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Encouraging Second Language Learning in United States Schools

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Encouraging Second Language Learning in United States Schools

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Human Services and Rehabilitation Studies

A Thesis Submitted to Fulfill the Requirements of the
Honors Program at Assumption University

Spring 2022

Abstract:

This thesis strives to provide information regarding the most evidence-based techniques regarding foreign language learning. It focuses on schools in the United States, as studies have shown that compared to the rest of the world, U.S. students are far less proficient in languages other than English. To begin, there is an overview of the basics of primary language development critical periods and milestones. The current standards for foreign language education in the United States are also reviewed, as to make a comparison to the poor correlation of when a child's brain is apt for learning languages versus when the majority of students in the United States begin their foreign language courses. Chapter 1 provides reviews of three studies that support the idea that the most ideal time to learn language is as a child during the critical period of language acquisition. Chapter 2 enforces, however, that one does not lose the ability to learn language once past the critical period, and that with effective teaching methods it is still quite possible to acquire a second language. Finally, Chapter 3 analyzes the significance of motivation in language learning and the lack thereof in the United States. Conclusions of this thesis include the importance of exposure to language early in life, the importance of effective teaching methods, the role of necessity as motivation, and that further research on this topic is required.

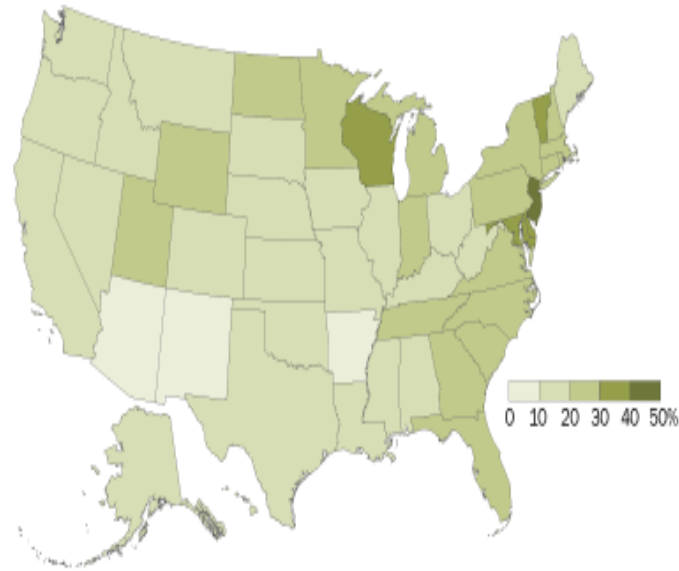
Introduction

Language is one of the most essential and complex tools of communication used every day. It is the foundation of human interaction, and people rarely stop to think about everything that goes into speaking and understanding a language. In normally developing children, language is acquired in a seemingly simple process, but the science behind it is not simple in the least. To successfully speak a language one must master various expressive and receptive language skills.

The different aspects of any language can be divided into five rule systems; phonology, morphology, syntax, semantics and pragmatics. One must master each of these systems in order to be fluent in a language. The American Speech-language and Hearing Association (ASHA) defines the five rule systems as follows; phonology refers to the rules that govern the speech sounds, called phonemes, of a language and includes the rules for combining phonemes together. Morphology is the system that governs how phonemes are combined to create morphemes; the smallest units of meaning in a language which can cause significant changes in the meaning of a word. The rule system of syntax pertains to how words are sequenced to create logical sentences. Semantics refers to vocabulary and the meaning of words individually and in combination with each other. Lastly, pragmatics defines the rules of using language in conversations and other social situations (*Language in Brief*, n.d.). When one is learning their native language their progress is tracked through observation of their developmental milestones, which are specific skills expected to be achieved during various critical periods (Mohammed, 2020). A critical period is a restricted period when the nervous system is especially sensitive to developmental experiences, such as exposure to language (Purves et al., 2001). The general critical period for language acquisition is generally about 7-8 years of age, although each rule system has its own specific period. The science behind the normal development of a primary language might provide insight into problems with the way the United States public schools conduct foreign language education. The majority of schools do not start foreign language teaching until high school, and even then it is not always required. Out of the 50 states (See Figure 1), 21 do not even have a foreign language requirement for graduation (O'Rourke et al., 2016).

Few U.S. students learn a foreign language in school

% of students K-12 in each state who are studying a foreign language



Source: Data from American Councils for International Education June 2017 report, "The National K-12 Foreign Language Enrollment Survey Report."

Pew Research Center 

Figure 1, (Devlin, n.d.)

Unfortunately, not starting language education until high school is far past the prime period for language acquisition. As the world continues to become more globalized the necessity for bilingual and multilingual individuals only increases, and yet foreign language learning in the United States continues to be unsuccessful for the majority of students. Learning an additional language has many benefits both personal and professional that many students are missing the opportunity to develop as a result of inadequate teaching methods and untimely education. The evidence supporting the success of language development during the critical period of language acquisition supports the importance of changing the typical practices of foreign language education in the public schools of the United States. At the same time, it is important to recognize that the overlapping time between the critical period and time in school is slim, and as

a result special attention must be paid to the methods used to teach languages in order to continue to cultivate language skills after the critical period has passed.

The foundation to the idea that timing has a significant effect on the success of foreign language teaching comes from the fundamentals of language development. Language skills are categorized into two main categories; receptive and expressive. Receptive skills refer to one's ability to understand language and includes skills such as listening comprehension and reading comprehension. Expressive skills have to do with how one can express their thoughts, ideas and desires, and their ability to respond appropriately based on how they comprehend another's language by using their own receptive skills. Expressive skills include speaking and writing skills (*Language in Brief*, n.d.). It is important to note that language development involves skills in both spoken language as well as written language. Furthermore, as aforementioned, these skills can be further broken down into the five language rule systems. Although they tend to go unnoticed, each person uses these systems everyday to effectively communicate.

Phonology is used everyday to distinguish different words from one another. For example, using phonological awareness and auditory discrimination skills it is possible to hear the difference between "walk" and "talk". Using phonological skills one can tell the difference between these words. Similar to phonology, morphology helps people understand the meaning of words based on the use of morphemes. For example, the suffix "ed" is a morpheme that usually indicates that an action has taken place in the past. If "ed" were added to the word "walk" it would turn into "walked", and using morphology a person would understand that the action took place in the past. Syntax is used in everyday language to ensure that the words in a sentence are ordered correctly. Instead of saying "like I walks long", syntax ensures the correct sequencing: "I like long walks". The area of semantics focuses on vocabulary and word meaning. It helps

individuals distinguish homophones, words that sound the same but have different meanings like “flour” and “flower”. Finally, pragmatics governs the rules of language use in social situations such as turn taking in a conversation and body language. (*Language in Brief*, n.d.)

