

Teacher Perceptions on L2 Acquisition and Education Practice for English Language Learners

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Abstract

This study examined teachers' perceptions on language acquisition and education practice for English Language Learners (ELLs) to further address the disproportionality concern in education and identify the areas of training needs for classroom teachers as education renovation. A total of 222 participants voluntarily participated in this study. A Mixed Methods approach was used to conduct the study and analyze the data. The results showed that most participants did not have formal training in second language (L2) or learning experience, but they had already taught ELLs. Working with ELLs and their parents was considered challenging for five common reasons. Language barriers and cultural differences represented the most challenge. There was also an overall deficit view toward ELLs' language difficulties. Special education or ELL self-contained classrooms were thus regarded as most beneficial for ELLs. Additionally, despite their belief that there is a critical period for language development due to the fact that children pick up language faster than adults, most participants considered translation important in assisting young ELLs to acquire language. Drawing from the findings, the study concluded areas of teacher training and recommended further studies.

Keywords

perception, L2 acquisition, education practice, English Language Learner, disproportionality

There are two major reasons why this study was conducted. First, language learning and acquisition is a long and complex process which requires educators to take both short-term and long-term learning effects into consideration when doing assessments and interventions. Without understanding how language is learned or acquired, assessments can be biased with skewed results and the decisions for placement and intervention plans can be inappropriate and ineffective (Barrio, 2017; Sullivan, 2011;

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Tran et al., 2018; Zimmerman, 2008). As much of the research points out, it takes 3-5 years for English Language Learners (ELLs) to develop oral proficiency and 4-7 years to develop academic English proficiency (Hakuta et al., 2000). Despite this research, in many cases, ELLs are often diagnosed as having a learning disability in the process of acquiring English (Barrio, 2017; Sullivan, 2011). Therefore, it is important to understand teacher's knowledge, experience, and understanding (perceptions) on L2 acquisition and education practice (instruction and placement) for ELLs.

Second, research has repeatedly addressed the concerns of disproportionality in education (children with special needs overrepresented in special education) and the insufficient training of classroom teachers to deal with children with special needs particularly ELLs (Ahram et al., 2011; Barrio, 2017; Fernandez & Inserra, 2013; Gollnick & Chinn, 2013; Sullivan, 2011; Tran et al., 2018; Zimmerman, 2008). However, there are still not enough empirical studies addressing these concerns. The purpose of this study is to examine teachers' perceptions on L2 acquisition and education practice in terms of language instruction and placement for English Language Learners (ELLs). ELLs represent the fastest growing subgroup in the dramatic demographic school population in the U.S. in the 21st century (U.S. Census Bureau, 2010). Accordingly, there is a need and priority to conduct a research study to address the concerns of investigating teachers' perceptions on Second Language (L2) Acquisition and their education practice (instruction and learning setting) for ELLs. Therefore, the disproportionality concern can be further addressed, and the areas of training can be further identified and discussed as teacher education renovation.

Literature Review

The purpose of this study is to examine teachers' perceptions on L2 acquisition and education practice in terms of language instruction and placement for English Language Learners (ELLs). In order to achieve the purpose of the study, two research questions are asked as follows:

- (1) What is the current status of teachers' knowledge and experience in second language acquisition? Do teachers perceive ELLs demonstrating language deficit and believe a special education classroom or an ESL self-contained classroom best benefit ELLs for language learning?
- (2) Do teachers believe that there is a critical period for language development and how is that belief associated with the placement and instruction of ELLs?

In order to address the two research questions and understand the study, the relevant background information is provided according to the following headlines: Perceptions and Education Practice, Disproportionality and ELLs, Placement: Inclusion/General Education, Special education, and ELL Self-Contained Classrooms, and Language Acquisition. Language acquisition plays a big role in this study and as mentioned previously, language acquisition/learning is a long complex process. Accordingly, understanding important language concepts relevant to this study is important. The important language concepts relevant to this study are: *Time as a Vital Factor in the Process of Language Acquisition and Learning*, *Language Acquisition (Unconscious Learning) vs. Language Learning (Conscious Learning)*, *Language Instructions for ELL Children vs. Older Learners/Adults*, and *Critical Period for Language Development*.

Perceptions and Education Practice

The concept of perception is important in every field because it affects the actions we take for problem solutions. Walker and Avant (2005) recommend using dictionaries and available literature to describe how perception is defined. The term, *perception*, is defined in many dictionaries with a common concept and process related to many areas suggested in the literature, such as physiology, cognition (neuroscience), and psychology (Smith, et al., 2003). For example, Collins English Dictionary defines perception as “the act or the effect of perceiving;” “insight or intuition gained by perceiving;” “way of perceiving,” “the process by which an organism detects and interprets information from the external world by means of the sensory receptors” (Perception, 2020).

Physiologically, the process of sensation is activated through the sense organs picking up information about an object, person, or event from the environment. Psychologically, the process of perception is taking place through the interpretation of sensory information. Cognitively, the interpretation of sensory information depends on how one understands the sensory information. However, how one understands the sensory information depends on one’s knowledge, experience, and understanding which are frequently affected by one’s own culture (Chen & Starosta, 2007). Perception reflects an individual’s intuitive cognition, observation, and understanding interpreted in light of one’s knowledge, experience, and culture (Parke & Gauvain, 2008).

Understanding how human perception works is important because it helps us understand how we make judgments and decisions as problem solutions. Alternatively speaking, our perceptions determine paradigm shifts for problem solutions (Kuhn, 1962; Walker & Avant, 2005). In education, teachers identify a child’s strengths and education needs associated with his/her own linguistic and cultural background (assessment) and teach accordingly (instruction). If a child’s linguistic and cultural background is well understood, a child’s strengths and education needs will most likely be appropriately identified resulting in effective instruction. On the contrary, if a child’s linguistic and cultural background is not well understood, a child’s strengths and education needs may not be appropriately identified resulting in not only ineffective instruction but a misplacement where he/she doesn’t belong. The more knowledge and experience we have for a topic, object, person, event, and/or difference, the more we can make right judgments and decisions. For example, if a child from the Chinese background cannot articulate the English consonant, /ʒ/, as in gara/ge/, and throws a tantrum, it does not mean that the child has speech impairment, learning disability, and/or emotional disorders. Understanding how perception affects education practice is critical since perception is used as a fundamental tool or a filter through which the world, people, and objects are measured (making judgments) and determined (making decisions). Perceptions guide us to the paths for problem solutions and different paths lead us to different outcomes. That is, perceptions vary with paradigms for problem solutions (Kuhn, 1962; Walker & Avant, 2005).

Disproportionality and ELLs

With the significant demographic changes in the U.S. school population, meeting the needs of diverse students, particularly those of ELLs has represented a constant challenge for many teachers and/or administrators. For example, do teachers have sufficient knowledge, experience, and skills to understand children from diverse linguistic and cultural backgrounds particularly ELLs? Do teachers understand how a second language is learned or acquired, so they can distinguish a "language

difference" from a "language deficit" (assessment)? Can teachers provide effective instruction including the right placement (general education or special education) for ELLs to motivate and promote their learning (instruction)?

In 1996, the National Clearinghouse for Bilingual Education reported that 3.2 million U.S. children did not speak English fluently (Langdon, 1999). ProximityOne (2022) further pointed out that between 1990 and 2000, the number of children 5 to 17 years of age in the United States who were bilingual or multilingual increased by 54.7%. and the percentage of those speaking English "not well" or "not at all" grew by 45.6%. The number of students who speak little or no English is rapidly increasing and its impact in education is enormous (Barrera, 2006). English language learners are often reported to be overrepresented in disability categories and placed in special education to receive instruction. Ahram et al., (2011) showed their concern about the detrimental effects for African American and Latino students being overrepresented in special education. Other studies (Barrio, 2017; Beratan, 2008; Case & Taylor, 2005; Hibel & Jasper, 2012; Linn & Hemmer, 2011; Orfield & Lee, 2007; Sullivan, 2011) also reported that many English language learners have been over-identified as having language disorders and/or learning disabilities and placed in special education.

Placement: Inclusion/General Education, Special Education, and ELL Self-Contained Classrooms

Perception affects assessment and assessment affects instruction and placement. However, placement affects how instruction is going to be delivered in an education setting. In general, there are three education settings: inclusion/general education, special education, and ELL self-contained classrooms. Inclusion, which literally means "integration," is an education for all regardless of disabilities. The concept of inclusion is developed according to the Least Restrictive Environment (LRE) principle in the Individuals with Disabilities Education Act (IDEA). Although inclusion is not mandated by IDEA, inclusion has been supported by research, court cases, and educators. However, many school teachers and administrators continue to struggle with effective inclusion implementation. One reason can be attributed to significant demographic school changes in recent years and teachers' insufficient expertise to cope with rapidly increasing diversity (Tran et al., 2018; Washburn, 2008). If teachers and administrators do not have a working understanding about language acquisition processes and believe an ELL's language difficulties are due to language deficit or deficiency, the ELL may be placed in a special education setting with children with disabilities or in an ELL self-contained classroom where ELLs may pick up pidgin English from each other.

Language Acquisition

Is language acquired or learned? As stated previously, without understanding how language is learned or acquired, assessments can be biased with skewed results and the decisions for placement and intervention plans can be inappropriate and ineffective (Barrio, 2017; Sullivan, 2011; Tran et al., 2018). Let's review some influential theories here.

