# The Role of Linguistics in Second Language Classrooms

## **Liang-Chen Lin**

Texas A&M University-Kingsville MSC 196, 700 University Blvd, Kingsville TX 78363-8202, U.S.A.

#### **Abstract**

To begin with a broad understanding of the diversity in 21st-century classrooms is the best first step for educators prior to working with students from varied backgrounds. Resting on the central premise that language diversity is the norm in second language classrooms, this article is intended to explore the role of linguistics in second language classrooms. Focusing on first and second language acquisition, this article provides a deep look at useful information with regard to what second language classroom teachers need to know about linguistics. This article breaks down discussion sections into six major topics that generally address theories of first language and second language acquisition, as well as explain factors affecting second language acquisition. Each section covers key knowledge that would definitely expose elementary teachers and school administrators to the relevance of topics concerning the role of linguistics in second language classrooms.

**Keywords:** ELLs, first language, second language acquisition, SLA, linguistics

#### 1. Introduction

Genishi and Dyson (2009) highlight that 21st-century early childhood classrooms are rooted in cultural, linguistic, and educational diversity so that teachers' pedagogies no longer connect with "one-size-fit-all" activities (Genishi & Dyson, 2009, p. 5), but connect with flexible curricula to foreground children's "normalcy of diversity" (Genishi & Dyson, 2009, p. 13). In particular, second language classroom teachers should be able to recognize what students they have faced and what problems the students have met in second language classrooms.

In addition, to understand language diversity in second language classrooms, relative research indicates the significance of the background knowledge of linguistics regarding the phonology, morphology, and syntax. First, the phonology knowledge is related to how people produce a language through understanding phonology and phonemes. Phonology refers to "the study of speech sounds;" while, phonemes refers to "the meaningful sounds of a language" (Freeman & Freeman, 2004, p. 71). For instance, in English, the words *pan* and *ban* are viewed as "minimal pairs" because they only differ by one phoneme: "p" and "b" (Freeman & Freeman, 2004, p. 71).

Second, the morphology knowledge explores how words are formed, particularly showing information about morphemes that refer to smaller parts of a word (Freeman & Freeman, 2004). For example, "inflectional morphemes" do not change a word's meaning (Freeman & Freeman, 2004). The word *cats* has a morpheme "cat" carrying a plural "-s" without changing its meaning. Third, the syntax knowledge presents how sentences are formed through probing into the "syntactic structure" which is called "syntax" (Freeman & Freeman, 2004). For example, the simple sentence "students run" includes a subject (noun) "students" and a predicate (verb) "run."

In a word, teachers should have knowledge of linguistics so that they can make themselves more aware of linguistic differences that their students bring to the classroom, thus designing an effective approach to help their students for learning. This article is therefore intended to explore the role of linguistics in second language classrooms. To achieve the above purpose, this article presents a brief theoretical overview for answering the inquiry question: What do second language classroom teachers need to know about the role of linguistics in second language classrooms?

#### 2. Discussion

As suggested in the introduction, the inquiry question guiding this article was: "What do second language classroom teachers need to know about the role of linguistics in second language classrooms?"

In order to orientate reading audience to the themes and purpose of this article, this section delineates key topics: first language acquisition, second language acquisition, the impact of first language on second language acquisition, affective factors on second language acquisition, and the impact of learning strategies on second language acquisition. This section appropriately answers the inquiry question by discussing the overall background knowledge of linguistics and its role in second language classrooms.

### 2.1 First Language Acquisition

First section centers on the essential ground: how first language is learned. Second language classroom teachers should learn the knowledge of first language acquisition (FLA) in order to perceive the problems that ELLs meet in learning a second language (L2). This section describes some of the research on first language that has influenced second language acquisition. First language (L1) refers to the language which is acquired during early childhood and considered as home language (Saville-Troike, 2007). Throughout this section, three theoretical perspectives relevant to FLA are introduced respectively. Overall, this section functions as a useful tool for teachers to gain the access to an extensive discussion of FLA theories.

First, the best-known behaviorist B. F. Skinner (1957) proposes the behaviorist perspective that regards imitation and practice as the main processes in children's language development (as cited in Lightbown & Spada, 2006, p. 10). He addresses that children imitate the language produced by those around them. He also believes that if a behavior is reinforced, it is apt to be repeated. More precisely, "the child initiates the behavior, and factors in the environment either reward or punish his/her behavior" (as cited in Lightbown & Spada, 2006, p. 10). Reinforcement of a behavior can be accomplished with positive reinforcement or negative reinforcement (Lightbown & Spada, 2006). Therefore, any encouragement to a child indeed reinforces the stimulus and this stimulus has the positive effect of increasing the behavior that takes place prior to the reinforcer (Lightbown & Spada, 2006).

