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Native Language Attrition Among Immigrants

A Plan B Project Presented to the Graduate Faculty of Minnesota State University Moorhead

By

Fawzia Sebi Riji

In Partial Fulfillment of the Requirements for the Degree of Master of Arts in Teaching English as a Second Language

> October 2022 Moorhead, Minnesota

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Dedication

To my mom Khadijah Naima Adam for your kind words, endless love, support, prayer and for being the best mother Allah (God) has blessed me with.

Acknowledgments

First, my most tremendous thanks and profound appreciation goes to Allah (God) for always guiding me, accepting my prayers, and challenging me with trials. Without you taking my prayers and strengthening my soul whenever I wanted to give up, I would not have continued with my dream today.

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Abstract

This study was a literature review, and it focused on native language attrition among immigrants. For many years, immigrants' families have moved to places such as United States and Europe as well as Canada because of war, abuse, persecution, environmental degradation, and poverty from their home countries. Once immigrant families arrived at their designated country, their children were placed in school. Due to the struggle with the language barrier, kids and adults quickly started to focus extensively on learning the English language.

The research took place due to the raised concerns of parents regarding their children's inabilities to communicate in their first language (L1) with families after learning English. Having worked with adult language learners at Project English and Giving Plus Learning, I witnessed the rise in parents' frustration, concern, and confusion when their children could no longer speak, formulate sentences, or enjoy conversation with relatives in their home language. These parents did not understand why their children constantly spoke in English and rejected their native tongue.

The literature review aimed to shed light on the significance of maintaining L1 among immigrants' families while learning and speaking English. The review brought together all the available resources related to my project topic in place, and the resources were evaluated closely. In the review, there were six essential themes divided into sections. Each chapter focused on the method and findings of the themes. Major findings from the research studies highlighted that L1 attrition can take place instantly when the L1 is not being utilized. The studies showed that age plays a vital role in L1 loss because the earlier children were exposed to the English language, the higher the possibility of L1 deterioration, particularly with children who began English from age three to seven. Older children who spoke the native language from birth to age 12 and then learned English continued communicating in the L1 much better. The studies further pointed out that the English immersion environment helped immigrants practice and improved their communication in the L2. However, the L1 was hindered because immigrants' children had less opportunity to speak in the L1and more in L2, as if it was their L1.

Chapter 1: Introduction

I have been working with immigrant families in the Fargo-Moorhead community since 2009 through Project English and Giving Plus Learning programs. Project English is an English-language learning program that uses the Rosetta Stone Software to teach English to refugee and immigrant adults in the community. The program is sponsored by the five metro Rotary clubs and has eight different sites in Fargo.

Like Project English, Giving Plus Learning also provides English learning opportunities for adults through tutoring English on the weekend. Both programs help families improve their English abilities to some extent. The programs are offered in the evening. Parents, mostly mothers who attend the program, come to learn with their school-aged children. While the parents learn, the children usually read books, work on homework from their school, or are busy on their iPad or tablets. Most parents I worked with have always spoken their native language with their children while learning. As for the kids, they would always respond to their parents in English and not their native tongue. It is intriguing to see children responding to their parents in the opposite language. Most parents would continue to talk to the child in the mother tongue in hopes for the kids to utilize their native language, but this often fails. During one session at Giving Plus Learning, a mother stopped learning and started talking to her twelve-yearold son:

Mom: Wako wapi ndugu? (Where are your siblings?)

Son: Playing.

Mom: Wapi? (Where?)

Son: That room.

Mom: Nenda ukawalete hapa. (Go bring them here.)

Son: But I want to finish my game first!

Mom: Hunielewi? (You don't understand me?)

Son: [goes to the hallway] Bahati, Mufungo. (You can't play here.)

Mom: Ninajifunza. Waangalie. (I am learning. Watch them.)

Son: They are not listening. I want to finish this level.

Mom: Unaweza Kucheza baadaye. (You can play later.)

As I saw the communication between parents and children at the two sites, it reminded me of my upbringing in Fargo while I was learning English. Growing up in America, I lived as a child who could not speak English correctly and pronounced words differently. I was subjected to severe assimilative pressures at school, mainly from classmates because I had a foreign or non-native accent. Although my errors in English were "developmental in the sense that they are found among children acquiring English as a native tongue," as Berman and Olshtain (1983, p. 225) explained, it made me feel different because of my inability to speak English, and my accent was constantly ridiculed. Due to the pressure of assimilating into the American culture, I started feeling ashamed about the language I spoke at home and the culture that was once so significant to me. As time progressed, I attempted to suppress my home language and culture as much as possible whenever communicating with friends who spoke English as a first language. According to Hulsen et al., (2002) "Limited contact with the L1 leads to changes in the way items are retrieved from mental lexicon." The pressure I experienced led me to stop using my L1which also explained my "linguistic insecurity, which leads to even less of the L1 and a further decrease in language processing skills" (p. 48-49).

Problem statement

Assimilating into a brand-new culture and a new language is a fantastic opportunity for many young immigrants to learn English; however, they forget their home language while learning English. Ignoring the language of origin continues to be a common complaint among the parents of immigrants in the Fargo-Moorhead community. As more and more children in the Fargo-Moorhead context forget their heritage language, it has sparked many unhappy conversations among parents regarding this movement. The inability to speak one's native language is a challenge encountered by children of immigrants today around the world as they master speaking the English language. This study is about language erosion among immigrant children in the United States. Having worked with adult language learners at Project English and Giving Plus Learning, I witnessed the rise in parents' frustration, concern, and confusion when their children could no longer speak, formulate sentences, or enjoy conversation with relatives in their home language. These parents do not understand why their children constantly talk in English and reject their native tongue.

As a tutor to these parents, both moms and dads have had endless conversations with me about their fear of seeing how fast their children are losing their native language. These parents seek suggestions and advice to help their children maintain the heritage language. As a tutor, a second language learner of English, and a speaker of two other native languages, I understand what these parents are experiencing. Their fear and the constant conflict between parents and children regarding native language usage, whether at home or out in public, are all too common for me. To understand the struggle of language attrition among immigrants, it is critical to look at various studies that have been written on the topic.

Research Questions

- 1. What contributes to native language erosion among immigrant children and adults?
- 2. Does language loss occur more commonly with younger children than older children?

Preview of the Rest of the Report

The literature review in this study has brought together all of the available resources related to my project's topic (the sources I discovered while conducting my research) in one place, and the resources have been evaluated closely. The literature in this study has allowed the me to dig deeper into the various subtopics which have guided the writing of this literature review. The review divides the issue into six essential categories. Every source evaluated in the literature review section has provided a profound outlook on language attrition. These materials served as the backbone for the research because they all shed light on the significance of maintaining one's mother tongue and demonstrated the desire and persistence parents have for their children when they begin to lose their mother tongue. Understanding the resources has guided me to develop practical inquiries that have allowed the study to be furthered and dug into profoundly. The two research questions served as the base for the study. The literature review unfolds over the following six chapters. Chapter two consists of the literature review. The sources within this section provide a clear explanation of L1 attrition among the immigrant population in the U.S., Europe, and Canada. In chapters three through six, the conversation shifts to the methodology utilized to understand language attrition in the various research studies. These chapters brought up a thorough discussion on participants, questions, data collection, and data analysis. The findings were reviewed, and the result was provided with a focus on similarities and differences. The final section, chapter seven, brought together the conclusion of the research. Chapter seven concentrated on summarizing the significant findings, implications, and recommendations. In the upcoming section, the conversation centered on understanding the literature review on L1 attrition.

Chapter 2: Literature Review

Over the years, many immigrants were granted a home in the United States due to war, abuse, persecution, environmental degradation, and poverty. Once immigrant children began school, they struggled to fit into the American culture. Due to the language barrier students encountered, the students began to focus extensively on learning the English language. Assimilating into a brand-new culture and a new language was a fantastic opportunity for many young immigrants to learn English; however, they forgot their home language. Forgetting the language of origin continued to be a common complaint among the parents of immigrant children in the United States.

Many research studies have been conducted regarding first language erosion among immigrants in the United States. Many of the studies focused on heritage language loss among children and adults. In the upcoming sections, the discussion focuses on four themes of native language erosion: identifying first language attrition, the role of the environment in L1 erosion, the significance of age and other factors in L1 attrition, and the importance of maintaining L1.

Identifying First Language Attrition

First language attrition, according to Schmid and Kopke (2017), was the process by which "pre-existing linguistic knowledge becomes less accessible or is modified to some extent as a result of the acquisition of a new language, and L1 production, processing, or comprehension are affected by the presence of this other language" (p. 2). L1 attrition, and to a greater extent, bilingual first language acquisition, have been widely explored concerning many factors, such as the phases in which these incidents occurred, the settings in which they occurred, and the circumstances influencing them. To understand language attrition among bilingual populations, identifying specific language impairment (SLI) was employed. Hamann and Ibrahim (2017) noted that SLI "may have different manifestations in different languages" and because of the various manifestations, "clinical markers" vary extensively (para. 2). Clinical markers were the markers used by Hamann and Ibrahim to conduct their study. However, it does not mean that the clinical markers are the only means of identifying attrition. For example, a marker used with SLI for English was "Extended use of infinitives" (para. 2). Like English, French and German also have a marker used for finding SLI among bilingual parents' children.

Role of the Environment in L1 Erosion

Losing access to a native language has always been a topic of interest in the field of linguistics for many years. The environment where language immersion took place played a significant role in understanding L1 loss. Analysis of L1 attrition and L2 acquisition in late bilinguals showed that the more time that was spent in the L2 setting, some L2 "skills may eventually match or even overtake the corresponding skill in the L1" wrote Schmid and Yilmaz (2018, p. 1). This change in the equilibrium between L1 and L2 resulted in language dominance.