First, according to Skinner (1957), language is learned. The principle is, "practice (repetitive pattern practice and drilling) makes perfect," for humans learn best through imitation and repetitive pattern practice. Skinner's viewpoint is a nurture model representing the perspective of behaviorists (Cooter & Reutzler, 2005; Lightbown & Spada, 2013; Powell et al., 2016; Richards & Rodgers, 2014). The

behavioral perspective explains why adults can learn language through formal training (conscious learning) by studying grammar and analyzing word and sentence structure. From the perspective of behaviorists, a child's learning is very passive because a child's mind is viewed as a "blank slate" (*tabula rasa* in Latin), in John Locke's term (Crain, 2005, p. 5).

Second, according to Chomsky (1957, 2002), language is acquired because every human being is prewired with a built-in mental processor, language acquisition device (LAD). Chomsky's viewpoint represents a nature model and has been well supported by innatists and experts in biology, neuroscience, psychology, and medicine (Bear et al., 2007; Hartshorne et al., 2018; Hauser et al., 2002). Innatists believe LAD can reach its fullest potential for language development if an individual receives a particular environmental stimulus within "a critical period" (Hetherington & Parke, 1999, p. 279). This suggests that there is a strong relationship between language development and age difference (Lenneberg, 1967; Hartshorne, Tenenbaum, & Pinker, 2018; Hoff-Ginsberg, 1997).

Third, according to Vygotsky (1986), language is both acquired and learned. Vygotsky's viewpoint represents a social interactionist model where children develop language through the interactions with important people in a cultural context. The social interactionists' perspective obviously represents a compromised model of both behavioral and innate perspectives.

Fourth, while social interactions contribute to human learning, the beyond-social-interactionists point out that interacting with English native speakers does not guarantee social interaction or language acquisition due to many factors, such as a learner's motivation, efforts, ways of interacting with English native speakers, stereotypes, and natural tendencies to be with one's own linguistic, social, and ethnic group. At this point, the beyond-social-interactionists make sense. For example, we all have a tendency to greet people from different ethnic backgrounds, but we may drift into a natural and comfortable zone to interact with the people from our own ethnic background due to "homophily effect" (Currarini et al., 2009; Lazarsfeld & Merton, 1954). As a result, language learning is always limited to some exposures with a certain level of accomplishment.

Conclusively speaking, language is both acquired and learned. However, meaningful social interactions, which are beyond simply just social interactions, are required to receive ultimate attainment associated with time and age. From the discussion above, it clearly lays out the following important concepts, which can further facilitate our understanding about language acquisition/learning and may therefore transform our perceptions on the language difficulties that ELLs demonstrate in terms of assessment, intervention, and placement.

Time as a vital factor in the process of language acquisition and learning. From the discussion above, in the process of language learning and acquisition, time needs to be considered as a vital factor in determining language success. In other words, educators need to seriously consider both short-term and long-term language learning effects when doing assessments and interventions. As research points out, it takes 3-5 years for ELLs to develop oral proficiency and 4-7 years to develop academic English proficiency (Hakuta et al., 2000). Language acquisition and learning is an evolutionary process. The key concept here is that time is crucial in order for children to produce language. The time concept is congruent with Vygotsky's inner speech/private speech and Krashen's silent period (Krashen, 1982). Children engage in inner speech before they become able to use language and other sign systems (Alderson-Day & Fernyhough, 2015). Meanwhile, children need to go through a silent period to process language input into language output. Silence is not equal to "no comprehension." Therefore, it is important to understand how language works in terms of language

acquisition vs. language learning, children vs. older learners/adults, critical period for language development, and placements/learning environments.

Language acquisition (unconscious learning) vs. language learning (conscious learning).

The processes of human learning and outcomes can be conscious and unconscious (Kuldass et al., 2013). Regardless of whether learning turns into acquisition or not (Ellis, 1994; Schmidt, 1990, 2001; Unlu, 2015), Krashen (1982, 1988) well distinguished the differences between language acquisition and language learning. According to Krashen, language acquisition is very similar to the process that children experience in acquiring their first language and second language. Language acquisition is a natural language development process where learners are engaging in subconscious learning and that subconscious learning is informal and spontaneous without being aware of the grammatical rules. This explains why children tend to acquire a second language (L2) faster than older learners or adults and why most of us can easily master our own mother tongue. This fits within the innatist (Chomskyan) viewpoint. Language learning refers to the conscious learning about grammatical rules in the formal learning setting, such as a classroom or a native-speaker-like learning environment created by the teacher. The process is formal, analytical, and experiential and requires efforts for training, explanation, and translation. This explains why older learners or adults can learn a second or foreign language and achieve a certain level of proficiency. As such, this aligns more closely to a behaviorist (Skinner's) viewpoint.

Language instructions for ELL children vs. older learners/adults. Based on the concept of language acquisition and learning, in the process of language development, children can possibly do unconscious learning first and conscious learning later, whereas older learners/adults can possibly do conscious learning first and unconscious learning later (Chen & Chen-Worley, 2015). If a teacher believes ELL children and adults learn in the same way, English instruction will not be differentiated. For example, translation or using the native language/first language (L1) for instruction tends to work for both ELL children and older learners/adults because both ELL children and adults can understand immediately. In other words, the learning effects can be efficient for a short term. However, in the long run through the process of learning and language development, one may see the discrepancy between ELL children and adults. For example, according to the recent study conducted by Thomason, Brown, and Ward (2017) for high school ELLs, public schools have a significant challenge of teaching both English language and academic content. They added, despite the attention given to help high school ELLs, the achievement gap between ELLs and native English speakers persists, particularly in reading. Obviously, understanding how language works for both children and older learners/adults is important, for it affects lesson planning and instruction and further affects the ultimate attainment of an ELL's second language acquisition.

Critical period for language development. Understanding the concept of critical period for language development is important because it affects our understanding of how language is acquired or learned. It also affects our language instructional practices associated with learning settings for language learners. Is there a critical period for language development? Although there is a controversy about the critical period for language development, more studies do need to be conducted with new research designs by considering many factors, such as both short-term and long-term learning effects (ultimate attainment), and the contexts where L2 acquisition takes place (Sang, 2017). Despite the controversy,

scholars acknowledge the effects of age on L2 acquisition. Crain (2005) emphasized, "There is growing evidence that a critical period for rapid second language learning ends even prior to puberty perhaps at the age of 7 years" (p. 367). Additionally, a great deal of research has confirmed the importance of the critical period for language development, including the fossilization of accent and pronunciation after puberty (Acton, 1984; Brown, 1980; Flege, 1999). The concept of "critical period" is derived from the neuroscience where a critical period is defined as "a period of time in which intercellular communication alters a cell's fate" (Bear et al., 2007, p. 715.). The concept is based on Hans Spemann (1869-1941), a German embryologist, who was awarded the Nobel Prize in 1935 for his embryo transplantation studies. Many studies also point out that children and adults learn differently (Long, 1990; Paradis, 2004; Ullman, 2001) mostly due to brain lateralization (Rice, 2002) associated with the critical period (Hartshorne et al., 2018; Johnson & Newport, 1989; Lenneberg, 1967; Singleton, 2003). It is self-evident that when the brain reaches a certain level of maturation (puberty), second language learning and acquisition becomes difficult and the ability of acquiring a native-like accent and pronunciation begins to degenerate (Acton, 1984). This exemplifies why children learn language faster and more easily than adults (Hartshorne et al., 2018).

Methodology

Perceptions vary with paradigms for problem solutions (Kuhn, 1962; Walker & Avant, 2005). Understanding how perception affects education practice is critical because it helps us understand how we educators make judgments and decisions as problem solutions. The purpose of this study is to examine teachers' perceptions on L2 acquisition and education practice in terms of language instruction and placement for English Language Learners (ELLs). Through the examination, we can understand current teachers' knowledge and experience in second language acquisition, their viewpoints about the language difficulties that ELLs demonstrate, and their belief about language instruction and placement that can best benefit ELLs. Based on the results of the study, we can therefore further understand the concerns of disproportionality in education - children with special needs overrepresented in special education (Ahram et al., 2011; Barrio, 2017; Fernandez & Inserra, 2013; Gollnick & Chinn, 2013; Sullivan, 2011; Tran et al., 2018; Zimmerman, 2008). Here are the research questions:

Research Questions

RQ (1) What is the current status of teachers' knowledge and experience in second language acquisition? Do teachers perceive ELLs demonstrating language deficit and believe a special education classroom or an ESL self-contained classroom best benefit ELLs for language learning?

RQ (2) Do teachers believe that there is a critical period for language development and how is that belief associated with the placement and instruction of ELLs?

Participants/Subjects

A total of 420 participants of both current graduate students and alumni of the School of Education of a College in New York, voluntarily participated in this pilot study (a 5-point Likert scale survey with 21 items through Qualtrics) in 2017-2018. Of the 420 participants, 222 participants were selected

because they completed the survey with almost no missing data. About 50% of the 222 participants (ages 20-63, 194 females and 28 males) are certified P-12 school teachers and the other 50% of the participants were paraprofessionals, substitute teachers, and/or graduate students.