Second theory pertains to innatist perspective addressed by the greatest linguist Noam Chomsky (1959). Challenging the behaviorist explanation for language acquisition, his Nativist Theory (1959) highlights that a child is born with an innate ability to learn language. Noam Chomsky (1959) suggests that a child has the "Universal Grammar" in his/her brain; that is, a child is born with a set of rules about language in his/her heads (as cited in Lightbown & Spada, 2006, p. 10). Rather, a child knows intuitively that some words are used as verbs, nouns, or the phrase. "Children do not simply copy the language that they hear around them or learn a repertoire of phrases and sayings" but do deduce the grammatical rules from it to generate the infinity of new sentences (as cited in Lightbown & Spada, 2006, p. 10).

Third theory is associated with interactionist perspective that children's innate learning ability and the environment in which they develop devote to language acquisition (Lightbown & Spada, 2006). Jean Piaget (1951) and Lev Vygotsky (1978) propose cognitive development theories. Piaget (1951) states that children learn languages through interacting with objects and people. Likewise, Vygotsky (1978) poses that language develops through social interaction. In spite of some differences, their theories contribute to developmental perspective, namely learning from both inside and outside.

#### 2.2 Second Language Acquisition

Second language acquisition (SLA) refers to individual's learning another language following first language acquired already (Gass & Selinker, 2008; Saville-Troike, 2007). When it comes to teaching in second language classrooms, teachers and school administrators are supposed to incorporate the knowledge of SLA that will better prepare them to be linguistically responsive (Lucas, Villegas, & Freedson-Gonzalez, 2008). Based on theories of first language acquisition presented in first section, this section introduces theories of SLA, providing a thorough analysis on the Behaviorism, Monitor Model, and Nativist Theory, followed by cognitive/developmental perspective and sociocultural perspective.

First, applying the behaviorist perspective to SLA, Nelson Brook (1960) and Robert Lado (1964) stress "mimicry and memorization" (as cited in Lightbown & Spada, 2006, p. 34). Another theory influenced by the Behaviorism is Contrastive Analysis Hypothesis (CAH) that explains problems learners encounter while comparing the structural differences and similarities of their L1 and L2 (Gass & Selinker, 2008; Lightbown & Spada, 2006; Saville-Troike, 2007). It also claims that language is developed with habits (Gass & Selinker, 2008).

Second, Monitor Model by Stephen Krashen (1982) is another model of SLA. His model includes five major hypotheses: "the acquisition-learning hypothesis, the monitor hypothesis, the natural order hypothesis, the input hypothesis, and the affective filter hypothesis" (as cited in Lightbown & Spada, 2006). According to Krashen's (1982, 1985, 1985) input hypothesis, SLA can take place when the amount of one-way comprehensible input is received. More precisely, a language learner acquires the linguistic competence from the current level "i" to the next level "i+1" with the added help along the development continuum (Krashen, 1982, 1985, 1985). In other words, SLA can be reached at a higher level through the additional assistance derived from sufficient comprehensible input. Obviously, a teacher should provide students with comprehensible input through effective activities in second language classrooms.

Third, with the basis of Nativist Theory, Noam Chomsky (1959) posts the principles of "Universal Grammar." He emphasizes that language is an innate faculty. Specifically, his Critical Period Hypothesis (CPH) points out that it is more difficult or impossible for children to acquire languages beyond their critical period of language development (Lightbown & Spada, 2006). Some researchers doubt that this innate ability in SLA still exists beyond the critical period (Saville-Troike, 2007). However, Ostwald and Williams' (1981) research regarding "aging and learning ability" unfolds that "if older people remain healthy, their intellectual abilities and skills do not decline" (as cited in Schleppegrell, 1987, para. 4).

Other theories include cognitive/developmental perspective and sociocultural perspective. In the light of cognitive/developmental perspective introduced in the last section, connectionists, for example, believe that SLA happens when learners expose to the environment in which brings the input of linguistic features to them (Lightbown & Spada, 2006). Similarly, sociocultural perspective reveals that learners acquire L2 by interacting with other speakers (Saville-Troike, 2007).

### 2.3 The Impact of First Language on Second Language Acquisition

Undoubtedly, a learner's performance on learning a second language is influenced by the first language (Bhela, 1999; Lightbown & Spada, 2006). Teachers thus should develop the awareness on students' diversity, further gaining insights into linguistic variations that ELLs bring to classrooms. Given that first language interference affects SLA (Bhela, 1999; Lightbown & Spada, 2006), this section attempts to uncover its linguistic impact on SLA through delineating the dimensions of phonology, morphology, and syntax, respectively followed by examples.

