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Fossilization Of L And R Phonemes And Effective Pronunciation Teaching Practices For Adult English Language Students

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FOSSILIZATION OF L AND R PHONEMES AND EFFECTIVE PRONUNCIATION
TEACHING PRACTICES FOR ADULT ENGLISH LANGUAGE STUDENTS

by

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A capstone submitted in partial fulfillment of
the requirements for the degree of Master of Arts in English as a Second Language

Hamline University
Saint Paul, Minnesota
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To Jocelyn and Julia: thank you for all the silly moments when I needed a break from writing. Auntie loves you.

To my ESL teachers: thank you for your encouragement and dedication to our learners and program.

To my ESL learners: your thirst for learning is steadfast. I wish you all the best in your language journey and life dreams.

To Mike: thank you for the countless UNO and Scrabble breaks when I was frustrated or couldn’t read and write any longer. Thank you for holding my hand when I felt stressed and never letting me give up. Most of all, thank you for your unwavering support, patience and encouragement. Together we have three eyes. All my love.

To Phanny: I still think of the time you said: “I’ve never told myself I can’t do something”. Your love of learning and education pushed me to keep going even when I doubted myself. I miss our study dates and all of your wisdom. I wish you were here to share this with me. You would’ve been incredibly proud.
TABLE OF CONTENTS

CHAPTER ONE: Introduction .................................................................5
  Researcher Background and Interest ............................................6
  English as a Second Language (ESL) Programs ..........................7
  Early Onset of Fossilization ......................................................9
  Summary ....................................................................................10
  Chapter Overviews ....................................................................10

CHAPTER TWO: Literature Review ..................................................12
  Brief History of the Karen .............................................................13
    Who are the Karen? .................................................................13
  Fossilization of English Learners ..............................................17
    What is Fossilization? ..............................................................17
  Phonemic Awareness of Korean and Japanese Learners ............19
    What is Phonemic Awareness? ................................................19
  Achieving Comprehensibility in Speech .....................................22
  Pronunciation Instruction ...........................................................24
  Summary ....................................................................................25
  Chapter Three Preview ..............................................................26

CHAPTER THREE: Project Description ..............................................27
  Project Audience .......................................................................27
  Instructional Framework: Understanding by Design ..................28
CHAPTER ONE

Introduction

Adult learners have difficulties learning languages because of pronunciation. Teachers may also have difficulties teaching pronunciation because the significance is not as high as grammar-related areas. Some teachers may have differing opinions about the efficacy of pronunciation instruction. Whereas, some teachers may also have questions if pronunciation should be taught and, if so, what should be taught and how to do it. Since this area of language acquisition has such high interest, I decided to explore how pronunciation instruction affects comprehensibility in speech for adult learners of English.

My past experiences as an intern, volunteer and graduate learner are what drove me to further study this area of language acquisition. These also led me to ask the question: in order to implement effective pronunciation instruction, to what extent does fossilization affect adult learners' ability to acquire another language? My rationale for choosing this area of language acquisition has two reasons: my fascination with phonetics and the physical properties of sounds, and my interest in how pronunciation instruction can be conducive for English learners (ELs) to acquire sounds in the target language (TL). This chapter introduces the reader to my background and interest, my experience with ESL programs and pronunciation issues associated with many adult learners at my school.
Researcher Background and Interest

In fall 2011, I was a junior in my undergraduate studies and participated in an off-campus study program called Higher Education Consortium for Urban Affairs (HECUA). Within HECUA, I was drawn to a program called Writing for Social Change. I was thrilled when I was accepted. The 16-credit semester focused heavily on writing, workshops, and storytelling as a means for social change. HECUA also partnered admitted learners with internship placements at organizations throughout the Minneapolis-St. Paul area. I partnered with a well-known literary organization in South Minneapolis and fell into the world of English as a Second Language.

From there, I devoted 15-20 hours per week on top of my studies. My primary responsibilities included reorganizing the current curricula of the English as a Second Language (ESL) program to an electronic version. Aside from that, I observed classes frequently, met with learners and learned their stories. Towards the end of the semester, I had the opportunity to substitute for a teacher who was out sick one evening. I was delighted and jumped at the chance to teach the class. Although it was only 50 minutes, I enjoyed my experience and wanted to continue teaching each week. I soon learned that this was what I wanted to do professionally.