Instrument

The language survey used in this study was reviewed by some professionals and researchers in the field for suitability and efficacy. The survey has 21 items constructed according to Literature Review with both qualitative and quantitative questions. There are 5 items for Experience (1-5), 7 items for Knowledge and Instruction (6-12), 3 items for Placement (13-15), 6 items for Perception (16-18 for language deficit view & 19-21 for language difference view). The boldface numbers indicate those reverse scored items on a 5-point Likert scale prior to computing the total score for a certain category (see Appendix).

Data Sources

Data collection began right after IRB approval for this study in the end of 2017. Initially, over 6000 current graduate students and alumni of School of Education of a College in New York were invited to participate in this research study. About 650 participants voluntarily responded to the survey within the 10-week data collection period. The response rate was 10.8%. Among the 650 voluntary participants, 230 participants did not fully complete the survey. They were either not qualified at the time of the survey or opted out of the survey. The remaining 420 participants' responses were again filtered out based on whether the survey was completed with almost no missing data. About 222 responses were completed with almost no missing data. The collected data for this study were then analyzed both qualitatively and quantitatively based on the 222 responses. Quantitative analysis was conducted with SPSS software (v. 25), using Descriptive Statistics (Frequencies and Somers' *d* [symmetric]) to answer both research questions. All statistical results were evaluated at $p < .05$ to obtain statistical significance. Somers' *d* is appropriate for data analysis to obtain the valid results of the study because the data has met two assumptions.

Somers' *d* is a nonparametric measure of the strength and direction of association that exists between an independent variable and a dependent variable on an ordinal scale, such as a 5-point or 7-point Likert Scale (Somers, 1962). In this study, the ordinal variables were measured based on a 5-point Likert Scale (from "strongly disagree" through to "strongly agree"). The advantage of using nonparametric measures, particularly Somers' *d*, is that it can reach the correct ultimate value according to Newson (2008). In addition, Somers' *d* can identify both positive and negative monotonic relationships between both independent and dependent variables (Metsämuuronen, 2020).

Qualitative analysis was conducted by performing Crosstabs (SPSS, v. 25) and thematic coding or thematic analysis for the collected qualitative data based on the survey responses. Crosstabs are useful and flexible in retrieving and analyzing survey data. It provides comprehensive and easy-to-read results. It also allows to summarize the data in categorical variables and examine a single categorical variable based on survey responses to reveal important insights (University of Southampton, 2022). Thematic coding or thematic analysis is an appropriate and powerful method used to look for recurring motifs (patterns or themes) to understand a set of experiences, thoughts, or behaviors across a data set (Braun & Clarke, 2006).

For this study, qualitatively, I have interest in finding out if the participants considered it challenging to teach ELLs and work with parents of ELLs and the reasons or stories behind their answers based on the two questions in the survey (#4: I find it difficult/challenging to teach English to ELLs. Why so, please explain) and (#5: I find it difficult/challenging to work with the parents of ELLs. Why so, please explain). Then, from there, I would like to know how the qualitative analysis based on the survey responses are correlated with the participants' current status of knowledge and experience of L2 acquisition. Crosstabs (SPSS v. 25) was therefore performed to retrieve the participants' written responses based on the two variables (Q4 & Q5) in the survey. The collected qualitative data were then coded based on the recurring or repeated words, phrases, patterns, and common themes found in the survey responses, such as difficult, hard, uncertain, unable, translation, English, pedagogy, home, parents, don't/do not, can't/cannot, lack of, not sure, differentiated instruction, scaffolding, language and cultural differences, language barriers, and communication barriers. These recurring words and phrases were then combined and coded into categories/reasons and common themes because these categories/reasons and common themes represent the participants' viewpoints in light of their similar experiences, thoughts, feelings, and concepts.

Results and Discussion

Based on the study results, RQ (1.1) What's the current status of teachers' knowledge and experience in second language acquisition? RQ (1.2) Do teachers perceive ELLs demonstrating language deficit and consider a special education classroom or an ESL self-contained classroom best benefits ELLs for language learning? Additionally, RQ (2) do teachers believe that there is acritical period for language development and how is that belief associated with the placement and instruction of ELLs?

RQ (1.1) What's the current status of teachers' knowledge and experience in second language Acquisition?

The results show that most participants, 169 out of 222, (76.1%, about 8 out of 10) have never taken L2 acquisition courses and half of participants, 114 out of 222, (51.4%, about 5 out of 10) have no L2 learning experience but a large portion of participants, 152 out of 222, (68.5%, about 7 out of 10) have taught ELLs. Based on the findings, there is a concern about the current status of teachers' knowledge and experience in second language acquisition because most participants, 152 out of 222, (68.5%, about 7 out of 10) have taught ELLs before they were prepared to teach ELLs. For example, 8 out of 10 participants have never taken any L2 acquisition courses and 5 out of 10 participants do not have a second language learning experience. Additionally, the study results indicate many participants considered it challenging to design instruction for ELLs, 88 out of 222, (39.6%), as well as indicating difficulties in working with parents of ELL students, 77 out of 222, (34.7%). A similar portion of participants were not certain if it was difficult to teach ELLs, 67 out of 222, (31.2%) or to work with ELL parents, 80 out of 222, (36%) (see Table 1 and Figures 1, 2, & 3). These quantitative findings not only have confirmed what research has emphasized about the insufficient training of classroom teachers dealing with children with special needs particularly ELLs (Ahram et al., 2011; Barrio, 2017; Fernandez & Inserra, 2013; Gollnick & Chinn, 2013; Sullivan, 2011; Tran et al., 2018; Zimmerman, 2008), but shed some light on the repetitive research concerns of the disproportionality issues in education (i.e., children of certain racial and ethnic groups overrepresented in special education). The

qualitative analyses of the results of this study are therefore pivotal and can help us take one step further to understand the disproportionality issues in education and open the opportunity for more future research and investigation.

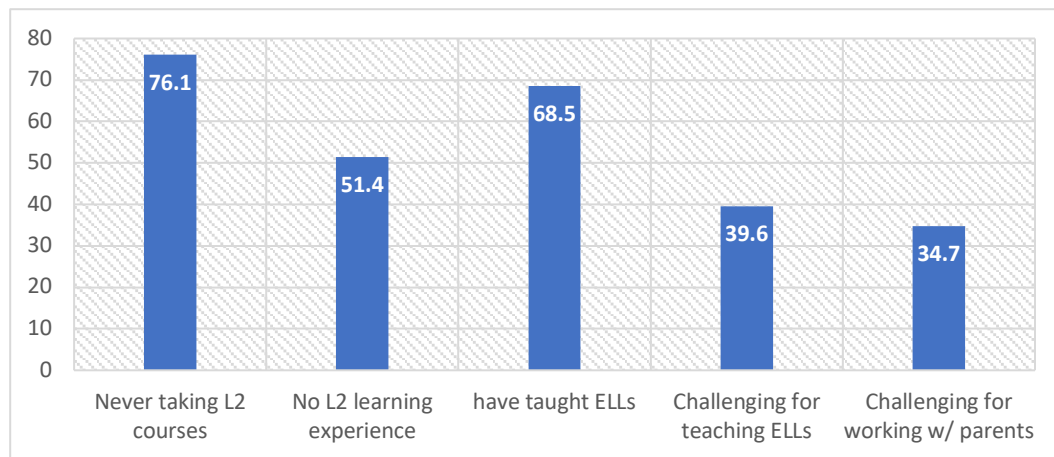
Table 1

Teachers' Current Knowledge and Experience in Second Language Acquisition

Questions	Count	Total Count	Valid Percent
Have never taken L2 acquisition courses	169	222	76.1
No L2 learning experience	114	222	51.4
Have taught ELLs	152	222	68.5
Challenging for teaching ELLs (Strongly Agree 15, 6.8% & Agree 73, 32.8%)	88	222	39.6
Challenging for teaching ELLs (Not Sure 32.1%)	67	222	32.1
Challenging for working with parents of ELLs (Strongly Agree 16, 7.2% & Agree 61, 27.5%)	77	222	34.7
Challenging for working with ELL parents (Not Sure 36%)	80	222	36

Figure 1

Teachers' Current Knowledge and Experience in Second Language Acquisition



Through the quantitative investigation as shown above, this study has confirmed classroom teachers' insufficient knowledge and/or experience in dealing with children with special needs particularly ELLs. It has also revealed many participants' difficulties/challenges in working with ELLs, 88 out of 222, (39.6%) and the parents of ELLs, 77 out of 222, (34.7%). Through the qualitative investigation and analysis based on Crosstabs (SPSS, v. 25) and thematic analysis, two common themes, communication and practice, are found among the participants who self-reported the difficulties/challenges in working with ELLs and parents of ELLs (see Figure 4). For challenges in

working with ELLs, two major categories/reasons (language barriers and cultural differences) are under the communication theme and four major categories/reasons (meeting diverse needs, pedagogy and differentiated instruction, lack of resources, and parental involvement) are under the practice theme. For challenges in working with parents of ELLs, the same two categories/reasons (language barriers and cultural differences) are under the communication theme and one major category/reason (parental involvement) is under the practice theme. Language barriers and cultural differences under the communication theme represent the most significant challenge for both working with ELLs and parents of ELLs (see Figure 4). Figure 4 shows that both challenges in working with ELLs and parents of ELLs are overlapping and interconnected. Also, all components/categories/reasons under the two common themes are important and have ripple-effects on one another. They reflect current teachers' perceptions (knowledge, experience, and understanding) on language acquisition, language difficulties and cultural differences that ELLs and parents of ELLs demonstrate, and instructional strategies and learning settings, which they believe will best benefit ELLs.