Understanding which aspects of language fall into which category, it is possible to acknowledge various developmental milestones of each language rule system that are met during the critical period for language acquisition, and which skills must be obtained in order to learn an additional language. Developmental milestones are essential to analyzing a child’s development and ensuring that they’re developing normally. If there are any delays, intervening as soon as possible is crucial to prevent any long-term deficits. Developmental milestones can be defined as “a set of functional skills or age-specific tasks that most children can do at a certain age range,” (Mohammed, 2020, p.1). There are many examples of milestones in the category of speech and language, and each language rule system contains its own set of milestones that represent significant achievements in development. A developmental milestone achieved around two years of age is that a child can recognize the names of familiar objects, body parts and people. This shows an increase in understanding of vocabulary and is therefore a semantic milestone (*Developmental Milestones*, n.d.). In terms of pragmatic milestones, at five years of age a child should be displaying social behaviors such as being able to take charge when playing with others, but also be able to cooperate. Being able to interact with other children in these ways are important milestones. A child of this age should also have reached the milestone of being able to speak in sentences of more than five words. This shows increased skills in grammar and word sequencing which fall under the system of syntax. A child at this age should also be able to speak using the future tense displaying increased development in morphology (*Developmental Milestones*, n.d.). Finally, an example of a phonological milestone is how at six months of age a

child should be able to string different vowel sounds (“ah”, “oh”, “eh”,) together, and should be starting to produce the “m” and “b” sounds when babbling (CDC, 2020). Babbling is a type of prelinguistic vocalization, a precursor to language where a child practices the speech sounds that make up a language. These are only a small number of the milestones of speech and language skills that are required to successfully acquire language. To better understand the significance of developmental milestones, it is important to understand their relationship to critical periods.

As mentioned previously, a critical period is a “restricted developmental period during which the nervous system is particularly sensitive to the effects of experience,” (Purves et al., 2001, p.1). For language development the experience children need is simply to be exposed to language. Each of the five language rule systems have their own critical periods, and these are when the aforementioned developmental milestones are expected to be developed. By just five years of age, the majority of a child’s syntactical, phonological and morphological skills in their native language are developed. Pragmatics, the rule system that consists of social skills, are skills that develop throughout the course of one’s life. However, major developments are seen in pragmatics throughout early childhood such as basic turn taking, conversation skills and basic gesturing. Similarly, semantic skills continue to grow throughout the lifespan, but early exposure to language from birth to three years acts as the setting stage for a strong vocabulary (Hart & Risley, 2003).

The Hart and Risley study focused on vocabulary development within the first three years of life. The study was conducted by having monthly hour-long observations of 42 families and their children from the time the child was seven months old to three years old. In addition to observing differences in semantic ability between children of differing socio-economic statuses, an overarching theme was that the more exposure to language experienced as a child the stronger

the vocabulary development throughout the child's life. The results of the study show that 86% to 98% of words the child used were the same as the words they heard used by the parents. The researchers determined that the "measures of accomplishment at age three were highly indicative of performance at the ages of nine and ten on various vocabulary, language development, and reading comprehension measures," (Hart & Risley, 2003, p.3). Clearly, the foundation for vocabulary at age three correlates to a child's language ability in the future. While this study focuses on learning the primary language, it draws a parallel to the learning of a second language. One can hypothesize that because the brain is hard wired for learning language early in life, that learning a second language would come more naturally if it was introduced during this same critical period. This supports that exposure to foreign languages at a young age significantly helps children acquire an additional language, because their brains are simply more apt to learn vocabulary at this point in their lives. Understanding that each language rule system has a critical period in which exposure to language is essential for the best possible development of skills, it is possible to estimate that these same principles apply to the process of acquiring proficiency in a second language.

In Prioritization of K-12 World Language Education in the United States: State Requirements for High School Graduation, O'Rourke et al. describes how foreign language education is not designed in a manner that sets students up for a successful language learning experience. Knowing that one is able to learn a language more successfully at a younger age as a result of the already described critical periods, and seeing that in United States public schools foreign language education does not tend to start until high school is problematic. This study found that there has been a steady decline in the amount of K-12 students enrolled in a foreign language class. In fact, "during the 2007-2008 school year, only 18.5% of all K-12 public school

students were enrolled in a foreign language course,” (O’Rourke et al., 2016, p.2). This greatly contrasts the practices of the European Union (EU), which has had much more success encouraging foreign language education in their schools. In the 2009-2010 school year, 78% of the primary school students in the countries of the EU were learning a foreign language. Additionally, 61% of lower secondary level students, students aged 10-14, were learning two or more foreign languages (O’Rourke et al., 2016). Clearly, learning additional languages is valued more in the EU than the United States. Even when U.S. students begin learning a foreign language in high school, in addition to being beyond their critical language learning period, many are not motivated to take advantage of this opportunity. Each state has its own specific rules regarding requirements for foreign language education. For reference, the countries of the EU have a national mandate that formally requires the study of a foreign language in school. A mandate of this kind does not exist in the United States, rather these decisions are made at the state or even local level of government (NW et al., n.d.). This means that requirements can even differ from school district to school district. For example, New Jersey requires that one year of world language is required for high school graduation, while the Newark public schools require two years instead (O’Rourke et al., 2016). The lack of foreign language education requirements in U.S. public schools not only contributes to the lack of bilingual proficiency, but likely also sends the message to students that learning another language is not important. Clearly, the role of motivation in learning foreign languages is an important factor to successfully becoming bilingual (O’Rourke et al., 2016).

The plethora of evidence supporting that children learn language best during the critical periods of the five language rule systems best supports the start of foreign language education earlier than high school. However, it is important to recognize that many of the specific critical

periods do not overlap with many years in school, and as a result beginning foreign language instruction early enough so it falls within the critical period would be challenging to implement. This is not to say, though, that students completely lose the ability to learn a language once the critical period has passed. Although it is much easier and effective to learn a language earlier on, it is still possible to acquire an additional language later in life. This leads one to think about the ways to encourage language learning for students past the critical period. As I will explain, emphasis must be placed on the educational and motivational strategies used with students attempting to learn an additional language.

The effectiveness of teaching methods for foreign language education is an issue addressed by Faramarz Samifanni in the study *The Fluency Way: A Functional Method for Oral Communication*. This study aimed to analyze various second language learning teaching methods to determine successful strategies for teaching languages. The teaching methods studied were Community Language Learning (CLL), Communicative Language Teaching (CLT), Direct Method (DM), Language Experience Approach (LEA), and Suggestopedia. Although each method has its strengths, several common themes for successful language instruction were determined. A theme that was particularly important was learner centeredness. A foreign language education is most effective when the teaching is focused on the students and activities are made personal to the class. A second theme that proved significant across all analyzed teaching methods was a cooperative and collaborative teacher-student relationship. Having a comfortable relationship between the student and teacher helps the student feel open to participating and asking questions. An additional theme was the individuality of each learner, depending on each student's strengths and weaknesses and unique linguistic background, each student will face their own challenges when learning a language, and the instructor must be

aware of these differences between students. Finally, it is important that in addition to the instructor having a native-like fluency of the target language, they must also have a socio-cultural understanding of the language as well. Learning about the culture of a language is an important part of learning a language as well (Samifanni, 2020). For successful second language instruction, these themes must be considered, especially for students past the critical period for language acquisition.