Long after I finished the HECUA program, I continued teaching in different contexts as a curriculum intern or ESL volunteer teacher. I taught every level ranging from pre-literacy to advanced at three other local organizations in East St. Paul, West St. Paul and South Minneapolis. At each site, the curricula was pre-designed for volunteers. The curricula was designed to meet all second language (L2) skill areas: reading, writing, speaking and listening. The curricula also encompassed thematic units for two to six-
week timeframes. When volunteers came, they used the pre-designed curricula to teach learners. Every week, I taught learners and used the lessons, but noticed the lack of pronunciation focus.

At every organization, I noticed the emphasis on teaching grammar and life skills topics such as jobs, health or community. I also noticed the lack of pronunciation instruction. As a volunteer, I noticed that this gap was negatively impacting learners’ language acquisition process. However, I didn’t have the knowledge in pronunciation, phonemic awareness or how to instruct a class without any prior training. Thus, I enrolled in the ESL graduate program at Hamline and took a class called Phonetics and Phonology that further sparked my interest in pursuing this topic. I looked into pronunciation methods, and I learned the deeper meaning of how pronunciation affects learners’ speaking and their accents. I also learned through all of this how little pronunciation is included in classroom instruction.

English as a Second Language (ESL) Programs

The Twin Cities has been a major hub for a growing immigrant and refugee community who seek out a better life. One group of recent immigrants are the Karen. My first encounter with the Karen was when I started as an ESL instructor at my current school. My interest in this particular ethnic group comes from everyday classroom interaction and their kind nature. As the population and the influx of refugees increase, the demand for ESL instruction will rise, too. When there is a high demand for English language instruction, the quality of teaching must be equal, which is why it is absolutely necessary for pronunciation instruction to be implemented into practice.
Many non-native speakers who enter adult learning programs study for an allotted time. The reason for this is because many students transition to the workforce. In ESL classes, many learners enroll in English classes to improve their speaking in some fashion. This is also the case for speakers who enter the workforce as well. The production of speech sounds in ESL courses is difficult if the learner’s native language interferes with the TL. I encountered many scenarios when learners worried about accent reduction, problems with intelligibility either between the instructor and the learner, or the learner and a native speaker of English. It seemed that the most difficult task was speaking with clear articulation and production of sounds. Many learners wished to sound comprehensible but there were feelings of self-consciousness that created a barrier.

I suspected the reason for those feelings were because learners wanted to avoid making mistakes. I preferred that the learners’ language developed organically over time to the stage where they were comfortable with speaking and worried less about perfection of sounds. I also strongly preferred learners to have knowledge of the TL so that they would be able to help themselves in various situations. However, I have not yet seen a program where pronunciation teaching methods were explicitly and wholly implemented into the curriculum for ESL education. I felt compelled to design a project, one that would benefit ESL programs at any level for my school. Pronunciation instruction is a much-needed teaching focus for any ESL instructor because it is essential to learners’ learning, but I have found it often absent in curricula.
Early Onset of Fossilization

As a teacher to speakers of other languages, I never knew the importance of pronunciation. I did not put much emphasis on the topic because it was not widely implemented across ESL programs that I worked with. Pronunciation was always independent of the L2 skill areas. So, I explored and continued research about this area of language acquisition. The first time I considered pronunciation as a possible topic was when I began teaching learners whose pronunciation of phonemes affected their speech (but not necessarily their intelligibility) in the classroom. At times, learners did not articulate the sound correctly. They also never realized the correct production of the sound in the oral cavity.

Over time, as learners progressed in their language development, their speech became fossilized, or incapable of change. A learner’s listening skill and articulation of sounds is ingrained in their learning style. It becomes difficult to unlearn the pronunciation of a certain sound or multiple sounds. To remedy this, there have been pronunciation improvement programs aimed to support to reduce fossilization for long-term learners. However, according to Derwing et al. (1997), “only a few studies actually address instructional efficacy” (p. 218). In other words, pronunciation for phonemes has not seen much progress because it is rather difficult to pinpoint how and why fossilization occurs.

