THE IMPACT OF TEACHER PERCEPTION OF CULTURAL COMPETENCE ON THE
INSTRUCTIONAL DECISION MAKING OF ENGLISH
AS SECOND LANGUAGE (ESL) STUDENTS

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Dissertation Prepared for the Degree of
DOCTOR OF PHILOSOPHY

UNIVERSITY OF NORTH TEXAS

May 2014

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Recent research suggests that culturally responsive teaching (CRT) practices have the potential to increase student educational outcomes, as well as to reduce unnecessary or inappropriate placement referrals. Examination of the core components in CRT, teacher efficacy and cultural competence, is proposed to be a critical step to reduce unwarranted referrals of culturally and linguistically diverse students. However, there is limited empirical support for the relationship between CRT and instructional referrals, and even among existing studies there is inconsistency regarding the relation of these constructs. The purpose of this study is to examine teacher factors (i.e., teacher role, degree earned, years of teaching, ESL certification held, language proficiency and ethnicity) as a predictor of teacher competence, and the role these factors play in teachers’ referral decision making. To investigate these relationships, a national sample of elementary teachers (N = 258) completed a survey addressing their background, profession endorsements, sense of teaching efficiency, and the instructional decisions they would make in the scenarios presented. The results of this study revealed that teacher role (i.e., general, ESL or special educator) and ESL certification were important predictors of teacher competency. A statistically significant mean difference in teacher competency was found between teachers with and without ESL certification, indicating ESL certification as an important factor in deciding the level of teacher competency. Finally, teacher competency was found to improve teachers’ instructional decision making in scenarios in which the students displayed linguistic difficulties. The findings provide valuable insights to teacher training programs and other
professional development entities regarding how to prepare educators to work more efficiently with ESL students.
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ACKNOWLEDGEMENTS

I would like to thank my committee members: Drs. Endia Lindo, Bertina Combes, Darrell Hull and Tandra Tyler-Wood. I am grateful to each of them for all of their time and effort. I would like to especially thank my major professor, Dr. Endia Lindo, who patiently guided me through this journey.

I would also like to thank my family who believed in me and encouraged me along the way. I want to thank my husband, Jun; my children, Eric and Chloe; and my dad, Jongtae. Above all, this dissertation is dedicated to my hero in life, my mother, Duckhwan who encouraged me to continue on this path whenever I faced the obstacles of life. Although she did not live to see this day, I know she would have been very proud of my accomplishments. Thank you for your unconditional love and encouragement.
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REFERRALS OF ESL STUDENTS: THE ROLE OF TEACHER EFFICACY AND CULTURAL COMPETENCE

Introduction

According to U.S. Census Bureau (2010), more than 34% of the population in the U.S comes from culturally diverse backgrounds, and this diversity is being reflected in the U.S. school population. The U.S. Department of Education (DOE) reports the number of school-age children who speak a language other than English at home rose from 4.7 to 11.2 million in the near 30 year span between 1980 and 2009 (DOE, 2012). During the 2009-2010 school year, 10% of all public school students in the U.S were categorized as English as a second language (ESL) students. Moreover, the number of ESL students identified for special education service has more than doubled over 20 years (Brown, 2004; Reynolds et al., 2009). As a result, the U.S. DOE and National Institutes of Health (2003) have placed both reading interventions and the identification of learning disabilities (LD) high on the agenda for ESL and LD research (DOE & U.S. Department of Health and Human Services, 2003).

Overrepresentation of ESL in Special Education

The over-representation of culturally and linguistically diverse (CLD) students in high incidence disabilities has been a critical issue for many decades (Artiles & Ortiz, 2002; Donovan & Cross, 2002). Over-identification occurs when students, who do not require special education services, are disproportionately referred to and ultimately placed in special education (Ysseldyke & Algozzine, 1982). As the number of inappropriate referrals among CLD students increases, researchers studying the issue have brought attention to the culturally biased instructional practices utilized in the identification process. Especially in the case of ESL students, their academic struggles are often due to language difficulties resulting from second language
acquisition, but these difficulties are considered as innate problems. This misinterpretation frequently lends itself to the occurrence of unnecessary referrals (Brown, 2004; DOE & National Institutes of Child Health & Human Development, 2003; Klingner & Harry, 2006; Klingner, Hoover, & Baca, 2008).

Factors Contributing to Overrepresentation

Educators have trouble discerning between ESL students at academic risk and those with language-based learning disabilities. This difficulty is due to several reasons, including educator’s lack of: (a) experience working with CLD students (Fry, 2007; Langdon, 2002; LeRoy & Simpson, 1996); (b) training designed to address the needs of ESL students (Coady, Candace, & De Jong 2011; Walton, Baca, & Escamilla, 2005); (c) cultural and linguistic congruence between teachers and CLD students (Gao & Mager, 2011; Gay, 2002; Rueda & Garcia, 1996); and (d) skill in discerning the clear difference between low language proficiency and the disabilities related to language (Ascher, 1990; Brown 2004; Garcia & Ortiz, 2004).

Lack of Experience/Training in Working with ESL Students

According to the National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs, ESL student enrollment in U.S. schools will reach 10 million by 2015 (NCELA, 2007). If the population increases at the predicted rate, nearly one out of every four school age students will be ESL. Though most state departments of education require teacher training programs to include multicultural/bilingual courses, many pre-service teachers complete their programs with a very shallow understanding in areas of diversity, second language acquisition, and literacy development (Brown, 2003; Coady at al., 2011; Paneque & Barbetta, 2006; Siwatu, 2008; Villegas & Lucas, 2002). Insufficient preparation to teach ESL students makes general educators feel less efficacious in providing appropriate instructional
modifications (Kamps et al., 2007; Youngs & Youngs, 2001). Therefore, these teachers tend to choose instructional accommodations requiring minimal effort, such as waiting time, instead of choosing to make instructional modifications, such as reducing the complexity of the content (Coady et al., 2011). Teachers’ lack of knowledge on implementing effective teaching practices for diverse populations may be one cause of ESL students’ chronic underachievement issues (Fry, 2007; Langdon, 2002).

Mismatched Culture

According to the National Center for Education Statistics (2009), 83% of the teachers in the U.S. are European American, while approximately 40% of students in public school systems are from CLD backgrounds. This substantial mismatch between student and teacher culture may affect the way that teachers perceive student behaviors and language patterns (Gao & Mager, 2011; Garcia & Ortiz, 2004). This can also cause teachers to feel less effective in their instructional practices (Hoover, 2012; Morgan, 2010) and can lead to inappropriate referrals to special education (Rueda & Garcia, 1996; Soodak & Podell, 1993). Research has indicated that without shared knowledge on culture and its effect on language use, teachers can make flawed assumptions (e.g., interpreting difficulties as disabilities) that adversely impact students’ future educational careers (Gao & Mager, 2011; Heath, 1998; Walker, Shafer & Liams, 2004).

Distinguishing Limited English Proficiency from Disability

Lack of teacher preparation in the areas of bilingualism, acculturation, second language acquisition and literacy development often leads teachers to perceive ESL students’ normal second language acquisition process as innate learning problems (Cloud, 1993; Brown, 2003; Karabenick & Noda, 2004; LeRoy & Simpson, 1996). ESL students’ limited English proficiency works as a masking factor in teacher’s judgment, resulting in underachieving ESL students are
seen as having learning disabilities and, in turn, being over-referred and misplaced in special education (Wade-Woolley & Siegel, 1997).

Theoretical Framework Associated with Teacher Decision Making for Referral

Referral decisions typically begin with classroom teachers (Stein, 2011) and are based on their attitude and perceptions in the classroom (Martin & Baldwin, 1992; Paneque & Barbetta, 2006). Research indicates that teachers’ decision making is one of the most important factors in determining students’ educational placement (Mehan, Hartwick, & Meihls, 1986; VanDerHeyden, Witt, & Naquin, 2003). Given the known issues of ESL students’ overrepresentation in special education, an investigation of teachers’ teachability beliefs toward ESL students may provide valuable information on the decision making patterns for referral.

Teacher Efficacy

Teacher efficacy is defined as, “a teacher’s belief or conviction that they can influence how well students learn; even those students’ who may be difficult or unmotivated (Guskey & Passoro, 1994, p.4)”. Bandura’s social cognitive theory provides a framework for examining the construct of teacher efficacy. In social cognitive theory, Bandura (1977, 1986) proposed two types of expectancy beliefs: self-efficacy and outcome expectancy. Self-efficacy is defined as “one's belief in one's ability to organize and execute the courses of action required to achieve in specific situations” (Bandura, 1997, p.3), and outcome expectancy is defined as “one’s estimate that a given behavior will lead to certain outcomes” (Bandura, 1977, p. 193). Bandura believed that the degree to which teachers’ acquired skills and knowledge are utilized will vary based on their level of self-efficacy. Likewise, teachers will develop different degrees of beliefs in their expectations toward student outcomes (outcome expectancy) based on their experiences and observation of others. In Bandura's two-pronged teacher efficacy, self-efficacy and outcome
expectancy are believed to be strongly correlated with self-efficacy influencing outcome expectancy (Siwatu, 2008; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). That is, teachers who are highly self-efficacious in their instruction tend to have positive expectations on their students’ outcome. Teacher efficacy has been found to have a significant relationship with: (a) student achievement (Ashton & Webb, 1986; Gibson & Dumbo, 1984; Landon, 2002; Richardson, 2011), (b) use of evidence-based instructional strategies (Brady & Woofson, 2008; Good & Brophy, 2003), (c) teacher expectations toward student performance (Gay, 2002; Midgley, Feldlaufer, & Eccles, 1989; Young, 2008), and (d) referral decisions to special education (Hughes, Barker, Kemenoff, & Hart, 1993; Podell & Soodak, 1993; Soodak & Podell, 1993).

*Cultural Competence*

In addition to teacher efficacy, cultural competence has also been found to have influence on student educational outcomes (JohnBull, 2011). Diller and Moule (2005) defined cultural competence as:

Cultural competence is the ability to successfully teach students who come from cultures other than our own. It entails developing certain personal and interpersonal awareness and sensitivities, understanding certain bodies of cultural knowledge, and mastering a set of skills that, taken together, underlie effective cross-cultural and culturally responsive teaching. (p. 19)

The construct of cultural competence comprises two components, *knowledge* and *praxis* (National Council for Accreditation of Teacher Education, 2008; Yang & Montgomery, 2011). Knowledge is an understanding of cultures, cultural differences, and awareness of stereotypes and biases. Praxis refers to application of skills, strategies, and pedagogical practices to help teachers successfully work with students from diverse backgrounds. Equipped with knowledge and praxis, teachers can become culturally competent to provide effective instructional practices.
to CLD students (NCATE, 2008). Culturally competent teachers know how to integrate student culture and language in their practices, respect student culture, and reinforce student cultural identity while teaching critical language, academic and social skills (Garcia & Ortiz, 1988; Lason-Bilings, 1994b). Therefore, teachers’ cultural competence becomes an essential part of their skills and knowledge for effective instruction (Diller & Moule, 2005; Garcia & Ortiz, 1988; Ladson-Billings, 1994).

Relationship between Teacher Efficacy, Cultural Competence and Culturally Responsive Teaching (CRT)

Researchers have made attempts to contextualize the concept of teacher efficacy with diversity and multicultural education in an effort to support equitable and culturally sensitive instructional practices (Gay, 2000; Gorham, 2001; Villegas & Lucas, 2002). Gay (2000) defined culturally responsive teaching (CRT) as the use of culturally reflective instructional strategies and practices in the areas of curriculum and instruction, classroom management, student assessment, and cultural enrichment and competence.

Literature highlights that teacher efficacy and cultural competence are at the core of culturally responsive teaching practices (Blatchley & Lau, 2010; Lynch & Hanson, 2004; National Education Association, 2008; Siwatu, 2007). According to Chu (2011), the rudiments of teacher efficacy and CRT overlap extensively even though their theoretical frameworks fall under different discipline areas (psychological vs. sociological). Further, research indicates a statistically significant correlation between teacher efficacy and cultural competence, and their substantial influence on students’ educational outcomes (Harris & Tim, 2011; JohnBull, 2011). The theorized relationship between teacher efficacy, cultural competence and CRT is illustrated in Figure 1.
Purpose of This Analysis

The purpose of this study is to examine the relationship between teacher efficacy, cultural competence, and teacher referrals of ESL students to special education in an effort to better understand the teacher factors that lead to unnecessary or inappropriate referrals for ESL students. The current literature analysis was conducted to answer the following research question: Does the level of teachers’ teacher efficacy and cultural competence affect their instructional placement decisions for ESL students?

Methods

Study Identification

Education Research Complete, ERIC, PsycINFO, EBSCOhost and ProQuest were used to conduct a comprehensive search of teacher efficacy and cultural competence studies examining their relation to referral decisions. Articles published in peer review journals between 1900 and 2011 were targeted employing every combination of key words, (teacher efficacy OR cultural competence AND referral OR instructional support) AND (English as a second language OR English language learner OR bilingual OR limited English proficiency OR culturally and linguistically diverse) to locate all related studies from the electronic search. To extend the
search, the combination of descriptors, (teacher efficacy OR cultural competence) AND
(instructional practices OR instructional strategies OR instructional modification OR
instructional accommodation OR teacher performance) were used. Additionally, Google
Scholar was utilized to identify additional reports possibly missed from the previous search.
These procedures resulted in the identification of 23 reports, whose reference pages were also
reviewed for potential studies. The 23 abstracts identified were reviewed to determine whether
they examined a direct link for the posited relationship between teacher efficacy, cultural
competence and teacher decisions in referring CLD students to special education.