Keeping the students motivated in their learning is important too. Dr. Christo Moskovsky, a professor at the University of Newcastle, Australia who has done research on the cognitive and psychosocial elements of second language learning, recognized the importance of motivational strategies implemented by teachers on their students' motivation to learn. In his study, *The Effects of Teachers' Motivational Strategies on Learners' Motivation: A Controlled Investigation of Second Language Acquisition*, Moskovsky determined 10 motivational techniques deemed most important by EFL (English Foreign Language) teachers, and conducted a quasi-experimental study to test their effect on language students' education. Examples of the motivational strategies included showing students they were accepted and their progress was valued, recognizing the students effort, being physically and emotionally available to them, and making learning tasks more interesting by including humor and everyday situations when they would use the language in the curriculum. There was a control group in which the teachers taught as they would normally without employing any specific techniques, and an experimental group taught by teachers who made a strong effort to include the predetermined motivational techniques in their classes. After an eight week period, students from each group filled out a questionnaire on which they indicated their motivation in different aspects of their learning. Moskovsky ascertained that the experimental group was significantly more motivated in their

studies as opposed to the control group. The experimental group felt less learning anxiety and better connected with the instructor's personality (Moskovsky, 2013). After in depth analysis of each group's subjects and their individual differences as students, the conclusion was drawn that "these results speak not for mere correlational evidence but for the causal influence of teachers' motivational practices on learners' motivated behaviors," (Moskovsky, 2013, p. 57). Obviously teaching strategy and motivational techniques play a significant role in second language learning, especially when one has passed the critical period for language acquisition.

Learning an additional language is becoming steadily more important and provides many benefits. There are many jobs, including work in federal agencies, healthcare, human services, security, tourism and international relations that require employees to be bilingual or even multilingual (Reasons to Learn a Foreign Language, n.d.) Also, training in a foreign language can have academic benefits in other areas of education and cognition as well. Students who study foreign languages tend to perform better on the ACTs than those who don't, and studies have shown that a student's SAT verbal score increases along with the amount of time they have studied a foreign language. Learning an additional language can even strengthen one's skills in their native language. Children who learn a second language tend to be better readers and better able to identify grammatical errors than monolingual students. In terms of cognitive benefits, learning another language can even help delay cognitive decline. More specifically, knowing another language has been shown to be able to delay Alzheimer's symptoms for as much as 4.5 years. It is believed that this is the case because "by improving the executive function of the brain, bilinguals develop a "cognitive reserve" which helps delay symptoms of dementia," (Reasons to Learn a Foreign Language, n.d.) There are a variety of benefits and important reasons for learning a second language, and ensuring that foreign language education starts as

soon as possible, as to overlap with the critical period, and that the best teaching methods are used is critical to successful language acquisition.

It is important to address the opinions of those who do not see foreign language education as an essential area of study for students. Some individuals fear that teaching a child an additional language while developing their native language will cause confusion and will lead to a language delay. As a result, some do not support teaching foreign languages to children. Also, a trend recently in designing courses and graduation requirements has been to replace language requirements, or to equate them, to taking classes that focus on STEM, specifically classes that focus on coding. As the world becomes more globalized and needs individuals competent in more than one language, it has also become more technologically dependent and some think that students' time would be better spent learning about the new and emerging technology (Language, 2018). Finally, some individuals simply see foreign language education as a waste of resources. Based on the common practice of only two years of a foreign language class, many people believe this is a waste of students' time and the school's money. Because very few students emerge from school having learned a foreign language, several believe that the costs outweigh the benefits of maintaining foreign language education programs (*The Numbers Speak*, 2012).

Students and teachers should not give up on the possibility of learning a second language when the critical period has passed because, if approached using the right methods, a student can still reap the benefits of second language learning. Although learning a foreign language is a great opportunity, many students are unable to take advantage of it because they are not taught under the ideal conditions. Starting to learn a language during the critical period would be best, but even if implemented children would not be in school for many of the same years as the

critical period. So, in addition to starting language learning earlier, focus must be put on the encouragement and teaching methods used by the instructors in order to motivate students of any age in their foreign language education.

Chapter 1: Significance of Language Exposure in Childhood

There are many studies that specifically target the effects of early exposure to language on both primary and secondary language acquisition. These studies are effective, informative, and most importantly; ethical. While one may wonder what would happen if a child was not exposed to language, this is a forbidden experiment as it is not morally sound to isolate a child from language. However, in rare cases of extreme neglect like that of Genie Wiley, scientists have seized the opportunity to gauge an idea of one's language learning abilities once the critical period for language acquisition has passed. Genie was first discovered by authorities when she was 13 years and 9 months of age. Evidence suggests that "from about the age of 20 months until shortly before her rescue Genie had been isolated in a small closed room... where she remained most or all hours of the day, sometimes overnight," (Fromkin et al., 1974, p. 84). She had spent her whole life in a small room with little to no exposure to any type of stimuli, including auditory stimuli and any type of language exposure. Her father did not permit her brother or mother to talk to her or even acknowledge her, and he punished Genie anytime she made noise. Having been so neglected, Genie was severely underdeveloped when rescued from her home. Scientists of many fields studied Genie and her ability to learn new skills after the critical period, including a team of linguists from the University of California, Los Angeles (Fromkin et al., 1974). The team from UCLA took advantage of this rare and unique opportunity to determine how much language an individual with no exposure to language during the critical period could acquire.

When Genie was first taken to the Children's Hospital of Los Angeles she was described by Dr. James Kent as making "no other sounds except for a kind of throaty whimper. . . . (Later in the session) . . . she imitated "back" several times, as well as "fall" when I said "The puppet will fall." She could communicate (her) needs non-verbally, at least to a limited extent," (Fromkin et al., 1974, p. 86). Every aspect of her language abilities was analyzed. Upon testing her initial language comprehension skills, she was able to recognize a few words despite being unable to say them herself, but "she had little if any comprehension of grammatical structures," (Fromkin et al., 1974, p. 87). This was concerning because, as previously mentioned, while vocabulary is learned throughout the lifespan in normally developing individuals, grammar is an area of language in which the majority of learning takes place in childhood. Genie also had not developed any speech sounds, struggled with breath control, and was unable to control her laryngeal muscles to produce normal phonation and intonation patterns, so when she did attempt to speak it was very monotone and unclear (Fromkin et al., 1974, p. 89). Genie did experience separate struggles with her syntactic, semantic, and phonological development, however, one should not be led to think that these systems develop independent of one another. In fact, "[n]either Genie nor a normal child learns the sound system of a language totally independent from the syntactic and semantic systems," (Fromkin et al., 1974, p. 90), indicating that in order to assist her learn language, she would need to work at every aspect of language to ensure that all of her skills developed together. After about 5 months of working with linguists, Genie began to produce single spontaneous words, a huge success. After a year in the hospital she began to create 3 to 4 word phrases using elements of grammar such as subject, verb, object, and modifiers (Fromkin et al., 1974, p. 90). She made progress slowly but steadily. Genie's progression emphasized the fact that while new words can be learned throughout one's life,

grammar structures are much more difficult to acquire after the critical period. She was described as having “less difficulty in storing lists than she [had] learning the rules of the grammar (Fromkin et al., 1974, p. 92)”. While she was able to memorize words, and sometimes their meanings, she struggled to use them to formulate complex sentences like a child of her age would normally be able to do.

Despite making progress on her language skills, Genie was never able to “catch up” to where she would have been developmentally if she hadn’t experienced such severe neglect. Unfortunately, there have not been long term studies on Genie to see how she progressed into adulthood, as she was moved to an undisclosed location after custody issues and an overwhelming amount of scientists seeking to study her. While Genie’s unfortunate early life experience demonstrates the need for exposure to language during childhood, especially so that one can have the opportunity to master skills such as grammar, one must recognize how this case does not entirely relate to secondary language learning in normally developing people. Genie grew up in circumstances very different to those of normally developing children; the majority of children are not neglected and isolated for the first 13 years of their lives. Furthermore, the negative reinforcement via punishment whenever she used her voice was extremely traumatic, an element of her case that cannot be ignored. This was an extreme case of lack of exposure to language and clearly cannot be used as a representative study of all children learning language. Additionally, Genie was attempting to acquire a first language not a second. She demonstrates very well why early exposure to language during the critical period is essential for first language learning. However, in order to further support the concept of introducing second languages during a child’s critical periods, additional studies of children in normative situations must be analyzed.