A second study "Losing access to the native language while immersed in a second language" revealed that although becoming proficient in L2 equipped language learners with skills and opportunities to fit within the community, the method of acquiring an L2

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has an effect on the learner's language of origin. In the immersion setting, a few factors came into play, including "Immersed learners inhibit the L1 while in the L2 context, reduced the functional frequency of the immersed learners' L1" and "increased L2 use during immersion may have shifted the learners into an L2 mental set" (Linck et al., 2009, pp. 1512-1514). When children spend most of their time at school and daycare, they are more prone to use the language they hear in that setting.

Similar findings indicated that "the less often a bilingual uses one of her languages, the more difficult she will find it to retrieve the correct lexical and grammatical information from memory under the time pressure of normal discourse" (Schmid, 2007, p. 2). To reduce L1 attrition, communicating frequently in the mother tongue is key. As shown in another study, people who used their L1 frequently in the professional setting demonstrated a "relatively minimal attrition effects" (Schmid & Kopke, 2017, p. 32). These individuals "perform better on a verbal fluency task, have higher lexical diversity and a lower error-rate in free speech" compared to those who rarely communicate in L1 daily (Schmid & Kopke, 2017, p. 33). To maintain and reduce L1 attrition among children and adults, communication in L1 plays an important role. The atmosphere where L1 is constantly spoken impacts the continuation of the L1 do to the fact that it allows speakers to engage in daily communication using the home language.

Furthermore, the significance of the environment for L1 maintenance can be seen with Peter who moved away from his country of Germany and came to the United States. Peter's L1 was impacted to some extent because of his inability to be immersed in the L1 environment. The participants' diminished usage of L1 and increased use of L2 highlighted a phenomenon known as tip-of-the-tongue states (TOT). A TOT state can be understood as a "temporary word retrieval failure in which the speaker is certain that she/he knows the target word, and often has access to partial target information and other words related to it" (Ecke & Hall, 2013, p. 736). To document the loss of L1, a participant who spoke five different languages was documented for ten years. The individual's "word associations" were documented, as they occurred with phrases from five languages to pinpoint the occurrence of L1 attrition. As it turned out, the participant's L1 appeared to "gain stability after an early period suggestive of attrition" (Ecke & Hall, 2013, p. 734). Moreover, rather than losing L1 usage completely, the speaker experienced "temporary impairment" of L1 when it came to interacting in that language.

Language impairment consisted of "Difficulty repeating three and four-syllable nonwords, difficulty pronouncing consonant clusters, e.g.,/nt/ /mp/, smaller receptive vocabularies in both languages, tendency to omit grammatical words such as articles (the, a) and prepositions (in, on, at), as well as verbs and poorer comprehension skills when processing narratives" (Chondrogianni, 2016, p. 5). The retaining of L1 demonstrated that native language system is "stabilizing overtime after a period of relative instability due to competition from a recently learned L4 and a relatively frequently used L4" (Ecke & Hall, 2013, p. 748). Learning L4 at a later stage demonstrated that "later learned languages could re-shape the L1 in the immediate and the longer-term" (Schmid & Kopke, 2017, p. 2). In the TOT situation with the participant who spoke five languages, his loss of L1 demonstrates that the context where the dominant language is spoken serves as a powerful influence in the maintenance of the mother tongue. Additionally, the participant's temporary loss of L1 was due to the lack of communication in the L1, and his movement to a location where he was unable to hear the L1 being spoken daily. Therefore, the environment for language immersion is profoundly significant for the preservation of the L1 for immigrants.

Significance of Age in L1 Attrition

When talking about language attrition, age was a significant factor. It appeared that the younger a child was and the lesser the input, the more likely erosion impacts will occur (Filmore, 2000, p. 241). In a study regarding "The effect of recent L1 re-exposure on Spanish speakers under L1 attrition," a similar outcome demonstrated that the longer a speaker was in the L2 environment, they were "exposed to a great amount of L2 input" and "a drastic decrease in L1 input" resulted (Chamorro et al., 2015, p. 5). More importantly, the language attrition cycle seemed to be critical in pre-puberty (Schmid & Karayayla, 2020; Flores, 2010). The loss and maintenance of an individual's language of origin are further affected by a range of factors, generally divided into personal and group levels. On the individual level, age, gender, place of birth, education, marriage pattern, prior knowledge of the majority language, reason for migration, length of residency in the host country, and language variety was noted (Chamorro et al., 2015, p. 4). As demonstrated by the findings of significance of age in L1 attrition, young children below the age of five have merely not reached a stable enough command of their native language not to be affected by contact with a language that is promoted as heavily as English, it shows that age is a critical factor for the maintenance and loss of L1 among immigrants (Fillmore, 1991, p. 342). Immigrant kids in the U.S. seemed to learn the English language faster after arriving in the country and at school (Kouritizin, 2000, p.

314). In 2001, Portes and Rumbaut noted that second-generation bilingualism was uncommon by the age of eighteen.

The Importance of Maintaining L1

The significance of maintaining an immigrant's native language and passing the native language on to future generations has always been an essential notion to immigrants. Parents make every effort to ensure that their children do not forget their mother tongue because losing one's native language makes it impossible for children to communicate with grandparents back home or enjoy simple conversations with parents daily. Immigrant adults and children have many reasons why they want to maintain their L1. Parents' desire to have their children communicate in the home language is a way to help them keep up with their language of origin, culture, and means of communication with relatives. Losing L1 among immigrant children has brought disputes among kids and parents. Hinton (1999) highlighted that tension was visible among parents and children when language loss began to take place because "Children find themselves frustrated, unable to communicate effectively with relatives, alienated from peers in the old country, and humiliated in front of visitors to the home" (para. 12). Immigrant parents wanted their children to preserve their home language and pass on their rich culture as well as encourage positive family communication with all family members (Nesteruk, 2010, p. 273).

The second reason for the significance of maintaining the L1 is because immigrants view their native language as a way of transferring their culture and traditions, therefore promoting the maintenance of the kids' cultural individuality. Nesteruk talked about how if an individual has the language, they can introduce the 11

culture. The author further mentioned that having the capability to articulate the heritage language is highly critical because it makes it easier for children to speak with their grandparents and extended family. Because immigrants highly value extended family connections and, particularly, the relationship with grandparents, holding on to the native language becomes significant (2010, p. 278).

Furthermore, the importance of maintaining L1 has to do with the intellectual advantages of understanding a second language. Knowing more than one language is highly valued by immigrants because parents believe that it will get their kids ready to learn other languages. Maintaining L1 will allow adults and children to look at the world from two different lenses, increasing their understanding of the world and its various cultures. For some immigrants, the continuation of L1 has immense benefits of bilingualism for the child's intellectual development. Nesteruk highlighted that parents should consider improving heritage language abilities in their children as an investment in schooling and express a longing for their children to learn additional languages. Several parents also point out that, thinking about the worldwide economy, their kids may use their L1 in a potential profession (Nesteruk, 2010, p.279).

Efforts to Maintain L1 in the Home

It has been said that the more languages a person speaks, the wiser they are. Many immigrant families put forth lots of effort at home to help maintain L1 for their children. First, immigrant parents speak the native language at home with each other and their children. Communicating daily with the children allows them to hear the language more often, and in return, they can practice it. Reading books in the native language, telling folk stories from the culture, and showing videos with cartoons in the native tongue and from the countries of origin have impacted the language abilities of both adults and children in the home. Having grandparents present in the house is also an effort parents make to maintain L1 within the household (p. 279). According to Nesteruk (2010), home language erosion could be supported by having "parents who share the same heritage language and speak it at home, friends of the same national origin, and supportive ethnic networks" (p. 273). Speaking a heritage language at home consistently seemed to be a significant forecaster of retaining first language loss (Hakuta & D'Andrea, 1992, p. 82).

Maintaining L1 Outside the Home

Immigrants show efforts to maintain their L1 outside the home by utilizing ethnic community resources such as ethnic-based daycare centers, schools, and language classes offered through churches and community centers. As much as possible, parents should pick activities in the community taught by a teacher or coach with the target language. Selecting teachers who speak the home language allows both parents and children the opportunity to practice their mother tongue. The instructors of activities like music, skating, dance lessons, math tutoring, nannies, and childcare providers all spoke the L1 of students during instruction. Also, church-organized mass within the community in L1 allows immigrants to hear further the L1 usage (Nesteruk, 2010, p. 273).

The Pressure to Stop Maintaining L1

Immigrant adults and children worked hard to learn and speak English as quickly as possible once they moved to the U.S., Canada, and Europe because of the pressure to conform to the norm of the host country. The tension to speak English as set forth by teachers and other people in the community pushes immigrant children and adults to stop maintaining their L1. At times, teachers would suggest for parents communicate in English at home to assist their children's language growth (Kouritzin, 2000, p. 313). Filmore (1991) noted that L1 is affected when children learn English earlier in preschool programs (pp. 323-330). The opening of head start programs plays a significant role in immigrant children's language learning abilities. Filmore says, "as immigrant children learn English, the patterns of language use change in their homes, and the younger they are when they learn English, the greater the effect" (Fillmore, 1991, p. 241). Immigrants' children want to fit in and blend with others, so they will use the language that makes them conform easily, and English becomes the key to acceptance. Fillmore also writes, "It is problematic for children in the preschool period...under the age of 5...children have simply not reached a stable enough command of their native language not to be affected by contact with a language that is promoted as heavily as English." As children lose their mother tongue, communication at home can have heavy consequences on family relationships. The tension inside and outside the home are also motivators when it comes to language erosion in the life of immigrant children (Fillmore, 2000, p. 342).

