 0.88. Both surveys confirm high reliable constructs.

In this research study, 29 high school teachers voluntarily participated by completing a three-part survey. Those teachers came from school districts across three states in the Midwest that had 500 or more ELLs enrolled in each district. First-year teachers and ESL teachers could not participate. Prior to splitting participant responses into a low or high teaching practice groups, descriptive statistics of the two predictor variables and dependent variable of the entire sample were calculated. Table 2 reports the mean, standard deviation, skewness, and kurtosis of the entire sample. The average growth mindset score of participants was 3.95, with a standard deviation of 0.61, whereas the average cultural competency score was 3.74, with a standard deviation of 0.75. In regard to teacher RELTP, the mean was 16.72 with a standard deviation of 1.10.

Table 2

Descriptive Statistics of Entire Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
<th>Variance</th>
<th>Skew</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>GM</td>
<td>29</td>
<td>1.88</td>
<td>5.00</td>
<td>3.95</td>
<td>0.61</td>
<td>0.38</td>
<td>-1.32</td>
<td>3.82</td>
</tr>
<tr>
<td>CC</td>
<td>29</td>
<td>1.76</td>
<td>4.88</td>
<td>3.74</td>
<td>0.75</td>
<td>0.56</td>
<td>-0.70</td>
<td>0.23</td>
</tr>
<tr>
<td>RELTP</td>
<td>29</td>
<td>14.00</td>
<td>19.00</td>
<td>16.72</td>
<td>1.10</td>
<td>1.21</td>
<td>-0.10</td>
<td>0.80</td>
</tr>
</tbody>
</table>

Note. GM= growth mindset; CC= cultural competency; RELTP= responsive ELL teaching practices.
Once scores were generated for each participant’s RELTP, participants were split into a low or high group. Eleven individuals scored low while 18 scored high on the RELTP. Descriptive statistics were calculated again but for each group individually. Table 3 reports the mean, standard deviation, skewness, and kurtosis of the entire sample. Participants in the low RELTP group had an average of 4.02 out of five on the GM survey with a standard deviation of 0.54. Their CC average, out of 5, was 3.52 with a standard deviation of 0.69. Participants in the high RELTP group had an average of 3.91 on the GM survey with a standard deviation of 0.67. Their CC average was 3.87 with a standard deviation of 0.77. The averages on these surveys did not show significant skew or kurtosis. See Figures 1 and 2 for histograms of the average GM and CC data.

Figure 1

Histogram of Growth Mindset Scores
Figure 2

Histogram of Cultural Competency Scores

Table 3

Descriptive Statistics of Low and High Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
<th>Variance</th>
<th>Skew</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low GM</td>
<td>11</td>
<td>3.00</td>
<td>4.75</td>
<td>4.02</td>
<td>0.54</td>
<td>0.29</td>
<td>-0.37</td>
<td>-0.13</td>
</tr>
<tr>
<td>Low CC</td>
<td>11</td>
<td>2.52</td>
<td>4.76</td>
<td>3.52</td>
<td>0.69</td>
<td>0.48</td>
<td>0.40</td>
<td>-0.46</td>
</tr>
<tr>
<td>Low RELTP</td>
<td>11</td>
<td>14.0</td>
<td>16.0</td>
<td>15.64</td>
<td>0.67</td>
<td>0.46</td>
<td>-1.8</td>
<td>2.61</td>
</tr>
<tr>
<td>High GM</td>
<td>18</td>
<td>1.88</td>
<td>5.00</td>
<td>3.91</td>
<td>0.67</td>
<td>0.44</td>
<td>-1.60</td>
<td>4.87</td>
</tr>
<tr>
<td>High CC</td>
<td>18</td>
<td>1.76</td>
<td>4.88</td>
<td>3.87</td>
<td>0.77</td>
<td>0.59</td>
<td>-1.39</td>
<td>2.20</td>
</tr>
<tr>
<td>High RELTP</td>
<td>18</td>
<td>17.00</td>
<td>19.00</td>
<td>17.40</td>
<td>0.70</td>
<td>0.49</td>
<td>1.61</td>
<td>1.40</td>
</tr>
</tbody>
</table>

Note. GM= growth mindset; CC= cultural competency; RELTP= responsive ELL teaching practices.