It is difficult to pinpoint how and why because many teachers do not implement pronunciation instruction into their lessons. Derwing et al. (1997) stated that effective pronunciation practices are scarce. It depends on the quality of instruction a learner receives in their education and whether the learners are motivated or receive special
assistance with sound articulation and production (Derwing et al., 1997, p. 218). Therefore, I feel there ought to be more approaches and techniques developed for teachers and educators.

**Summary**

In my past teaching experiences, I did not find many resources on pronunciation tools and tips for educators and volunteers. When I did have resources on pronunciation, I did not implement them when I taught different levels because I did not know how or the best way to approach it.

In this paper, I will focus on how best to implement a thematic unit that includes pronunciation lessons for use by ESL teachers and volunteers at my school. The unit provides lessons for teachers to teach native speakers of Karen to distinguish the sounds /l/ and /r/. My goal is that the strategies and resources used to create these lessons will be versatile for any phoneme instruction.

**Chapter Overviews**

In Chapter One, I established my research question and the rationale for choosing this area of language acquisition. I elaborated on my research interest on this particular area of language acquisition and provided a brief overview of a typical ESL program for adult learners. I also introduced my capstone project by discussing a reason to implement and develop a pronunciation curriculum for teachers and volunteers.

In Chapter Two I provide the history of the Karen people and conflict in Burma. Chapter Two also provides an understanding of the central issues of fossilization, and the impact of recognition and production of /l/ and /r/ phonemes on language acquisition. Chapter Three provides a detailed description about the curriculum project. Chapter Four
presents final conclusions, thoughts and reflections about the project. I present the major learnings, an assessment of project limitations and discuss future resources for ESL teachers and educators.
CHAPTER TWO

Literature Review

The research question for this literature review is as follows: *in order to implement effective pronunciation instruction, to what extent does fossilization affect adult learners’ ability to acquire another language?* The various answers to this research question will aid the development of a curriculum unit intended to teach adult Karen learners to distinguish the /l/ and /r/ phonemes in English. The reason for this is so that learners can practice accurate identification and production to improve their comprehensibility in speech. The topics of this literature will be presented as follows: a brief history of the Karen, central issues in fossilization, phonemic awareness in Korean and Japanese, achieving comprehensibility in speech, and pronunciation instruction.

The first topic gives the reader background information about the Karen. It is here that the reader will encounter the history of the Karen, their culture and livelihood, and the value of education. There will also be a short discussion about refugee resettlement in the United States. These are necessary since the reader may not be familiar with this specific ethnic group or resettlement programs. To provide effective teaching, I must understand my students’ culture. Thus, it is equally important to plan a culturally responsive curriculum that supports my understanding. In essence, the information is indispensable because my curriculum will be created specifically for this group.
The second topic, central issues of fossilization, defines the term fossilization and outlines the concept afterwards. The reader will also learn how this phenomenon affects adult English learners (ELs) and key arguments about fossilization by researchers. The third topic is about phonemic awareness in Korean and Japanese. The reader will learn about how speakers distinguish /l/ and /r/ since these two phonemes are not distinct in either language. The topic will include research that explains where the consonants occur during production and how these phonemes affect speakers of Korean and Japanese. The lack of distinction is also prevalent in Karen.

The final topic will focus on pronunciation instruction. This topic will present information from research that will contribute to the writing of the curriculum project. The project will aim to benefit adult Karen learners of English and how they can learn to distinguish /l/ and /r/ phonemes, which is the concluding goal and described in more detail in Chapter Three. This section will discuss what research says to be the best and effective way to teach phonemes in the classroom and what an effective curriculum should comprise.

**Brief History of the Karen People**

**Who Are The Karen?**

The Karen are a linguistically and geographically diverse ethnic people from Burma that belong to three groups: Southern, Central, and Northern. Of these groups, the many subgroups comprise Sgaw and Pwo from the Southern region, the Karenni from the central region, and Pa-O from the Northern region (Barron et al., 2007). The majority of Karen come from the Sgaw branch and comprise 70% of those living in Thai refugee camps (Barron et al., 2007). The best known are the Sgaw and Pwo, who live together in
the Karen (Kayin) state with an estimated population of three to six million. There are also refugees who live along the Burma-Thai border and estimated populations of 70% Sgaw, 7% Pwo, and 13% Karenni (Barron et al., 2007).