Not many immigrants have "successfully maintained their ethnic languages as they assimilated into American life. As kids learned English, they used it more and more until English became their dominant language" (Fillmore, 2000, p. 204). For example, one Chinese family's first-generation children rapidly substitute their ethnic language with English instead of becoming bilingual. The Chinese family's youngest son stopped speaking Cantonese once he learned English (Fillmore, 2000, p. 205). Whenever the grandmother would talk to his grandson in Cantonese, he would ignore her or reply in English. Fillmore contends, "Language loss is the result of internal and external forces operating on children" (Fillmore, 2000, p. 208). Children's shifting from their L1 to

ultimately speaking L2 illustrates their acceptance of the new culture and want to normalize their new life in a unique setting, and this does not mean that they are being defiant toward their L1.

The pattern of language shift among first-generation and second-generation immigrant students was visible in the study of Hinton (1999). The author pinpoints his students' struggles and frustration during class due to their heritage language loss. Hinton noted that "first language attrition may manifest itself in different ways" (Hinton, 1999, p. 3). Most of the students in Hilton's study only had minimal knowledge of their heritage language. Some fully comprehend their home language; however, they cannot speak and understand the language. Hilton also writes, "most of the students are only semi-speakers of their heritage language, many report language mixing as the best they can do with their heritage language." Although code-switching seems to aid when heritage language is limited, students hinted that frustration, ineffective communication with relatives, and feeling alienated around peers are some of the problems they must combat in their lives. Hilton states, "For many students, parental insistence on retaining the language and values of the old country became the source of intergenerational conflict" (Hinton, 1999, p. 4). As children continued to shift away from their home language, the tension within the home among parents proceeded.

Like Hinton's study with adult students, Zapata showed what young adult individuals go through after realizing that they can no longer communicate the language they were born into because English was the first language they learned. Zapata followed the story of a college student, who struggled to cope with the notion that she had not just lost her mother tongue, but also her "connection to her culture, a sense of belonging and

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even the confidence to identify as an ethnic woman" (Zapata, 2019, para. 2). Upon arrival to the U.S., many immigrants face pressure enforced by other students, teachers, and even parents to conform to learning and speaking English first. Zapata further points out that "immigrant families are losing their heritage languages faster simply due to limited opportunities to speak those languages" (Zapata, 2019, para. 8).

Zapata also writes that "immigrant children use the majority language in a variety of contexts, with a variety of speakers, for a variety of purposes. The use of the heritage language, on the other hand, is more limited both in quantitative and qualitative terms: it is typically used at home with few speakers on topics concerning the everyday routine" (Zapata, 2019, para. 9). When the language of origin can no longer be used or understood by children, maintaining the language can become a struggle. The study in this paragraph, therefore, tells us that L1 maintenance does not only rely on the ability of individuals to speak it at home alone, but it requires daily communication with others who are also able to speak the language. Zapata's study tells us that children, whether adults or younger, value and don't want to lose their connection with their L1. To prevent the total loss of the L1, bilingual children and adults need to have the opportunity to always speak their L1 in any setting without feeling pressured to talk in English whenever they are. Educators and the community need to support the use of bilingualism among immigrants as well.

Conclusion

The literature review highlights significant points regarding language loss among immigrant families in the United States. From the study, it can be understood that native language loss has a considerable impact on the daily life of immigrants. The review illustrates that language loss can occur faster in some children than others. Key findings, such as the importance of age, contribute to the maintenance and loss of native erosion. The various studies depicted that the environment where language loss took place plays a vast role in the life of the individual learning the target language. As the review has shown, the longer a person remains in an environment where the native language is the dominant language, a shift toward language dominance is difficult to avoid. The findings from the literature review also highlighted the importance of preserving immigrants' native tongue. From the results, parents demonstrated a high desire to have their children maintain their native tongue. Parents' increased appetite for their children to preserve their native language is influenced by factors such as keeping connections with families from back home, passing the language to the next generation and maintaining relationships with the community.

Chapter 3: Identifying L1 Attrition

Language attrition can occur quickly or slowly with individuals as soon as a person begins learning the L2. As soon as adults and children immigrate to places such as the United States, Canada, and Europe, they begin to learn English to make life easy. In understanding the L2, less attention is paid to the L1, and the shift to the L1 language begins. The move to speaking and utilizing English has contributed significantly to language attrition. As children start to show fondness for the traditionally predominant language after beginning to communicate it at school, parents sometimes reply by shifting to the L2. At other times, teachers may recommend that parents speak English at home to facilitate their children's language development. With little attention toward the L1, attrition starts to take place. The researchers focused on the methods (participants, research questions, data collection, and data analysis) and findings utilized within the research studies to understand the importance of language attrition among immigrants.

Participants

Hamann and Ibrahim's (2017) article uses a different method than Schmid and Kopke's (2017) article. In Hamann and Ibrahim's study, there were 76 participants. Of the 76 participants in the study, 54 were bilingual children, and 22 were monolingual children. The 54 bilingual children all resided in Germany and spoke Arabic, Portuguese, and Turkish as their home languages. The study did not identify what languages the 22 monolingual children spoke and whether they also resided in Germany or elsewhere. The second language spoken by all participants was English. The boys and girls in the study ranged from five to nine years of age. Schmid and Kopke's study had no participants because it was a literature review. In Hinton's study, he worked with male and female participants. The age range for students was 18-25 years old (1999, para. 3). In the study, participants spoke all different languages. The four native languages spoken by the students were Chinese, Korean, Gujarati, and Hindi (1999, p. 5).

Research Questions

Hamann and Ibrahim aimed to investigate two new Language Impairment Testing in Multilingual Settings (LITMUS) tools. LITMUS is a "tool for German, a sentence repetition and a non-word repetition task developed according to the LITMUS principles" (Hamann & Ibrahim, 2017, p. 2). Hamann and Ibrahim wanted to know in particular whether LITMUS could identify specific language impairment (SLI) in bilinguals. For a non-word repetition task (NWRT), the writers wanted to know how accurate LITMUS was for their population (Hamann & Ibrahim, 2017, p. 3). These same questions also aided in developing the qualitative data collection and how the data analysis came to be. In the next section, the discussion focuses on qualitative data collection and analysis of the qualitative data. Schmid and Kopke wanted to know "how the mechanisms that drive and constrain L2 acquisition may also affect already established linguistic knowledge, both in the immediate and in the longer term" (2017, p. 8). In researching, Hinton examined the pattern of language shift in young first- and second-generation students and why this shift occurs (1999).

Data Collection

Hamann and Ibrahim's data collection method is quite intriguing. Participants who took part in the study were all children. Children were recruited in "kindergartens, schools, and speech-language therapy centers." The study was carried out in agreement with the "compliance of the German Science Foundation and the recommendation of the Commission for the Evaluation of Research Consequences and Ethics." Informed consent letters were given and obtained from all research adult participants and the parents/legal guardians of all minors. Written informed consent was obtained from the parents for data collection through the Parental Questionnaire and their children's participation in the research (Hamann & Ibrahim, 2017, p. 4). In Hamann and Ibrahim's study, the children's non-word repetition task, known as NWRT, and SRT responses, known as sentence repetition task, were audio recorded. Schmid and Kopke did not have a data collection method because their study is a literature review. On the other hand, Hinton obtained her data through class conversations with her students and observation during class periods.

Analysis of Data

The data analysis process took place over weeks. Hamann and Ibrahim's audio was transcribed offline, and it had to be "verified and scored by two independent linguistically trained research and student assistants." During the transcription stage, several softwares were used to understand the data. The first software used was IBM SPSS 22 Statistics for Windows, Version 22.0. The authors used the IBM software to identify unequal group sizes and made group comparisons. To quantify the analytic accuracy of the LITMUS, NWRT, and SRT, "sensitivity and specificity were calculated for each task upon an established cutoff score." The second tool for extracting data was ROC (receiver operating characteristic). The ROC curve is a fundamental tool for diagnostic test evaluation. ROC analysis was performed only for the monolingual data. For the bilingual analysis, the authors used K-mean cluster analysis, one of the most straightforward "clustering algorithms to partition data into k clusters". The researchers utilized the K-mean algorithm to categorize their observations into two groups using the test variables as dependent measures. The test variables used in the study are LITMUS, NWRT, and SRT" (Hamann & Ibrahim, 2017, p. 9).

In the above section, Hamann and Ibrahim's study demonstrated the significance of understanding language attrition by working with specific participants, research questions, qualitative data collection, and qualitative data analysis. Unlike the above authors, Schmid and Kopke's study reviewed the literature. There were no participants, qualitative data collection, or analysis of qualitative data that the authors had to investigate.

Schmid and Kopke's arguments were well crafted. The literature review by the authors helped readers fully comprehend the pivotal role a person had in language learning, the process they went through, and the ability to use the language in a new environment daily. The various studies within the literature review did not pinpoint the methods applied. Still, the headings for the examination, which included "The scope of attrition effects, online effects of linguistic co-activation in the L1, the mechanisms underlying language attrition, and factors driving the attritional process" (Schmid and Kopke, 2017, pp. 5-26) all focused on the argument the authors had. Schmid and Kopke's article did not explain how the four topics above were collected or analyzed. Hinton's study was also qualitative research, so there was no means of data analysis.