Inferential statistics were calculated to investigate the research question: “Does cultural competency and mindset significantly predict responsive ELL teaching practices?” To
investigate the research question, Multiple regression was used to compare the amount of variance between the two predictor variables and RELTP. Table 4 below displays the regression model, with an adjusted $r^2$-squared value of only 0.01. In the regression model, the two predictor variables explained 3% of variance in RELPT $F(1, 27) = .303, p > .05$. Based on these statistics, the null hypothesis is accepted. In order to investigate the relationship between the two predictor variables and RELTP further, an independent $t$-test, median test, and Mann Whitney test were conducted.

**Table 4**

*Multiple Regression Model*

<table>
<thead>
<tr>
<th>Effect</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
<th>$SE$</th>
<th>$SS$</th>
<th>$df$</th>
<th>$MS$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>0.30</td>
<td>0.09</td>
<td>0.02</td>
<td>1.09</td>
<td>2.97</td>
<td>21.49</td>
<td>1.25</td>
<td>0.30</td>
</tr>
<tr>
<td>Residual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30.82</td>
<td>26</td>
<td>1.19</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33.79</td>
<td>28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$p > .05$

The first of the ad hoc tests conducted was an independent $t$-test, used to compare averages of CC and GM between low and high RELTP teachers. Table 5 illustrates the results of the independent $t$-test. With $t(27) = 0.47, p > .05$ and $t(27) = -1.23$, there appears to be no significant differences between the groups.
Table 5

Independent t-Test Between Low and High RELTP Teachers

<table>
<thead>
<tr>
<th>Variable</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>MD</th>
<th>SE</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EV assumed</td>
<td>0.47</td>
<td>27</td>
<td>0.64</td>
<td>0.11</td>
<td>0.24</td>
<td>-0.38, 0.60</td>
</tr>
<tr>
<td>EV not assumed</td>
<td>0.50</td>
<td>24.63</td>
<td>0.62</td>
<td>0.11</td>
<td>0.23</td>
<td>-0.35, 0.58</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EV assumed</td>
<td>-1.23</td>
<td>27</td>
<td>0.231</td>
<td>-0.35</td>
<td>0.28</td>
<td>-0.93, 0.23</td>
</tr>
<tr>
<td>EV not assumed</td>
<td>-1.26</td>
<td>23.08</td>
<td>.220</td>
<td>-0.35</td>
<td>0.28</td>
<td>-0.92, 0.22</td>
</tr>
</tbody>
</table>

Note. Sig=Significance; EV= Equal Variance.

An independent-samples median test was also conducted to compare each item of the GM survey between low and high RELTP teachers. Each item on the GM survey was not significantly different between the two groups.

The Mann-Whitney test, a non-parametric test used as a statistic for itemized analysis, identified statistical significance for one of the twenty-five items on the CC survey administered to participants. This test compares mean ranks rather than the medians of predictor variables. Item twelve posits, “All teachers, including myself, have implicit bias that negatively affects their interactions with some students.” With a low group mean of 9.68, a high group mean of 18.25, and $U=157$, $p=.006$, $r=.007$, item twelve is statistically significant. See Figure 2 for a Mann-Whitney test comparing the distributions and Table 6 for a detailed summary of the results.
Figure 3

*Mann-Whitney Test Comparing Item 12 of Cultural Competency Survey*

![Graph depicting Mann-Whitney Test](image)

Table 6

*Mann-Whitney Test for Item 12 of Cultural Competency Survey*

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>U</th>
<th>W</th>
<th>t</th>
<th>SE</th>
<th>St</th>
<th>p</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>29</td>
<td>157.500</td>
<td>328.500</td>
<td>157.500</td>
<td>21.075</td>
<td>2.776</td>
<td>.006</td>
<td>.007</td>
</tr>
</tbody>
</table>

**Discussion**

This research study attempted to answer the question, “Does cultural competency and mindset significantly predict responsive ELL teaching practices?” The findings resulting from this research question indicate that CC and GM do not predict RELTP for teachers in school districts with large numbers of ELLs (i.e., 500 or more). Unfortunately, due to the low
participation rate in this study ($N=29$), these findings may not be generalizable to the rest of the Midwest region let alone school districts with considerably high numbers of ELLs elsewhere. Both the regression model and independent samples $t$-test indicate that the two predictor variables fail to predict a teacher’s RELTP score.

Upon completion of a Mann-Whitney test used as an itemized analysis of each item on the CC survey, item twelve appeared to have a significant impact on RELTP. This item states, “All teachers, including myself, have implicit bias that negatively affects their interactions with some students.” Teachers with a low RELTP score had an average of 2.72, whereas teachers with a high RELTP score had an average of 4.00.