**Inclusion and Exclusion Criteria**

Given the lack of empirical research on the impact of teacher efficacy on ESL referrals,
it was decided to examine the broader CLD and at-risk literature (i.e., students from culturally
and linguistically diverse or students with academic and/or behavior problems). In addition, the
broader term of referral (i.e., ask for formal help from outside of the classroom) was used to
reflect the current identification system (i.e., RTI). Studies implemented in languages other than
English and conducted outside of the United States were excluded. Further, due to the fact that
learning disabilities tend to be identified in the elementary grades (NICHCY, 2011), only studies
that exclusively targeted the referral of elementary students were selected. The method section of
each article was read to locate the studies which have an experimental or quantitative design.
Since the purpose of this literature analysis is to identify quantitative support for the relation
between teacher efficacy, cultural competence and referral decision, qualitative studies were
excluded.
Coding

Those studies meeting the inclusionary criteria were coded on characteristics of (a) participants, (b) measure type, (c) teacher and student factors, and (d) findings. Detailed descriptions, such as a number of participants, teacher position (e.g., general education or special education, in-service or pre-service), data source for referral decisions (e.g., decisions based on vignettes or actual referral data), names of teacher efficacy and cultural competence measures, teacher factors (e.g., gender, years of teaching experience or cultural receptivity), student factors (e.g., student problem types or SES) and statistical results (e.g., correlation, F value, effect size or p-value) were coded. Details of each study are presented in Table 1.

<Insert Table 1 here>

Results

A total of seven studies met the search criteria; six were quantitative and the other was mixed method. General and special education in-service elementary teachers \(n = 723\) and pre-service teachers \(n = 226\) were represented. Three studies present vignettes, which describe hypothetical student behavioral and/or academic problems to probe teachers’ decision making of referral and educational placement. Two used actual data that contain student referral information while the rest used instruments to measure teachers’ referral tendency. Out of seven studies, four studies measured teacher efficacy, one assessed cultural competence, and two measured both constructs.

Teacher Efficacy and Referral Decisions

Podell and Soodak (1993) and Soodak and Podell (1993) surveyed educators (i.e., general and special teachers) to measure their tendency to make decisions for referrals depending on the degree of teacher efficacy (i.e., personal teaching efficacy and/or teaching efficacy). Podell and
Soodak (1993) found small, but statistically significant correlations between personal teaching efficacy and referral decisions, as well as the regular classroom placement decisions ($r = -.13, p < .05$; $r = .18, p < .05$, respectively). That is, teachers with a lower sense of personal teaching efficacy (similar to Bandura’s self-efficacy as mentioned in the previous section) are more inclined to refer students with academic problems, $R^2 = .07, F(1, 225) = 5.70, p < .05$. Further, teachers having higher level of personal teaching efficacy tend to perceive the regular classroom is more appropriate for students with academic difficulties, $R^2 = .05, F(1, 225) = 8.80, p < .01$. These findings indicate that teachers who believe that their teaching can impact student outcomes see the regular classroom as more suitable for students identified as academically at risk, and, as a result, are less likely to refer these students to services outside of the general classroom.

Soodak and Podell (1993) found similar results regarding the relationship between teacher efficacy and the reliability of referral and placement decisions. The researchers indicated an interaction effect between teacher role (i.e., general or special educators) and teachers’ personal teaching efficacy in explaining teachers’ judgment of appropriateness in general education placement, $R^2 = .23, F(1, 178) = 7.13, p < .01$. General educator’s personal teaching efficacy was significantly related to placement decision in the general classroom ($t = 2.51, p < .01$), but no significance was found among special educators ($t = -.15, p > .01$). This result highlights that general educators who have a higher personal teaching efficacy are inclined to perceive the general classroom as a better placement for students with learning and/or behavior difficulties; the level of personal teaching efficacy, however, does not impact special education teachers’ placement judgments. Further, the researchers found that a student problem type (i.e., academic problem and/or behavior problem) is a good predictor for teachers’ judgment of the
appropriateness of the general classroom placement, $R^2 = .15$, $F(2, 178) = 18.74$, $p < .01$, and judgment for referral decision, $R^2 = .09$, $F(2, 178) = 9.69$, $p < .01$. Teachers judged the regular classroom to be more appropriate for a student with either learning ($M = 3.75$, $SD = 1.47$) or behavior problems ($M = 4.19$, $SD = 1.21$) rather than students with combined problems ($M = 2.91$, $SD = 1.18$). This indicates that the regular classroom is perceived as a more appropriate place for students with learning difficulties and behavior difficulties compared to students with combined difficulties ($d = .63$; $d = 1.07$, respectively). In the case of referral decisions, teachers were inclined to refer more students having combined difficulties ($M = 3.61$, $SD = 1.55$) than students having behavior problems ($M = 2.62$, $SD = 1.39$), a relation demonstrating a moderate effect ($d = .67$).

The study conducted by Brady and Woolfson (2008) highlights the importance of teacher efficacy in taking responsibility for students’ difficulties in learning ($\beta = 0.19$, $t = 2.08$, $p < .05$). Highly competent teachers are willing to take responsibility for children with disabilities, and adapt their instructional practices to meet students’ special needs. Although this study did not make a direct bridge between teacher efficacy and referral decisions, Brady and Woolfson gave important insights on the way that teachers perceive student problems and accept responsibility for their students’ academic difficulties. If teachers do not accept instructional responsibility for students at academic risk, they try to look for help from outside of their classrooms.

The findings of these studies indicate that teacher efficacy, especially personal teaching efficacy, plays an important role in judging the appropriateness of placement in general education and referral to special education. They also provide evidence of teacher bias toward student problem types. Level of teacher efficacy predicts teachers’ choices to solve the problem
whether they manage on their own by accommodating the student’s special needs in their class or whether they look for assistance from outside of their classroom.

However, Naquin (1998) found contradictory results compared to other researchers. Naquin examined actual referral data to find the patterns in teacher’s decisions. The results found no significance between teacher efficacy (i.e., personal teaching efficacy and teaching efficacy) and number of referrals to school committee ($r = -.01, p > .05$; $r = -.04, p > .05$, respectively).

Although the relationship between teacher efficacy and referral decisions is not shown to be statistically significant in this study, findings indicated that student behavior and reading achievement are good predictors of a teachers’ referral decision, $\chi^2 (1, N = 87) = 7.40, p = .007$; $\chi^2 (1, N = 87) = 8.67, p = .003$. Teachers made more referrals of students with academic problem (63%) than those with behavior concerns alone (15%) or with both (22%). Therefore, the findings support that student problem types have a moderating effect on teachers’ referral decisions; however, given the inconsistent findings, it remains unclear which problem type (i.e., behavior, academic or combined) is a better predictor for teachers’ placement and referral decisions.

Cultural Competence and Referral Decisions

Only three studies investigated the relation between cultural competence and its effect on the decision making of educational placement. Reyes (2010) investigated the role of cultural competence in the referral decisions for CLD students using 226 pre-service teachers. This study found no significant relationship between pre-service teachers’ level of cultural competency and the frequency of referral to special education for students with academic problems, $\chi^2 (3, N = 226) = 3.127, p = .372$. However, for the students with behavior concerns, a significant difference was identified between the level of cultural competence and their decision to refer to special
education, $\chi^2 (3, N = 226) = 11.70, p = .008$, implying that teachers with low cultural competence tend to refer more students with behavioral concerns to special education. This may be due to teachers’ perception of these student behaviors as unmanageable in their classroom, so that their personal appraisal works as the determining factor for referral decisions (Abidin & Robinson, 2002). Reyes (2010) concludes that CLD students with behavior concerns are more vulnerable to inappropriate referral to special education when teachers have low cultural competence.

Baker (2004) examined the relationship between elementary school teachers’ efficacy, cultural receptivity (i.e., openness to cultural diversity), and the decision to refer students to an instructional support team. The findings revealed no significant difference between teacher efficacy and referral rate, $r (22) = .35, p > .05$, teacher efficacy and cultural receptivity, $r (22) = .29, p > .05$, or cultural receptivity and referral rate, $r (22) = .16, p > .05$. Based on these findings, teachers’ attitudes toward diversity and effectiveness in teaching do not predict their referral decisions. Another study conducted by Hoover (2008) used actual referral data. She measured teacher competency in performing culturally and linguistically responsive practices for ESL students. Her findings suggest that there is no significant relationship between general teacher’s cultural efficacy and their referral rates when controlling for the total number of years taught ($r = .01, p > .05$).

**Strengths and Limitations of Evidence**

Based on this synthesis, the effects of teacher efficacy and cultural competence on decisions of educational placement for CLD students are inconclusive. All of the studies that investigated the relationship between teacher efficacy and referral decisions used teacher efficacy measures with established validity and the reliability. However, the use of different referral data sources may have rendered differences in outcomes. The studies conducted by
Podell and Soodak (1993) and Sookdak and Podell (1993) used hypothetical scenarios designed by researchers to collect data, but Naquin (1998) used actual referral record to examine the relation between these variables.

Moreover, studies on cultural competence revealed some validity and reliability issues in sampling methods and instruments. In the Baker (2004) and Hoover (2008) studies, researchers found that cultural competency is not a reliable indicator of teachers’ decision making patterns for referral, but the reliability of these studies is questionable given their limited power. Both studies used fairly small sample sizes \((N = 24 \text{ in Baker}; N = 62 \text{ in Hoover})\). Statistical power increases automatically with sample size (Gall, Gall, & Borg, 2008), and in turn, the smaller samples increase the possibility of type II error. The possible type II error was detected in Baker’s study. He found no significance between teacher efficacy and referral rate, teacher efficacy and cultural receptivity, or cultural receptivity and referral rate. However, when this author calculated eta-squared, the magnitude of those relations is fairly strong \((\eta^2 > .63)\). That is, with larger size of sample, this study could have arrived at a different conclusion.

The validity of instruments used in Reyes (2010) and Baker’s (2004) studies is also debatable. They measured only teachers’ general attitudes, awareness and knowledge on diversity, whereas Hoover (2008) assessed the teachers’ ability to incorporate cultural knowledge and skills in instructional practices for CLD students, along with teachers’ knowledge on multiculturalism. Scales should be targeted to measure factors that have impact on the domain of functioning (Bandura, 2006). That is, if the instrument measures general awareness and understanding of diversity issues (knowledge), but does not assess application of skills and strategies in teaching practices (praxis), it cannot provide the full measurement of cultural competence (Yang & Montgomery, 2011). Researchers cannot accurately note any correlation
between cultural competence and the decision for instructional placement if their scale measures only part of cultural competence. In this sense, Hoover’s (2008) study has strength in instrumentation, as it measures domain specific skills and multi-facets of perceived efficacy within the domain of cultural competence. As this field of inquiry continuously grows, valid and reliable instruments should be developed, and existing measurements should be rigorously evaluated, so that more empirical support can be promoted.

Discussion

The findings from this analysis noted variability across the studies that were reviewed in regards to teacher efficacy and cultural competency as a predictor of teachers’ referral tendency. Podell and Soodak (1993), Soodak and Podell (1993) and Brady and Woofson (2008) found teacher efficacy to be a critical factor for an educator’s decision making for both instruction and referrals, but Naquin (1998) found no significance between the constructs. As for the relation between cultural competence and teacher’s tendency to make referral decisions, little empirical research was found, and the results from available studies are inconclusive. Even though a body of literature highlights cultural competence as an essential part of teachers’ practices with CLD students (Diller & Moule, 2005; Garcia & Ortiz, 1988; Ladson-Billings, 1994), only one study provided the empirical support between the two constructs. Further empirical research should be conducted to complement what literature and conceptual models have shown in regards to their potential correlation.

The moderating effect of student problem types on referral decisions is also contradictory. Naquin (1998) claimed that students with academic difficulties tend to be referred more, whereas students with behavioral problems in Reyes (2010)’s study and those with combined difficulties in Soodak and Podell (1993)’s study are found to be referred more compared to students with
other difficulties. There should be further investigation into whether teachers have biased perceptions toward certain student problem types which may affect their referral decision making.

Further investigation into the aforementioned areas is needed to clarify the role of teacher efficacy and cultural competence in the referral process. A better understanding of these factors may improve the field’s ability to prepare pre-service and in-service teachers, and encourage teachers to make better decisions when referring students from culturally and linguistically diverse backgrounds to formal supports. Doing so, in turn, may avoid the over-referral of CLD, especially those students who speak English as a second language, to special education.

Limitations

In the course of conducting this synthesis, some limitations were revealed related to the small sample of studies identified. First, a limited number of studies were conducted examining the role of teacher efficacy and cultural competence in referral decisions, and even fewer involving ESL populations. As a result, the majority of studies reviewed in this analysis targeted CLD population. ESL is a subset of the CLD population, but ESL students have unique needs due to additional factors, such as their limited English proficiency and possible immigrant status. More research is needed in the cultural competence field for the ESL population, in order to shed light on meaningful instructional practices for the ESL population. Second, there are many factors that influence a teacher’s decision to refer students, but only a few articles reported teacher and student variables other than teacher efficacy and student problem types. Multi-faceted approaches should be conducted to explain the dynamic interaction among constructs (Drame, 2002). Lastly, Reyes (2010)’s study surveyed only pre-service teachers, but pre-service teachers lack experience in working with ESL students, with classroom management, and with use of instructional strategies and assessments in a classroom context. Therefore, there are
limitations in generalizing the findings into the actual teaching practices and the referral processes.