The Karen are spread distantly throughout the region and the border. They are also diverse in their linguistic nature. Most Karen languages are generally mutually unintelligible. This means that two speakers of different, but related varieties or dialects cannot understand each other without some support. Because their dialects and varieties are mutually unintelligible, the Karen rely on Burmese, the national language, to communicate.

Karen Culture And Livelihood

Traditionally, the Karen maintain a quiet lifestyle as subsistence and rice farmers in the valleys of the Kayin State. Women are responsible for housekeeping, weaving clothes, cooking and cleaning the house, while men typically carry the heavy loads, gather firewood and fetch water. While their livelihoods remain a central part of the lives, the beliefs hold a strong bond for many Karen people. Barron et al. (2007) stated that, “70% of Karen are Buddhist or Animist [belief of spirits and ghosts] and about 20%-30% are Christian” (p. 31). Their values and beliefs are deeply rooted in faith and many Karen feel the importance to nurture these in the home. This is especially true during significant life events such as births, marriages or deaths (gathering together to send the spirit and transition it peacefully).

Educational values

After faith and family values, the Karen hold education and literacy very high. Collaboratively, Christian missionaries and Sgaw Karen established small private schools
in the valleys. Around 1962, the Burmese military invasion halted and outlawed these programs and schools to implement the “Burmese Way to Socialism” (Barron et al., 2007). Because of extreme defunding of schools, the standards of schools declined and many Karen could not keep their schools open. Of the schools that stayed open, Karen teachers persevered and steadfastly tried to implement teacher training and classroom programs among the displaced communities in the area.

**Commitment from teachers.** Many people hid from Burmese officials. The Karen who stayed in Burma eventually escaped and resettled in Thailand in various refugee camps. They suffered poor conditions and were separated from their families. Education was also very limited in the camps. Oh and Stouwe (2008) stated that, “The commitment of teachers is strong … and receive low subsidies while working long hours that are physically demanding” (p. 591). Despite how limited the access was for education in the camps, community were well-structured. Each camp also had strong support from teachers, parents and community leaders to coordinate activities for refugee camps.

**English programs: camps vs. U.S.** Although the education was limited to only a few subjects, many Karen had the privilege to study English while in the camp. It was considered a privilege because of the status symbol that comes with learning English along with being a Christian Sgaw Karen. The camps provided English lessons in their curriculum. It was not considered exclusionary because of its ties to Christianity. In other words, Christian believers valued being able to speak and read English and enforced it in the schools as part of the curriculum.
As many Karen resettled in different countries around the world, the quality of their education depended on whether the receiving country had quality instruction to teach the TL. For instance, if a significant number of Karen sought refuge in Australia, English would be the TL. Most Karen would learn an English variety that was similar to Standard American English with some dialectical differences.

**Refugee resettlement**

According to the Karen Organization of Minnesota (n.d.), “more than 17,000 Karen refugees have resettled in St. Paul since the early 2000s” (¶3). Some refugees have resettled in other American states, Australia, Canada, England, and Norway, but the transition has not been easy. After successful resettlement, many refugees faced many challenges with employment, housing and food. Aside from the many challenges, Barron et al. (2007) stated that refugees also faced language barriers. Refugees who arrived from urban areas had significant access to education than those from camps (Barron et al., 2007). Their English skills were minimal and some barely spoke Thai. Some Karen had knowledge of Burmese, but it was very minimal.

Today, many Karen refugees are enrolled in ESL programs. As they begin their journey through English language programs, many learners wish to learn grammar, vocabulary, and major L2 language skills. The language skills help learners gain future employment as well as access to higher education. The lack of phonemic instruction could affect their comprehensibility in speech, which poses more challenges down the road when in search of employment or pursuing higher educational goals.
Fossilization of English Learners

What is Fossilization?