Figure 2
Challenging for Working with ELLs

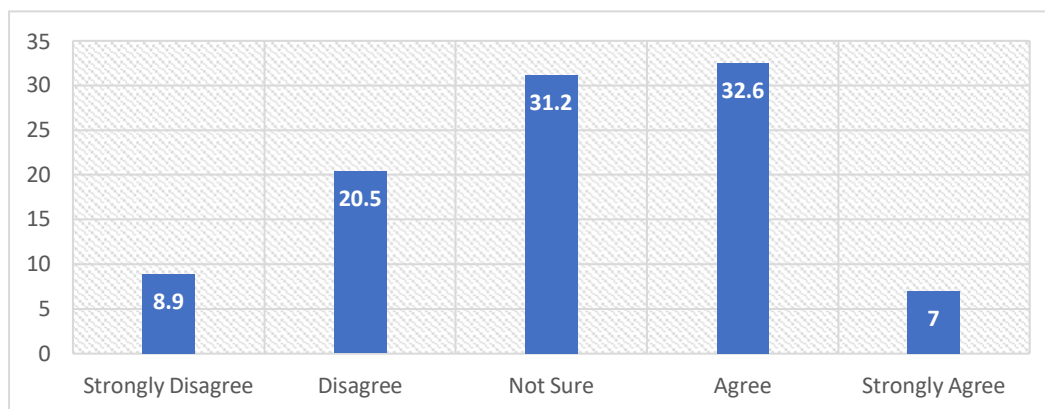


Figure 3
Challenging for Working with Parents of ELLs

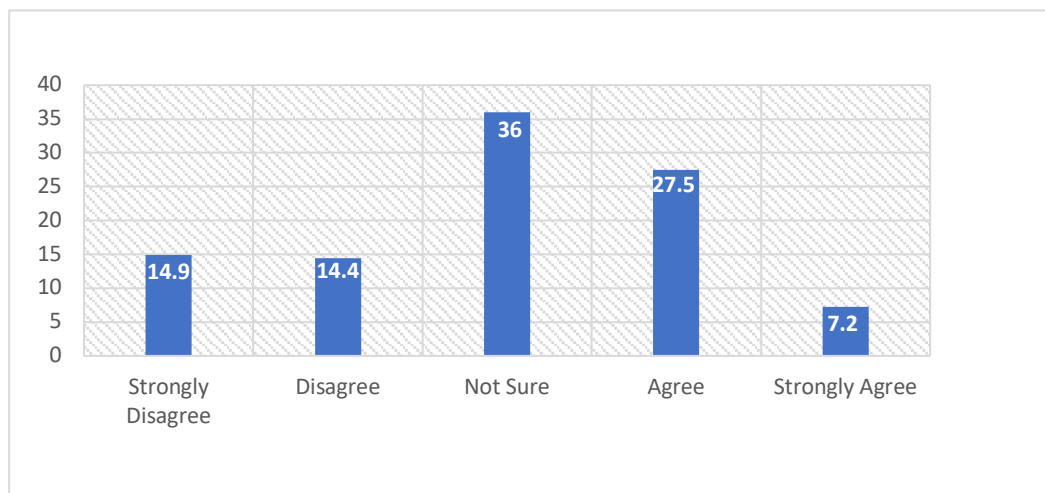
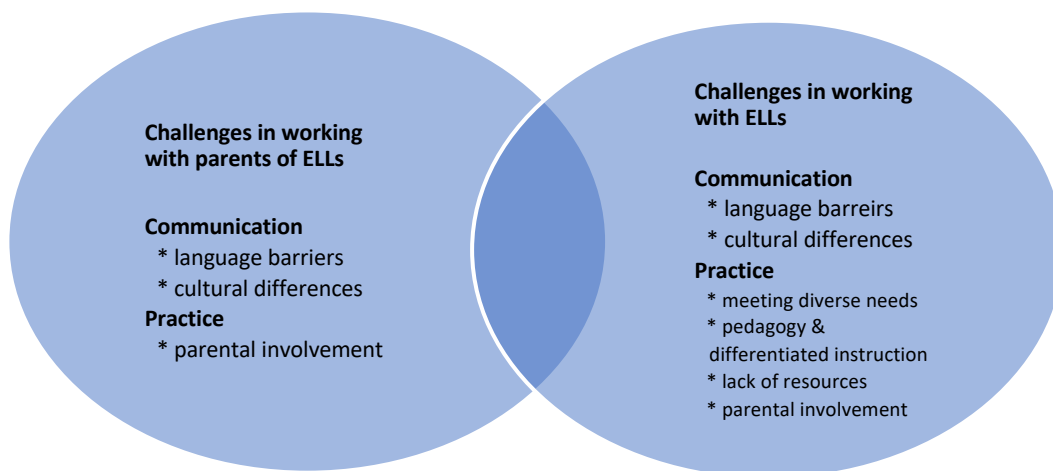


Figure 4.
Challenges in working with ELLs and parents of ELLs



Simultaneously, these common themes associated with all categories/reasons also shed light on how teacher education programs can prepare professional development/training for their teacher candidates. In the teacher education programs, teacher candidates need to be prepared to be equipped with professional knowledge in understanding; for example, how language is learned or acquired (Skinner, 1957; Chomsky et al., 1982; Vygostky, 1986; Currarini et al., 2009; Lazarsfeld & Merton, 1954), how a word can be broken down into syllables and into phonemes, and how a syntactic structure can be analyzed and used according to linguistic rules and cultural norms (Freeman & Freeman, 2014). Accordingly, “language difference” or “language deficit” can be distinguished. Appropriate instructional strategies and learning settings can also be applied to helping each learner learn and acquire the language.

Communication affects practice. However, knowledge and experience affect communication and understanding. In teacher education programs, without equipping oneself with professional knowledge in language instruction, one cannot apply critical language concepts and principles to engaging learners. Moreover, appropriate resources may not be utilized correctly or effectively, differentiated instruction can turn into a puzzle game practice, and meeting diverse needs to achieve inclusion, equity, and excellence can eventually become a fantasy or slogan. Furthermore, getting parents involved in education or collaborating with parents of ELLs will continue to be a concern and struggle for educators for years to come.

(1) **Language barriers and cultural differences.** Language barriers and cultural differences under the communication theme for both working with ELLs and parents of ELLs represent the most significant challenge based on the findings of the study. Language is a system (Chomsky, 1957) and communication (both verbal and nonverbal) is the key for understanding. Culture is a total way of life of a people (Hammerly, 1986). When people do not speak the same language and share the same cultural values and standards, misunderstanding is inevitable. Based on the study results, since most participants (76.1%, about 8 out of 10) have never taken L2 acquisition courses and half of participants (51.4%, about 5 out of 10) have no L2 learning experience, it is not a surprise to know that participants considered

language barriers and cultural differences most challenging. The following statements directly quoted from the participants represent their struggles and frustrations in communicating and working with the ELLs and the parents of ELLs.

- “Difficulty communicating with the child when explaining school procedures, strategies, homework, etc.”
- “It is hard because they are from different cultural backgrounds and beliefs.”
- “... Many times, parents of ELLs do not reach out if they have concerns because it is difficult to communicate, so they do not voice their concerns, or they ask their children to communicate for them, and children do not always communicate clearly.”
- “I strongly agree that it is difficult to collaborate with the parents of ELLs because of communication. Based on my experience I have translated all my notes to parents who speak another language because they are unable to communicate back to me. It makes things frustrating. I want to have open line of communication with my parents of ELLs but sometimes it is hard when you do not speak the language.”

However, language barriers and cultural differences only reflect a fundamental issue that people in all walks and from diverse linguistic and cultural backgrounds may encounter. In the teacher education programs, teacher candidates need to be specifically prepared to be equipped with professional knowledge in understanding, such as critical language concepts and principles, so judgments about “language difference” or “language deficit” can be distinguished and the appropriate instructional strategies can be used effectively to tailor each learner’s education needs according to his/her strengths, weaknesses, and current performance level. Moreover, many English language learners (ELLs) will not be misidentified as having language disorders and/or learning disabilities and placed in special education as the appropriate placement.

The critical language concepts and principles are those important variables that affect language teaching and learning in terms of assessment, instruction, and placement. Those important variables, as discussed in Literature Review, include but are not limited to, understanding the process of language acquisition (Skinner, 1957; Chomsky, 1957; Vygostky, 1986), critical period for language development, language acquisition (unconscious learning) vs. language learning (conscious learning), instructional strategies for ELL children vs. older learners/adults, and time as a vital factor for evaluating learning effects (short-term vs. long-term).

The following voices directly quoted from the participants reflect their needs of acquiring professional knowledge in language instruction for ELLs:

- “They don’t study enough and memorize vocabulary words given in class, so that I don’t see the fruit of my work with them at school.”
- “Due to their young age, it is hard to understand what exactly the misunderstanding is due to the lack of language skills.”
- “Differentiating the lesson plans tend to be difficult and many teachers are unsure of where to start.”
- “I find it difficult to bridge the gap they have and to help them understand the common core English and help them learn the language.”
- “I had students who came to America into my fourth-grade classroom and didn’t even know the alphabet but they were expected to pass fourth grade standards.”