*Implications*

**Teacher Preparation and Professional Development**

Bandura (1997) highlights the importance of teacher preparation programs in the formation and modification of efficacy beliefs. Once efficacy beliefs are formed, they are difficult to change, yet established efficacy beliefs are more malleable during the early stages of learning (Tasan, 2001). However, research has shown that not only do pre-service teachers receive inadequate coverage and incoherent curriculum in working with CLD students during their teacher preparation programs, but that there is also a lack of multicultural/bilingual professional development trainings for in-service teachers (Groulx & Silva, 2010, Pang & Sablan, 1998; Sanchez & Brisk, 2004; Skiba, Simmons, Ritter, Kohler, Henderson, & Wu, 2006). This lack of preparation and the resulting sense of efficacy in addressing cultural and linguistic diversity can impact both teachers’ instructional practices and referral decisions for CLD students with suspected learning disabilities (Carson, Brauen, Klein & Willig, 2002; Skiba et al., 2006). Therefore, a systematic and comprehensive training program in CRT needs to be provided in our teacher preparation programs. Doing so may positively impact the educational experience of CLD students and reduce the occurrence of inappropriate referrals to special education (Jones, 2004).

The National Education Association (2011) reported that an effective teacher preparation program can enhance: (a) knowledge and skills, (b) teacher efficacy, (c) ability to provide appropriate instruction, (d) student educational outcomes, and (e) early identification and intervention. Previous studies have suggested that a comprehensive approach to coursework that
integrates bilingualism, multiculturalism, educational equity and social justice in teacher preparation programs can be effective in producing culturally responsive teachers (Brown, 2004; Coady et al., 2011; Kamps et al., 2007; Paneque & Barbeta, 2006; Tucker et al., 2005). In-service teachers can also promote their cultural and linguistic responsiveness through on-going workshops targeting specific knowledge and skills such as self-efficacious behavior and intervention strategies (Brown, 2003; Tucker et al., 2005). Teachers’ predisposed beliefs on student linguistic and cultural backgrounds can be changed when they acknowledge the role of cultural factors in teacher-student interactions and their own efficacy beliefs (Tasan, 2001).

When teachers are aware of cultural factors, they feel more competent to instruct students from diverse population (Carlson, Brauen, Klein, Schroll, & Wilig, 2002; National Education Association, 2008). Extensive collaboration between general education, ESL, and special education teachers also provides opportunities to gain knowledge, specific skills and practical information from teachers’ own experiences (Stein, 2011). Above all, in the RTI framework, which emphasizes prereferral intervention to meet the needs of struggling learners (including ESLs) in the regular education classroom, collaboration among teachers is critical in CRT implementation.

**Cultural Competence and Assessment**

In reducing unnecessary referrals for ESL students, it is important for teachers to be aware of the role students’ cultural and linguistic skills play in the administration and interpretation of assessments. Assessments for students with suspected disabilities are the first step to make an accurate identification and decision for referral. However, this process is markedly more complicated in case of ESL students due to linguistic and cultural factors (Ghosh, Hokom, Hunt, Magdaleno, & Su, 2008). Most often, in administration of assessments (e.g.,
cognitive, achievement, screening or progress monitoring) and interpretation of the results, students’ native languages and cultures are often ignored, proper accommodations are rarely provided, and the norms for these measures seldom include an appropriate sample for comparison (Abedi, 2006; Ascher, 1990; Hoover, 2008; Rinaldi & Samson, 2008). In the case of ESL students, accurate assessment of academic language proficiency is crucial to validate their achievement scores (Cummins, 1984). However, most achievement tests are administrated before seven years of English instruction for ESL students, even though research suggests that it takes five to seven years for individuals to become fluent in an academic language. The results of these tests may not accurately reflect ESL students’ true ability, which may result in inappropriate referrals to special education (Abedi, 2006; Cummins, 1984). In this sense, ESL students’ inappropriate referral to special education is due to not only misinterpretation of the test results, but also a lack of instructional knowledge and support in the area of academic language development (Garcia & Ortiz, 2004). In an inclusive setting, general educators are responsible for providing an effective second language literacy instruction as well as a comprehensible academic content instruction (NEA, 2011). Teachers’ sensitivity to linguistic and cultural differences and their competence in making instructional modifications may serve to create conducive learning environments for ESL students. When considering the referral of ESL students to special education, teachers should use multiple sources, such as progress monitoring data, language proficiency data, student work samples and observation in class (Flanagan, Ortiz, Alfonso, & Dynda, 2006), and interpret students’ academic progress relative to the student’s second language stage to make an accurate judgment (Hoover, 2012).

Teachers’ decision making for referral (e.g., delays in service or misplacements) is crucial for ESL students’ promising academic performance. If ESL students with suspected LD
are forced to wait until they have a firm grasp of the English language, they may lose valuable intervention opportunities, causing their achievement gap to widen (Geva, Yaghoub-Zadeh, & Schuster, 2000). On the other hand, if students without disabilities are misplaced in special education, they will receive services that do not meet their needs. Misplacement could potentially lead to a regression in the student’s learning progress (Garcia & Orbitz, 2004; Wilkinson & Ortiz, 1986). Through well-prepared teacher preparation programs and professional development trainings, future teachers can be equipped with teacher efficacy and cultural competence. Doing so will hopefully enable them to make accurate and informed decisions for students from culturally and linguistically diverse backgrounds. In the end, these teachers can infuse culturally rich experiences in bringing up students’ academic achievement as well as in empowering students in this diverse society.
Table 1

**Characteristics of Studies Identified**

<table>
<thead>
<tr>
<th>Study</th>
<th>Participants</th>
<th>Measure Types</th>
<th>Factors Examined</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baker (2004)</td>
<td>24 elementary teachers</td>
<td>TES, QDI, SERQ, SHRF</td>
<td>Cultural receptivity, Knowledge</td>
<td>No significant relationships between teaching efficacy and referral rate ($r = .35, p &gt; .05, \eta^2_p = .83$), teaching efficacy and cultural receptivity ($r = .29, p &gt; .05, \eta^2_p = .63$), or cultural receptivity and referral rate ($r = .16, p &gt; .05, \eta^2_p = .68$).</td>
</tr>
<tr>
<td>Brady &amp; Woolfon (2008)</td>
<td>118 elementary teachers (GE and SE)</td>
<td>TSES, IDP, TAS</td>
<td>Teacher role, Experience, Attitudes, Social, Emotional, Behavioral, Language</td>
<td>Teacher efficacy is significantly related to teacher’s taking responsibility for student difficulties in learning ($\beta = 0.19, t = 2.08, p &lt; .05$).</td>
</tr>
<tr>
<td>Hoover (2008) (mixed method)</td>
<td>62 elementary teachers</td>
<td>Actual referral data, EXCEL</td>
<td>Teacher role, Experience</td>
<td>No significant relationship between teacher competency (teacher efficacy and cultural competence) and referral rate when controlling for years in teaching ($r = .01, p &gt; .05$).</td>
</tr>
</tbody>
</table>
| Naguin (1998)          | 87 elementary teachers | Actual referral data, TES | Gender, Experience, Special ed. Certification, Behavior, Academic, Ethnic, Gender | - No significant relationship between personal efficacy or teaching efficacy and referral decision to school committee ($r = -.01, p > .05; r = -.04, p > .05$ respectively).  
- Teacher referred more students with academic problem (63%) than behavioral (15%) or both (22%). Placement decisions of students with academic problem are significantly related to personal efficacy ($r = -.13, p < .05; r = .18, p < .05$, respectively).  
Significant difference between cultural competence and referral decision to special education when students have behavior concerns ($\chi^2 [3, N=226] = 11.70, p = .008$). |
| Podell & Soodak (1993) | 240 teachers (GE and SE) | Vignette, TES | Academic, SES | |
| Reyes (2010)           | 226 pre-service teachers | Vignette, MAKSS-T Referral questionnaire | Academic behavior | |

*(table continues)*
Soodak & Podell (1993) 192 teachers (GE and SE) Vignette TES Teacher role Academic, behavioral or both

- Significant relationship between personal efficacy and placement judgments for general educators ($R^2 = .23$, $F[1, 178] = 7.13$, $p < .01$).
- The regular classroom is perceived as more appropriate placement for a student with either learning or behavior problems compared to students with combined difficulties, a relation demonstrating a moderate to large effect ($d = .63$; $d = 1.07$, respectively).

**Note.** GE = General Education; SE = Special Education; TES = Teacher Efficacy Scale; QDI = Quick Discrimination Index; SERQ = Special Education Referral Questionnaire; SHRF = Student History Referral Form; TSES = Teachers’ Sense of Efficacy Scale; IDP = Interaction with Disabled Persons Scale; TAS = Teacher Attribution Scale; EXCEL = Exceptional Children who are English Learners; MAKSS-T = Multicultural Awareness-Knowledge-Skills Survey-Teacher edition
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THE IMPACT OF TEACHER PERCEPTION OF CULTURAL COMPETENCE ON THE INSTRUCTIONAL DECISION MAKING OF ENGLISH AS SECOND LANGUAGE (ESL) STUDENTS

Introduction

The U.S. public school system is rapidly growing in diversity. According to U.S. Census Bureau (2010), more than 34% of the population in the U.S comes from culturally diverse backgrounds, and this diversity is being reflected in the U.S. school population. Among students from culturally and linguistically diverse backgrounds, which compromise approximately 40% of students enrolled in public school systems (National Center for Education Statistics, 2009), 10% of the students were identified as ESLs in 2009-2010 (National Clearinghouse for English Language Acquisition & Language Instruction Educational Programs, 2011). It is common for ESL students to display mistakes in language usage and academic struggles in the process of second language acquisition. Often, these symptoms are misinterpreted as a sign of disability or low intelligence (Brown, 2004; Klinger & Harry, 2006; U.S. Department of Education, & National Institute of Child Health and Human Development, 2003). However, differentiating developmental phenomenon in acquiring second language from disabilities related to language can be a very complex process. This process encompasses dynamic relationships among English, ESL student’s native language, mainstream culture and the student’s culture, together with the student’s internal and external conditions (Brown, 2004).

Factors Contributing to Overrepresentation

One troublesome issue associated with the increase of ESL students in U.S. schools has been their over-identification as having high incidence disabilities and over-referral to special education due to misconceptions related to the second language acquisition process (Garcia &
Ortiz, 2004). The literature indicates that over-referral for ESL students frequently occurs when: (a) students who have limited language proficiency display low academic performance (Wade-Woolley & Siegel, 1997), (b) teachers have limited knowledge on district policies on referral timing (Klingner & Harry, 2006), (c) assessment is culturally and linguistically biased (Abedi, 2006; Ascher, 1990; Rinaldi & Samson, 2008), (d) teachers lack experience working with ESL students (Villegas & Lucas, 2002; Brown, 2003), and (e) cultural incongruence exists between teachers and students (Cloud, 2002; Garcia & Ortiz, 2004; Rueda & Garcia, 1996). When ESL students’ academic difficulties are attributed to their innate problems, and not to teachers’ inappropriate instructional support in academic language development, students are more likely to be misdiagnosed, referred and placed in special education (Garcia & Ortiz, 2004; Ysseldyke & Algozzine, 1982). This negative pattern ultimately results in reported increases in the incidence of learning disabilities in the ESL student population (Brown, 2004). Furthermore, when teachers have a lack of knowledge and insufficient training opportunities in addressing diversity, second language acquisition and literacy development they tend to exhibit bias toward students from different cultures; employing a deficit view of students’ behaviors and linguistic patterns (Garcia & Ortiz, 2004). When teachers view difference as a disability, this matter will detrimentally impact the student-teacher dynamic and quality of education that students receive (Cloud, 2002; Gay, 2010; Rueda & Garcia, 1996; Terry, 2010), as well as impact students’ academic performance (Landon, 2002; Nieto, 1996). Eventually, the possibility of misdiagnosis may increase, resulting in over-referrals of culturally and linguistically diverse (CLD) students to special education (Brown, 2004). Moreover, studies have shown that CLD students are not only over-referred, but tend to be placed in more restrictive environments when they are placed
in special education, compared to their non-CLD counterparts (Artiles, Rueda, Salaza, & Higareda, 2005).

**Theoretical Framework Associated with Teacher’s Referral Decision**

In an effort to mediate the frequent issues resulting from mismatch between home and school cultures, as well as to provide effective instruction which respond to the differences within each classroom, teachers have been encouraged to adopt culturally reflective instructional strategies and practices. Culturally responsive teaching (CRT) practices are based on culturally responsive pedagogy in the areas of curriculum and instruction, classroom management, student assessment, and cultural enrichment and competence (Gay, 2000). Recent research provides a positive vision for CRT practices. Teachers’ use of culturally responsive teaching skills enable them to be more responsive to the needs of a diverse student population and provide quality education (Chu, 2011; Gay, 2000; Siwatu, 2008), resulting in improved student educational outcomes (Harris, 2010; JohnBull, 2011). In this sense, some researchers suggest CRT practices have the potential to decrease unnecessary referral for CLD students to special education (Chu, 2011; Hoover, 2012).