Educators that recognize that everyone has implicit bias of some kind, including their own, would probably rank themselves higher on item twelve. Educators that do not recognize their own implicit bias or truly believe that they do not have bias of any kind would probably rank themselves lower on that item. If the participation rate in this study were higher, similar items on the survey would potentially become significant as well. This would allow researchers to explore cultural competency in more detail. Throughout Kelly’s (2017) research into the Cultural Proficiency Continuum, proposed by Terry Cross, she found that current data exhibit a disproportionate number of colored students being disciplined (i.e., in-school versus out-of-school suspensions). By utilizing this framework or continuum with pre-service teachers and practicing teachers, it will better assist individuals with identifying potential cultural biases they have and improve their instructional strategies and classroom management techniques.

Based on the results of the Cronbach’s Alpha test for reliability, it appears that both the GM survey and CC survey have high reliability. However, the instrumentation used to gather data on teacher RELTP may lack high validity. Several issues with this survey potentially exist.
For example, although all teachers had four options to choose from, the best two options were fairly obvious. Even though a teacher might not utilize the “best practice” with an ELL, they identified it as the best practice. In scenario one, 26 of the 29 participants chose the best option, regardless of whether they scored low or high on the survey. In scenario five, 28 of the 29 participants chose the two best options, regardless of whether they scored low or high on the survey. Perhaps participants felt more comfortable selecting what was “right” over what they would really do in the classroom, which paralleled the results that Gutshall (2013) obtained when doing a similar study, but with teachers of students with learning disabilities.

Looking deeper into this phenomenon, 16 of the 29 participants chose one of the lesser teaching practices to use in scenario four to support an ELL. Perhaps aligning the scenarios and teaching practice options in the RELTP survey with the survey items in the CC survey would improve on the validity of the RELTP survey. As the Council for the Accreditation of Educator Preparation (2013) describes, in order to develop or enhance one’s intercultural competency, teachers must utilize specific practices. All of the scenarios and corresponding instructional practices supported ELLs but may fail to support students from other diverse ethnic, racial, and cultural backgrounds as well.

Another potential concern with this survey was the time duration. Upon completion of the GM and CC surveys, participants still had to complete the lengthy RELTP survey. With five wordy scenarios and four different options to choose from for each one, participant burnout might have occurred. In Gutshall’s (2013) study, participants responded to two scenarios, but eventually the researchers changed it to one. They feared that one scenario influenced teacher responses in the other one. This potentially could have happened by the time participants reached scenario five in the current study. Additionally, nearly 30 individuals clicked consent to start the
survey, but never actually completed it. They potentially saw how long the survey was with the three sections and decided not to complete it.

**Implications for Practice**

Despite the limitations, there are several implications. As more research into mindsets unfolds, researchers and educators alike will be interested in the intersection of teaching pedagogy and mindsets. The majority of current research that addresses this intersection focuses on university students as they move into their first year of teaching. This study has the potential to guide researchers in the direction of exploring how mindsets impact the teaching practice of more experienced educators. Unfortunately, due to the low response rate of this study, these findings are not generalizable across the Midwest to other school districts, big or small in ELL student population. However, it was shown that teachers’ recognition of implicit bias factors into their culturally responsive teaching practices. This finding may provide researchers a future direction of interest.

School districts interested in developing CC in their staff or incorporating diversity training might find the CC survey by Patel (2017) beneficial. This survey not only serves as a robust pre/post-assessment to measure CC of staff, but it can also guide dialogue in small groups when educators discuss individual items on the survey. By also incorporating the findings from a study by McKoy et al. (2016), school districts can implement effective professional development into this area. McKoy et al. found in their study with pre-service teachers and their culturally responsive teaching practices that teachers still lacked the confidence and comfort in utilizing the practices in the classroom. Their pre/post-assessments did not show any significant gain scores and could not be generalizable either. Ensuring that teachers feel comfortable after a training related to CC or diversity is paramount for long-term success.
Utilizing this survey along with adaptations of the RELTP survey (e.g., special education, minority populations), trained individuals may lead professional development with school buildings or academic departments to explore their personal biases and how, by understanding those biases, they can improve their teaching practice. Samuels (2018) noted similar findings in his study with practicing classroom teachers. He found that teachers grapple with the anxieties and vulnerability of beginning their culturally responsive teaching journey. Creating a safe, equitable environment is a positive first step in facilitating conversations amongst team members.