- “Hard to assess their levels of understanding and create appropriate tools to help them with content and language.”

(2) **Lack of resources.** Lack of resources is under the practice theme for challenges for working with ELLs. Perceptions vary with paradigms for problem solutions (Kuhn, 1962; Walker & Avant, 2005). Understanding how language works for both children and older learners/adults is important because it affects lesson planning, learning settings, and teaching pedagogies, and further affects the ultimate attainment of an ELL’s language acquisition. As research points out, there are differences about how children and adults acquire or learn a second language. Adults’ learning tends to be more formal (conscious) than informal (unconscious), while children’s learning tends to be more informal (unconscious) than formal (conscious) due to critical period of language development (Bear et al., 2007; Crain, 2005; Hartshorne et al., 2018) and brain lateralization (Rice, 2002). As discussed in the Literature Review, in the process of formal learning (language learning), more efforts, practice, and training in understanding and analyzing grammatical rules are required. The use of L1 (translation) is thus considered necessary and conducive. On the other hand, in the process of informal learning (language acquisition), language is picked up through a natural spontaneous learning environment without being aware of grammatical rules. The use of L1 (translation) may prevent a child, who is still within the critical period of language development, from receiving the best language learning benefits. Thus, if one believes translation can best benefit ELLs to learn English without taking any variable into consideration, such as age, both short-term and long-term learning effects, and critical period for language development, one is most unlikely going to differentiate instruction for adults and children. The resources/materials obtained for language instruction will most likely be multilingual content because perceptions guide practice/instruction. In short, understanding how learners learn affects the selection of resources and how resources can be used effectively.

Based on the findings of the study, the following statements reflect the participants’ perceptions on what resources/materials would facilitate their teaching for ELLs.

- “Lack of resources/general inability to teach their particular needs”
- “I find it difficult because I do not have enough resources in different languages.”
- “I find it difficult to find translations for my students. It is difficult to find articles and primary sources in multiple languages.”
- “Differentiating the lesson plans tend to be difficult and many teachers are unsure of where to start.”

There are over 7000 languages in the world (Eberhard et al., 2021). Mastering all languages is impossible. However, language is a system (Chomsky, 1957) and as many linguists and researchers have discovered that there are phonological rules in every language. The discovery contributes to the development of language theories to help learners understand how language works in terms of 1st and 2nd language acquisition/learning theories. Therefore, understanding how language works can guide practice and select appropriate resources and materials.

(3) **Difficulty with pedagogy/differentiated instruction.** Difficulty with pedagogy/differentiated instruction is under the practice theme. As repeatedly emphasized throughout the paper, perceptions vary with paradigms for problem solutions (Kuhn, 1962; Walker & Avant, 2005). Preparing teachers in understanding critical language concepts and principles (language

acquisition vs. language learning, pedagogies for adults vs. children, critical period for language development, and short-term vs. long-term learning effects) can help teachers apply effective instructional strategies to tailoring each individual learner's education needs in terms of his/her strengths, weaknesses, and learning level. Therefore, if one has learned about the influential language perspectives as discussed in Literature Review, such as behaviorist viewpoints (Skinner, 1957), innatist viewpoints (Chomsky, 1957, 2002), social interactionist viewpoints (Vygotsky, 1986) and beyond social interaction viewpoints (Carrarini et al., 2009; Lazarsfeld & Merton, 1954), one is most likely to apply some important language concepts and principles in teaching practice. For example, if one understands and believes that there is a critical period for language development, one is most likely going to differentiate instruction based on age, language concepts (i.e., conscious or unconscious learning), instructional strategies, resources/materials, and learning settings to bring out the best learning effects for learners. On the contrary, if one does not understand or does not believe critical period for language development, one may not differentiate instruction and may simply use resources and materials with different language translations as long as learners can receive immediate learning effects. Accordingly, understanding critical language concepts and principles associated with influential language perspectives/viewpoints can help understand how language is acquired or learned. It can further help transform perceptions to guide practice and research. As expressing in their voices (see below), participants are struggling with differentiated instruction for ELLs because they have difficulties assessing ELLs' various levels of understanding and using the proper instructional strategies for different English skills.

- "Differentiating the lesson plans tend to be difficult and many teachers are unsure of where to start."
- "Hard to assess their levels of understanding and create appropriate tools to help them with content language."
- "I do not know the proper strategies used for ELLs."
- "I find it challenging to differentiate materials for the various ELLs levels in my classroom."
- "I find it difficult to follow through with creating differentiated materials for ELLs when preparing materials for a full class with a large disparity in English skills."

(4) Difficult to meet diverse needs. Difficulty with meeting diversity is under the practice theme for challenges for working with ELLs. In order to meet learners' diverse needs, teachers need to be equipped with a repertoire of skills acquired through ongoing learning and experience. Without being equipped with professional knowledge in language instruction, critical language concepts and principles associated with influential language theories can't be applied to engaging learners for effective learning. As a result, learners' diverse needs are not met.

As discussed in Literature Review, many school teachers and administrators continue to struggle with effective inclusion implementation. One reason can be attributed to significant demographic school changes in recent years and teachers' insufficient expertise to cope with rapidly increasing diversity (Tran et al., 2018; Washburn, 2008). If teachers and administrators do not have a working understanding about language acquisition processes, language assessment for ELLs can be biased resulting in ineffective language instruction and inappropriate placement. Therefore, to meet learners' diverse needs, teachers need to be trained in understanding how to implement effective language instruction associated with learning settings, such as using differentiated instruction, implementing effective inclusion, partnerships with other teachers, professionals, and parents (Mastropieri & Scruggs,

2018). The following statements from the participants reflect the lack of sufficient knowledge, experience, and understanding of implementing effective instruction to meet the needs of diverse students.

- “Diverse spectrum of needs not just within the whole class, but within individual ELLs. A lot of prepwork as one single in a class of 30 students.”
- “Every ELL is on a different level and not every student even has a foundation or formal schooling. Sometimes there is no L1 to build off of.”
- “Hard to assess their levels of understanding and create appropriate tools to help them with content language.”

(5) **Parental involvement.** Getting parents involved in education is under the practice themes for both challenges for working with ELLs and parents of ELLs. Helping ELLs to achieve academic success requires teachers not only to understand each ELL’s linguistic and cultural background but to connect with their parents, so each ELL’s strengths, learning interest and behavior can be identified and understood. Getting parents involved in education is crucial because how parents are engaged in their children’s lives is the predictor of their children’s academic success in school and in life (Kelty & Wakabayashi, 2020). Therefore, knowing how to partnership with parents, who are home teachers, is extremely important. As the study has shown, language barriers and cultural differences represent the most significant challenge when working with ELLs and parents of ELLs. There is no doubt that connecting parents with schools continues to be a concern and struggle for educators. When language is a barrier for both ELLs and their parents, being equipped with the knowledge of language acquisition for both children and adults can help teachers and administrators develop effective instructional strategies to improve ELLs’ language skills. It can also help teachers and administrators develop communication strategies to work with parents of ELLs. It can further help school teachers and administrators understand the needs of learning an ELL’s L1 and culture. Thus, negative attitudes (discrimination and stigmatization) towards children with special needs particularly ELLs can be reduced and effective inclusion and meeting the needs of diverse students can be implemented and achieved. For example, if school teachers and administrators have knowledge of essential linguistics, they can help children who are struggling with vocabulary or spellings to develop phonological awareness, phonemic awareness, and sound-letter associations (Freeman & Freeman, 2014). Essential linguistics refers to the conscious knowledge of language structure, such as phonology (the study of sounds/phonemes). Also, if school teachers and administrators are willing to learn an ELL’s L1 and culture, they can contrast two language systems (English and L1) with similar and different speech sounds and understand different cultural values. Reciprocally, parents will feel respected, recognized, and included as a part of school community. They would want to learn and are willing to work with school teachers and administrators. Accordingly, learning how to partnership with parents of ELLs and enriching teachers’ knowledge and experience in language acquisition are crucial.

The following statements express participants’ frustration for being unable to be on the same page with the parents of ELLs.

- “Some parents are always working and don’t have time to help their kids. Others don’t care and others do care but there is a language barrier.”
- “I have had experience where parents of ELLs have been very easy to work with, while I have had difficulties working with some because of the language barrier.”
- “Parents may be very supportive but there may be a language barrier.”

- “Some of them do not speak English.”
- “I am unsure of how to try at my age. Some parents were not supportive of their child learning English.”
- “I find it difficult because what was taught in school is not always reinforced at home. This is the case especially when only their native language is spoken at home.”
- “I find it difficult because sometimes we teach the students, they go home and watch TV in their homes.”
- “They don’t study enough and memorize vocabulary words given in class, so that I don’t see the fruit of my work with them at school.”