Findings

The study of Schmid and Kopke (2017), found that the development of L1 attrition became extremely obvious in speakers who moved to another country. There may be some saturation effect in the availability of linguistic memories at a particular stage in the L1 acquisition process because these were activated so often that common contact no longer essential preserves them. A malfunction triggered indications of attrition to inhibit the L2, not a malfunction to gain access to the L1. Attriters who frequently utilized the L1 in a professional context had more practice with their mother tongue and, consequently, were more successful when using the L1 in preventing L2 learning from influencing their output (p.8). The authors further pointed out that there are fewer attrition impacts with individuals with a more optimistic attitude towards their L1 than those with an unfavorable orientation regarding their L1 (p.9).

The finding from the study of Hinton about language attrition demonstrated that L1 attrition might manifest itself in various ways. For instance, the author gave the example of how children have only a passive understanding of their mother tongue. They may have reached a point where they fundamentally know the L1 but could not communicate as well as they understand. Other children may have learned to speak their home language quickly but could not read and write it (1999, para. 8).

The findings in Hinton's study also showed that language attrition generated numerous difficulties for kids who found themselves discouraged, could not talk effectively with families, were estranged from friends back in their native country, and were embarrassed in front of guests at home. The most significant problem that comes with L1 attrition is its effect on interaction in the household. Sometimes, parents can't speak English at all or to the children's level at home. Suppose the children are not able to communicate in the L1. In that case, the child may not have a good enough knowledge of the L1 to overcome this communication difference (para. 10). Hinton also pointed out that language attrition among immigrants is common and continues to be because of the influence of English. However, the understanding of the L1 never progresses or deteriorates fast once English is presented in the home (para. 15-17).

Language attrition among immigrants can also be traced in the study of Hamann and Ibrahim (2017). The authors' findings revealed that L1 attrition usually happens in the L2 atmosphere. Language erosion occurs due to the speaker's immigration and subsequent exposure to an incredible amount of L2 input. At the same time, there is a substantial reduction in L1 input (pp. 10-13). The findings also illustrated that individuals who have been exposed to their L2 at the beginning or are concurrent bilinguals are frequently subject to language attrition in their L1 or could be said to suffer from inadequate acquisition (p.16). The authors finally pointed out that language attrition of L1 is visible when L2 exposure is early (p. 16).

Chapter 4: Role of the Environment in L1 Erosion

When learning a new language, it has always been encouraged for individuals learning the dominant language to be immersed within the environment in which the dominant language is spoken daily. Many studies have proven that immersion quickens children's abilities to communicate and utilize the new language effectively. Schmid states, "speakers who live in an L2 environment for an extended period often experience a change in the way in which they use their L1" (2011, p. 15). Although second language immersion is critical when learning a second language, the immersion environment also plays a crucial role in maintaining or losing one's L1.

Participants

Schmid's (2007) article divided the participants into three groups. The first group was from an L2 English context (in the area of Greater Vancouver, BC, Canada) and one in an L2 Dutch context (in the area commonly referred to as the "Randstad," the denselypopulated area of the Netherlands between Rotterdam and Amsterdam) and a control group of speakers in Germany (Schmid, 2007, pp. 9-10). The German speakers in Canada (CA) and the control group of German (CG) were 35 women and 18 men. The German speakers in The Netherlands (NL) group included 34 women and 19 men (Schmid, 2007, p. 10). All three participants were L1 speakers of German and spoke English as a second language. Schmid never mentioned the age of participants but provided the mean for each group. The mean age for German speakers in Canada was 60.89. The control group of German had a mean age of 63.36. The German speakers in The Netherlands had a mean age of 63.23 (p. 9). Both males and females were included but exact numbers were not given.

Unlike Schmid's (2007) article, in Schmid's other report with Yilmaz, the participants were divided into four experimental populations and three controlled populations. There was a total of 87 participants who took part in the study. Of the 87 people, 52 of these speakers were Turkish natives, and the remaining 35 individuals were native speakers of Moroccan Arabic. The participants were between nine and 43 years, and they were males and females. Some participants were living in the Netherlands, and others were residing in Vancouver, Canada, while the study was taking place (Schmid & Yilmaz, 2018, p. 7). All participants spoke English as an L2.

In Schmid's (2007) study and the study by Schmid and Yilmaz, participants were comparable to those in Linck et al. article. In Linck et al., fewer people participated in the research study than in other studies. In Linck et al., there were two groups. The immersed group was the first participant group with 25 students. The second group, which had 20 students, was the classroom group (Linck, 2009, p. 1508). Both groups were enrolled in a university abroad in Spain at the time of the study. The L1 of each group was English, and they were learning Spanish during the study period. Both male and female students took part in the survey. The age for the immersed group was 20.6, and the classroom group was 21.2 (p. 1509).

Like the number of participants in Linck et al., the study of Chondrogianni also had fewer participants. Chondrogianni had 29 girls and boys who were in the study. The children in the research were four to six years old. The L1 spoken by the kids was Welsh, and L2 was English. All 29 children lived in Wales (Chondrogianni, 2016, p. 2). The research of Ecke and Hall had the smallest number of participants, with just one person in the study named Peter. The native language of the male participant was German. He spoke several L2, which included English, Spanish, Portuguese and Russian. Peter was in his early thirties. He moved to the United States, where he taught German and English during his study (Ecke & Hall, 2013, p. 736).

Research Questions

The five authors above presented intriguing research questions to guide their research. In Schmid's article, she states that "This investigation aimed to assess to what degree frequency of use of the L1 in everyday life impacts on overall performance in that language, and what role the language mode in everyday L1 use plays in this respect" (Schmid, 2007, p. 10). Unlike Schmid's research questions, the questions raised by Schmid and Yilmaz in their article "Predictors of language dominance: an integrated analysis of first language attrition and second language acquisition in late bilinguals" was more than what Schmid had in her article. Schmid and Yilmaz had three investigative questions. They were:

1. What is the predictive power of external factors (age, education, or language aptitude; the context in which the languages were acquired; language experience and habits; and linguistic and cultural identification) for measures of language proficiency in both the L1 and the L2 of long-term immersed bilingual populations in a multifactorial linear model?

2. To what extent can the predictive power of external factors for measures of language proficiency in both the L1 and the L2 of long-term immersed bilingual

populations be increased by adopting a data categorization approach which does not rely on the linearity of relations?

3. What are the differences between HLC and BLC aspects of proficiency with respect to RQs 1 and 2? (Schmid & Yilmaz, 2018, p. 6)

Similar to the research questions set forth by the study of Schmid as well as Schmid and Yilmaz, the question in Linck et al. article "investigated the effects of immersion learning for a group of university students studying abroad in Spain" (Linck et al., 2009, p. 1507). Chondrogianni investigated "How do we know if a child's language difficulties are due to language impairment or due to insufficient exposure to the language being assessed?" (2009, p. 1). The work of Ecke and Hall investigated "How stable, or how permeable to attrition are a multilingual's first and second languages during life periods characterized by dynamic changes in language-use frequencies?" (2013, p. 734).

Data Collection

The data collection for the five research studies by Ecke and Hall, Schmid, Chondroginni, Linck, et al., and Schmid and Yilmaz vary. Schmid and Yilmaz's study collected data from four experimental and three control populations. Participants were given a questionnaire consisting of a total of "77 questions in different formats: open questions (e.g., birthplace, profession, personal reflections), Likert-scale questions (e.g., levels of use, attitudes, and preferences), and interval questions (e.g., age)" (Schmid & Yilmaz, 2015, p. 7). The researcher used the questionnaire as the basis for a semistructured interview, where "participants were prompted to talk about themselves, their biography and their languages, freely, informally and in detail" (p. 7). Schmid (2007) conducted interviews with participants for her study and had 78 questions for the discussion. The interview questions focused on individual backgrounds and lasted for half an hour. The questions list contained several:

1. binary or yes/no questions (such as gender), a set of ordinal variables (such as education level)

2. a large number of 5-point Likert scale preference or frequency indications(such as L1 use in daily life, with family and friends, cultural affiliation, languagepreference)

3. some genuine interval variables, such as age and length of residence in the country of emigration. The researcher recorded this interview and later transcribed it orthographically. (Schmid, 2007, p. 10)

Like Schmid and Yilmaz, Chondrogianni used a questionnaire to guide her study. The parental questionnaire given by Chondrogianni aimed to "examine the family and individual history of language and other learning disorders." The questionnaire also helped establish the "quality and quantity of language exposure between birth and time of testing." Aside from the parental questionnaire, children in the study were given an assessment. The assessments evaluated "language abilities in areas known to cause problems for children with language impairment: phonological and narrative abilities" in both English and Welsh (Chondrogianni, 2016, p. 2). The types of questions contained in the study of Chondrogianni were interval questions.

In the work of Linck et al., neither a questionnaire nor an interview was relied on for data collection. The authors focused on the observation of participants. Individuals were observed in their natural environment as they completed two different tasks assigned by the researchers. The first task observed was a "comprehension task (translation recognition) designed to engage both languages," and the second task was a "production task (verbal fluency) which was conducted separately in English and Spanish" (Linck et al., 2015, p. 2).

Ecke and Hall's work collected data by keeping a personal cognitive diary. The participant had to record TOT (tip-of-the-tongue) states in the diary. Using the diary sheets, the participant "recorded any partial knowledge about the target word (e.g., letters/sounds, the number of syllables), any associations he made during the word search, and the target word when it had been recalled in the end" (Ecke & Hall, 2013, p. 6). The recording of the diary took place for about ten years.

Analysis of Data

The data analysis for all five research studies by Ecke and Hall, Schmid, Chondrogianni, Schmid and Yilmaz, and Linck et al. were done differently. In her research, Schmid used the results from two tests for analysis. The first task was called the "Verbal Fluency" (VF), and the second task was the "Charlie Chaplin film retelling task." For the VF tasks, "performance on the two verbal fluency tasks was averaged to one variable" (Schmid, 2007, p. 11). On the other hand, for the Charlie Chaplin film retelling task, the result was transcribed orthographically and converted to CHAT format. The author never clarifies what CHAT stands for, but it might be software used during transcription.