Researchers interested in conducting longitudinal studies will find this study useful if they begin with a cohort—or several cohorts—of students as they begin their education courses at universities. Conducting a five- to ten-year study to see how these students utilize effective teaching practices several years into their teaching career might serve as an effective measurement tool. Endo (2015) found that using an adapted version of Nieto’s Model of Multicultural Competence assisted her in measuring participants’ CC before and after a workshop with pre-service teachers. Pulling from the work of Cross, Nieto, and Endo might enhance the measurement tools used in this study. To better prepare pre-service and beginning teachers in the classroom, both the CC survey and ELL scenarios may assist instructors in adapting their course materials and projects to meet the needs of these future teachers in the new mainstream classroom.

Finally, taking the region of this study into account might shed light on the fact that GM and CC fail to predict an individual’s RELTP in this study. Lopes-Murphy and Murphy (2016) note in their multidimensional study of teachers, pre-service teachers, and student-teaching teachers that a regional phenomenon occurred. Their participants came from both the Midwest...
and Atlantic. The three groups of participants in the Midwest had a slightly lower mean CC compared to those in the Atlantic. The scores obtained in the current study only came from three states in the Midwest from school districts with 500 or more ELLs enrolled. Perhaps by expanding this study to all states in the Midwest and to teachers in all school districts, regardless of ELL enrollment numbers, it would provide more concrete evidence that supports or refutes the relationship between CC and RELTP.

**Recommendations for Further Research**

The goal of this study was to investigate GM and CC and whether or not it could predict a teacher’s RELTP. Data were collected to measure teacher GM and CC; however, this study had a small response rate. Future research into this topic should include a large sample size. With a small response rate of 29 teachers, it is nearly impossible to generalize any findings across the country, let alone the Midwest. Due to the length of the three-part survey administered to teachers, a strong recommendation would be to drop the GM survey. As Nahavandi (n.d.) described, cultural mindset (or CC) is an extension of GM. Therefore, it would be unnecessary and rather tedious to measure both a teacher’s GM and CC level. Similarly, other studies have shown that GM surveys are oftentimes difficult to administer to teachers and the results tend to be misleading. Gleason (2016) found in her mixed-methods study with elementary teachers that “teaching practices of teachers may not necessarily align with their identified mindset on a survey. In addition, teachers’ beliefs about their own ability to learn may be more positive than their belief about their students” (p. iv). In education, the ability to accurately measure or pinpoint a teacher’s GM is difficult. Based on the context the teacher considers when completing the survey or their own personal experiences and content areas they teach; their GM score may vary significantly or subtly every time they complete it.
Due to the lengthy nature of the survey, a strong recommendation would be to change the format of the ELL scenarios that measure a teacher’s RELTP. One way to do this is to provide all scenarios but have the participants write their own response on how they would support the student. Not only would this minimize participant burnout, but it would measure their RELTP more precisely. This would require the researchers to create a rubric for scoring written responses though. Another way to change the format is to only give a participant two or three scenarios that are randomly selected out of a bank of eight to ten scenarios. With a large sample size, two or three scenarios per participant might generate enough data to determine if CC predicts an individual’s RELTP.

To explore the interconnectedness of GM and RELTP or CC and RELTP further, researchers should consider demographic information of participants. In Gutshall’s (2013) study with teachers and students with learning disabilities, she found that neither gender nor disability status of students in the hypothetical scenarios impacted teacher decision making. She states, “This finding reinforces the sturdy nature of the mindset construct and suggests it is not easily influenced by situational variables…” (p. 1080). Perhaps by duplicating this study with educators and obtaining demographic information on each participant (e.g., gender, age, race), researchers can determine if these situational variables impact the types of instructional practices they use with ELLs.

**Conclusions**

This study explored teacher growth mindset (GM) and cultural competency (CC). In the past decade, research into mindsets has increased significantly, but lack much research related to the use of instructional practices with ELLs and special education students. The findings demonstrated that neither teacher mindset nor CC could predict a teacher’s RELTP score (high
or low). However, item twelve on the CC survey did significantly predict an individual’s RELTP score. Item twelve addressed teacher implicit bias and how it affects teacher interactions with students.

Some recommendations for future research include omitting the GM survey and utilizing a different format for administering the ELL scenarios to minimize the burnout teachers have with completing a long survey. A larger sample size would yield highly generalizable results. Creating scenarios on the RELTP survey that align with questions on the CC survey would minimize the chance of a confounding variable.

Gilliland (2014) once described the new type of school educators work in as the new mainstream. Teachers now work in a multiethnic and multilingual classroom and it is imperative that all staff—teachers, administrators, secretaries, nutrition services, and custodians—receive the training and resources to develop their cultural competency so they may better support all students. ELLs in particular are a small, but unique, population with so much potential. How will educators tap into that potential?
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