Such studies have been conducted by the LENA foundation. LENA stands for Language Environment Analysis and they have conducted extensive studies on normative primary language development of children. In their study *Talking to Children Matters: Early Language Experience Strengthens Processing and Builds Vocabulary*, Adriana Weisleder and Anne Fernald analyze the effects of language exposure on normally developing children. While genetic factors can play a role in how well a child's language skills develop, and differences between their language skills and skills of children of the same age, "the contributions of early experience to such differences are also substantial," (Weisleder & Fernald, 2013, p. 5). To demonstrate the role early language exposure has on successful language development, Weisleder and Fernald focused on Latino families of low socioeconomic status which, according to them, is a large population in the United States at risk for academic difficulties, which are often linked to lower language skills or lack thereof (Weisleder & Fernald, 2013). To gather data, they took extensive recordings of the natural interactions between the child and its caregivers. This was done with a recording device so an observer did not need to be present. In past studies, having an observer in the house could make the family uncomfortable and cause their interactions with their children to be unnatural or forced. Through analysis of these recordings Weisleder and Fernald "examined how these naturalistic measures of caregiver speech related to experimental measures of language processing and to parent reports of expressive vocabulary," (Weisleder & Fernald, 2013, p. 3).

The participants in this study were 29 infants learning Spanish as a first language. Of the participants, 19 were female and 10 were male and all were between 19 and 24 months of age. None of the children were experiencing developmental delays. To obtain the recordings of daily social interactions with caregivers, the child wore a special piece of clothing with a chest pocket

where a recording device could be kept. Putting the device at the chest of the child ensured clear recordings of language spoken directly to the child, known as child directed speech, as well as other conversations simply overheard by the child. The caregivers were told to record during a typical day at home and to record where the child went, who was present that day, what types of activities the child was engaged in, and if anything out of the ordinary took place. On average the recordings were seven hours long and most families submitted four to six recordings total.

The audio recordings were analyzed with software specific to the LENA foundation. This software was able to process the audio files and create estimates of the different components of the language environment of the child. Examples of the language environment components included the number of adult words spoken to the child and the number of times the child vocalized themselves. To ensure the accuracy of the LENA software, native Spanish speakers also analyzed mini samples of the recordings and consistently drew the same conclusions as the software, ensuring it was reliable.

The results of the analyses of the audio recordings revealed “striking variability in the total amount of adult speech accessible to the infant, which ranged from almost 29,000 adult words to fewer than 2,000 words over the course of 10 hr,” (Weisleder & Fernald, 2013, p. 5). Furthermore, when considering how much of this language was spoken directly to the child the variability is even more extreme. In one family, 12,000 words were spoken directly to the child while in another family there were only 670 words that were directed to the child. It was found that the indirect language overheard by children did not play a significant role in their language development, supporting the important conclusion that child directed speech is much more essential for primary language development than simply overhearing language being used. Specific language skills studied included the richness of the children's vocabulary. “Those

children who heard more child-directed speech at 19 months had larger vocabularies at 24 months,” (Weisleder & Fernald, 2013, p. 7) a result that has been observed in previous studies of this nature as well. Again, “differences in exposure to overheard speech directed to other adults and children were not related to infants’ vocabulary size,” (Weisleder & Fernald, 2013, p. 7) supporting the theory that child directed speech plays a major role in language development as opposed to indirect exposure to language.

An additional result that supports the significance of child directed speech is the speed of language processing of the children. Weisleder and Fernald found that being exposed to a greater amount of child directed speech had a positive correlation to children’s language processing abilities at 19 months as well as 24 months. Those who had little language spoken directly to them consistently had lower language processing rates (Weisleder & Fernald, 2013, p. 5). This study drew the conclusion that “Some parents talk more and use richer vocabulary and gestures in interactions with infants than do others, and such differences in the quantity and quality of language input account in part for later disparities among children in lexical and grammatical development” (Weisleder & Fernald, 2013, p. 8). This conclusion supports the idea that early language exposure leads to better developed language skills, an idea that is applicable to second language acquisition as well. Seeing that early child directed speech leads to a richer vocabulary and better language processing skills in a child’s primary language, one can see how additional language exposure in a second language would lead to stronger bilingual abilities than one usually is able to develop if they wait to start learning an additional language later in life.

Developing vocabulary and language processing skills are essential to language learning, but an equally important part of learning a language is learning to differentiate its speech sounds. Patricia Kuhl is the co-director of the Institute for Learning and Brain Science and a professor of

speech and hearing sciences at the University of Washington. One of her most famous experiments is titled “Linguistic Genius of Babies”. In this study on the development of phonological discrimination, Kuhl set out to study the patterns of development regarding both speech sounds native to a child’s first language and speech sounds of nonnative languages. Her goal was to learn about the ability of children, 6-12 months, to discriminate between two sets of phonetically similar speech sounds.

This study used two groups of participants: 32 infants tested in Seattle and another 32 tested in Tokyo. By using groups of children acquiring different primary languages, Kuhl was able to test the children's abilities to discriminate between phonemes of both English and Japanese. In the Seattle group 16 of the infants were on average 6.5 months of age. The other 16 were on average 11.2 months of age. Similarly, in the Japanese group 16 of the infants were of an average age of 6.8 months and the remaining 16 were on average 10.5 months old. The experiment was conducted under the control of a computer, which would produce several speech sounds over a speaker in a soundproof room to ensure clarity. Infants were trained through visual reinforcement to indicate that they heard one of the background speech sounds switch to a target speech sound, /la/ or /ra/, by turning their head to look at the visual reinforcer in the form of a light up box with a toy inside. The children of both groups listened to pairs of speech sounds. Their ability to discriminate between the two was recorded. When they turned towards the visual reinforcement when hearing either the /la/ or /ra/ sound, this was considered an accurate response. These target sounds were chosen because they are common phonemes in American English but are not common in Japanese. By doing so, it was possible to observe the phonetic discriminatory skills that children have in the early stages of language learning despite what

language they are being exposed to. The results of the experiment draw the conclusion that children between ages of 6-8 months are, as Patricia Kuhl puts it, universal citizens.