Unlike the analysis done by Schmid in her research, Linck et al. had a different way of analyzing their data. The authors analyzed the data obtained from the immersed group vs. classroom group using what is called "multilevel modeling (MLM), an advanced regression analysis" (Linck et al., 2015, p. 4). Using MLM, the data from the two groups were compared to see which learning environments significantly impacted L1 attrition while each group was in its natural context.

In the study of Schmid and Yilmaz, analysis differed even further compared to the research study of Schmid and Linck et al. To understand how language dominance impacts late bilinguals, Schmid and Yilmaz's data obtained from the semi-structured interview was transcribed and coded using "1 ('I cannot do this') to 5 ('I can do this without any difficulty'). Averages were created for the subscales as well as globally, with the maximum possible score being five and the minimum being 1" (Schmid and Yilmaz, 2018, p. 9).

Chondrogianni, on the other hand, analyzed data using a comparison of the two languages students were speaking. In this case, the students spoke English and Welsh. The performance of the tasks given in both languages was compared to determine language dominance based on the usage of the two languages. The performance was analyzed using percentages "based on standard scores for the English tasks and raw scores for the Welsh tasks" (Chondrogianni, 2016, p. 4).

The data analysis of Ecke and Hall differed from the analysis of the other four authors in this paragraph. In Ecke and Hall's analysis, they used three primary markers of activation level and attrition of languages:

1. the relative frequency of TOT states in each language in relation to other languages and the estimated frequency of use.

2. the relative frequency of contribution by each language to cross-language associations (in other languages, TOT states).

3. the relative frequency of contribution by each language to within-language associations. (Ecke & Hall, 2012, p. 740)

The three markers were used as a hypothesis to determine the "order of adjusted rates of TOT state occurrence across the main three languages during the 10-year period." These three hypotheses were additionally utilized to "provide a transparent framework for interpreting the observed distribution patterns of TOT states and cross-language and within-language associations and for assessing the role of contextual factors that fluctuate over the four successive time periods" (p. 740). All three markers were used throughout the study during the entire cycle of the research because they helped identify the impact of the L1 with the various language the speaker was speaking.

Findings

Schmid, Ecke and Hall, Chondroginni, Linck, et al., and Schmid and Yilmaz had similar findings. Ecke and Hall pointed out that all "three indicators suggest that the native language system is stabilizing overtime after a period of relative instability due to competition from recently learned L4 and a relatively frequently used L3." The authors' findings suggested that the original learning environment might impact and explain the TOT states. Also, the participant's time away from his German-dominant environment and the relatively infrequent use of the L1 during the time away were considerations to cause attrition (Ecke & Hall, 2012, p. 748). Chondrogianni's results showed that "English tasks failed to identify bilingual children with language impairment correctly." However, using L1-specific tasks with students provided better identification than testing children using the weaker language because the environment for L1 exposure matters (Chondrogianni, 2016, p. 4).

Linck et al. suggested that "access to the L1 is attenuated during language immersion. In both comprehension and production, the L1 was less accessible for the immersed learners than for the classroom learners" (Linck et al., 2009, p. 1512). Schmid's result suggested "a delicate balance of the two language systems and their activation, inhibition, and accessibility" when looking at L1 and L2 usage (2007, p. 17). Furthermore, the finding indicated that language loss among "attriters might depend less on the mere frequency to which the L1 is continued to be spoken" and the "quantity of contact might be more important than pure quality, and more and more to the fact that monolingual mode use of the L2 demands that the L1 be inhibited." Individuals who frequently used their L1 for professional functions received somewhat more excellent Verbal Fluency scores and could use fewer pauses during free speech (p. 16). The finding from the study of Schmid and Yilmaz was similar to the work of the four authors above. Schmid and Yilmaz's results pointed out that the strongest contributing factor when looking at L1 attrition "was self-assessed L1 proficiency, with higher levels of proficiency being associated with better L2 skills." The authors further highlighted that "attitude had the most consistent effect: participants for whom the maintenance of their L1 and its transmission to the next generation was more important and who stated a preference for their home culture achieved better scores on the L1 C-Test" (Schmid & Yilmaz, 2018, p. 11).

Schmid and Yilmaz used the C-Test to measure general language proficiency among L1 participants. It turned out that participants who had "higher levels of language maintenance were the ones who used the L2 less with their friends and the L1 more with their family" (p. 16). Participants also demonstrated that utilizing the L1 at work was significant in preserving and acquiring the L1. Therefore, the results from all five studies showed that communicating in the L1 language is highly valued by L1 speakers. These studies highlighted how the environment plays a significant role in L1 regarding the erosion of the mother tongue. For instance, when L1 learners begin to acquire an L2 in the L2 environment, one change that appears to take place very soon after a person becomes immersed in a different linguistic environment is a shift in language dominance. In the L2 domain, contact with the L1gradually decreases while communication in the L2 increase leading to language loss. The role of the environment in L1 attrition, therefore, determines the extent to which L1 will survive or not.

Chapter 5: Significance of Age in L1 Attrition

Age plays a vital role in the acquisition process when learning any language. Various studies have been conducted regarding the significance of age when understanding L1 attrition. In this chapter, the focus is on how age impacts L1 erosion. The method and findings from three studies are analyzed closely to help understand how age is essential in L1 attrition.

Participants

The research study by Flores had one participant named Ana. Ana spoke Portuguese as an L1 and German as an L2. Ana was born in Portugal but moved to Germany at the age of 19 months. However, she moved back to Portugal at the age of nine (Flores, 2015, pp. 15-16).

Schmid and Karayayla (2020) had the most significant number of participants. In Schmid and Karayayla's research, there were 92 females. The authors never mentioned how many total males were in the study. The 92 participants were divided into two groups (bilinguals and monolinguals) of Turkish speakers. The monolingual speakers' age ranged from one to 42 years, and the bilingual age ranged from 18-67. Both groups spoke English as L2 and Turkish as L1. All participants resided in the United Kingdom (Schmid & Karayayla, 2020, p. 62).

Tomiyama (2008) had two people in his study. The participants were one male and one female. The ages of both children were five and eight when they entered the U.S. When they moved back to their native country; they were ages seven and 10. The kids were initially born in Japan but were living in the U.S. during the time of the study. The male sibling was age eight, and the female was age five. The native language spoken by both kids was Japanese, and their L2 was English (p.261).

Research Questions

The study by Flores wanted to answer the research question, "Are morphological and syntactic properties such as verb placement, subject expression, case and gender marking, and verb inflection affected by attrition in case of a lack of input? Does the child make grammatical errors in these domains?" (p. 14). Schmid and Karayayla aimed to find answers to several in-depth questions, and they were:

1. In what areas of language proficiency and use can we observe differences between monolingual speakers of Turkish and bilinguals with a range of age at the onset?

2. To what extent can factors linked to personal background, language exposure, and attitudes (henceforth: external factors) predict the overall complexity, accuracy, and diversity of productive L1 use of Turkish among a diverse population of Turkish–English bilinguals?

a. What is the impact of age at the onset of bilingualism (AaO)?b. What is the impact of the frequency of exposure to L1 in various contexts?

c. What is the impact of attitudes?

3. Does the interaction of external factors predict different performance on a range of linguistic tasks at various stages of language development? (Schmid & Karayayla, 2020, p. 62)

The study of Tomiyama focused on "whether any difference exists in the degree of second language attrition between two siblings in terms of grammatical complexity, grammatical accuracy, lexical complexity, and lexical productivity" in terms of their age (2008, p. 253).

Data Collection

Flores relied on observations for data collection. The observations were conducted four times over 18 months when the participant was aged 9, 10, and 11. The observation was recorded for all four sessions with the participant. Data was also collected through "orally elicited production tasks. The participant was asked to comment on pictures and to tell a story" (Flore, 2015, p. 16).

Schmid and Karayayla's (2020) data collection involved a personal background questionnaire, a picture description task, and a semi-structured interview with all participants. The questionnaire, which had 97 items, was used to gather information on participants' backgrounds, language use and exposure, self-rated proficiency, and attitudes. The interview lasted "between 10 and 40 minutes and based on a set of questions designed to encourage participants to employ the full range of linguistic features available to them for productive language use while still feeling free to talk informally and casually." The last means of data collection was PDT (Picture Description Task). In the PDT task, "participants were shown five pictures of incidents/events. All pictures showed protagonists dealing with the aftermath of a disaster or accident, and participants were asked to speculate on what had caused the scene" (Schmid & Karayayla, 2020, p. 63).

Tomiyama (2008) did storytelling for data collection. The data was produced using both audio and videotaped recordings (p. 261). The interview was also conducted with the parents of the children but not with the kids.

Analysis of Data

The analysis of Flores focused on counting the number of errors made in the "aforementioned linguistic domains (verb placement, subject expression, case and gender marking, and verb inflection)" (Flore, 2015, p. 19). Coding was also done in each of the four linguistic domains.

Schmid and Karayayla made a performance comparison of monolingual versus bilingual speakers. The authors first organized the "personal background and selfreported L1 use and attitudes" data on the computer. Next, the data was "orthographically transcribed in CHAT format and then coded" (Schmid & Karayayla, 2020, p. 66). Finally, the authors looked over the "spoken data and segmented the data into clauses." The last part of the analysis involved calculating the "proposition of the four clause types" for both monolinguals and bilinguals (Schmid & Karayayla, 2020, p. 67).