For the qualitative analysis of the reasons provided by the uncertain participants, there are also five common reasons to explain their Not-Sure responses. The five common reasons are: (1) no/little experience with ELLs and parents; (2) depending on individuals; (3) lack of resources; (4) language barriers; and (5) parental involvement. Lack of resources, language barriers, and parental involvement overlap the common reasons presented previously. No/little experience with ELLs and parents of ELLs mostly explains the Not-Sure responses for challenging for working with ELLs (31.2%) and parents (36%). No/little experience also explains why participants with no/little experience with ELLs and parents of ELLs did not touch on pedagogy/differentiated instruction and meeting diverse needs. For participants with no/little experiences, whether it is challenging to work with ELLs and parents of ELLs depends on each individual teacher candidate.

Based on both quantitative and qualitative analyses about the current status of teachers’ knowledge and experience in second language acquisition, evidently there is a need to support teachers to understand language acquisition, cultural differences, and how to work with ELLs and parents of ELLs.

RQ (1.2) Do Teachers Perceive ELLs Demonstrating Language Deficit and Consider a Special Education Classroom or an ESL Self-Contained Classroom Best Benefits ELLs for Language Learning?

Based on the findings from the survey, Somers’ *d* has identified that there is a positive correlation between the two variables, total placement (TPPlacement) and total deficit view (TPdef) among 222 participants, which is statistically significant ($d = .189, p < .01$; see Table 2). The two variables, total TPPlacement and TPdef are computed based on Qs 13-15 (general/inclusive education setting, special education setting, and ELL self-contained classrooms) and Qs 16-18 (learning disabilities, language deficiencies, and language disorders) respectively. Table 2 shows that there is an overall deficit view/perception towards the language difficulty that ELLs demonstrate. Also, a special education learning setting or an ELL self-contained classroom will best benefit ELLs. For example, there is a positive correlation between learning disability (LD) and special education among 222 participants, which is statistically significant ($d = .198, p < .01$; see Table 3); LD & ELL self-contained classroom, which is statistically significant ($d = .242, p < .01$; see Table 4). Table 3 shows that the language difficulty that ELLs demonstrate is associated with LD and a special education learning setting is considered beneficial for ELLs. Table 4 shows that the language difficulty that ELLs demonstrate is associated with LD and an ELL self-contained classroom is also considered beneficial for ELLs. However, there is a stronger tendency to place ELLs in an ELL self-contained classroom than in a

special education learning setting because participants considered an ELL self-contained classroom is more beneficial than a special education learning setting for ELLs.

Table 2
Total Placement & Total Deficit Perception

	Directional Measures			
	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Ordinal by Ordinal Sommers' d Symmetric	.189	.048	3.967	.000
TPdef Dependent	.190	.048	3.967	.000
TPlacement Dependent	.189	.048	3.967	.000

Note. a = Not assuming the null hypothesis; b = Using the asymptotic standard error assuming the null hypothesis

Table 3
LD and Special Education

	Directional Measures			
	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Ordinal by Ordinal Sommers' d Symmetric	.198	.057	3.442	.001
Q16_P_def_LD_16R Dependent	.197	.057	3.442	.001
Q14_Kn_PI_SpEd_14R Dependent	.198	.058	3.442	.001

Note. a = Not assuming the null hypothesis; b = Using the asymptotic standard error assuming the null hypothesis

Table 4
LD and ELL Self-Contained Classroom

	Directional Measures			
	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Ordinal by Ordinal Sommers' d Symmetric	.239	.061	3.924	.000
Q16_P_def_LD_16R Dependent	.237	.060	3.924	.000
Q15_Kn_PI_ELL_SC_15R Dependent	.242	.062	3.924	.000

Note. a = Not assuming the null hypothesis; b = Using the asymptotic standard error assuming the null hypothesis

RQ (2) Do Teachers Believe That There Is a Critical Period for Language Development and How Is That Belief Associated With the Placement and Instruction of ELLs?

Although a large portion of participants (82%) believe that understanding the concept of critical period is important, its association with the inclusive education setting is not statistically significant ($d = .036$, $p > .05$; see Table 5). Rather, its association with the disagreement in placing ELLs in the special education setting is statistically significant ($d = .127$, $p < .05$; see Table 6). These mean that most participants believe that there is a critical period for language development but the decision for placing ELLs in the general/inclusive education setting for language learning is random/by chance. Also, due to the belief of a critical period for language development, although participants may not support the idea of placing ELLs in the special education setting, there is an uncertainty about the general/inclusive education setting as a placement which can best benefit ELLs for English learning. This also implies that placing ELLs in a non-inclusive education setting, such as a special education setting or an ELL self-contained classroom, is likely to happen despite teachers' beliefs in a critical period for language development during which children can pick up language faster in a natural spontaneous learning environment.

Table 5
Critical Period & Inclusive Education

	Directional Measures			
	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Ordinal by Ordinal Sommers' d Symmetric	.034	.060	.563	.573
Q8_L2_Kn_Cr_im Dependent	.032	.057	.563	.573
Q13_L2_Kn_Pl_Inclusive Dependent	.036	.064	.563	.573

Note. a = Not assuming the null hypothesis; b = Using the asymptotic standard error assuming the null hypothesis

Table 6
Critical Period & Special Education

	Directional Measures			
	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Ordinal by Ordinal Sommers' d Symmetric	.117	.059	1.974	.048
Q8_L2_Kn_Cr_im Dependent	.108	.055	1.974	.048
Q14_Kn_Pl_SpEd_14R Dependent	.127	.064	1.974	.048

Note. a = Not assuming the null hypothesis; b = Using the asymptotic standard error assuming the null hypothesis

The results of the study also show that there is a positive association between understanding the concept of critical period and learning an ELL's culture, which is statistically significant ($d = .117$, $p < .05$; see Table 7). This indicates that understanding the concept of critical period for language development and an ELL's culture can help an ELL improve language learning. Moreover, more than half of the participants (70.7%) support the use of translation (translating English into an ELL's first language) or using an ELL's first language (L1) as an instructional strategy to help ELLs learn English. The belief of the critical period and the use of translation or the use of an ELL's L1 in language instruction have reached statistical significance ($d = -.229$, $p < .05$; see Table 8). Based on the concept of critical period for language development, there is a best time window for language learning (before puberty or before brain maturation) and based on the language acquisition process, children can acquire language in a natural environment, therefore children's language learning is unconscious and spontaneous. If one believes that understanding the critical period of language development is important and if one also believes that children can acquire language faster in a natural environment, then believing the use of translation or the use of an ELL's L1 for language instruction seems unsound.

Table 7
Critical Period & Learning ELL Culture

	Directional Measures			
	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Ordinal by Ordinal Sommers' d Symmetric	.132	.060	2.174	.030
Q8_L2_Kn_Cr_im Dependent	.152	.069	2.174	.030
Q12_L2_Kn_In_ELL_Cul Dependent	.117	.054	2.174	.030

Note. a = Not assuming the null hypothesis; b = Using the asymptotic standard error assuming the null hypothesis

Table 8
Critical Period & Use of Translation or L1

	Directional Measures			
	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Ordinal by Ordinal Sommers' d Symmetric	-.220	.059	-3.700	.000
Q8_L2_Kn_Cr_im Dependent	-.212	.057	-3.700	.000
Q10_L2_Kn_Trans_10R Dependent	-.229	.062	-3.700	.000

Note. a = Not assuming the null hypothesis; b = Using the asymptotic standard error assuming the null hypothesis

These findings reflect participants' understanding about the concept of critical period of language development according to their existing knowledge, experience, and understanding. Although most participants believe that age plays a role in affecting learning and teaching, the understanding of the

concepts of language learning (conscious learning) and language acquisition (unconscious learning) based on research and reality does not seem to be established. In other words, if one understands and believes that there is a best window of opportunity for language learning in an individual's lifetime, the pedagogies should be connected to those language concepts in order to bring out the best learning effects based on a learner's strengths and age. Based on participants' current knowledge, experience, and understanding, it seems that learners need to respond quickly in order to demonstrate learning effects. In this case, ELLs may lose their language ultimate attainment at the cost of not taking long-term learning-effects into account. Evidently, it is easier to make a judgment and decision based on visible stimulus-response behavior instead of invisible neuron-connection behavior (Bear et al., 2007; Hakuta et al., 2000).

Conclusion and Educational Implications

Based on the results of the study with both quantitative and qualitative analyses, we can draw a conclusion. First, there is a need to support teachers to understand language acquisition, cultural differences and how to work with ELLs and their parents. Second, there is a total deficit view/perception towards ELLs associated with the placement of special education or ELL self-contained classroom, which is statistically significant. This implies language difference can be perceived as language deficit if language difference is not detected or understood. Third, there is a critical period for language development but its association with the inclusive education setting is not statistically significant. Moreover, more than half of the participants believe that using translation or an ELL's L1 as an effective language instructional strategy is extremely important for ELLs. In other words, over half of the participants strongly believe that children can do unconscious learning (pick up language fast within a certain age range) but they are not doing critical thinking that a natural spontaneous learning environment is where language acquisition mostly takes place. Also, these participants believe that children can do unconscious learning (pick up or acquire language fast within a certain age range) but they are not considering if there is an important instructional strategy which can facilitate children's language acquisition (unconscious learning) and make the best use of the learning benefits of critical period. Rather, they are considering using an ELL's L1 or translation as an important instructional strategy to help children receive immediate/short-term learning effects.