The results of this study support the idea that early exposure and instruction of language is ideal for language acquisition. Kuhl and her team concluded that “between 6 and 8 months of age, American and Japanese infants are equivalent in their discrimination of the American English /ra-la/ stimuli, performing at approximately 65% correct,” (Kuhl et al., 2006, p. 16). The fact that Japanese babies were able to discriminate between the sounds just as well as the American babies is significant because they are not exposed to these sounds in their native language. This is what Kuhl means by “universal citizens”. Children between 6 and 8 months of age are able to discriminate between all speech sounds of all languages despite what language(s) they are exposed to as an infant. This is a unique ability that steadily declines with age. Just a few months later, there were observable changes in the ability of children to discriminate between speech sounds not in their native language. The American infants at age 10-12 months continued to improve in their ability to discriminate between /la/ and /ra/ with an increase in accuracy rate from 63.7% to 73.8%. On the contrary, Japanese infants of the same age declined with a change from 64.7% accuracy rate to 59.9%. These conclusions support the concept that early exposure to language plays a key role in developing not just language skills, but also phonological discrimination skills. Kuhl was curious as to how American infants’ phonological discrimination skills would be effected if they were exposed to a foreign language during this critical period (See Figure 2)

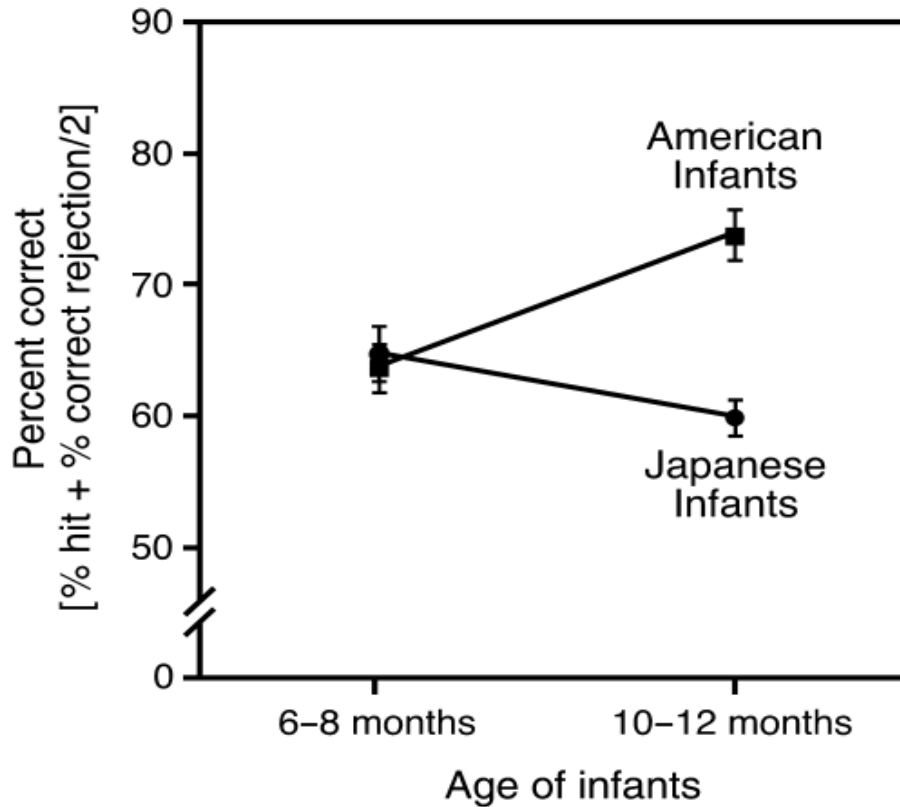


Figure 2, (Kuhl et al., 2006)

In a follow-up study, the same procedure as the previous study was conducted with a group of American infants and Chinese infants. They were exposed to two Chinese phonemes and their ability to discriminate between them was tracked. The same results were observed: at 6-8 months the children of both groups' abilities to differentiate between the two Chinese phonemes was the same. However, at 10-12 months of age the Chinese babies' abilities improved while the American babies' abilities declined. In a third study also conducted by Kuhl, it was found that the babies' phonetic discrimination skills at 7 months of age were indicators of their future language abilities; "better native phonetic perception predicted accelerated language development at 14, 18, 24 and 30 months of age," (Kuhl et al., 2006, p. 17). It must be observed,

however, that “optimal conditions for robust and long-lasting phonetic learning in infancy are likely to include social interaction,” (Kuhl et al., 2006, p. 18). In an additional study performed by Kuhl, two groups of children within the critical period of 6-8 months were exposed to a foreign language in two formats: One group experienced face to face language exposure with an adult speaking the language directly to them, and the other group got exposure via television and audiotapes with someone speaking the target language (The Linguistic Genius of Babies | Patricia Kuhl, n.d.). The infants had 12 sessions of their respective language exposure format, and the results found that “no learning from foreign-language exposure occurs when language is presented via TV or audiotape,” (Kuhl et al., 2006). That is to say, the babies who only had exposure to the foreign language in virtual formats did not experience the same improvement of their phonetic discriminatory skills as the group with face to face interaction. Kuhl’s studies support two major themes in language learning. The first being that early exposure to language both predicts and yields successful language learning as the child continues to develop. The second is that social interaction is essential to learning a language. If a child is not directly spoken to by another person, their language skills will not progress. Simple background exposure, or virtual exposure to language via television, is not sufficient enough to encourage the type of learning needed to become fluent in a language, a fact demonstrated by Genie and her lack of exposure to child directed speech. Kuhl’s studies demonstrate how learning an additional language can come naturally if introduced during a critical period and direct person-to-person language exposure is maintained.

One cannot ignore that the critical periods discussed thus far occur very early in a child’s life, often in the years before they are in school when many American children have their first exposure to a foreign language. While it should be encouraged that second language learning,

begin in the previously described critical periods, one should not be deterred from attempting to acquire a second language despite having passed them. Second language teaching methods play a significant role in language learning and if used effectively can still help yield successful language learning results later in life.

Chapter 2: Teaching Methods

Learning a new language is unique from a typical math or writing class. It requires one to go back to the very basics of speaking, and with the uniqueness of this experience comes its own distinct set of challenges. Without the appropriate motivation and teaching strategies, one can feel very inclined to give up on the endeavor all together. However, as previously mentioned, Samifanni determined four main themes that greatly encourage students in their additional language learning process. The themes include personalizing lessons to the students, a cooperative and collaborative relationship between the teacher and students, recognizing the individuality of each learner, and that the instructor be fluent in both the target language and the culture of those who speak it. While typical language learning programs in United States public schools may strive to implement these themes, many are unsuccessful and the course comes to feel more like a chore than an opportunity. However, a teaching method with rising popularity has found a way to implement secondary language learning into the everyday lives of students, eliminating the “chore” element of learning. Dual language learning immersion (DLI) programs have had great rates of success and incorporate the previous four themes. In 2011 there were 1,350 DLI programs identified in the United States. In 2018, this number has expanded to 2,500 programs spread throughout 39 states and the District of Columbia. Bear in mind that these numbers are self-reported so it is likely that there are even more DLI programs in the United States (Watzinger–Tharp et al., 2021). These programs approach teaching the standard

curriculum in two languages. Often started when a child is in kindergarten or first grade, all of the material for that grade level is taught in both the native language and the target language. Although it differs per program, many start with a 90:10 split: 90% of the material is taught in the target language and 10% is taught in the native language. As the students move to higher grade levels, if their language skills are improving the split will move to 80:20 and so on. The two studies that will be discussed explain both the efficacy of these programs in terms of language learning and the steps needed to both implement and maintain such a program.

In a study entitled, *Sustaining Dual Language Immersion: Partner Language Outcomes in a Statewide Program*, Dual Language Immersion (DLI) is studied as an alternative to typical language learning classes. Instead of only being exposed to a foreign language for one class period during the day, students are taught their curriculum in a mix of English and a target language. This study focused on 224 schools in Utah that have DLI programs. The authors analyzed to what extent students met benchmarks for the second language and how well they were able to sustain the language into the secondary level of education. The goal of these DLI programs are to “promote strong academic achievement in core content areas and high levels of proficiency in both languages as the foundation for bilingualism and biliteracy development, and also aim to develop intercultural competencies,” (Watzinger–Tharp et al., 2021, p. 7). This longitudinal study tracked students’ academic performances in both languages starting in early elementary school all the way up to 9th grade in order to determine the efficacy of DLI programs.