**Teacher Efficacy**

At its core, training in CRT serves to improve teachers’ sense of efficacy in regards to teaching and their competence in dealing with students for different cultures (Blatchley & Lau, 2010; National Education Association, 2008; Siwatu, 2007). Teacher efficacy can be defined as, a teacher’s belief in his ability to teach- difficult or unmotivated students (Guskey & Passoro, 1994). Bandura’s social cognitive theory provides a framework for examining the construct of teacher efficacy. In social cognitive theory, Bandura (1977, 1986) proposed two types of expectancy beliefs: *self-efficacy* and *outcome expectancy*. Self-efficacy is defined as “one's
belief in one's ability to organize and execute the courses of action required to achieve in specific situations” (Bandura, 1997, p.3), and outcome expectancy is defined as “one’s estimate that a given behavior will lead to certain outcomes” (Bandura, 1977, p. 193). Bandura declared that the degree to which teachers utilize acquired skills and knowledge varies based on their level of self-efficacy. Likewise, teachers will develop different degrees of outcome expectancy based on their experiences and observation of others. Teachers who are highly self-efficacious in their instruction tend to have positive expectations on students’ outcome (Siwatu, 2008; Tachamen-Moran, Woolffolk Hoy, & Hoy, 1998). Teacher efficacy has found to have a significant relationship with: (a) student achievement (Ashton & Webb, 1986; Gibson & Dumbo, 1984; Landon, 2002; Richardson, 2011), (b) use of evidence-based instructional strategies (Brady & Woofson, 2008; Good & Brophy, 2003), (c) teacher expectations toward student performance (Gay, 2002; Midgley, Feldlaufer, & Eccles, 1989; Young, 2008), and (d) referral decisions to special education (Podell & Soodak, 1993; Soodak & Podell, 1993).

**Cultural Competence**

Another core component of CRT, cultural competence, can be defined as one’s ability to teach successfully students from different cultures (Diller & Moule, 2005). Cultural competence comprises two components, *knowledge* and *praxis* (NEA, 2008; Yang & Montgomery, 2011). Knowledge is an understanding of cultures, cultural differences, and awareness of stereotypes and biases. Praxis refers to application of skills, strategies, and pedagogical practices to help teachers successfully work with students from diverse backgrounds. To be culturally competent, teachers require being equipped with knowledge and praxis for effective instruction to CLD students (National Council for Accreditation of Teacher Education, 2008). Culturally competent teachers know how to integrate student culture and language in their practices, respect student
culture, and reinforce student cultural identity while teaching language, academic and social skills (Garcia & Ortiz, 1998; Lason-Bilings, 1994b).

JohnBull (2011) found the correlation between teacher efficacy and cultural competence to be statistically significant, and both have substantial influence on students’ educational outcomes (Harris & Tim, 2011; JohnBull, 2011). That is, highly efficacious teachers tend to be culturally competent, and culturally competent teachers are able to implement effective culturally responsive teaching. These culturally responsive teachers engage all students and successfully manage their classrooms, in order to efficiently promote the learning progress of students from diverse background (Lynch & Hanson, 2004; NEA, 2008; Siwatu, 2007; Young, 2008). Highly efficacious and culturally competent teachers see certain ESL students’ behaviors and language patterns as different, not as deviant, which eventually leads to a decrease in unnecessary referrals for ESL students (Hoover, 2012).

A body of literature supports the theory that teacher efficacy and cultural competence are important predictors in referral decision making (Bandura, 1977; Diller & Moule, 2005; Garcia & Ortiz, 1988; Gibson & Dembo, 1985; Lason-Billings, 1994). However, empirical support in this area is limited. According to a literature analysis conducted by this author, only seven studies examine teacher efficacy and cultural competency as a predictor of teachers’ tendency to make special education referrals, and the result of this literature were inconclusive (Lim, Lindo, & Combes, 2013). As a result, there remains a gap between what theoretical models have proposed and what the empirical evidence supports in regards to the relationship between teacher efficacy, cultural competence, and special education referral decisions for ESL students.
Purpose of the Study

The purpose of this study is to provide empirical support for teacher efficacy and cultural competence playing an essential role in teachers’ instructional placement decisions. This study examined the relationship between teachers’ reported level of competency and their pattern of requesting instructional support from outside of the general classroom (i.e., making a referral). A better understanding of the relationship among these variables will provide valuable insights in the preparation of teachers, instructional practices, and may eventually serve to reduce the disproportionate representation of ESL students in special education. This study is designed to address the following questions:

1. Do teachers’ demographic factors relate to their reported level of competency?
2. Are there differences in perceived teacher competency among general and special education teachers depending on the status of ESL certificate?
3. To what extent can reported CRT competency factors (i.e., knowledge of classroom management, assessment, instructional strategies and culture) predict the level of perceived teacher competency over and above other factors (i.e., teacher motivation, knowledge of language and communication and collaboration)?
4. Does perceived teacher competency (i.e., teacher efficacy and cultural competence) affect their referral decision for ESL students?

Methods

Sampling Procedure

A power analysis, setting power at .85 and alpha at .05 with a medium effect size ($f^2 = .15$), determined the necessary sample size for this study to be larger than 114 teachers. Multiple approaches were employed to recruit a national sample of respondents for this study’s
survey probing teachers’ perspectives on their ability to work with ESL students. First, Survey
Monkey’s audience service, an online survey tools that helps design and distribute e-surveys,
was used to distribute the survey to U.S. educators with bachelor’s degree or above. The second
method used for data collection was a cluster sampling. One urban school district with more
than 25 elementary schools was randomly selected from four regions of the United States (i.e.,
the north-east, mid-west, south and west). A total of 2386 email addresses of general, special
education and ESL teachers from four school districts were gathered from public sites, and
invitations were sent to these addresses. The third method used involved posting invitations to
participate in the survey on two elementary educator forums in online professional networks
such as LinkedIn.

Prior to data collection, Institutional Review Board (IRB) approval was obtained. In
compliance with the IRB requirements, participants for this study were informed of their right to
discontinue the survey at any time as well as that their confidentiality would be protected
throughout the study.

For all groups, a consent letter conveying this information was set as the main page of the
survey. To screen for general, ESL and special education teachers at elementary schools, a
disqualifying page was set up, so that those not belonging to one of these groups were prompted
to leave the survey. As incentive for the appropriate personnel to participate, respondents had the
option of providing their e-mail address at the end of the survey to enter in a drawing for $50 gift
cards.
**Instrumentation**

*Original Measure*

A slightly modified version of Paneque and Barbetta (2006)’s Exceptional Children who are English Learners (EXCEL) survey measure was adopted in this study. The original EXCEL survey was designed based on Bandura’s (2006) “Guide for Constructing Self-Efficacy Scales” to measure teachers’ efficacy in their instructional practices with ESL students and consisted of three sections measuring teacher competence (Section I), professional training (Section II), and demographics (Section III). EXCEL has 20 items that employ a 9-point Likert scale to measuring seven teacher competency areas including knowledge of language and language development, teacher motivation, knowledge and understanding of learners’ culture, instructional strategies and practices, assessment and evaluation, class management, and communication and collaboration. Data on the respondent professional training was collected using three open-ended interview questions asking teachers to share their experiences working with ESL students; and respondent demographic information (i.e., teacher role, highest degree earned, teacher certification, years of teaching experience, language proficiency in language other than English, and ethnicity) was also collected. According to Panegue and Barbetta (2006), face validity of EXCEL was established through a review of experts in ESL/ bilingual special education teachers and special education teachers; and the measure has a Cronbach’s alpha of .94, indicating high reliability.

*Measure for this Study*

For this study, the format and the content of the instrument was modified. Respondent demographic information was collected at the beginning of the survey, followed by the collection of information regarding the teacher’s professional experiences and competency. The original
demographic questions were left intact, but a question regarding respondent ethnicity was added. Also, the layout of multiple choices was slightly revised into a more user friendly version (i.e., use a check box for participant’s selection instead of circling around their selection). The interview questions were replaced with vignettes and referral decision questions.

Three vignettes which describe hypothetical ESL students with academic or behavior difficulties were created by this author based on Klingner’s (2012) ESL and learning disability identification guideline. Case 1 was designed to use culture-general linguistic knowledge of ESL students; however, Case 2 and 3 were designed to use culture specific linguistic and behavioral knowledge of ESL students in judging referral. Lack of vocabulary and phonological skills is a common phenomenon in ESL students (Case 1), but persistent mistakes in particular word order and pronunciations (Case 2) and avoidance of eye contact and reluctance to participate in class activities (Case 3) vary greatly depending on the students’ first language and culture. The vignettes also reflect two major trends: 1) that the majority of students are identified as having learning disabilities in the early grades (NICHCY, 2011) and 2) that ESL students are frequently misdiagnosed due to the use of inappropriate norms and accommodations, as well as teachers’ lack of understanding of the second language acquisition process (Brown, 2004; Abedi, 2006). After reading the vignettes, teachers were asked to choose whether they would secure formal support for the child outside their classroom (i.e., refer) or try other instructional strategies that met the student’s needs in their classroom.

The original teacher competency measure employed a 9-point Likert scale. This scale was changed to a 5-point Likert scale in this study to reduce the potential confusion of respondents. Four questions were also added to the original EXCEL measure to examine additional information of teacher efficacy in areas of instructional strategies and practices and
knowledge of learner’s culture. These items were adopted from Siwatu’s (2008) Culturally Responsive Teaching Self-Efficacy (CRTSE) and Culturally Responsive Teaching Outcome Expectation (CRTOE) scales. Factor loadings of the four items ranged from .65 to .75. One item referring exclusively to students with disabilities was deleted from the original EXCEL, as the targeted population for this study was teachers who engaged ESL students. The modified version of measure has a Cronbach’s alpha of .95, indicating a high level of internal consistency. In the final version of the instrument for this study, sections are structured as follows: section I - background information; section II - vignettes and referral decision questions; and section III - teacher competency. The revised instrument can be found in Appendix B.

Expert Review

To establish the content validity of three vignettes in section II, which were created by this author, two faculty members who are expertise in evaluation/identification and bilingual/ESL, one administrator specialized in identification/diagnosis of bilingual learners and two educational diagnosticians of bilingual learners were invited to review these case studies. Their review focused on whether these cases describe typical scenarios faced by teachers in their everyday practice and their professional perspectives on the correct responses from teachers based on the problems provided in the vignettes. Suggestions from expert panel included rephrasing/clarifying some wording, adding names of measures, and specifying what each ESL level indicates in the vignettes. Overall, there was consensus on the appropriate responses to the vignettes. Experts also agreed that the descriptions of ESL student problems in vignettes closely depict the phenomena that teachers face in their everyday practice.
Pilot Testing and Debriefing Interview

Since this study modified the original EXCEL and adds new sections to the instrument, a pilot study was conducted in order to improve the validity of the modified survey prior to the actual data collection. Seven teachers who are similar to the target subjects were invited to participate in the pilot testing. They individually took the survey and provided feedback through a debriefing interview. Ambiguous wordings and difficult questions were identified and modified in response to their comments and recommendations. The detailed debriefing interview procedure can be found in Appendix B.

Data Collection Procedure

Quantitative data from the e-survey were collected for three weeks from mid-August 2013 through early September 2013. A total of 258 teachers participated in the study. Through the Survey Monkey convenience sample, 129 out of 150 respondents consented to participate and completed the survey. Of the 129 participants, those who identified themselves as educational diagnostician, school psychologist, or reading specialist were excluded from the sample. The final number of participants from this sampling method was 120. The cluster sampling provided 162 respondents of which 138 consented to participate and completed the survey. Finally, the online forums provided only 6 participants all of whom completed the survey. Due to the low rate of participation for this method of sampling researcher decided not to include these participants. Attrition rates were 20% and 14.81% for the convenience and random samples respectively.

The survey was designed to force participants to answer all questions (e.g., if questions were skipped, respondents received a warning sign prompting them to answer all items). This was the case for all questions except for those related to teaching assignment and ethnicity. Pilot
test results revealed that several participants skipped questions related to teaching assignment, which required participants to provide typed responses for several sub-questions, and ethnicity, which some participants reported feeling uncomfortable disclosing. Thus, these items were left as optional responses during the survey’s administration.

**Data Analysis**

Data stored in the survey program were downloaded to SPSS for analysis. Categorical items were dummy coded (e.g., teachers with ESL certificate as 1 and teachers without ESL certificate as 0) prior to analysis. Scores from the 23 items in the teacher competency scale were added up to get the total score for teacher competency. These data were then analyzed using descriptive statistics, multiple and logistic regression. Due to the high number of not specified data in ethnicity, a sub-analysis was conducted to examine the role of ethnicity on the relationship between teacher competency and referral decisions.