These findings matter for teacher educators because they help us understand current teachers' perceptions on language acquisition and education practice for ELLs as a status quo for contemporary teacher education preparation. In other words, these findings help teacher educators examine their own education practice to see if they have delivered fair assessment (equity) and effective instruction (excellence) for all learners (diversity) particularly ELLs. These findings also provide an insight into understanding the continuing education concerns about disproportionality issues (children with special needs particularly ELLs being overrepresented in special education disability categories). Last but not least, these findings are served as cursors for teacher education renovation and further research.

Significance of the Study

Understanding how human perception works is important because it helps us understand how we make judgments and decisions as problem solutions. Our perceptions determine paradigm shifts for problem solutions (Kuhn, 1962; Walker & Avant, 2005). As it has been emphasized in the paper,

language learning and acquisition is a long and complex process. Without understanding how language is learned or acquired, all the decisions made for assessments, interventions, and placements can be biased and ineffective resulting in inequity, exclusion, and disproportionality. As research points out, it takes 3-5 years for ELLs to develop oral proficiency and 4-7 years to achieve academic English proficiency (Hakuta et al., 2000). Educators do need to consider both short-term and long-term learning effects when doing assessments and interventions for ELLs since ELLs are often diagnosed as having a learning disability in the process of acquiring English (Barrio, 2017; Sullivan, 2011) resulting in disproportionality issues and concerns in education. Although research has repeatedly addressed the concerns of disproportionality in education and the insufficient training of classroom teachers to deal with children with special needs particularly ELLs (Ahram et al., 2011; Barrio, 2017; Gollnick & Chinn, 2013; Tran et al., 2018), there are still not enough empirical studies addressing these issues and concerns. ELLs represent the fastest growing subgroup in the dramatic demographic school population in the U.S. in the 21st century, therefore there is a need and priority to conduct a research study to address these concerns by investigating current teachers' perceptions on second language acquisition and their education practice for ELLs. It is the purpose of this study to examine teachers' perceptions on L2 acquisition and education practice.

Based on the results of the study, there is a need to expand teachers' professional knowledge, experience, and understanding (perceptions) on language acquisition associated with critical language concepts and principles where age, time, placements/learning settings, and the critical period for language development play significant roles in affecting and determining assessments and instructional strategies (education practice). The results of the study also help teacher educators self-examine their own education practice to gauge if their teacher candidates are well prepared to appropriately and effectively deliver equity (fair assessment) and excellence (effective instruction) to include ELLs in their teaching (inclusion) and meet the needs of diverse learners (diversity). The results of the study facilitate teacher educators to take one step further to understand continuing disproportionality issues and concerns in education. They are the cursors for teacher education renovation and further research.

Further Study Recommendations

The results of the study have evidenced teachers' perceptions on second language acquisition and education practice. They are the indicators for the improvements of language instruction and placement for ELLs. The results of the L2 study have also indicated that teachers are not quite ready yet to teach English to ELLs. Providing L2 acquisition related courses as a professional training for the teachers should be recognized as a need and priority. Specific details or the exact content of teachers' professional development for ELLs and parents, such as distinguishing "language difference" from "language deficit," the current placement of ELLs, current teachers' instructional approaches and strategies for ELLs, and collaboration with ELL parents, should be further explored and investigated as future studies.

Limitations of Study

Both qualitative and quantitative data were collected from the participants through the L2 Qualtrics Survey. Due to time constraints and IRB restrictions, the sample size was limited, and the participants

were unable to be tracked down for a follow-up study in order to collect qualitative data through in-person interviews. This study used the alternative way to collect the qualitative data by asking the participants to provide the reasons in their own words in writing to further explain their ratings based on the 5-point Likert Scale for certain questions listed in the L2 Qualtrics Survey (see Appendix).

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References

- Acton, W. (1984). Changing fossilized pronunciation. *TESOL Quarterly*, 18(1), 71-85. <https://doi.org/10.2307/3586336>
- Ahram, R., Fergus, E., & Noguera, P. (2011). Addressing racial/ethnic disproportionality in special education: Case studies of suburban school districts. *Teachers College Record*, 113(10), 2233-2266. <https://doi.org/10.1177/016146811111301004>
- Alderson-Day, B., & Fernyhough, C. (2015). Inner speech: Development, cognitive function phenomenology, and neurobiology. *Psychological Bulletin*, 141(5), 931-965. <https://doi.org/10.1037/bul0000021>
- Barrera, M. (2006). Roles of definitional and assessment models in the identification of new or second language learners of English for special education. *Journal of Learning Disabilities*, 39, 142-156. <https://doi.org/10.1177/00222194060390020301>
- Barrio, B. L. (2017). Special education policy change: Addressing the disproportionality of English language learners in special education program in rural communities. *Rural Special Education Quarterly*, 36(2), 64-72. <https://doi.org/10.1177/8756870517707217>
- Bear, M. F., Connors, B. W., & Paradiso, M. A. (2007). *Neuroscience: Exploring the brain* (3rd ed.). Lippincott Williams & Wilkins.
- Beratan, G. D. (2008). The song remains the same: Transposition and the disproportionate representation of minority students in special education. *Race, Ethnicity & Education*, 11(4), 337-354. <https://doi.org/10.1080/13613320802478820>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Brown, H. D. (1980). The optimal distance model of second language acquisition. *TESOL Quarterly*, 14(2), 157-164. <https://doi.org/10.2307/3586310>

- Case, R., & Taylor, S. (2005). Language difference or learning disability? Answers from an alinguistic perspective. *The Clearing House*, 78(3), 127-130. <https://doi.org/10.3200/TCHS.78.3.127-131>
- Chen, G. M.; & Starosta, W. J. (2007). *Foundations of intercultural communication*. Shanghai Foreign Language Education.
- Chen S.J., & Chen-Worley, S. J. (2015). *Educating inclusively: Assessment & instructional strategies*. Kendall Hunt.
- Chomsky, N. (1957). *Syntactic structure*. Moulton. <https://doi.org/10.1515/9783112316009>
- Chomsky, N. (2002). *On nature and language*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511613876>
- Crain, W. (2005). *Theories of development: Concepts and applications* (5th ed.). Pearson.
- Cooter, R. B. & Reitzel, D. R. (2005). *The essentials of teaching children to read*. Pearson.
- Currarini, S.; Jackson, M. O.; & Pin, P. (2009). An economic model of friendship: Homophily, minority and segregation. *Econometrica*, 77(4), 1003-1045. <https://doi.org/10.3982/ECTA7528>
- Eberhard, D. M., Simons, G. F., & Fenning, C. D. (eds.) (2021). *Ethnologue: Languages of the world* (24th ed.). SIL International. <http://www.ethnologue.com>
- Ellis, N. C. (Ed.). (1994). *Implicit and explicit learning of languages*. Academic.
- Freeman, D. E. & Freeman Y. S. (2014). *Essential linguistics* (2nd ed.). Heinemann.
- Fernandez, N., & Inserra, A. (2013). Disproportionate classification of ESL students in U.S. special education. *TESL-EJ*, 17(2), 1-21.
- Flege, J. E. (1999). Age of learning and second-language speech. In D. P. Birdsong (Ed.), *Second language acquisition and the critical period hypothesis* (pp. 101-132). Lawrence Erlbaum.
- Gollnick, D. M., & Chinn, P. C. (2013). *Multicultural education in a pluralistic society* (9th ed.). Pearson.
- Hakuta, K; Butler, Y. G., & Witt, D. (2000). How long does it take English learner to attain proficiency? (ED443275). *ERIC*. <https://files.eric.ed.gov/fulltext/ED443275.pdf>
- Hammerly, H. (1986). *Synthesis in language teaching: An introduction to linguistics* (Vol.1). Lexcel Enterprises Incorporated.
- Hartshorne, J., Tenenbaum, J. b., & Pinker, S. (2018). A critical period for second language acquisition. Evidence from 2/3 million English speakers. *Cognition*, 177, 263-277. <https://doi.org/10.1016/j.cognition.2018.04.007>
- Hauser, M. D., Chomsky, N., & Fitch, W. T. (2002). The faculty of language: What is it, who has it, and how did it evolve? *Science*, 298(5598), 1569-1579. <https://doi.org/10.1126/science.298.5598.1569>
- Hetherington, E. M., & Parke, R. D. (1999). *Child psychology: A contemporary viewpoint* (5th ed.). McGraw-Hill.
- Hibel, J., & Jasper, A. D. (2012). Delayed special education placement for learning disabilities among children of immigrants. *Social Forces*, 91(2), 503-530. <https://doi.org/10.1093/sf/sos092>
- Hoff-Ginsberg, E. (1997). *Language development*. Brooks-Cole.
- Johnson, J. S., & Newport, E. L. (1989). Critical period effects in second language learning: The influence of maturational state on the acquisition of English as a second language. *Cognitive Psychology*, 21, 60-99. [https://doi.org/10.1016/0010-0285\(89\)90003-0](https://doi.org/10.1016/0010-0285(89)90003-0)