Tomiyama's data analysis included a transcription of the storytelling and was then "subjected to numerical analyses." After the analysis, certain elements were removed from the data, and the eliminated items included "self-corrected words, self-repeated words, nonlexical filled pauses (e.g., um, uh), and Japanese utterances." The three items were excluded because the researcher believed that the items would "distort the results" (2008, p. 261).

Findings

The study of Tomiyama illustrated differences between the two siblings regarding grammatical complexity, accuracy, lexical complexity, and lexical productivity. In grammatical accuracy, both siblings were almost equal (2008, p. 265). Both participants were inclined toward an ongoing decrease in lexical complexity (2008, p. 266). Both children seemed to struggle regarding lexical productivity, as the author mentioned that "their lexical productivity seemed to be either maintained or slightly declined overall" (2008, p. 267). The female sibling who was five years old seemed to show a more significant decrease than the male brother who was eight. When it came down to grammatical complexity, the siblings had a similar pattern because "grammatical complexity was stable for both of them" (2008, p. 263).

The findings from Tomiyama further showed that as time passed, the younger sibling's accuracy deteriorated, but the older brother's speaking in English did not (p. 270). The younger sibling (Lily) belonged to an age group reported to be more vulnerable to attrition. She showed attrition patterns parallel to her older brother belonging to an age group said to be more vigorous. The authors noticed two differences in grammatical accuracy. The disparity became more apparent around the second year after the siblings returned to their home country, implying that the time of abandonment impacts differentially corresponding to their ages. Another is the point of fluctuation. The younger sibling changed more and, to a greater extent, suggested less strength. The authors noted that their observation of the siblings indicated that the younger sibling's grammatical complexity and grammatical accuracy trade-off told that the distinction

among the siblings is due to maturational factors related to memory and processing capacities (p.273).

The finding from Flores's study focused on the errors made in each session in the linguistic domains with her participant Ana during the different sessions the researcher observed her. The result demonstrated that "gender marking was significantly affected." Also, verb placement revealed deviations. The author noted that verb arrangement mistakes emerged simultaneously as "verbal morphology (person and number marking) was affected." Even though the fourth meeting was based on composed "stimuli, it reflected a similar tendency to that identified in the previous session." The participant made both acceptable and flawed constructions in all examined areas. After 18 months without regular contact with German, all explored regions come to be impacted by erosion. Flores said, "in no case, however, was there a total loss of knowledge." Even when Ana faced intense word retrieval problems, in the fourth session, Ana was yet capable of producing accurate linguistic constructions (p. 30). Ana's result shows the errors she made in German after coming back to her home country (Portugal) at the age of nine. The effect of language attrition on Ana after moving away from Germany at the age of nine was visible. At the age of nine, several features of language attrition were discovered in Ana's communication in German. Because Ana was at the pre-puberty age, she exhibited severe word retrieval difficulties 18 months after moving to Portugal. Ana's age of return showed that attrition effects were extensive because her communication in German was significantly low. Ana's struggle with German reinforces the importance of age in language preservation.

Schmid and Karayayla's findings focused on the comparison of monolinguals and bilinguals. The result indicated that participants who spoke two languages before age 10 showed a strong connection among stages of "exposure on the one hand and levels of proficiency on the other into adulthood." The participants who had a higher level of interactive exposure to the L1 were the ones who made use of more diverse morphosyntactic devices in their free speech and were more correct on "formal and experimental tasks and retained better lexical access." Participants who become bilingual past age 10 are less vulnerable to issues connected to frequency of exposure and hardly diverge from the monolingual standards. No impact of attitudinal factors toward the Turkish language or culture was found. The authors further explained that younger speakers may be more susceptible to input and exposure factors and that this sensitivity accounts for the more significant scope of variability regarding competence often found among bilinguals with a lower AaO (2019, p. 77). The research shows that the age around puberty plays a significant role in language loss. The period at which language loss occurs is critical to understand whether working with adult learners or children because it differs between adults and children.

Chapter 6: Maintaining L1

When immigrant children move to the U.S, they always have high hopes and ambitions to learn and speak English quickly. Many parents and children value the desire to learn and speak English as a newcomer to America. As soon as children acquire some English skills, they start to use them with family and friends. As immigrants continue to learn English and utilize the skills, they also begin to spend more time listening, reading, and speaking in English, not realizing as a young child that the influence of English daily begins changing their means of communicating in their L1.

The influence of English on immigrants' L1 loss changes how they speak and utilizes the L1. For example, when immigrant children enter the U. S., their children are quickly placed in schools. Attending school five times a week means speaking English daily for hours. In return, children do not get enough opportunities to speak their native language at school. When they come home, their opportunities to speak their mother tongue are also minimized because they watch television or play games on iPads, all of which are typically in English. As Alba et al. stated:

English has become accepted out of necessity by ethnic groups as the dominant language in public spheres; the mother tongue is more and more restricted to use with social intimates, especially family members. Moreover, if children do not learn to speak a mother tongue at home, there is little probability that they will learn to speak it fluently, given the age limits on language learning. (2002, p. 5) These influences take a toll on the brain with the language that is not used as often. In the upcoming sections, the various authors helped demonstrate the impact of English on immigrants' L1. These authors helped pinpoint why English is essential, yet it affects the lives of immigrants' L1, and this has changed the way some immigrant parents think of learning and speaking English.

Participants

In the study by Alba et al. (2022), the researchers worked with Chinese, Cuban, and Mexican immigrants to understand the effect English has on their L1. The participants in the study were children ages six-15, both male and female. The languages spoken by the three groups was Spanish and Chinese, and the second language was English. All participants lived in the United States at the time of this study.

The study of Hakuta and D'Andrea (1992) was similar to that of Alba et al. because they, too, worked with Mexican students. Hakuta and D'Andrea's study noted that "once English is learned by immigrants, most successfully and efficiently by children, there is a rapid loss of the minority language by the group" (Hakuta & D'Andrea, 1992, p. 1). The participants were students attending high school in California. The students all spoke English as an L2 and Spanish as an L1. In the study, "105 firstyear students, 106 sophomores, 75 juniors, and 22 seniors, consisting of 149 males and 159 females. Concerning a class type, 100 subjects were enrolled in Spanish as a foreign language, and 208 in Spanish for Spanish speakers" (p. 4).

Wong Fillmore (2000) worked with four siblings of participants, ages nine, 10, 15, and 16. The two older children were born in China, and the two younger ones were

born in the U.S. The L1 of the siblings was Chinese, and the L2 was English. The participants were three girls and one boy.

Unlike the authors above, Nesteruk (2010) had 50 participants from seven European countries living in the United States. Participants were both male and female. Of the 50 people in the study, fathers were between 34 and 56 years old while the mothers were between 31 and 50 years old. The second language of all participants was English. The native languages spoken by participants included Romanian, Russian, Ukrainian, Bulgarian, Polish, and Bosnian. There were 66 children, and 47 of them were born in the U.S. The children spoke the same mother tongue as their parents and English as a second language (Nesteruk, 2010, p. 9).

The study of Kouritzin (2000) was similar to that of Wong Fillmore because Kouritzin also worked with siblings. The children in Kouritzin's study were one male and one female. The researcher did not mention the age of the children. Both children were born in the U.S. The L1 spoken by both children was Japanese, and the L2 both kids share was English.

In the study of Zapata (2019), she worked with one adult female student. The participant in Zapata's study was age 23 (para. 2). The female lived with her parents in Canada during the study. Two languages spoken by the participant were Hindi as an L1 and English as an L2 (para. 1).

The study of King and Fogle had a total of 24 families. The ages of the mothers ranged from 35-44 years. Fathers were between 26 and 56 years old (King & Fogle, 2006, p. 698). All participant families resided in the U.S. Everyone in the study spoke English as an L2 and Spanish as an L1.

In the study of Park and Sarkar (2007), there was a total of "nine immigrant parents-three fathers and six mothers" (p. 226). All participants were originally from South Korea but lived in Canada. Participants spoke Korean as a native language. English was used for communication as an L2 (p. 226). Participants were between 32 and 50 years old (p. 226).

Research Questions

Understanding language loss among immigrants plays a vital role in supporting them at school and in the community. Many studies focus on language erosion. The following studies focus on language loss and its significance to immigrant families. In the study of Wong Fillmore (2000), the questions she aimed to answer were "How is a language lost? What is lost when a language is lost?" Hakuta and D'Andrea (1992) focused on addressing the empirical distinction between the various ways bilingual ability might be measured and exploring the consequences of bilingualism on the language attitudes of individuals. Alba et al. (2002) investigated whether a threegeneration model of linguistic assimilation can be applied to the descendant of a contemporary immigrant group (p.467). On the other hand, Nesteruk aimed to investigate "issues surrounding heritage language maintenance and loss among the children of Eastern European immigrants in the USA" (2010, p. 7). Kouritzin wanted to shed light on the "importance of continued use of the familial heritage language" (2000, p. 2). In her study, Zapata hoped to provide answers to the question, "Why children of immigrants are losing their native languages?" (2019, para. 1).

Language loss affects families, parents, and children. Parents and families value their language of origin, so maintaining the L1 is essential to immigrants' parents and

families. King and Fogle investigated "how parents explain, frame and defend their particular family language policies" (2006, p. 695). Park and Sarkar explored "immigrant parents' attitudes toward heritage language maintenance for their children and their efforts to help their children maintain Korean as their heritage language" (2007, p. 233).