The DLI programs in Utah are integrated into public schools with regular monolingual classrooms as well. The program begins in first grade with the most popular partner languages being Spanish, Chinese, and French. In these programs they choose to split up the exposure to

language with a two teacher 50:50 ratio, meaning one teacher uses English and the other only uses the target language. Once students in the DLI programs start middle school they begin to take culture based classes taught in the target language, with a total exposure to the target language dropping to 30:70 ratio. Finally, as a way to assess their language skills, students take the Advanced Placement (AP) exam for their specific target language in high school.

To longitudinally track their progress learning the target language, students participated in the Assessment of Performance toward Proficiency in Languages (AAPPL). This test assesses four areas of the students' target language abilities; interpersonal listening/speaking (ILS), interpretive listening (IL), interpretive reading (IR), and presentational writing (PW). This test is important for several reasons. First, it provides an objective measurement of students' progress in language learning. Based on the students' performance on this test, faculty and program designers are able to modify the curriculum and identify which students need extra assistance, all with the goal of having the students achieve an advanced level of language proficiency by the time they finish 12th grade. The AAPPL test gives very descriptive results, making identifying students' areas of strength and weakness simple. Students fall into the following categories based on their test scores: "Novice Low (N1), Novice Mid (N2 and N3), and Novice High (N4); Intermediate is divided into five sublevels: Intermediate Low (I1), Intermediate Mid (I2–I4), and Intermediate High (I5); and one score (A) is given to students who perform at Advanced Low or above," (Watzinger–Tharp et al., 2021, p. 10). Seeing that these schools with dual immersion programs take the AAPPL assessment so seriously is unique because, unlike typical second language learning programs that tend to last one or two years in high school, these programs seem to "place partner language proficiency on equal footing with achievement in core academic content areas," (Watzinger–Tharp et al., 2021, p. 10). Two classes' test scores from the school

years of 2013-2014 to 2018-2019 were tracked and analyzed in order to determine language growth. Both groups had begun DLI in elementary school, one class's test scores were taken from grades 3, 5 and 7 and the second class's test scores were obtained in grades 4, 8 and 9.

A growth analysis was conducted by studying the trends of the test scores over the previously stated school years. The “growth analysis shows that Utah DLI students...were able to sustain partner language growth from elementary school through middle school and into Grade 9, moving through the Intermediate levels and, in some cases, into the Advanced level of proficiency by Grade 8,” (Watzinger–Tharp et al., 2021, p. 14). The median scores on the AAPPL scale for the three most popular languages offered, Chinese, French, and Spanish, went up by three to four sublevels for listening and reading. Additionally, scores raised from novice and intermediate low to the upper end of intermediate mid and high by grade eight. Also, about one half of the French and Spanish students achieved the AAPPL advanced listening and reading level in grade eight. The overall analysis found that students' language skills steadily increased every school year. However, as the level of target language exposure was decreased when switching from eighth grade to ninth grade, “the percentages of French and Spanish students reaching the Advanced level declined...possibly signaling that sustaining performance at high levels of proficiency can be challenging,” (Watzinger–Tharp et al., 2021, p. 15). However, the researchers say that this finding simply indicates that during the transition from 8th grade to 9th grade, students will need more differentiated classroom support to encourage or support advanced language skills. Despite this minor fluctuation though, the overall trend of the growth analysis was that students were able to cultivate high levels of language skills in the target language.

It is interesting to note, however, that while the classes analyzed for this study started as 50:50 ratio learning programs, it has been found in previous studies that students who began in kindergarten with a 90:10 model of language exposure “reached Intermediate High by Grade 2 and Advanced Low by Grade 5 in oral proficiency; in listening comprehension, which was part of the oral proficiency measures, students reached the Advanced level by Grade 5,” (Watzinger–Tharp et al., 2021, p. 18). The results of these analyses seem to support the previously discussed idea that earlier and frequent language exposure significantly supports second language acquisition. Another interesting conclusion relates to the correlation between reading comprehension and oral proficiency. In the analysis it was determined that in early grades of elementary school, higher oral proficiency levels correlated with a stronger reading comprehension. This indicates that having strong reading comprehension skills could position students to access more sophisticated academic content in the target language, helping them to further develop their oral language skills due to increased exposure (Watzinger–Tharp et al., 2021, p. 13).

While drawing many important conclusions about the efficacy of DLI programs, this study also acknowledges the need for further research. For example, there was a small number of students enrolled in the DLI programs who spoke either the target language or an additional third language at home. In previous studies on DLI programs, it was found that students enrolled in a DLI program split between English and Spanish, that “students whose home language is Spanish [were] more likely to develop balanced bilingualism, possibly because their Spanish language development is supported by language use at home and outside the classroom,” (Watzinger–Tharp et al., 2021, p. 19). Students who did not speak Spanish at home therefore only had exposure to Spanish in the classroom indicate that differences in exposure could

account for differences in their language development compared to the children who used Spanish both in and outside of school. As stated in the article “future research that disentangles students’ home languages, their dominant languages, and also EL (English Learner) status is needed” to determine their effects on language acquisition (Watzinger–Tharp et al., 2021, p. 20). Despite the need for further research, the results of this study hold many important implications regarding second language learning in school settings. This research “on partner language outcomes have typically found DLI students’ linguistic competencies to be superior to students in conventional world language programs” (Watzinger–Tharp et al., 2021, p. 20). The continuous and increased exposure to the target language starting at a young age seems to make an enormous difference in students’ abilities to become proficient in an additional language.

DLI programs have high success rates. It can be hypothesized that this is the case in part because of the way this teaching style incorporates several of the aforementioned teaching themes identified by Samifanni. In the study of DLI programs in Utah, one can observe how the individuality of each learner is recognized. The researchers stated the importance of recognizing each child’s linguistic background and acknowledged how it can affect the students’ success in the program. Additionally, they emphasized that when exposure to the target language is decreased from the transition of eighth grade to ninth grade that it is important to offer extra support to those students who may be struggling. This example displays the use of another theme; having a cooperative and collaborative relationship between the student and teacher. It is clear that the students and teachers actively work together to achieve language goals, another element leading to the success of the DLI programs in Utah. Finally, it is significant that the programs ensure that the teachers are fluent in the target languages and take time to address cultural topics as well. While some programs have one teacher per class who speaks both the

native and target language, the Utah program makes sure to have a second teacher who speaks the target language should the first teacher not be proficient enough in the target language to teach while speaking it. While the study did not explicitly state the intentional use of Samifanni's identified successful language teaching themes, it can be presumed that these elements of teaching play a role in the success of the described DLI programs.

Iliana Alanís and Mariela A. Rodríguez explore additional elements of sustaining a successful DLI program in *Sustaining a Dual Language Immersion Program: Features of Success*. While several studies concur that DLI programs are far more effective at teaching lasting language skills to students, these programs can be difficult to maintain. It is challenging to create a class curriculum in general, and when it must be created in two languages many schools that attempt to create one of these programs find it too hard to sustain this level of language implementation. To try to prevent DLI programs from failing, Alanís and Rodríguez studied a DLI program in an elementary school in an urban and diverse community in Texas. The program has been effectively implemented for over ten years. Through site visits to the school, interviews with school personnel, and reviewing standardized test scores to analyze students' academic performances, Alanís and Rodríguez were able to determine four core elements of the program that have made it so successful, elements that other program coordinators should take into consideration when developing their own DLI program.