First, the dimension of phonology explicitly presents ELLs' major sounds of misarticulation and phonological factors resulting in their foreign accents. Chinese language lacks the sounds  $/\theta/$  and  $/\theta/$  and  $/\theta/$  for example, Chinese speakers therefore pronounce the sounds /s/ and /z/ for the sounds  $/\theta/$  and  $/\theta/$  (Gao, 2005). Rather, Chinese speakers usually have a Chinese-English accent when pronouncing some English words, such as the word "*teeth*" sounds like "*tees*," and the word "*though*" sounds like "*so*." Also, Spanish speakers are easy to be misunderstood while speaking English due to their different phonetic systems causing non-native accents. For instance, the English consonant  $/\theta/$  in the word "*thin*" sounds like "*tin*;" /z/ in the word "*lazy*" sounds like "*lacy*." Overall, the exploration of nonstandardized English phonetic sounds will help educators build awareness of pronunciation variations facing ELLs.

First language interference also reacts upon morphology of SLA. For instance, in English the /-ed/ suffix is added to a word for forming the simple past tense while in Chinese an adverb is used to indicate the past tense without any additional "marker" on a word (Aronnoff & Fudeman, 2011). Therefore, Chinese speakers are easy to neglect to add /-ed/ on a simple past tense verb no matter in the production of English speaking or writing. In English, the verb "walked" is formed by adding the suffix /-ed/ to indicate the past tense in the sentence "yesterday she walked." However, in Chinese, the adverb "yesterday" has already indicated a past tense sentence. As such, Chinese speakers would write or say the sentence "yesterday she walk (zuótiān tā zŏulù)" without adding or pronouncing any past tense marker to a verb.

In addition, first language interference results in syntactic errors. For instance, Spanish speakers learning English make mistakes on the word order being that they are accustomed to placing the words (nouns or adjectives) at the end of English sentences or phrases (Freiberg, Sondag, & Thormann, 2013). Spanish speakers might make an error and say "house white (casa Blanca)" when trying to indicate "white house (blanca casa)." Also they might say "is pretty the girl (es bonita esta chica)" when referring to the English sentence "the girl is pretty (esta chica es bonita)."

Overall, the aforementioned discussions point out the impact of first language on SLA through taking an in-depth look at the differences of linguistic patterns between standardized English and languages other than English.

### 2.4 The Age Factor on Second Language Acquisition

The age did impact learning a second language (Baker, 2010; Lightbrown & Spada, 2006; Singleton, 2003; Singleton & Ryan, 2004). Some research indicate that an early age helps second language learning to be achieved at a higher level of proficiency; still, some believe that older learners tend to learn a second language more effectively (Baker, 2010). Apparently, age is an influential factor on SLA. This section therefore turns to examining the impact of age on SLA by the exploration of relevant topics: Critical Period Hypothesis (CPH) and children vs. adult second language learners.

Noam Chomsky's (1959) "Critical Period Hypothesis" (CPH) claims that the first few years in a person's life are the "crucial time" for individuals to acquire a first language (as cited in Lightbown & Spada, 2006, p. 68). Beyond the critical period, it is either difficult or impossible to acquire a language (as cited in Lightbown & Spada, 2006, p. 68). A second language learner still has abilities to take up linguistic data and manage to build up his/her language system during the early years and till his/her puberty (Lightbown & Spada, 2006). A learner's capacity for learning is at its extreme and his/her minds have no barrier (Lightbown & Spada, 2006). Once that particular period ends, "the receptivity to language" appears to be at a descending level (Lightbown & Spada, 2006, p. 68). It is apparent that children are likely to acquire a second language more successful than older learners (Baker, 2010).

However, Ostwald and Williams' (1981) research on "aging and learning ability" holds a different argument (as cited in Schleppegrell, 1987, para. 4). They demonstrate that the abilities of learning a second language do not decline with age (as cited in Schleppegrell, 1987, para. 4). Despite their argument, most of research highlight that learners are preprogrammed to acquire mother languages they are sufficiently exposed to before puberty. By "listening and discerning" meanings from what children have heard, "they quickly pick up passive language skills, and acquire first languages at a break-neck pace so that they speak their native languages with full native fluency" eventually (as cited in Schleppegrell, 1987, para. 4). As a whole, this section presents the importance of age, and that would encourage teachers to expose their students to authentic discourse as much as possible.