- Kelty, N. E. & Wakabayashi, T. (2020). Family engagement in schools: Parent, educator, and community perspectives. *SAGE Open*, 10(4), 1-13.
<https://doi.org/10.1177/2158244020973024>
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Pergamon.
- Krashen, S. (1988). *Second language acquisition and second language learning*. Prentice-Hall.
- Kuhn, T.S. (Ed.). (1962). *The structure of scientific revolutions*. University of Chicago Press.
- Kuldas, S., Ismail, H. N., Hashim, S., & Bakar, Z. A. (2013). Unconscious learning process: Mental integration of verbal and pictorial instructional materials. *Springer Plus*, 2, 105.
<https://doi.org/10.1186/2193-1801-2-105>
- Langdon, H. (1999). Foreign accent: Implications for delivery of speech and language services. *Topics in Language Disorders*, 19(4), 49-65.
- Lazarsfeld, P.F., & Merton, R. K. (1954). Friendship as a social process: A substantive and methodological analysis. In M. Berger (ed.). *Freedom and control in modern society*. Van Nostrand.
- Lenneberg, E. H. (1967). *Biological foundations of language*. Wiley.
<https://doi.org/10.1080/21548331.1967.11707799>
- Lightbown, P. M.; & Spada, N. (2013). *How languages are learned: Oxford handbook for language teachers* (4th ed.). Oxford University Press.
- Linn, D., & Hemmer, L. (2011). English language learner disproportionality in special education implications for the scholar-practitioner. *Journal of Educational research and practice*, 1(1), 70-80. Walden University. <https://doi.org/10.5590/JERAP.2011.01.1.06>
- Long, M. (1990). Maturation constraints on language development. *Studies in Second Language Acquisition*, 12, 251-285. <https://doi.org/10.1017/S0272263100009165>
- Mastropieri, M. A. & Scruggs, T. E. (2018). *The inclusive classroom: Strategies for effective differentiated instruction* (6th ed.). Pearson.
- Metsämuuronen, J. (2020). Somers' D as an alternative for the item-test and item-rest correlation coefficients in the educational measurement settings. *International Journal of Educational Methodology*, 6(1), 207-221. <https://doi.org/10.12973/ijem.6.1.207>
- Newson, R. (2008). *Identify of Somers D and the rank biserial correlation coefficient*.
<http://www.rogernewsonresources.org.uk/miscdocs/ranksum1.pdf>
- Orfield, G., & Lee, C. (2007). Historic reversals, accelerating resegregation, and the need for new integration strategies. Civil Rights Project at Harvard University.
<https://civilrightsproject.ucla.edu/research/k-12-education/integration-and-diversity/historic-reversals-accelerating-resegregation-and-the-need-for-new-integration-strategies-1/orfield-historic-reversals-accelerating.pdf>
- Paradis, M. (2004). *A neurolinguistic theory of bilingualism*. John Benjamins.
<https://doi.org/10.1075/sibil.18>
- Parke, R. & Gauvain, M. (2008). *Child psychology: A contemporary viewpoint* (7th ed.). McGraw-Hill.
- Perception. (2020). *Collins English dictionary*.
<https://www.collinsdictionary.com/us/dictionary/english/perception>
- Powell, R. A., Honey, P. L., & Symbaluk, D. G. (2016). *Introduction to learning and behavior*. Cengage Learning.
- ProximityOne. (2022). *English language proficiency & language spoken at home*.
<http://proximityone.com/elp.htm>

- Rice, D. C. (2002). Using trade books in teaching elementary science: Facts and fallacies: Valuable addition to the science curriculum if teachers know how to select good ones. *The Reading Teacher*, 55(6), 552-565. <https://www.jstor.org/stable/20205097>
- Richards, J. C. & Rogers, T. S. (2014). *Approaches and methods in language teaching* (3rd ed.). Cambridge University Press.
- Sang, Y. (2017). A conceptual review of age effect on L2 acquisition. *Journal of Education and Practice*, 8(9), 1-4.
- Schmidt, R. (1990). The role of consciousness. *Applied Linguistics in Second Language Learning*, 11, 129-158. <https://doi.org/10.1093/applin/11.2.129>
- Schmidt, R. (2001). Attention. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 3-32). Cambridge University Press. <https://doi.org/10.1017/CBO9781139524780.003>
- Singleton, D. (2003). Critical period or general age factor(s)? In M. P. Garcia Mayo & M. L. Garcia Lecumberri (Eds.), *Age and the acquisition of English as a foreign language* (pp. 3 - 22). Multilingual Matters. <https://doi.org/10.21832/9781853596407-002>
- Skinner, B. F. (1957). *Verbal behavior*. Prentice Hall. <https://doi.org/10.1037/11256-000>
- Smith, P. K., Cowie, H., & Blades, M. (2003). *Understanding children's development*. Blackwell.
- Somers, R. H. (1962). A new asymmetric measure of association for ordinal variables. *American Sociological Review*, 27(6), 799-811. <https://doi.org/10.2307/2090408>
- Sullivan, A. L. (2011). Disproportionality in special education identification and placement of English Language Learners. *Exceptional Children*, 77(3), 317-334. <https://doi.org/10.1177/001440291107700304>
- Thomason, B., Brown, C. L., & Ward, N. (2017). Rigor or restriction: Examining close reading with high school English language learners. *TESOL Journal*, 8(4), 969-994. <https://doi.org/10.1002/tesj.308>
- Tran, L. M.; Patton, J. R.; & Brohammer, M. (2018). Preparing educators for developing culturally and linguistically responsive IEPs. *Teacher Education and Special Education*, 41(3), 229-242. <https://doi.org/10.1177/0888406418772079>
- Ullman, M. (2001). The neural basis of lexicon and grammar in first and second language: The declarative/procedural model. *Bilingualism: Language & Cognition*, 4(2), 105-22. <https://doi.org/10.1017/S1366728901000220>
- University of Southampton. (2022, March 10). Bivariate analysis: Crosstabs. *Practical applications of statistics in the social sciences*. https://www.southampton.ac.uk/passs/full_time_education.bivariate_analysis/crosstabs.page
- Unlu, A. (2015). How alert should I be to learn a language? The noticing hypothesis and its implications for language teaching. *Social and Behavioral Sciences*, 199, 261-267. <https://doi.org/10.1016/j.sbspro.2015.07.515>
- U.S. Census Bureau. (2010). *Language use in the United States: 2007*. Author. <https://www2.census.gov/library/publications/2010/acs/acs-12/acs-12.pdf>
- Vygotsky, L. S. (1986). *Thought and language* (A. Kozulin, Trans.). MIT Press. (Original work published 1934)
- Walker, L.O., & Avant, K.C. (2005). *Strategies for theory construction in nursing* (4th ed.). Pearson/Prentice Hall.
- Washburn, G. N. (2008). Alone, confused, and frustrated: Developing empathy and strategies for working with English language learners. *Clearing House*, 81(6), 247-250. <https://doi.org/10.3200/TCHS.81.6.247-250>

Zimmerman, L. W. (2008). Teaching bilingual students with special needs: A teacher training issue. *Journal on Educational Psychology, 2*(2), 21-25. <https://doi.org/10.26634/jpsy.2.2.339>

Appendix

Language Acquisition Survey

A. Experience

1. Have you taken any class in Second Language Acquisition (SLA)?

Yes ___ No ___

a. in the graduate level? If yes, what's the course title? _____

b. in the undergraduate level? If yes, what's the course title? _____

2. Do you have a second language (L2) learning experience?

Yes ___ No ___

3. Do you have teaching experience with English language learners (ELLs)?

Yes ___ No ___

4. I find it difficult/challenging to teach English to ELLs.

1 2 3 4 5

Why so, please explain. _____

5. I find it difficult/challenging to work with the parents of ELLs.

1 2 3 4 5

Why so, please explain. _____

B. Knowledge

6. I understand how a second language (L2) is acquired.

1 2 3 4 5

7. I believe there is a critical period (a period where an individual learns fast and best) for language development.

Yes ___ (Explain by using the following space and continue Question 8)

No ___ (Explain by using the following space and skip Question 8)

Not sure ___ (Explain by using the following space and skip Question 8)

8. It is important to understand the concept of the critical period for language development in order to help ELLs learn English.

1 2 3 4 5

9. I think both adult ELLs and children ELLs learn English in the same way

1 2 3 4 5

Please explain why so? _____

10. Doing translation for ELLs or using the ELL's native language - L1 for academic instruction is very helpful for young children in the English learning process.
1 2 3 4 5
11. As a teacher (to be), I think learning an ELL's first language (L1) can help an ELL learn English.
1 2 3 4 5
12. As a teacher (to be), I think learning an ELL's culture can help an ELL learn English.
1 2 3 4 5
13. I think ELLs benefit most from English learning in the general/inclusive education setting.
1 2 3 4 5
14. I think ELLs benefit most from English learning in the special education setting.
1 2 3 4 5
15. I think ELLs benefit most from English learning in the ELL self-contained classrooms.
1 2 3 4 5
16. An ELL's difficulty in learning English is due to learning disabilities.
1 2 3 4 5
17. An ELL's difficulty in learning English is due to language deficiencies.
1 2 3 4 5
18. An ELL's difficulty in learning English is due to language disorders.
1 2 3 4 5
19. An ELL's difficulty in learning English is due to different language systems.
1 2 3 4 5
20. An ELL's difficulty in learning English is due to cultural differences.
1 2 3 4 5
21. An ELL's difficulty in learning English is due to different learning abilities.
1 2 3 4 5

- 1 = Strongly Disagree
2 = Disagree
3 = Not Sure
4 = Agree
5 = Strongly Agree