Data Collection

Wong Fillmore and Kouritzin gathered data similarly. Wong Fillmore (2000) collected the data for her study using in-home observations of the siblings in her research. Multiple visits were made to the participant's homes, where Wong Fillmore documented their interaction with their parents. The observation was done using written down notes. On the other hand, Kouritzin (2000) worked with her own children in her research study as her participants. Kouritzin collected her data through daily observations and open communications with her children. During a conversation or when completing a task, Kouritzin's husband communicated with the kids in Japanese while the mother spoke with the kids in English. At times, Kouritzin would also encourage the kids to ask questions in Japanese.

Wong Fillmore and Kouritzin were not the only ones with similar data collection methods. Nesteruk, Zapata, King and Fogle, Hakuta and D'Andrea, and Park and Sarkar's also mimic each other's data collection methods. Nesteruk gathered her data in two waves. In the first wave, the author interviewed 24 immigrant parents living in Southern USA. Three years later, the author interviewed 26 participants residing in the USA's Northeastern, Midwestern, and Western regions. Preceding the interview, participants had to sign a consent form and fill out a demographic information sheet. The interview lasted 60 minutes, composed of half a personal consultation and half over the phone. The researchers recorded the discussions (2010, p. 8). In work of Zapata (2019), she collected her data through personal interviews with her participant. King and Fogle (2006) collected their data using an audio-recorded ethnographic interview with the participants. Park and Sarkar's (2007) means of data gathering were like King and Fogle, which also involved questionnaires and interviews. Hakuta and D'Andrea's (1992) data collection included a letter of introduction as the invitation to participate while in their Spanish classes. After the letter, a questionnaire was then distributed to students by the investigators.

The last study that had different means of data collection was the work of Alba et al. Alba et al. obtained information from the Integrated Public Use Microdata Sample (IPUMS) Census for their data. Using the census, the authors noted whether each household member communicated in a language other than English and, if so, which language (2002, p. 6).

Analysis of Data

Analysis of Nesteruk's data had several steps. After each interview, Nesteruk wrote the observational information on her computer, which was then complemented with remarks following the interview transcript. Next, coding was done to identify any emerging notions in the interview data. Nesteruk utilized a mixture of line-by-line and sentence/paragraph coding, thus identifying text parts that correlated with a specific idea. Then, Nesteruk reduced concepts, and the most crucial message in the interview data was labeled. Finally, the author re-read the interview transcripts to ensure that nothing significant was left out (2010, p. 9).

Alba et al. (2002) analyzed their data using multivariate analysis. The authors did a logistic regression modeling of the result of speaking English only as opposed to speaking English and another language. The authors came up with six variables: parental education, ethnic niche employment, self-employment, intermarriage, presence of preschool children, presence of other non-English speakers, proximity to residential group concentrations, and location in a bicultural region (pp. 471-472). Of the six variables, two variables were coded (ethnic niche employment and self-employment, intermarriage). For the presence of preschool children and the company of other non-English speakers, the authors used a dummy variable set to one for the age range of zero to five years. The proximity to residential group concentrations variable was measured using the Public Use Microdata Area (PUMAs) attributes. For the last variable, location in a bicultural region, the researchers used PUMA geography to describe each group (p. 472). Using the different variables in the study allowed the researchers to have a broader understanding of the aim of the study.

In the study of Hakuta and D'Andrea (1992), data analysis was done by comparing self-reported language proficiency and measuring language proficiency with participants. The information gathered from participants was first categorized based on participants' background information. Next, "measures were developed through extensive pilot testing with students in a comparable school in a neighboring city" (p. 4). There were eight measures total: language proficiency, productive vocabulary, grammatical knowledge, Cloze test, standardized language proficiency, questionnaire data, and essential background (pp. 4-5). Based on the information from the measures, the authors categorized participants based on how long they resided in the United States (p. 5). Six

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depths were created, and each depth defined the classification of participants. Three variables were also created: actual and self-reported proficiencies in Spanish and English, self-reported language choice behavior in various settings, and language attitude (pp. 5-6). The depth and variables allowed the researchers to categorize participants accordingly to understand the maintenance of L1 within the Spanish community.

Unlike the research done by Alba et al. and Hakuta and D'Andrea, which provided information on how the authors analyzed the data, the study of Wong Fillmore (2000) did not offer how she interpreted the data she collected. The short article only focused on the story of the four young siblings. There was no evidence regarding the process for data analysis. Kouritzin's (2000) participants are similar to Fillmore's because she also worked with siblings, and the number of participants was minimal. Kouritzin's study was a commentary on her observation of her children as they communicate in Japanese and English. In Kouritzin's article, there was no means of data analysis, just like in the study of Wong Fillmore, Zapata, and Kouritzin, who also did not provide how they analyzed the data for their research study. Wong Fillmore, Zapata, and Kouritzin's studies were qualitative research, as such there was no means of numerical data analysis.

Park and Sarkar (2007) had a brief data analysis. The authors transcribed the main points from the interview with parents and then translated them into English by one of the authors who spoke Korean (p. 228). King and Fogle's (2006) data analysis involved active transcription of the interviews using standardized format (p. 700). Following the transcription, the authors:

Reviewed each interview for meaningful, relevant discourse units (phrases, sentences, or more extended expressive units), grouped and then coded these into

approximately 30 conceptual categories. These codes were created, expanded, and refined throughout the multiple rounds of coding so that they emically 'fit' the data. Using FileMakerPro 6, a computer software, a database was created so that each coded discourse in the unit was logged as an individual record with background information concerning the speaker. (p. 700)

Even though the above authors all had similar analysis methods, they all had unique ways of understanding their means of assessment. The analyses were similar because all the authors transcribed the data gathered from participants, and interviews took place with most of the studies and participants.

Findings

Park and Sarkar's (2007) results about immigrant parents' attitudes toward heritage language maintenance for their children and their efforts to help their children maintain Korean as their heritage language showed that "all the participants wanted their children to maintain the Korean language." All Korean families in the study had a positive attitude when it came to maintaining the L1 because parents believed that maintaining the L1 would allow their children to "keep their cultural identity through the Korean language" as well as allow them to "define their cultural identity more positively in multicultural societies" (p. 228). Parents' positive attitude, therefore, shows the value of being multilingual and its importance to immigrant families.

King and Fogle's (2006) findings on how parents explain, frame, and defend their family language policies suggested that:

Parents are not uncritical consumers of any one source of advice or information. Though they cite and acknowledge input from the popular press, parenting literature, and family networks, they frame these external sources in terms of the beliefs they have formed due to their personal experiences. Their encounters with language learning—successful or unsuccessful—seem to serve as the primary motivator in opting for an additive or enrichment family language policy. (p. 706) King and Fogle (2006) further illustrated that all parents in their study highly valued having their children speak two languages. These parents valued bilingualism and saw it as an advantage that benefits their kids, such as ethnic relations and enhanced financial chances. Additionally, parents in King and Fogle's study were open to speaking the mother tongue and English with their children from a young age to help maintain the

L1 while speaking the L2 (p. 700).

The study of Hakuta and D'Andrea (1992) highlighted that the maintenance of Spanish by high school students was linked with grown-up language use in the house (p. 82). This finding indicates that if adults spoke Spanish with their children at home, then maintaining the L1 is possible. However, when parents move their inclination considerably in the direction of English, it takes away the opportunity to utilize the L1, therefore, leading to L1 loss. The author's finding further illustrated that there are factors such as "demographic fact of immigration, whether the adult possesses the proficiency to use English in the home and increasing distance in the social network from Mexico," which all affect adult language choice at home and in return put a strain on the maintenance of the L1 (p. 85). Therefore, the authors pointed out that regular trips to the home country can reveal the degree to which the family retains its community link with families and friends in Mexico (p. 83). The above point shows that when families have the opportunity to visit back home, it will help not only improve communication in the L1 but also help maintain the continuity of the L1.

As seen by the three authors above thus far, L1 maintenance is a big deal among immigrant families, whether in the U.S. or elsewhere. Nesteruk (2010) found that many immigrant parents in the research are fond of passing down their mother tongue to their children and attempting to support L1 maintenance (p. 278). Immigrant families in the study had a positive attitude toward their children while finding ways to help communicate in the L1. According to Nesteruk, the reason for the maintenance and transmission of the L1 included:

Transmitting their culture and traditions, thus encouraging the maintenance of the children's ethnic identity, communicating with their grandparents and extended family, intellectual benefits from knowing a second language. Participants name the following advantages: being better prepared for learning other languages, being well-versed in geography and literature, and having an overall 'expansion of interests' that allows the possibility to 'look at the world from two different perspectives. (pp. 278-279)

Nesteruk's finding also showed that many of the parents in her study put forth lots of effort to help their kids preserve their heritage language. Parents spoke the L1 with each other and with the children. Reading children's books in the L1, telling folk stories from their culture, and watching cartoons on the television from the host country in L1 were all means of helping children maintain the L1. Other parents would have grandparents in the home and use ethnic community resources like daycare facilities, schools, and language classes to improve children's skills (p. 279). Overall, Nesteruk's findings demonstrated that although immigrants' parents value bilingualism, they also work hard to remind their kids to continue speaking their heritage language.

The importance of maintaining L1 continued to play a vital role, as seen in Fillmore's (1991) findings. Fillmore's results illustrated that English was spoken in many of the homes among immigrant families in her study. However, 93.9% of mothers and fathers utilized their L1 entirely or mainly in the house with relatives (p. 337). Using home language often is a way to keep the mother tongue alive, but as Filmore points out, the effort in doing so takes lots of action. The author's results also demonstrated that parents would speak the mother tongue with older children (those who knew the L1 fluently). L1 and L2 were expressed with the younger kids so they could remember and learn the L1 while also learning the L2 because the younger kids' L1 was insufficient to carry on a dialogue (p. 339).