# 2.5 Affective Factors on Second Language Acquisition

In addition to the factor of age and first language interference mentioned in the last two sections, affective factors on SLA are discussed in this section. With a basis of Krashen's (1985) affective filter hypothesis, this section explores factors relating to a learner's confidence, motivation, and anxiety. Based on research and analysis in this section, elementary teachers are able to determine the curriculum design and classroom activities that appropriately conform to ELLs' diversity.

Based on Krashen's (1985) "affective filter hypothesis," SLA can be affected by the affective variables: "self-confidence, motivation, and anxiety" (as cited in Lightbrown & Spada, 2006, p. 37). That is to say, low motivation, low self-esteem, and anxiety prevent learners from acquiring a second language (Krashen, 1985). More precisely, a successful language learner is the one who has a strong motive for SLA and actively engages in a target-language learning situation. Such a learner is more likely to end up having high confidence in learning another language and increasing the level of achievement on SLA, particularly when learning in a classroom climate where learners feel comfortable psychologically and are willing to practice speaking with others. Indeed, these factors are influential in learning a second language, either bringing positive outcomes to a student or interfering a student's learning progress.

Specifically, Saville-Troike (2007) also asserts the significance of "individual motivation" on SLA, mainly focusing on two types: "integrative motivation" and "instrumental motivation" (p. 86). "Integrative motivation" is associated with a learner's desire or intention on SLA (Saville-Troike, 2007, p. 86). To be more specific, when a learner shows a strong interest in learning a second language, the final outcomes are largely positive, and even reaching a greater level of language proficiency. Likewise, "instrumental motivation" also benefits a learner's SLA owing to various needs, such as business purposes, higher social status, or academic requirement (Saville-Troike, 2007, p. 86).

Still, anxiety aligns with low intention on SLA (Saville-Troike, 2007). Low anxiety promotes self-confidence, thus facilitating learning another language (Saville-Troike, 2007). Shams's (2008) research also indicates that the level of language "classroom anxiety" did affect students' language performance.

Clearly, anxiety functions as a key factor on SLA for the reason that students hold great communicative strategies when learning a second language in a relaxed-condition language class (Horwitz, Horwitz, & Cope, 1986). In a word, synthesizing many affective factors learners might have with them while acquiring a second language, this section expects to give teachers a further understanding of how to instruct ELLs with various traits on SLA.

### 2.6 The Impact of Learning Strategies on Second Language Acquisition

Students' language learning strategies affect differential learning outcome in SLA (Levine & McCloskey, 2009; Saville-Troike, 2007). Understanding students' learning strategies can help educators be aware of the diversity of students and challenges that students encounter in U.S. schools. Hence, this section attempts to present the information regarding ELLs' learning strategies in second language classrooms.

Just as Howard (2006) states that "we can't teach what we don't know," it appears necessary to better understand diverse students through gaining insights into their differences on SLA. Learners' varied learning strategies could bring positive impact to SLA. Levine and McCloskey (2009) unfold that appropriate and effective strategies allow learners to develop and expand language beyond classrooms. These strategies include "observable behaviors, steps, or techniques," such as "reading strategy, nonobservable thoughts, or mental practices, such as visualization or positive thinking" (Levine & McCloskey, 2009, p. 29).

O'Malley and Chamot (1990) also reveal that learners' "metacognitive," "cognitive," and "social/affective" strategies help them control their own language learning (as cited in Saville-Troike, 2007, p. 91). First, "Metacognitive strategies" are in regard to plan and monitor language learning (as cited in Saville-Troike, 2007, p. 91). Second, "cognitive strategies" benefit learners by the ability to analyze and synthesize content areas related to linguistic diversity (as cited in Saville-Troike, 2007, p. 92). Third, "social/affective strategies" refer to the engagement of language communication and interaction (as cited in Saville-Troike, 2007, p. 92).

In addition, Khamkhien's (2010) study examines three factors affecting language learning strategies of Thai and Vietnamese students. The findings attempt to provide an overall analysis for teachers to realize students' different learning strategies so that they know how to improve ESL students' academic outcomes in English learning. Three factors are "gender, motivation," and English learning experience; six categories of learning strategies consist of "memory," "compensation," "cognitive," "metacognitive," "affective," and "social categories" (Khamkhien, 2010, p. 73). The findings reveal that students' motivation and learning experience have great relationship with their learning strategies. This study suggests that teachers should be aware of students' learning strategies with a consideration on their motivation and experience in language learning, thus designing useful classroom activities that accommodate to their diverse needs.

To sum up, with the awareness on a variety of learning strategies, this section provides greater understanding concerning rich diversity of ELL students. Specifically, teachers are likely to gain insights into students' various language learning strategies, thus further coming up with ideas about how to design linguistically useful teaching strategies to help students in oral reading and conversation of second language classrooms.