Using a hierarchical multiple regression, the seven variables identified by Panegue and Barbetta as necessary teacher competencies for teaching ESL students in the teacher competency scale (i.e., teacher motivation, knowledge of language, communication and collaboration, knowledge of classroom management, assessment, instructional strategies and culture) were divided into two sets to test the contribution of only the designated CRT variables (i.e., knowledge of classroom management, assessment, instructional strategies and knowledge of cultures). The hierarchical multiple regression method allows a researcher to examine the contribution of certain variables over and above the other variables identified as accounting for the variance of teachers’ reported teacher competency. Petrocelli (2003) highlights that this sequential analysis allows researchers to test theory-based hypotheses. The order predictors were entered into the regression equation was determined based on the hypothesized model.
According to Bandura (1977), teacher efficacy is domain-specific. When teachers are situated in CLD context, they are required to have CRT specific competency to provide effective instruction. Siwatu (2007) categorized culturally responsive teaching practices into four domains: curriculum and instruction, classroom management, student assessment, and cultural enrichment and competence, which are identifiable CRT traits that only effective teachers demonstrate in practicing CRT. Thus, CRT competency variables were grouped in Set 2 (i.e., classroom management, assessment, instructional strategies and knowledge of cultures), which is believed to be highly correlated to effective CRT practice according to Siwatu (2007). The other variables identified by Panegue and Barbetta (2006) as necessary teacher competencies for teaching ESL students (i.e., motivation, language and communication and collaboration) were grouped in Set 1. Thus, this hierarchical regression allows testing the contribution of CRT variables in explaining measured teacher competency in the domain of teaching ESL students.

Results

Demographic Information

Demographics characteristics of this survey’s respondents are presented in Table 2. From two sampling methods, a total of 258 responses were collected ($n_{audience} = 120, n_{random} = 138$). The majority of respondents were general education teachers ($n = 181, 70.2\%$), and with 36 (13.9\%) special educators responding. About half (52.3\%) of the respondents reported having a master degree, and 43.2\% held an ESL certification. More general educators ($n = 114, 44.2\%$), than special educators ($n = 31, 12\%$) reported also having an ESL certification. The majority of teachers reported having more than 10 years of teaching experience ($n = 164, 63.5\%$), suggesting that this survey’s respondents were highly experienced teachers. When queried on their own proficiency in a native or second language (other than English) most respondents
reported they did not speak another language ($N = 209, 81\%$). The majority (65.5 \%) of respondents did not specify their ethnicity. Among participants who disclosed their ethnicity ($n = 89$), the composition of ethnicity resembles the current U.S. racial compositions (i.e., White is 64\%; Hispanic is 16\%; Black is 12\%; Asian is 5\%; and other is 3\%). Teacher competency scores ranged from 23 to 115, with a mean of 91.72 and standard deviation of 12.8.

Table 2

*Demographic Information*

<table>
<thead>
<tr>
<th>Sample ($N = 258$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher role</td>
</tr>
<tr>
<td>General Education</td>
</tr>
<tr>
<td>ESL</td>
</tr>
<tr>
<td>Special Education</td>
</tr>
<tr>
<td>Highest Degree Earned</td>
</tr>
<tr>
<td>Bachelor</td>
</tr>
<tr>
<td>Master</td>
</tr>
<tr>
<td>Doctoral</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>ESL certificate status</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Years of teaching</td>
</tr>
<tr>
<td>Less than 5 yrs</td>
</tr>
<tr>
<td>5 yrs to 10 yrs</td>
</tr>
<tr>
<td>More than 10 yrs</td>
</tr>
<tr>
<td>Language proficiency</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Ethnicity</td>
</tr>
<tr>
<td>White</td>
</tr>
<tr>
<td>Black</td>
</tr>
<tr>
<td>Asian</td>
</tr>
<tr>
<td>Hispanic</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Not specified</td>
</tr>
</tbody>
</table>
Research Question 1: What Teacher Demographic Factors Influence a Teacher’s Level of Competency?

A multiple regression analysis was conducted to assess the hypothesis that teacher competency in teaching ESL students would be affected by demographic factors such as the teacher’s role, degrees earned, having an ESL certification, years of teaching, language proficiency and ethnicity. The results of the regression indicated that teacher role, degree, the status of ESL certificate, years of teaching, language proficiency and ethnicity explained 17% of the variance in teacher competency, \( R^2 = .17, F(5,252) = 10.3, p < .001 \) as shown in table 3 and 4. The mean difference of teacher competency among general, special and ESL teachers as well as between teachers with and without ESL certification is statistically significant, \( t (252) = -2.11, p < .05; t (252) = 7.00, p < .001 \), respectively. This indicates that teacher role and ESL certification held are good predictors of the teacher competency, \( \beta = -.14, p < .05; \beta = .44, p < .001 \), respectively.

Table 3

Demographic Regression Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R2</th>
<th>Adjusted R2</th>
<th>SE</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.41</td>
<td>.17</td>
<td>.15</td>
<td>11.78</td>
<td>10.30</td>
<td>.000</td>
</tr>
</tbody>
</table>
Table 4

Demographic Regression Coefficient

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Constant</td>
<td>90.57</td>
<td>5.12</td>
</tr>
<tr>
<td>Role</td>
<td>-2.30</td>
<td>1.08</td>
</tr>
<tr>
<td>Degree</td>
<td>.71</td>
<td>1.12</td>
</tr>
<tr>
<td>Years of teaching</td>
<td>-.13</td>
<td>1.06</td>
</tr>
<tr>
<td>Proficiency</td>
<td>-.74</td>
<td>1.97</td>
</tr>
<tr>
<td>ESL certification</td>
<td>11.33</td>
<td>1.62</td>
</tr>
</tbody>
</table>

A sub-analysis was conducted using only the sample that responded to the ethnicity item due to the low response rate on this variable. The findings indicate that the mean difference of teacher competency among ethnic groups is not statistically significant, $F(1,87) = 1.03, t (87) = 1.01, p > .05$. Thus, ethnicity is found to be not a good predictor in explaining the level of teacher competency.

Research Question 2: Are There Differences in Perceived Teacher Competency among General and Special Education Teachers Depending on the Certificate Status of ESL?

The plot shown in Figure 2 illustrates mean difference in teacher competency among four teacher groups (i.e., general without ESL, general with ESL, special without ESL and special with ESL). Statistically significant difference in teacher competency was indicated among groups, $F(3, 213) = 16.82, p < 0.01$. 

50
A t-test was conducted to further examine if ESL certification explains differences in level of teacher competence within the general educator and special educator groups. To make comparison within group, general and special education teachers without ESL certificate were dummy coded as 0, and teachers with ESL certificate were coded as 1. Therefore, t-test was conducted with a total of 217 samples (n_{general w/ ESL} = 67, n_{general w/o ESL} = 114, n_{special w/ESL} = 4 and n_{special w/o ESL} = 31).

As shown in Tables 5, the mean difference in teacher competency between general education teachers with ESL certificate (M = 99.42, SD = 10.69) and those without ESL certificate (M = 87.05, SD = 12.54) is statistically significant, t(180) = 10.29, p = .000. The relation between two general educator groups demonstrates a large effect (d = 1.06). Furthermore, special education teachers with ESL certificate (M = 93.60, SD = 4.62) have higher teacher competency than those without ESL certificate (M = 88.13, SD = 10.57). The mean difference between two is statistically significant, t(35) = 2.38, p = .023, and the relation indicates a moderate effect (d = .67). Therefore, the findings highlight that having ESL certificate is an
important factor in deciding the level of teacher competency in teaching students classified as ESL among general and special educator groups.

Table 5

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>10.29</td>
<td>180</td>
<td>.000</td>
<td>.37</td>
</tr>
<tr>
<td>Special</td>
<td>2.38</td>
<td>35</td>
<td>.023</td>
<td>.14</td>
</tr>
</tbody>
</table>

Research Question 3: To What Extent Can CRT Competency Factors (Classroom Management, Assessment, Instructional Strategies and Culture) Predict the Level of Perceived Teacher Competency Over and Above Other Factors (Motivation, Language and Communication and Collaboration)?

Seven variables identified by Panegue and Barbetta as necessary teacher competencies for teaching ESL students were measured in the teacher competency survey. Among these seven variables, the CRT variables (i.e., class management, assessment, instructional strategies and knowledge of cultures) were examined to find their net contribution over and above the other variables of interest (i.e., Set 1: motivation, communication/collaboration and language) on teacher competence. The CRT competency variables designated by Siwatu (2007) were entered in Set 2, and the other variables designated by Panegue and Barbetta (2006) as necessary teacher competencies for teaching ESL students were entered into Set 1 in a hierarchical multiple regression.

The correlations between all seven variables and teacher competency are statistically significant. Especially, among predictors, knowledge of instructional strategy is highly correlated with teacher competency, $r (256) = .97$, $p < .001$. Due to the high correlations between predictors,
all variables were centered and added in the hierarchical regression to avoid multicollinearity. Variance Inflation Factors (VIF) were checked for each variable to make sure no variable is above 10.

The variables in Set 1 account for 85% of the variance in the score of teacher competency \( (R^2 = .85) \). The addition of the variables in Set 2 contributes 15% of the level of teacher competency over and above the variables in Set 1. The \( R^2 \) change was found to be statistically significant, \( R^2 \) change = .15, \( F(3, 254) = 489.50, p < .001 \), indicating CRT variables improve the model in predicting the level of teacher competency. Among CRT variables, instructional strategies best predict the level of teacher competency, which explain 36% of variance in teacher competency (\( \beta = .36, p < .001 \)).

Table 6

Hierarchical Regression Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R2</th>
<th>Adjusted R Square</th>
<th>SE</th>
<th>R square change</th>
<th>F change</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.92</td>
<td>.85</td>
<td>.85</td>
<td>4.82</td>
<td>.85</td>
<td>489.50</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>.14</td>
<td>.15</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>
### Table 7

**Hierarchical Regression Coefficient**

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>1</td>
<td>(constant)</td>
<td>.03</td>
</tr>
<tr>
<td>Motivation</td>
<td>5.90</td>
<td>.62</td>
</tr>
<tr>
<td>Communication</td>
<td>4.42</td>
<td>.55</td>
</tr>
<tr>
<td>Language</td>
<td>9.06</td>
<td>.63</td>
</tr>
<tr>
<td>2</td>
<td>(constant)</td>
<td>.02</td>
</tr>
<tr>
<td>Motivation</td>
<td>2.01</td>
<td>.02</td>
</tr>
<tr>
<td>Communication</td>
<td>2.02</td>
<td>.02</td>
</tr>
<tr>
<td>Language</td>
<td>2.99</td>
<td>.02</td>
</tr>
<tr>
<td>management</td>
<td>1.99</td>
<td>.02</td>
</tr>
<tr>
<td>Assessment</td>
<td>3.99</td>
<td>.02</td>
</tr>
<tr>
<td>Instruction</td>
<td>7.95</td>
<td>.04</td>
</tr>
<tr>
<td>Culture</td>
<td>2.03</td>
<td>.02</td>
</tr>
</tbody>
</table>

**Research Question 4: Does Teachers’ Perceived Competency Affect Their Instructional Placement Decision for ESL Students?**

A logistic regression was conducted to investigate whether the teachers’ instructional placement decision for ESL students depends on their level of teacher competency. The variables of teacher competency, ESL certification held and a teacher role were entered in a regression to examine their direct effects on referral decision. The results are presented in Table 8.

The model with teacher competence, ESL certificate status and a teacher role variables predicts well teachers’ instructional decision for ESL students in Case 1 and 2, but not in Case 3, $\chi^2(3, N = 258) = 26.94, p = .000$; $\chi^2(3, N = 258) = 19.37, p = .000$; $\chi^2(3, N = 258) = 7.15, p = .067$, respectively. In Case 1 and 2, teacher competence, ESL certificate and a teacher role together explain 9.9% and 7.2% of variance in teachers’ decision making. All three variables are found to
be good predictors of teachers’ instructional decision making in Case 1 (β = 1.06, p < .01 in teacher competency; β = 2.89, p < .05 in ESL certification; β = .56, p < .05 in teacher role). This result highlights that an increase of 1 unit on teacher competency will result in increase the odds of keeping students in their classroom by 1.06 times, indicating, teachers with higher teacher competency have a higher chance to keep students in their classroom instead of referring them to formal support. In the same way, having ESL certification increases the likelihood of keeping students in their classroom by 2.891 times. Further, as a teacher role changes, the odds of keeping students in their classroom will be decreased by .56. Therefore, as a teacher role changes, the likelihood of referring students to formal help from outside of classroom will get 1.78 times higher. In Case 2, only teacher competency found to be a good predictor of teachers’ instructional decision making (β = 1.05, p < .01). It explains that an increase of 1 unit on teacher competency will result in increase the odds of keeping students in their classroom by 1.05 times, indicating teachers with higher teaching competency tend to make less referral to formal support. However, in Case 3, none of variables are associated with the prediction of teacher referral decision patterns.

The findings highlight a moderating effect of student problem types. Teacher competency improves teachers’ referral decision making when students have linguistic problems (i.e., culture-general linguistic difficulties in Case 1 and culture-specific linguistic problems in Case 2), but ESL certification held and teacher role only predict the pattern of referral for students with culture-general linguistic difficulties (Case 1). None of teacher variables predicts teachers’ tendency to make referral when students have culture-specific behavioral difficulties (Case 3).

Due to a low response rate on the ethnicity variable, a sub-analysis was conducted only using the sample answered to the ethnicity item. Based on findings, ethnicity does not predict
teachers’ tendency to referral for ESL students, χ²(1, N = 89) = 2.34, p = .126; χ²(1, N = 89) = .01, p = .943; χ²(1, N = 89) = 1.36, p = .244.