The first element they found to be essential to a successful DLI program was pedagogical equity. The program being studied started in kindergarten, and at this age emphasizes that children learn cognitive academic language proficiency skills, such as having reading skills appropriate for their grade level and being able to follow basic math directions in the native language, before transferring these same activities into the target language. While this can be a

challenging transition for students, it is important that the curriculum is of equal levels of sophistication in each language. Alanís and Rodríguez explain how “in contrast to remedial bilingual programs that offer ‘watered down’ instruction, dual language enrichment models offer the curricular mainstream taught through two languages with rigorous content standards and high expectations,” (Alanís & Rodríguez, 2008, p. 300). Not only does this encourage target language use, but it also encourages students to work together which also helps support language use and growth. Another part of pedagogical equity is to promote equal status of languages. It is essential that students do not give in to the notion that one language is better than another. The teachers in this program do their best to promote the importance and benefits of knowing two languages so students are excited to work towards their bilingualism. If they are told that one language is better to know than the other, this will greatly dampen their motivation to work and practice both languages (Alanís & Rodríguez, 2008).

The next factor discussed was the importance of effective bilingual teachers. It is crucial for teachers in a DLI program to understand the endeavor they are accepting when deciding to work in a DLI classroom. As one teacher from this program said, “At this school, if you are not ready to work beyond your classroom, don’t even come and apply,” (Alanís & Rodríguez, 2008, p. 314). To facilitate a successful DLI program, teachers must understand the goals of a DLI program and be enthusiastic in their instruction to students. When teachers are excited about teaching it will help students be excited about learning. Quality DLI teachers believe that students must actively be engaged in and take charge of their own learning. To ensure this, teachers in this specific program meet frequently to discuss curriculum and make sure it is meeting the needs of their students. While teachers are required to follow the curriculum guidelines outlined by the school district, teachers enhance this curriculum for a DLI program by

utilizing project based learning and integrated instruction. For example, students often work in groups on projects like hands-on math and science tasks or literature based reading activities that require conversation to complete. The teachers also spend time brainstorming ways to create positive and social work environments so students feel comfortable using their language with other students. Instructors teach language both in formal and informal manners. Referring to the teaching themes of Samifanni, Alanís and Rodríguez similarly found that student-centered instruction by using themes relevant to the students is essential for an effective DLI teacher. They also found that a collaborative relationship between students and teachers is essential, especially in the form of accepting suggestions and criticism from students in order to improve the learning experience. The teachers in this program view “all of these strategies as opportunities for meaningful language use and avenues for providing comprehensible content,” (Alanís & Rodríguez, 2008, p. 314).

Parent participation was also found to be a part of a successful DLI program. Whether the parents themselves speak the target language or not, they play a crucial role in their child’s education. In this study, it was found that many parents play a large role in planning the bilingual programs and taking action to sustain them. These parents seem to have a good understanding of the values of a bilingual program and recognize that their encouragement of their children’s learning will only further help their children develop their language skills. Teachers encourage parents to volunteer in the classroom as a way to become more familiar with the program, and parents who have been involved with the program for a few years often volunteer to speak with potential students’ parents to ease their anxieties about participating in a DLI program. An additional element of parent involvement is that of continuing education. Teachers in this program offer Spanish and English classes for parents so they can participate and better

understand the second language learning experience of their children (Alanís & Rodríguez, 2008).

The final element discussed by Alanís and Rodríguez was the significance of strong school leadership. The program studied has a very committed and informed principal which sets the tone for the entire school's approach to second language learning. The principal at this school “fostered a proactive school climate that maintained high academic goals for all students,” (Alanís & Rodríguez, 2008, p. 315). The teachers described how the principal is well informed on dual language programs and teaching practices, takes time to talk with parents and staff about the program, is open to constructive feedback, and is up to date on new research, parents’ rights, and state law so she can better advocate for and support her program. She even takes the time to read DLI research articles in her free time outside of work. Another strength to her leadership is the conscientiousness she uses when selecting bilingual teachers. She understands how the quality of a teacher can have either a very positive or negative impact on the students’ success and accounts for this fact when hiring instructors. Many teachers also cited how the continuity of her leadership contributes to the program's success. At the time of this article, the principal had been at the program for over a decade. Having had the same principal, parents and other community members felt that they were able to develop a strong relationship with the principal and develop a democratic style of leadership where everyone had a say in the program design. This not only eases parents' concerns about having their children partake in the program, but helps build a sense of community and security over the program. Because the principal has been able to accumulate so much experience in this field, she is able to “soften rough spots” when they arise, which helps prevent a high rate of teacher turnover. Finally, teachers are given freedom to creatively implement the curriculum in a manner that is best for both the class and the

instructor, another element of her leadership that teachers cite as a reason for the program's longevity and success (Alanís & Rodríguez, 2008).

Learning a second language can be very difficult, and seemingly more challenging if learning does not begin in the critical period. However, having a strong understanding of effective language teaching themes and methods can greatly encourage the development of language skills. These two studies demonstrate that when language is taught in a manner that is personalized to students, recognizes their individuality, with the opportunity for a collaborative relationship between instructor and students, with a teacher proficient in the target language, a student can achieve a high level of language proficiency despite having passed critical periods. DLI programs were focused on because they contain all four of these themes needed for effective second language instruction. Additionally, DLI programs provide a unique style of motivation because students need to speak the language in order to complete their daily tasks at school, an element that is specific to DLI programs. Furthermore, DLI programs have a high rate of success. While they can be difficult to implement and maintain, the advanced level of language skills they cultivate are worth the challenges.

Chapter 3: Sources of Motivation

In the best case scenario, a person wanting to learn an additional language would have started as a child during the critical period when their brain is most flexible and able to acquire new language, and they would have been instructed using the most evidence based teaching methods. However, even in this ideal scenario, no progress in language skills will be made unless one has the motivation to work to develop new foreign language skills. Lack of motivation seems to be an issue especially prevalent in United States public schools. As previously mentioned, this lack of motivation may develop when students see the lack of language requirements in their

own schools, making it obvious that language learning is not a subject seen as worthy of spending time on. However, it is important to question why this is such a common issue for children in the United States.

The lack of language learning taking place in the United States seems to be resulting partially from cultural beliefs held by many Americans who do not see the importance of learning a foreign language because they are under the impression that everyone speaks English. Many of the world's leading powers such as the U.S, Australia, England, and Canada are majority English speaking countries. As a result, many people around the world have come to learn at least a basic level of English. However, this has given Americans an unrealistic sense of comfort that no matter where they go in the world, the native population will be able to cater to their language needs (Babbel.com & GmbH, n.d.). This belief became heavily instilled in the American people after World War II. After the war "America cemented its dominance on the world stage, which led to the steady global takeover of English language and culture" (Babbel.com & GmbH, n.d., p. 1). However, in reality English is not really that widely spoken. It is true that many people around the globe "know English", however, this does not mean they are fluent; "75 percent of people outside the United States don't speak English, and if they do, it's not at a very high level of proficiency," (Why There's a Language Learning Gap in the United States, n.d., p. 2). Another element that some believe contributes to Americans' lack of desire for foreign language learning is the core values of patriotism and independence. The United States is notorious for having a strong sense of national pride and independence, and there are those that believe that this subconsciously has influenced Americans into thinking that English is "the best" language or the "most useful" language (Why There's a Language Learning Gap in the United States, n.d.). The impressions that English is the most spoken and most superior language in the

world have influenced the way Americans think about foreign language acquisition. Because Americans for the most part do not see the value in studying different languages, this is not an area of study emphasized in schools.