#### 3. Conclusion

This article was intended to explore the role of linguistics in second language classrooms. To achieve the above scholastic objective, this article presented a brief theoretical overview for answering the inquiry question: What do second language classroom teachers need to know about the role of linguistics in second language classrooms? Based on the purpose and inquiry question of this article, six key topics discussed included: first language acquisition, second language acquisition, the impact of first language on second language acquisition, the age factor on second language acquisition, affective factors on second language acquisition, and the impact of learning strategies on second language acquisition.

Learning happens in where meaningful input and interactive process exist. It is, clearly, that students' involvement in SLA has a great impact on learning no matter inside or outside the classroom. Accordingly, this article is laid a foundation of helping ELL students to reach a meaningful learning through interaction and collaboration in the classroom with a supportive setting in which students are strongly fascinate with the unique approach to the development of English language skills. Hopefully, this article can appropriately encourage teachers to navigate this endless work in an effort to integrate knowledge of linguistics into the classrooms for guiding ELL students to have fun in the language learning process. Given its information, this article should be of value to all elementary teachers and school administrators.

#### 4. References

- Aronnoff, M., & Fudeman, K. (2011). What is morphology. (2nd ed.). Oxford, U.K.: Blackwell Publishing Ltd.
- Baker, C. (2010). Foundations of bilingual education and bilingualism. (4th ed.). Tonawanda, NY: Multilingual Matters.
- Bhela, B. (1999). Native language interference in learning a second language: Exploratory case studies of native language interference with target language usage. *International Education Journal*, 1(1), 22-31.
- Chomsky, N. (1959). Review of Skinner's Verbal Behavior. Language, 35(1), 26-58.
- Freeman. D. E., & Freeman, Y. S. (2004). Essential linguistics: What you need to know to teach reading, ESL, spelling, phonics, and grammar. Portsmouth, NH: Heinemann.
- Freiberg, C., Sondag, S. K., & Thormann, S. (2013). *Speech and language assessment: linguistically culturally diverse: Spanish speaking*. Madison, WI: Wisconsin Department of Public Instruction.
- Gao, L. (2005). Pronunciation difficulties analysis: A case study-using native language linguistic background to understand a Chinese English learner's pronunciation problems. *Celea Journal*, 28(2), 76-84.
- Gass, S. M., & Selinker, L. (2008). *Second language acquisition: An introductory course*. (3rd ed.). New York, NY: Taylor & Francis Group.
- Genishi, C., & Dyson, A. H. (2009). *Children, language, and literacy: Diverse learners in diverse times*. New York, NY: Teachers College Press.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125-132.
- Khamkhien, A. (2010). Factors affecting language learning strategies reported usage by Thai and Vietnamese EFL learners. *Electronic Journal of Foreign Language Teaching*, 7(1), 66-85.
- Krashen, S. (1982), Principles and Practice in Second Language Acquisition. Elmsford, NY: Pergamon Press Inc.
- Krashen, S. (1985). The Input Hypothesis: Issues and Implications. New York, NY: Longman.
- Krashen, S. (1985). Language Acquisition and Language Education. San Francisco, CA: Alemany Press.
- Levine, L. N., & McCloskey, M. (2009). *Teaching learners of English in mainstream classrooms (K-8): One class, many paths.* Boston, MA: Pearson Education.
- Lightbrown, P., & Spada, N. (2006). *How languages are learned* (3rd ed.). New York, NY: Oxford University Press.
- Lucas, T., Villegas, A. M., & Freedson-Gonzalez, M. (2008). Linguistically responsive teacher education: preparing classroom teachers to teach English language learners. *Journal of Teacher Education*, 59(4), 361-373.
- Piaget, J. (1951). Play dreams, and imitation in childhood. New York, NY: Norton.
- Saville-Troike, M. (2007). Introducing second language acquisition. New York, NY: Cambridge University Press.
- Schleppegrell, M. (1987). Age and language learning. In ERIC Clearinghouse on Languages and Linguistics Washington DC. Retrieved from http://www.language-learning-advisor.com/age-and-language-learning.html
- Shams, M. (2008). Students' attitudes, motivation and anxiety towards English language learning. *Journal of Research and Reflections in Education*, 2(2), 121-144.
- Singleton, D. (2003). Critical period or general age factor(s)? In M. Mayo & M. Lecumberri (eds.), *Age and the acquisition of English as a foreign language*. Clevedon, NY: Multilingual Matters.
- Singleton, D., & Ryan, L. (2004). *Language acquisition: The age factor*. (2nd ed.). Clevedon, NY: Multilingual Matters.
- Vygotsky, L. S. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.