Table 8

Logistic Regression of Teacher Competency, ESL Certification Status and Teacher Role on Teachers’ Tendency to Decide Instructional Placement for ESL Students

<table>
<thead>
<tr>
<th>Case 1</th>
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<th>Case 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B</strong></td>
<td><strong>EXP(B)</strong></td>
<td><strong>B</strong></td>
</tr>
<tr>
<td>Constant</td>
<td>-2.75</td>
<td>.06</td>
</tr>
<tr>
<td>Teacher Competency</td>
<td>.06**</td>
<td>1.06**</td>
</tr>
<tr>
<td>ESL certificate</td>
<td>1.06*</td>
<td>2.89*</td>
</tr>
<tr>
<td>(0 = w/o ESL, 1 = w/ ESL)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher role</td>
<td>-.59*</td>
<td>.56*</td>
</tr>
<tr>
<td>(1 = GE, 2 = ESL, 3 = SE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall model fit</td>
<td>χ² = 26.94, df = 3, p = .000</td>
<td>χ² = 19.37, df = 3, p = .000</td>
</tr>
<tr>
<td>Cox &amp; Snell R²</td>
<td>9.9%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Goodness-of-fit test (Hosmer &amp; Lemeshow)</td>
<td>χ² = 12.47, df = 8, p = .131</td>
<td>χ² = 11.63, df = 8, p = .169</td>
</tr>
</tbody>
</table>

Notes: *p < .05. ** p < .01; GE = General Education; SE = Special Education

Discussion

This study examined factors that play an essential role in teacher’s level of competency as well as in teachers’ instructional decision making for ESL students.

Demographic Variables and Teacher Competence

The results from this study show that teacher role and ESL certification status among demographic variables are strong predictors of teacher report of teaching competency. These findings support the findings of Sookdak and Podell (1993), yet contradict those of others. Paneque and Barbetta (2006) reported ESL endorsement was not correlated to teachers’ level of
teaching competence ($r = .09, p > .01$). In addition, Hoover (2008) found no significant mean difference in teacher competence between general and special education teachers, $t(58) = 1.2, p > .05$, which rejected a teacher role as a good predictor of teacher competence.

Rather, Paneque and Barbetta reported language proficiency had a statistically significant correlation with teacher competency ($r = .23, p < .01$). Similarly, Quach, Heining-Boynton and Wang (2007) found bilingual teachers or those who are proficient in another language other than English had higher teaching efficacy compared to teachers who speak only English with a small-medium effect, $t(134) = 2.16, p < .05; d = .37$. Due to the inconsistencies across studies regarding the effect of demographic factors on teacher competency, investigation in this area should be further explored.

**The Influence of ESL Certification Held on Teacher Competency among General and Special Educators**

As for the effect of having an ESL certification on the level of teacher competence among general and special education teachers, a significant difference was found in both teacher groups. Teachers with an ESL certificate have higher teacher competency as compared to teachers without ESL certificate, indicating that the status of ESL certificate is an important factor in explain the level of teacher competency. This finding highlights the importance of ESL certificate held, especially for general education teachers. According to Brown (2003), classroom teachers have a first-line responsibility in accommodating students’ needs since students spend most of their time in their general education class. In this sense, she highlighted that success of CLD students is assumed to greatly depend on the general education teachers. The findings from this study may provide insights on how teacher preparation program prepare future general education teachers to serve ESL students better. General education teachers equipped with
knowledge and skills of cross-culture, bilingualism and second language acquisition will have a higher sense of efficacy and cultural competence, which enables ESL students to be successful in their classroom. In this study, only 37 responses from special educators were used for analysis. This limited number of special education teachers makes the findings hard to generalize to other special educator groups due to the low statistical power. Investigation into the aforementioned areas with a larger sample will serve as support for continued research and will clarify the relationships between the ESL endorsement, teacher competency and effective CRT practice.

**CRT Competencies**

Siwatu’s (2007) concept of CRT competencies (i.e., classroom management, student assessment, instruction, and cultural enrichment) is supported in this study as the essential knowledge and skills of effective teachers. As previous discussed, after CRT variables were added to the model, the predicted power was increased by 14.7 %, further confirming the importance of CRT variables over motivation, communication and language in explaining the variance in teacher competency. Especially, among the CRT variables, use of instructional strategies best predicted the level of teacher competency, accounting for the 36.4 % of variance in teacher competency. The findings emphasize that a teacher’s confidence in their knowledge of effective instructional strategies appropriate for ESL students is a critical skill to be a highly efficient teacher in CRT practices.

**Factors Contributing to Teachers’ Referral Decisions**

In this study, teacher competency is found to be a strong indicator of instructional decision making in Case 1 and 2, describing ESL students’ linguistic difficulties (i.e., requiring culture-general linguistic knowledge in Case 1 and culture-specific linguistic knowledge in Case 2), not in Case 3 (i.e., involving culture-specific behavioral knowledge). This supports the
results of Sookdak and Podell (1993) and Podell and Sookdak (1993) studies which found teacher efficacy to be a critical factor of teachers’ referral decision. When teachers have higher teacher competency, they will less likely refer students; rather, they tend to keep students in their classroom as trying different instructional strategies.

Furthermore, ESL certification and teacher roles are found to be good predictors of teachers’ referral decision only in Case 1, which requires culture - general linguistic knowledge. Teacher roles and ESL certificate are also found to be good predictors of teacher competency. These results suggest that as expected, holding ESL certification increases teacher competency in working with ESL students; and this increased sense of competence can improve the teachers’ ability to make appropriate referral decisions when a student has culture - general linguistic difficulties. In the same sense, a teacher role plays an important role in predicting teacher competency level and teacher’s tendency to make referral of a student with culture - general linguistic difficulties. As a teacher role changes, teachers feel less efficacious in instructing ESL students, so that they tend to refer more students with culture - general linguistic difficulties to formal support from outside of their classroom.

The findings can be interpreted as related to the moderating effect of student problem types. Based on the results, cultural competence enables teachers to predict their decision of referral when students display linguistic difficulties (i.e., either culture - general or culture - specific), but not when ESL students have behavior problems. Teacher competency does not help teachers differentiate behavior difficulties from diversity. This might place students with behavior problem at a higher risk of being misdiagnosed, referred, misplaced or delayed in service. In case of ESL certification and teacher roles, they only improve the prediction of referral when students have culture-general linguistic problem. ESL certification and teacher role
are the important factors in differentiating culture-general linguistic problems from signs of
disability, but not extent to recognition of culture- specific language or behavior difficulties as
diversity.

Based on findings, students with behavioral challenges are more likely to be referred to
special education when teachers have less teacher competency. Several researchers reported the
moderating effect of student problem types on referral decisions, but there are inconsistencies
across studies. Naquin (1998) claimed that students with academic difficulties tend to be
referred more, whereas students with behavioral problems in Reyes (2010)’s study and those
with combined difficulties in the study by Soodak and Podell (1993) were found to be referred
more compared to students with other difficulties. Continued investigation in the student
problem types (i.e., culture general linguistic problem, culture general behavior, culture specific
linguistic and culture specific behavior) as a moderating effect on referral decision will extend
the previous studies regarding a moderating effect of academic, behavior or combined student
problems. This effort will further provide valuable information in research of teacher
competence and referral decision.

Limitation

In the course of conducting this research, some limitations were revealed. First, teacher
competency rating is based on self-reports, which may reflect the participant’s anticipated
attitudes and behavior. Thus, it may not accurately reflect their actual classroom practice
involving ESL students. Second, due to the low response rate on the ethnicity variable, it is hard
to make a valid association between ethnicity and teacher competency. About one third of the
surveyed participants chose not to disclose their ethnicity, so that investigating the relationship
between these two variables remains unclear. More research is needed to make meaningful
comparisons between teachers from CLD populations and teachers from non-CLD populations with respect to teacher competency. Third, the status of ESL certification was found to be an influential factor in deciding the level of cultural competency among general and special educator groups. However, the limited sample size of special educators might render a low statistical power to generalize the findings. Therefore, a larger sample of special education teachers is needed to investigate the true effect of ESL certification in this group’s teacher competency. Last, the moderating effect of student problems should be further investigated. Our study found a strong impact of teacher competency on a teacher decision making when a student has academic problems, but not with behavioral problems. Continued research designed to examine student problem types (i.e., culture general and specific linguistic and behavioral difficulties) in relation to teacher competency and a referral decision will help educators prepare pre-service teachers to differentiate student difficulties from disabilities, such that they can appropriately identify student problem and make placement decision for ESL students.

Implication

Teacher Preparation Program for CRT Practices

Since No Child Left Behind (2001) was enacted, ESL students have been prohibited from being pulled out of core content instructions (NEA, 2008). Therefore, general teachers are the ones responsible not only for core content instruction, but also for providing comprehensive instructions to ESL students (Alexander, Heaviside, & Farris, 1999). Thus, requiring general education teachers to teach the grade level standards as well as to use specific knowledge and skills to help ESL students access grade-level curricula (Samson & Collins, 2012). However, general educators are often ill prepared to provide effective instruction to ESL students in their classroom (Walker & Stone, 2011). Kamps et al. (2007) and Youngs and Youngs (2001)
reported insufficient preparation to teach ESL students makes general educators feel less efficacious in providing appropriate instructional modification. This issue is exacerbated by the increasing number of ESL students in today’s schools. Insufficient preparation for serving ESL students might result in lack of instructional support in academic language as well as lack of cultural understanding of student behavior and language development (Garcia & Ortiz, 2004). This lack of preparation and the resulting ineffectiveness in addressing cultural and linguistic diversity can impact both teachers instructional practices and referral decisions for CLD, including ESL, students with suspected learning disabilities (Carson, Brauen, Klein & Willig, 2002; Garcia & Ortiz, 2004; Ortiz et al., 2006; Rentz, 2006; Skiba et al., 2006).

According to NEA (2011), a strong teacher preparation program can enhance the effectiveness, knowledge and skills of pre-service teachers. It can also increase a teacher’s ability to provide appropriate instruction and identify students with suspected disabilities. A comprehensive approach to coursework that integrates bilingualism, acculturation, second language acquisition and literacy development in teacher preparation programs have also been found to be effective when preparing teachers for ESL students (Brown, 2004; Coady, Candace, & De Jong, 2011; Kamps et al., 2007; Paneque & Barbeta, 2006; Tucker et al., 2005). Findings from this study highlight the importance of a teacher training program to address pre-service teachers’ culture-specific competence and its application in making appropriate instructional decision for ESL students. According to Gay (2001), teachers engaged in CRT practices require knowledge development that goes beyond general awareness of diversity in order to develop culturally specific knowledge and skills. Especially, when working with ESL students, employing culture specific approaches in personnel preparation is critical to ensure educators understand the dynamic relationship between culture and language (Lange & Paige, 2003).
In addition, professional development targeting specific knowledge and skills can also promote in-service teachers’ cultural and linguistic responsiveness (Brown, 2003; Tucker et al., 2005). Tasan (2001) highlighted that teachers’ predisposed beliefs on student linguistic and cultural backgrounds can be changed when they acknowledge the role of cultural factors in teacher-student interactions and their own efficacy beliefs through on-going workshop. Along with staff development preparation, school districts should establish consistent district policies concerning referral timing, as well as about an English proficiency level that ESL students should have before the actual referral process takes place (Klingner & Harry, 2006). Confusion about district policies regarding when to refer ESL students for evaluation for special education services sometimes results in delays or misplacements of ESL students, which adversely affect ESL students’ future educational career (Anderson, Minnema, Thurlow, & Hall-Lande, 2005).

Teachers equipped with the knowledge and skills regarding student culture and language will know how to integrate students’ cultural backgrounds in teaching and learning process as well as how to use instructional strategies that meet student’s different learning needs in their instructional practices (Chu, 2011; Garcia & Ortiz, 1988; Siwatu, 2007). Therefore, they can design and modify teaching practices based on their knowledge of cultural difference, and it will serve to create more conducive learning environments for ESL students (Donovan & Cross, 2002). Furthermore, these culturally competent teachers will know how to assess the performance of ESL students by comparing them against that of other ESL students who have similar exposure to their native language instruction and/or instruction in English (Brown, 2003). Doing so, they can rule out cultural and linguistic differences as the cause of the student disabilities (Ortiz, 1997).
Employing these various evidence based practices, that engage the knowledge and skills required for teaching ESL students may serve to decrease, if not eliminate the unnecessary and inappropriate referral of ESL students for special education services. Well-prepared teacher preparation programs and professional development should train teachers to become knowledgeable about various cultures and to utilize this cultural knowledge when instructing, assessing, and identifying appropriate placements for students of CLD groups. Furthermore, through establishment of consistent school district policies regarding referral timing of ESL students, an accurate decision making process for referral and identification will be encouraged. Culturally competent teachers should infuse culturally rich experiences in their engagement with all students; in effort to raise student academic achievement, empower students, and foster a collaborative learning community in this diverse society.