Preserving the L1 as much as possible in the home of immigrants showed that parents want to pass on the language to the next generation. Zapata's (2019) findings explained that once her participant could not communicate in the L1 as she used to, she felt a loss of her "connection to her culture, a sense of belonging, and the confidence to identify as an ethnic woman" (para. 2). To maintain what is left of the L1, immigrants preserve the mother tongue through sources such as bilingual educational curricula (para. 5). When immigrant families attend programs in which their home languages are spoken, it increasingly helps the continuation of the L1. The author further elaborated that "confidence and pride in speaking heritage languages are crucial to maintaining them" (para. 39). Immigrants should be pleased with where they come from and should not stop communicating in the L1 because speaking the mother tongue at home will provide children the opportunity to know the language.

Immigrant families utilize various means when it comes to the maintenance of their L1 with their children. Kouritzin's (2000) findings demonstrated that parents choose to wait and not let their children learn English for a while but speak the L1 with the kids at home (p. 312). The findings showed the value of the L1 and the importance of maintaining the L1 while the children were still young. The results also revealed that one parent spoke English with the children while the other communicated in the L1. These means of communication allowed the children to hear each language equally and not take precedence over one language. Kouritzin highlighted those parents who brought their children to "weekend class in L1, had a nanny who spoke the mother tongue, watch cartoon/video in the L1 and had playmates who share the same L1" (pp. 313-320). All the above efforts put forward in the study are just a few of the many things parents are willing to do to prevent L1 attrition.

Alba et al.'s (2002) findings demonstrated that L1 maintenance is highly valued among the many parents in their study. The findings showed that "home languages of third-generation children are most affected by factors, such as intermarriage, that affect the languages spoken by adults within the homes and outside of the house as well" (p. 473). Furthermore, the authors pointed out that the most "uniformly powerful" impact stems from whether the parents are married "exogamously or not." Among Hispanics, this influence must be qualified by whether an intermarriage is to someone of another Hispanic background or to a non-Hispanic background. If the former, then the effect is much smaller. Alba et al. mentioned that the biggest impact in maintaining L1 occurs

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when grandparents or aunts and uncles who speak the mother tongue lives in the same home as the children because the frequency of discussion in the mother tongue grows and, depending on the English proficiency of these adults, the children may be encouraged or required to speak to them in the mother tongue (p.477).

Chapter 7: Conclusion

Research questions

The first research question investigated was "What contributes to native language erosion among immigrant children and adults?" Based on the various studies on L1 erosion, the inability to engage in traditional means of communication in the L1 was one aspect that contributed to L1 erosion. Second, the age of acquisition (AoA) impacts language loss. The AoA plays a significant role in L1 because children below five years of age do not have adequate control of their mother tongue to be impacted by promoted language such as English. Third, immersion in the L2 setting affects L1 because no communication is done in the L1. Speaking English daily at school and with friends allows the brain to concentrate on the dominant language being used the most. Not many immigrant groups have effectively preserved their heritage language as they integrated into life in the U.S. As immigrants learn the L2, they utilize it often to the point that the L2 becomes the dominant language. As such, native language erosion is impacted in various ways.

The second question was, "Does L1 loss occur more commonly with younger children than older children?" The study has proven that as immigrant kids learn English, the patterns of language usage shift in their homes, and the smaller they are while they learn English, the more the impact. Children who spoke the native language from birth to the age of 12 and then started to speak English can maintain the continuity of the L1 with families. When looking at older adults, such as in Zapata's study, she was younger when her family moved to Canada and could not communicate in their L1. This shows that the younger immigrants started learning English, the faster they moved away from their native tongue.

Major Findings

Language attrition is the process of losing a native language or first language. How acquisition takes place affects how language is retained, which impacts language during attrition. As demonstrated by the researchers in this study, it is understood that immigrants in the United States and around the world highly value their native tongue. Significant findings on language attrition focused on identifying L1 attrition, the role of the environment in L1 erosion, the significance of age in L1 attrition, and maintaining L1.

Regarding L1 attrition, significant findings demonstrate that language erosion could happen very fast if the L1 is not used daily. When children or adults cannot continue communicating in the L1, others notice the change in the L1, especially regarding pronunciation and translation of words, fluency in speech, and reading inability. At times, individuals would speak their native language(s), but later, they would switch to the English language. L1 attrition may occur simply as having the speaker progressively forget a language they used to speak.

Therefore, the previous finding on L1 attrition illustrates that language loss does not just occur in a matter of a day or two. Still, it is something that takes its toll on individuals reasonably quickly. As proven by various research, it is best for children and adults to try and stay connected to the L1 as best as they can and to maintain communication using the L1 both at home and outside the home.

The second and third significant findings on language attrition focus on the role of the environment in L1 erosion and the influence of English on immigrants' L1 loss. Both parts of the environment in L1 decline and the impact of English on immigrants' L1 loss go hand-in-hand when looking at an L1 loss. When learning a language, the environment shapes and plays a role in the loss of L1. The findings show that when immigrant children and adults learn English, the environment where English is spoken is very important in shaping the language ability of immigrants. However, the effect on L1 loss cannot be ignored. For example, immigrant children spend most of their time at school speaking English with peers, teachers, and administrators. The opportunity to practice and improve one's English is outstanding, but L1 is hindered since less communication occurs in L1. The outcome of being in an environment where English is spoken daily is that children focus and shift their attention toward the dominant language (English). In effect, children speak English as an L1, and they can retrieve words and sentences from their native tongue rather than have a fluent, enriching conversation with their parents, families, and friends.

The final significant finding regarding attrition is the significance of age in L1 attrition. Immigrant children learn English quickly once they begin school or daycare. These same children also lose their L1 faster when compared to older children. On the other hand, older immigrant children struggle to acquire English, but they retain their mother tongue better than the younger children. The studies demonstrate that the age of acquisition (AOA) significantly impacts L1 attrition because the earlier children are

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exposed to the English language, the higher the probability of L1 decay, especially with children who are introduced to English at ages three to seven. Older children who speak the native language from birth to age 12 and then learn English continue communicating in the L1 much better. Although children from birth to age 12 might have difficulties from time to time, they have a better chance of retaining their mother tongue over a long period of time when retrieving particular vocabulary.

Overall, the significance of maintaining the native language among immigrants has shown that the language a person speaks is deeply connected to one's daily life and identity. Immigrant mothers and fathers put forth the effort to help their children communicate in their native language. Parents in the study have encouraged their children to speak English. These parents also do not want their children to navigate away from their L1. Parents' endless efforts to help their children maintain their mother tongue has to do with making communication easier with family back home, continuing to carry on the language for the next generation, maintaining a connection with the community, and simply being proud of being bi- or multi-lingual.

Implications

The language we speak connects us to who we are. A complete language loss by immigrant children and adults brings frustration when an individual loses the ability to formulate sentences, recall words, or engage in meaningful communication with friends and family members. The inability to communicate in the native tongue results in a loss of effective communication with grandparents and other family members. Most significantly, L1 erosion disconnects the continuation of shifting the language for a further generation. Both adults and children who cannot speak their native language become lonely and feel out of place. Additionally, adults and children may avoid going to cultural events where the native language is said to avoid feeling pressured into communicating in the L1.

My research will help adults and children not feel ashamed if they cannot communicate in the L1. Attending cultural events, whether one speaks the native language or not, is an excellent way to be around others that talk about the L1. Adults and children should not be forced to communicate in their L1. The research I have done helps immigrants to be proud of the language they currently speak, and it should not prevent them from gathering in the community or with families. Additionally, my research will help future research in understanding L1 attrition and finding ways to help children and adults struggling with disconnection from their mother tongue. My study will also assist further research by allowing them to closely examine immigrants in the U.S., Canada, and Europe. For further study, I recommend that other researchers should work closer with a larger variety of groups rather than specific groups like these other researchers have done. In the future, researchers should also conduct field research to immerse themselves more completely into the culture and environment of the language learners.

Recommendations

Learning the English language by immigrants once they reach the U.S. is an excellent opportunity to become successful in school and the community. However, schools should not discourage students from communicating in their native tongue. Often, cultural groups love to converge with other students from the same background and speak their native language. However, if these students are asked what language that is or what they are saying, students become silent and unresponsive. Native languages should become the norm in any American educational context, just like English is. Teachers and community leaders must encourage the use of the mother tongue in the classroom and celebrate the differences in native languages.

As a researcher, I recommend that teachers and administrators encourage and allow immigrants to speak in their native tongue in class. Schools should have cultural months where immigrant students and parents can come in and share their languages with others. When a teacher hears students speak L1, the teacher should not question why the students are using L1. Instead, teachers should encourage using the L1 to help students understand their L1 is valued, respected, and welcome.

Maintaining the L1 has always been paramount among immigrant families. The value of preserving the mother tongue can never be measured. I believe there are many ways immigrant parents can help maintain the home language with their children. Firstly, daily communication in the L1 is essential. The more parents speak the L1 with their children at home, it allows the children to hear, practice, and enjoy their L1. Secondly, parents should try to go with their children to their home country. Language immersion is very beneficial because it allows individuals to constantly utilize the L1 in various ways. Thirdly, parents should not give up speaking the mother tongue at home, even if children reply in English. Just because a child does not respond in their mother tongue does not mean they do not understand the L1. The more parents continue to communicate the L1, the higher the chance of having the children respond in the home language. Fourth, parents should take the time to read and write in the L1 with their children. If the children hear and know how to read and write in the L1, they will value it more. Finally, parents need to be patient with their children through L1 maintenance because if parents get

frustrated when their children do not speak back in the L1, it will discourage the children, and they might become resistant to trying or continuing the L1.

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