When languages are not taught in schools, this only contributes to the lack of language learning taking place. As Koyfman explains it, “teacher shortages are both a result of this problem and a cause of this problem. If we’re not raising bilingual citizens, we’re not raising qualified bilingual teachers,” (Babbel.com & GmbH, n.d., p. 3). Meaning that as the issue worsens, the current situation creates a positive feedback loop of fewer students becoming proficient in languages which results in fewer people available to teach foreign language students. This is a contributing factor to the stigma around second language learning in America. Although the United States is becoming a steadily more diverse country as more people immigrate from around the world, there is still a majority of citizens being raised in monolingual households. While this is the norm in America, it is not in the greater part of the world. The United States’ geographic isolation does not assist in this issue. European countries tend to be smaller and share more borders, leading to higher exposure to other languages, and a necessity of needing to know other languages in order to communicate with those around oneself. This is why it is essential to “create a new normal, where it’s perfectly feasible for someone to grow up learning two languages,” (Why There’s a Language Learning Gap in the United States, n.d.). If this new normal is able to raise awareness about the normalcy and benefits of knowing more than one language, it may help raise individuals' motivation to learn another language.

As previously discussed, DLI programs have been found to be very effective in language teaching. These programs provide a unique source of motivation in the sense that students must use the target language in order to be successful in class. If they cannot use the target language,

they will not be able to complete their work or communicate with others. This seems to mimic real-life situations of many multilingual individuals around the world. If a person lives in a small country that has many shared borders, they may need to learn other languages for business interactions, travel needs, or simply to be able to communicate with other members of their community. Similarly, when a child has parents that use different languages in the home, the child will have no choice but to learn the languages they are exposed to in order to communicate with all members of the family.

In their study, Peng and Patterson have investigated the role that motivation plays on international college students coming to study in the United States. As the amount of international college students increases, they became curious as to what factors influence these students' adaptation to American culture and language. Peng and Patterson say that "it is important for international students to adapt to their new environments both culturally and linguistically," (Peng & Patterson, 2022, p. 68) in order to do well in their academics and to prevent mental health problems. Having to learn and speak English poses one of the biggest challenges for these students. While "international students are typically required to demonstrate a level of English language proficiency to study in the United States (e.g. meeting a minimum score on the Test of English as a Foreign Language [TOEFL]), this does not guarantee sufficient English ability to succeed in higher education," (Peng & Patterson, 2022, p. 68). Students that are not able to speak English proficiently enough will not only struggle academically but socially as well. Peng and Patterson explain how motivation is one of the most important aspects of learning a new language, and how self-determination theory splits motivation into two categories: intrinsic and extrinsic. The motivation to learn a language can be either intrinsic, extrinsic, or both. "Intrinsic motivation in learning a new language means that an individual is

motivated to learn the language for personal growth or enjoyment; whereas extrinsic motivation means that an individual seeks to learn a language in order to achieve instrumental goals, such as greater career opportunities,” (Peng & Patterson, 2022, p. 71). In the case of international students, they most likely have both intrinsic and extrinsic factors motivating their language learning. Many students want to learn English for personal growth and to communicate with friends and those in their new community, while recognizing that developing English proficiency will open up many academic and professional opportunities. Additionally, many realize that not having a strong grasp on English will prevent them from being successful students and will limit the social interactions they can have during their daily life.

Similar to the findings in the DLI programs, it was found that students that deeply immersed themselves into American culture and into social situations had stronger motivation for language learning and language proficiency. As Peng and Patterson say, “people with an integrative orientation have higher motivation in learning L2,” (Peng & Patterson, 2022, p. 75). These international students must integrate themselves into the culture around them or it will impede their success, an example of how motivation due to necessity is very effective in creating language learning motivation. Another interesting conclusion drawn by the study was that students who tried to tightly cling to their home cultures had much less motivation to increase their English language skills and had overall lower language proficiency than the students who immersed themselves into the culture around them. Peng and Patterson explain this phenomenon by saying that “international students with higher ethnic identification had lower English proficiency, which might indicate that some international students strive to maintain their loyalty to their own ethnic group at the expense of L2 language acquisition,” (Peng & Patterson, 2022, p. 76).

It is interesting to be able to draw parallels between these motivating factors and DLI programs. For both the children in the DLI programs and the international college students in the previous study, it is clear that immersion into a new language is one of the strongest types of motivators. When one cannot interact with others or participate with those around them, they come to understand that they need to learn the language in order to function and to improve their quality of life.

Conclusion

This research has explored several important aspects of second language learning. Starting with a review on primary language development, it was possible to determine the advantages of learning language during the critical periods. Through the review of various studies on speech and language development it was made clear that the brain is most apt to learn language during childhood, and that direct exposure to others speaking language is crucial to successfully acquiring primary language. Based on these studies, it is possible to hypothesize that these same principles apply to acquiring a second language as well. However, as further research shows, being past the critical period for language learning does not mean that one cannot learn new languages, they just may be less successful or have a more difficult time achieving a high proficiency than those who have been exposed to the second language since childhood. Using effective teaching methods is a key factor to successfully acquiring a language in a school setting. The studies investigated display the efficacy of dual language learning programs. There is evidence that supports the concept that the increased exposure to language and culture provided by a DLI program not only produce higher rates of language proficiency than typical language classes, but that they do not inhibit native language development or other

areas of academic study. It was also noted that implementing and sustaining these programs can be challenging due to problems like teacher shortages and maintaining the necessary level of language exposure in the classroom. For this reason, it is important to use elements of other successful programs, including pedagogical equity, having effective bilingual teachers, parent involvement, and strong school leadership. However, without motivation factors such as the necessity to learn the language for professional opportunities, academic success, and to function in one's daily environment, it will be much more difficult to overcome the challenges that come with learning a second language.

While this thesis has examined very important aspects of language acquisition, there are still many areas to be investigated that could shed light on methods to increase language learning. It would be important to conduct further research on bilingual language development in order to debunk the myths that revolve around second language learning. Many people are under the impression that if children are learning two languages at once that it could result in language delays or a lack of proficiency in both languages. This is not the case, and it would be important to use evidence to spread awareness that there are no developmental drawbacks to learning two languages during childhood. It would also be interesting to study the efficacy of language learning programs or apps such as Duolingo and Babbel. These applications are becoming more popular, and it would be interesting to see how many individuals successfully are learning language by using online programs. As previously discussed, several studies have supported the concept that direct exposure to a person speaking the target language is most effective, so investigating the efficacy of these increasingly prevalent programs would be very relevant to this thesis topic. The topic of encouraging second language learning in schools will be an evolving field of study that will require continuous research. It will be worth it to pursue this topic as

second language learning is possible for everyone under the right circumstances and everyone deserves to reap the benefits of being multilingual.

Acknowledgements

A special thank you to my wonderful mentor, Professor Alison Myette, for providing support and guidance throughout my time developing and writing this thesis. Additionally, a huge thank you to Professor Myette for my great experience in the communication sciences and disorders program.

A special thank you to Assumption University Honors Program Director Professor McGrath. Thank you for encouraging all of the honors students in our learning.

A special thank you to my Honors thesis defense committee, Professor Loustaunau, Professor Norris, and Professor Myette.

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