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APPENDIX A

EXTENDED LITERATURE REVIEW
Factors Contributing Over-referral

Referral Timing

Many teachers are confused about district policies concerning referral timing, as well as about an English proficiency level that ESL students should have before the actual referral process takes place (Klingner & Harry, 2006). Teachers sometimes delay the referral of ESL students allowing them time to acquire English skills, while others make quick decisions to refer these students for special education in an attempt to solve the ESL problem by classifying ESL students as special needs (Anderson, Minnema, Thurlow, & Hall-Lande, 2005). However, these delays or misplacements may result in major issues in ESL students’ future educational career. If ESL students with suspected LD wait until they acquire enough English, thereby delaying diagnosis, they will lose valuable intervention opportunity causing their achievement gap to be widen (Geva, Yaghoub-Zadeh, & Schuster, 2000). On the other hand, if students, who do not have actual disabilities, are placed in special education, they will receive services that do not meet their special needs. Once students are assigned labels, there is an increase risk that teachers will have lower expectations for their academic performance, which potentially lead to poor educational quality and social outcomes (Hornstra, Denessen, & Bakker, 2010). Research has shown that inappropriate placement in special education actually leads to regression in student learning progress (Wilkinson & Ortiz, 1986; Garcia & Orbitz, 2004). School districts need to establish consistent policy regarding when to refer ESL students for evaluation for special education services to reduce the prevailing confusion among teachers, administrators and school psychologists. Therefore, finding an accurate decision making process for referral and identification is crucial for ESL students’ promising academic performance.
Assessment Validity

The first step of making accurate referral decisions is appropriately assessing students with suspected disabilities. However, sometimes culturally and linguistically biased assessments become additional contributors of the inappropriate referrals. Ghosh, Hokom, Hunt, Magdaleno and Su (2008) noted that the assessment of ESL students with suspected learning disabilities is a very complicated process. The use of inappropriate measures, administration procedures, and interpretation of these assessments often result in many ESL students being overly referred to special education. In past, educators were solely dependent on IQ-achievement discrepancy model without considering other factors such as students’ linguistic and cultural differences. Even though IDEIA (2004) no longer required to use an IQ-achievement discrepancy, but rather recommended use of Response to Intervention (RTI) for determining a Specific Learning Disability (SLD), many school districts still continue to employ the discrepancy approach for the assessment of children at-risk for SLD (Restori, Katz, & Lee, 2009). Issues with standardized cognitive and achievement assessments are the student’s native language are often ignored, accommodations are not properly provided, and the norms for these measure rare include an appropriate sample for comparison (Ascher, 1990; Abedi, 2006; Rinaldi & Samson, 2008).

To validate ESL students’ achievement test scores, accurate assessment of their academic proficiency is crucial (Cummins, 1984). ESL students acquire basic everyday communication skills in approximately one to two years, but it takes about five to seven years for ESL students to become fluent in academic language (Duran, 1994; Garcia & Ortiz, 2004). Given this, achievement test taken in English before seven years of academic instruction may not accurately reflect ESL students’ true ability (Cummins, 1984). That is, the linguistic complexity heavily loaded in achievement test affects the validity of the test so that the test renders dubious results.
However, ESL students’ low performance on academic achievement measures compared to non-ESL students is often due to the confounding factor of language (Abedi, 2006).

Even though it has been criticized over decades, the intelligence test is one of the primary instruments used in the identification of learning disabilities (Hallahan & Mercer, 2002). However, as Gunderson and Siegel (2001) claim, an IQ test is culturally and linguistically biased since it requires understanding of background knowledge in English. When IQ test are applied to persons in which the language of the test is not their primary language, the test measures second language skills, which leads to misinterpretation of the test results and labeling ESL students as “retarded,” “learning disordered” or “language impaired (Oller, 1997; Keller-Allen, 2006; Abedi, 2006; Blatchley & Lau, 2010). Therefore, application of such assessments should consider students’ first language and culture. In considering referral of ESL students, teachers should refer to multiple sources such as language proficiency test, student work samples and observation in class to make an accurate judgment (Flanagan, Ortiz, Alfonso, & Dynda, 2006).

In many cases, universal screening or progress monitoring in RTI do not reflect CLD students’ different cultural norms and values, so that their low achievement scores may reflect cultural and linguistic differences (Hoover, 2012). Therefore, application of such assessments should consider students’ first language and culture. In considering referral of ESL students, teachers should refer to multiple sources such as progress monitoring data, language proficiency data, student work samples and observation in class (Flanagan, Ortiz, Alfonso, & Dynda, 2006), and must interpret student progress in relative to student’s second language stage to make an accurate judgment (Hoover, 2012).
Theoretical Framework

*Teacher Efficacy*

Bandura’s teacher efficacy construct, self-efficacy and outcome expectancy is seen as synonymous with “personal teaching efficacy” and “general teaching efficacy” (Ashton & Webb, 1986), and “personal teaching efficacy” and “teaching efficacy” (Gibson & Dembo, 1984).

*CRT Practice*

Bandura (1977) declared that teacher efficacy is domain specific, so that teachers have more or less firm self-beliefs in particular situations where teaching takes place. Therefore, in CLD setting, Bandura’s self-efficacy and outcome expectancy beliefs should be redefined.

Siwatu (2007) refers to self-efficacy as “teacher’s perceptions of their ability to execute specific teaching practices that are associated with teachers who are believed to be culturally responsive (p. 5),” and outcome efficacy as “teacher’s perceptions that engaging in CRT practices will have positive classroom and student outcomes (p.5).” That is, culturally responsive teachers acknowledge the importance of students’ cultural backgrounds in their understanding of the student-teacher interaction and enable to incorporate student cultures in their instructional practices (Chu, 2011).

*Implications*

*Instructional Implications*

Students’ English proficiency is not only a factor in approaches to assessment, but also affects instruction. Research supports that the level of English proficiency affects instruction and assessment (Abedi, 2006; Brown, 2004). Garcia & Ortiz (2004) highlight that ESL students’ inappropriate referral to special education is often due to lack of instructional support in the area of academic language development. In addition, teachers view ESL students’ low academic
function as evidence of language disability, processing disorder, low intelligence, problems with
attention, or learning disabilities instead of considering it a normal part of the second language
developmental process. The result of these views is a disproportionate representation of ESL
students in special education (Klingner & Harry, 2006). Teacher competence in making
instructional modifications and sensitivity to cultural differences may serve to create more
conducive learning environments for ESL students (Youngs & Youngs, 2001). Implementation
of this effort may reduce the over-referral to special education for students who have limited
language proficiency and are from diverse cultural backgrounds.
APPENDIX B

DETAILED METHODOLOGY
Definition of Terms

1. **Over-representation** – disproportional representation of certain racial or ethnic groups in special education (Artiles et al., 2002)

2. **Culturally and linguistically diverse (CLD) student** – individuals whose culture and language backgrounds are different from mainstream. This is a broadest term and encompasses students from African American to recently arrived immigrants whose language and culture vary from those of mainstream (Artiles & Ortiz, 2002)

3. **English as a second language (ESL) student** – individuals whose native language is a language other than English and whose English skills are so limited that they cannot profit from instruction provided entirely in English without support (Artiles & Ortiz, 2002). ESL is also referred to as English Language Learner (ELL), Limited English Proficiency (LEP), or English Speakers of Other Language (ESOL).

4. **Learning disability** - “a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken, or written. The disorder may manifest itself in an imperfect ability to listen, speak, read, write, spell, or do mathematical calculations (20 U.S.C. §1401 [30])”

5. **Teacher efficacy** - “teacher’s belief in their ability to have a positive effect on student learning (Ashton, 1985)” or “the teacher’s belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular task (Tschannen-Moran, Woolfolk Hoy, and Hoy, 1998).”

6. **Cultural competence** – the ability to effectively and successfully teach students from diverse cultures (Skiba et al., 2002; Diller & Moule, 2005). When a teacher is highly efficacious in instructing students from diverse linguistic and cultural backgrounds, he is
considered as culturally competent. Based on literature review, the term of cultural competence is reciprocally used in “multicultural competency (Guyton & Martin, 2005; Spanierman et al., 2011)” or “culturally responsive teaching competency (Gay, 2002; Villegas & Lucas, 2002; Siwatu, 2006)”.

7. Culturally Responsive Teaching (CRT) – Gay (2000) defined CRT as culturally reflective instructional strategies and practices, which are based on culturally responsive pedagogy in area of curriculum and instruction, classroom management, student assessment and cultural enrichment and competence. Highly efficacious teachers tend to be competent in incorporating culture, which enables them to employ the practices of CRT (Siwatu, 2007).

8. Prereferal intervention- the instructional strategies providing students evidence-based instructional practices within the mainstream classroom before an official request is made for possible special education placement (Klingner & Harry, 2006)

9. Referral – the formal process of requesting assessment of learning disability to determine the eligibility of special education (IDEA, 2004).

10. Instructional consultation/ support - a problem-solving based approach to help teachers meet the special needs of struggling students in the classroom. This consultation is based on multidisciplinary team of teachers who provide classroom teachers additional support, resources, and guidance on teaching. Since the enactment of IDEA (2004), this instructional support emphasizes research-based early intervention to better serve struggling students.

11. Instructional decision - within a multi-level prevention system, teachers integrates assessment and instruction to maximize student achievement and to reduce behavior problems (Ysseldyke, 2001). In this dissertation, the term of instructional decision will
Refer the point where teachers look for formal support such as instructional consultation or pre-referral intervention from outside of their classroom.

Informed Consent Letter

Dear Teacher Participant,

As an educator working in elementary school, your assistance is needed to help the education field better understand the factors that influence teachers referral decision in regards to students for which English is a second language. This study is being performed by Okyoung Lim, a doctoral student at the University of North Texas under the supervision of Dr. Endia Lindo, Assistant Professor in the Department of Educational Psychology at the University of North Texas. We would appreciate your taking part in this research study entitled, Teacher Efficacy and Cultural Competence’s Role in English as a second language (ESL) Instructional Referrals.

The purpose of this study is to investigate teachers’ tendency to request formal support outside of the general classroom instruction for ESL students with suspected learning disabilities. The research questions this study intends to address include:

1. How do teachers’ demographic factors influence their instructional placement decisions for ESL students at-risk for reading difficulty?

2. Does teachers’ perceived efficacy and cultural competency affect their instructional placement decisions for ESL students?
3. Are there differences in perceived teacher competency between general, special education and ESL teachers in regards to teaching ESL students?

4. Which factors best account for the variability in the levels of teacher efficacy/cultural competence among teachers working with ESL students?

To further this research, you are being asked to take approximately 15 - 20 minutes to complete a 32 item, online survey regarding your background and knowledge and skill working with ESL students. Upon completion of the survey, you may choose to enter your email address for the opportunity to be awarded a $50 amazon gift card.

Participants' privacy and confidentiality will be protected during this study. Participation in the study is voluntary and completion of the survey involves no foreseeable risks. You may discontinue taking the survey at any time. In any report of this research, teacher responses will remain anonymous, and no attempt will be made to match responses with specific teachers. Although the study may not benefit you directly, it has the potential to inform the field in how to best prepare our educators to support ESL students and reduce inappropriate educational placements for this population.

I will be happy to share the results of this research with you or your school district at the conclusion of the study. Please contact me at oklimumcp@hotmail.com, or by phone at (301) 300-0363 or Dr. Lindo at endia.lindo@unt.edu, or by phone at (940) 369-7942 if you have any questions regarding this study.

You may print a copy of the informed consent letter for your records. This study has been reviewed and approved by the University of North Texas Institutional Review Board (IRB). You may contact the UNT IRB at (940) 565-3940 with any questions regarding your rights as a research subject.
Clicking the “BEGIN SURVEY NOW” button below indicates:

✓ You have read and understand the information provided above.
✓ You have been told the possible benefits and the potential risks of the study.
✓ You understand that your participation in the study is voluntary-basis. Your declining to participate or decision to discontinue will involve no penalty or loss of rights or benefits.
✓ You understand why the study is being conducted and how it will be performed.
✓ You understand your rights as a research participant and you voluntarily consent to participate in this study.

BEGIN SURVEY NOW

I DO NOT CONSENT

Thank you for your future participation and support in this study.

Respectfully,

Okyoung Lim

EXCEL Teacher Inventory

Section I – Background Information

This questionnaire is designed to gather information regarding instructional placement decisions from general education and special education teachers working with special needs students, particularly those who speak English as a second language (ESL). Your responses will be kept strictly confidential. Thank you for your time.

Section I- Background Information

Instructions: Complete the following section by providing information about yourself.

1. What is your current role? (Please check those that apply)
a. General Education teacher
b. ESL Teacher
c. Special Education teacher

2. What is your current teaching assignment?
   - Grade taught __________
   - # of students in classroom __________
   - # of special education students in classroom __________
   - # of ESL students in classroom __________

3. What degrees have you earned? (Check all that apply.)
   a. Bachelor's degree
   b. Master's degree
d. Doctoral Degree
e. Other certificate/endorsement (please specify): _______________________________

4. What certifications or licensures do you hold? Check all that apply.
   a. General Education(early childhood, elementary, middle or secondary)
   b. ESL or Bilingual
c. Special Education
d. Educational Diagnostician
e. School Psychologist
f. School Administration
g. Other (please indicate) ____________________________

5. How many years have you taught?
   a. Less than 5 years
6. Can you speak a language other than English? (If yes, please specify. In case you can speak more than one language other than English, please indicate which of the other languages you are most fluent in)
   a. Yes _______________
   b. No (skip to section II)

6-1. Rate your oral proficiency in the language(s) you indicated above (i.e., Those languages you know other than English)?
   Language _______________
   1  2  3  4  5  6  7  8  9
   A little       somewhat           highly
   (know some words)  (can communicate simple concepts)          (can hold a conversation)

7. Please check one or more boxes below that best describes your ethnicity.

☐ White/ Caucasian
☐ Black/ African American
☐ Asian/Pacific Islander
☐ American Indian/ Alaskan Native
☐ Latino
☐ Other
Other (please specify) ____________________
Section II – Vignettes

Instructions: Please read the vignettes below and decide what you would do if you were the teacher of the following students.

Case 1: Dobae.

Dobae is an eight year old girl whose family moved to Texas from Vietnam three years ago. She is in the second grade and has received ESL support in an inclusion setting for 2.5 years. She only speaks Vietnamese at home, but does not seem to have problems expressing herself and interacting with friends in class. However, she is experiencing significant difficulties meeting the academic demands of school. Based on her first quarter progress monitoring test results, Dobae is at risk for reading failure. When her teacher conducted a reading inventory, her vocabulary size and phonological skills were very low compared to the 2nd grade group norm. Her teacher used ESL strategies to teach her reading skills, but her 2nd quarter test results again came in as at risk in reading.

If you were Dobae’s classroom teacher, what action would you take?

1. I would look for formal instructional support outside of the classroom. Her English is good enough to make progress in reading, so her difficulty in reading does not appear to be a second language acquisition issue.

2. I would try additional strategies that have been found to work for linguistically diverse students. Dobae may need more support to increase her academic language skills and bridge the gap between home and school language.

Case 2: Han.

Han is a nine year old boy in third grade. He has been in U.S. school system for four years. His ESL level is 4 (advanced), so he does not get any instructional support from the ESL teacher,
Mrs. Flanagan; though she does monitor his progress from time to time throughout a school year. Mr. Moore, Han’s classroom teacher, does not use ESL strategies for Han since he has been in U.S. for an extended period and is considered to be fluent in English. Han does not display issues in his communication or social interactions with classmates. However, Mr. Moore has noticed that when writing, Han makes constant mistakes in word order in sentences such as switching the placement of verb and object as well as verb and prepositional phrases. He also realized Han has issues in pronouncing b as p, n as l, z as g, and v as b. Mr. Moore has provided feedback and corrections throughout the fall semester, but Han’s problems persist. Now, Mr. Moore is debating what he needs to do for Han. What would you do if you were Mr. Moore?

1. Since his English proficiency is not an issue, but his literacy issues persist after receiving instructional support, I would ask for formal support from the pre-referral intervention team.

2. I might consult with the ESL teacher in an effort to find out the reasons for Han’s constant errors and provide additional instructional strategies to meet his needs in my class.

Case 3. Petro

Pedro is an eight year old in second grade. He was born in U.S and has attended public schools since preschool. He speaks Spanish at home with his parents, and ESL level has stayed at 3 (intermediate- advanced) for two years. His classroom teacher, Mrs. Shieff is concerned with his limited attention span, avoidance of eye contact and reluctance to participate in class activities. Often, Pedro has a hard time following directions. Mrs. Sheiff believes these behavior issues interfere with his academic and language progress. What would you do if you were Mrs. Sheiff?
1. I would ask for formal support from the pre-referral intervention team to test him for learning disability.

2. I might consult with the ESL teacher and special education teachers to find out the reasons for Petro’s behavioral problems, so that I can provide additional interventional strategies to meet his needs.

Section III – Teacher Competency

Instructions: Read each question and decide how much you can do in these areas using the following scale. Circle your responses.

1            2   3   4   5
|            |              |            |            |    |
Not at all       Very little                       Some                     Quite a bit     A great deal

1. How much can you do to motivate students from culturally and linguistically diverse background? (Motivation)  
2. How much can you do to communicate with parents and families who do not speak English? (Communication & Collaboration)  
3. How much can you do to redirect students who are misbehaving or disruptive? (Class Management)  
4. How much can you do to teach students who speak English as a second language? (Instructional Strategies)  
5. How much can you do to distinguish between a language difference and a language disability? (Language)  
6. How much can you do to get through to even the most difficult or unmotivated students? (Motivation)  
7. How much can you do to incorporate appropriate content and  


materials for students who are culturally and linguistically diverse? (Instructional Strategies)

8. How much can you do to determine appropriate instruction according to the student's language ability and special need? (Instructional Strategies)

9. How much can you do to identify and utilize school/community resources for culturally and linguistically diverse students with special needs? (Communication & Collaboration)

10. How much can you do to support the native language(s) of children who do not speak English fluently? (Language)

11. How much can you do to adapt and modify lessons for students who speak English as a second language? (Instructional Strategies)

12. How much can you do to use traditional and alternative assessment procedures with students who speak English as a second language? (Assessment)

13. How much can you do to help students who speak English as a second language develop social skills? (Class Management)

14. How much can you do to communicate with students who speak English as a second language? (Language)

15. How much can you do to improve the academic achievement of students who speak English as a second language? (Instructional Strategies)

16. How much can you do to determine the needs of students who speak English as a second language? (Assessment)

17. How much can you do to evaluate the academic performance of students who speak English as a second language? (Assessment)

18. How much can you do to be sensitive to and aware of the needs of
students who are culturally and linguistically diverse? (Culture)

19. How much can you do to match instruction with the students’ learning preference to enhance their learning? (Instructional Strategies)

20. How much can you do to assess the academic progress of students who speak English as a second language using a variety of assessment procedures? (Assessment)

21. How well can you incorporate students’ cultural background to help their learning meaningful? (Instructional Strategies)

22. How much can you identify ways that the school culture (e.g. values, norms, and practices) is different from students’ home culture? (Culture)

23. How much can you implement strategies to minimize the effects of the mismatch between students’ home culture and the school culture? (Instructional Strategies)

Debriefing Interview

*Sample*

Seven teachers voluntarily participated in a debriefing meeting after pilot testing. These teachers are three general, two special and two bilingual/ESL educators in elementary schools. All participants are women. Ages of teachers are ranged from 25 to 50 and their teaching experiences are between 5 to 15 years.

*Procedure*

After participants conducted the pilot test, they were asked to participate in a debriefing interview. The debriefing interview was conducted in a group setting in two to three to ask about their experiences administering the questionnaire. They were specifically asked whether the verbiage in the questionnaire is clear and unambiguous.
The moderator (researcher) reviewed the items with participants in background section (section I) whether the content of the items is clear, appropriate and relevant. Through this review, question #6, “Can you speak any language other than English? If yes, please specify”, several participants suggested to add “skip to section II” next to answer “No” to reduce the confusion and to improve flow of the survey. The item was modified based on their recommendation.

As for section II, the researcher asked the teachers to read three vignettes to see how they interpret the case studies. Some agreed on the similar situations they face with their students, and some asked for clarification such as how ESL level is decided and what measures are used. Some typos and wordings were changed based on their comments/recommendations.

In teacher competency (section III), the researcher reviewed with participants item by item by asking and teacher competency measure by asking, “What this question means to you?” Participants explained the meaning of each question in their own words. Doing so, researcher can identify whether participants have correctly understood the conceptual meaning of the question. Some participants mentioned question #21 in teacher competency is not clear enough to deliver the intention of the question. Based on their comments and recommendations, “How well can you use students’ cultural background to help their learning meaningful?” worded differently as, “How well can you incorporate students’ cultural background to help their learning meaningful?” Overall, the debriefing interview helps identify problems participants found with typos, wording, question sequencing and the overall flow of the survey, so that it improves the validity of the instrument.
APPENDIX C

COMPLETE/UNABRIDGED RESULTS
Table C1

*Correlation among Demographic Variables*

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*Note*: *p < .05. **p < .01

Table C2

*Demographic Regression ANOVA*

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<td>257</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Table C 3

*Ethnicity Regression Model Summary*

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>SE</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.11</td>
<td>.01</td>
<td>.00</td>
<td>13.00</td>
<td>1.03</td>
<td>.314</td>
</tr>
</tbody>
</table>

Table C 4

*Ethnicity Regression ANOVA*

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>173.17</td>
<td>1</td>
<td>173.17</td>
<td>1.03</td>
<td>.314</td>
</tr>
<tr>
<td>Residual</td>
<td>14702.03</td>
<td>87</td>
<td>168.99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14875.19</td>
<td>88</td>
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</tbody>
</table>

Table C 5

*Ethnicity Regression Coefficient*

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>constant</td>
<td>91.54</td>
<td>2.23</td>
<td>41.04</td>
<td>.000</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>.83</td>
<td>.82</td>
<td>.11</td>
<td>.314</td>
</tr>
</tbody>
</table>
Table C 6

*Descriptive Statistics of ESL Certification Status*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
<td>Upper Bound</td>
<td></td>
</tr>
<tr>
<td>Gen w/o ESL</td>
<td>114</td>
<td>87.05</td>
<td>12.536</td>
<td>1.174</td>
<td>84.73</td>
<td>89.38</td>
<td>52</td>
</tr>
<tr>
<td>Gen w/ ESL</td>
<td>67</td>
<td>99.42</td>
<td>10.689</td>
<td>1.306</td>
<td>96.81</td>
<td>102.03</td>
<td>73</td>
</tr>
<tr>
<td>Special w/o ESL</td>
<td>31</td>
<td>88.13</td>
<td>10.573</td>
<td>1.899</td>
<td>84.25</td>
<td>92.01</td>
<td>70</td>
</tr>
<tr>
<td>Special w/ ESL</td>
<td>5</td>
<td>93.60</td>
<td>4.615</td>
<td>2.064</td>
<td>87.87</td>
<td>99.33</td>
<td>86</td>
</tr>
<tr>
<td>Total</td>
<td>217</td>
<td>91.18</td>
<td>12.828</td>
<td>.871</td>
<td>89.46</td>
<td>92.89</td>
<td>52</td>
</tr>
</tbody>
</table>

Table C 7

*ANOVA of ESL Certification Status*

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>6806.679</td>
<td>3</td>
<td>2268.893</td>
<td>16.817</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>28736.667</td>
<td>213</td>
<td>134.914</td>
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</tr>
<tr>
<td>Total</td>
<td>35543.346</td>
<td>216</td>
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<td></td>
</tr>
</tbody>
</table>
Table C 8

Correlations of Teacher Competency Factors

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competency(1)</td>
<td>.74**</td>
<td>.77**</td>
<td>.86**</td>
<td>.74**</td>
<td>.88**</td>
<td>.97**</td>
<td>.76**</td>
<td></td>
</tr>
<tr>
<td>Motivation(2)</td>
<td>.54**</td>
<td>.60**</td>
<td>.60**</td>
<td>.57**</td>
<td>.68**</td>
<td>.50**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication(3)</td>
<td></td>
<td>.68**</td>
<td>.52**</td>
<td>.58**</td>
<td>.70**</td>
<td>.50**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language(4)</td>
<td></td>
<td></td>
<td>.56**</td>
<td>.72**</td>
<td>.80**</td>
<td>.55**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management(5)</td>
<td></td>
<td></td>
<td></td>
<td>.57**</td>
<td>.69**</td>
<td>.55**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessment(6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.83**</td>
<td>.64**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction(7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.73**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Culture(8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note*: **p < .01

Table C 9

Hierarchical Regression ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>34171.82</td>
<td>3</td>
<td>11390.61</td>
<td>489.50</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>5910.57</td>
<td>254</td>
<td>23.27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>40082.39</td>
<td>257</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Regression</td>
<td>40077.78</td>
<td>7</td>
<td>5725.40</td>
<td>310372.56</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>4.61</td>
<td>250</td>
<td>.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>40082.39</td>
<td>257</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table C 10

*Logistic Regression of Ethnicity on Teachers’ Tendency to Decide Instructional Placement for ESL Students*

<table>
<thead>
<tr>
<th></th>
<th>Case 1</th>
<th>Case 2</th>
<th>Case 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>B</td>
<td>EXP(B)</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>1.23</td>
<td>3.42</td>
<td>.55</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>.35</td>
<td>1.41</td>
<td>-.01</td>
</tr>
<tr>
<td>Cox &amp; Snell $R^2$</td>
<td>2.6%</td>
<td>0 %</td>
<td>1.5 %</td>
</tr>
<tr>
<td>Chi-square</td>
<td>2.34, df = 1, p = .126</td>
<td>.01, df = 1, p = .943</td>
<td>1.36, df = 1, p = .244</td>
</tr>
</tbody>
</table>
APPENDIX D

OTHER ADDITIONAL MATERIALS
June 17, 2013

Dr. Endia Lindo
Department of Educational Psychology
University of North Texas
RE: Human Subjects Application No. 13-193

Dear Dr. Lindo:

In accordance with 45 CFR Part 46 Section 46.101, your study titled “Teacher Efficacy and Cultural Competence’s Role in English as a Second Language (ESL) Instructional Referrals” has been determined to qualify for an exemption from further review by the UNT Institutional Review Board (IRB).

No changes may be made to your study’s procedures or forms without prior written approval from the UNT IRB. Please contact Jordan Harmon, Research Compliance Analyst, ext. 3940, if you wish to make any such changes. Any changes to your procedures or forms after 3 years will require completion of a new IRB application.

We wish you success with your study.

Sincerely,

[Signature]

Patricia L. Kaminski, Ph.D.
Associate Professor
Chair, Institutional Review Board

PK.jha


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