Before one can focus on the central issues surrounding fossilization, the reader must understand what it encompasses. Fossilization was first coined by Larry Selinker, and refers to a point in language learning beyond which it is difficult for learners to progress without exceptional effort or motivation (Celce-Muria, Brinton, & Goodwin, 2010). This means it is challenging for a learner, especially an adult learner to achieve native-like comprehensibility in a second language (L2), or progress in their language development without interference with their first language (L1) (Celce-Muria et al., 2010, p. 24). It is also thought that native-like competency is only reserved for children who learn the TL at a young age because of their abilities to acquire second languages faster and more accurately (Han, 2004, p. 214). Fossilization and its effects on adult learners are subject to interpretation by different researchers.

Effects on adult learners. Fossilization affects adult L2 learners in their speech. Despite their long exposure and efforts to achieve native-like competency, some learners find themselves unable to progress. There are two reasons for these shifts from native-like competency to lack of progress in language acquisition. Selinker argued that a learner’s progress is dictated by how the brain functions (cognitive mechanism), and how the learner performs during given tasks (performance-related) (as cited in Han, 2004, p. 215). Although these two functions are interrelated, does this make the learner unable to achieve ultimate attainment? Selinker and Lamendella think so (as cited in Han, 2004, p. 216). They believe that fossilization coincides with “permanent cessation” of learning even though L2 learners have reached native-like competency of the TL (as cited in Han,
This means that learners, after reaching native-like competency of linguistics, still experience relapses of habits once before. Then, learners return to earlier stages of acquisition. Therefore, there are few chances for learners to reach comprehensibility.

**Backsliding.** One of the other noticeable characteristics of fossilization is backsliding. Backsliding refers to the reappearance of former stages of acquisition of the L1 that were thought to have been eradicated (Han, 2004, p. 225). The learner then does not have any further development in the TL because of the L1 interference. The reason is the gradual increase in language errors. No matter the amount of instruction a learner receives, they will manage to keep the two languages together, functioning at the same time. Thus, backsliding makes learners slip into their old habits and encounter a non-progression stage (Han, 2004, p. 225)

**Extrinsic feedback.** Extrinsic feedback is another characteristic of fossilization. Vigil and Oller (1979) outlined six conclusions that contribute to fossilization. The most important conclusion is called extrinsic feedback, which encompasses characteristics internal to the learner. For example, these characteristics may be fear of making errors or mistakes in speech. (as cited in Selinker & Lamendella, 1979, p. 364). Extrinsic feedback in fossilization is problematic because it does not necessarily lead to L2 acquisition. Instead, learners need interaction and feedback from peers or other speakers of the TL.

**L2 Acquisition in Children.** However, among children, L2 acquisition tends to be faster and they are more likely to grasp concepts faster such as grammar, phonemic awareness, or literacy-based activities. Vigil and Oller posited that even in the progression of L1 acquisition, children acquire language and adopt into their new
grammatical features (as cited in Selinker and Lamendella, 1979, p. 371). Children have this advantage because of the previously-mentioned argument of brain functions that adults lack. Adults do not have the capabilities that children do when acquiring the L2 (as cited in Selinker and Lamendella, 1979, p. 371).

Fossilization could also affect learners who have high needs for language acquisition. High needs refers to students’ areas of improvement such as speaking, reading or grammar concepts. It could also benefit a learner who has minimal needs for language acquisition. Selinker (1979) believed learners learn best when there is interaction with speakers in the target language, which contributes to development of a learner’s ability to begin successful interlanguage learning and therefore, reduce fossilization (p. 374). The belief here is that the learner should take those steps to communicate with another speaker in the TL despite their stage in the language acquisition process.

Phonemic Awareness of Korean and Japanese Learners

What is Phonemic Awareness?

In order to understand the significance of /l/ and /r/ instruction, one must understand why learners must first learn phonemic awareness. This area of pronunciation refers to the ability to hear, isolate, and manipulate individual sounds in spoken words, and learn the symbols or letters that correspond with those sounds (Peregoy & Boyle, 2000). Phonemes are the individual contrastive sounds. English has 44 of these. English learners vary in proficiency of the production of sounds, and whether they can hear them. This might be due to minimal exposure to English, not enough opportunities to practice, or being unaware that the sounds exist (Peregoy & Boyle, 2000). Adult L2 learners from
many Asian languages experience the problem in their L1 because certain phonemes are not distinct and therefore, not easily identifiable. So, the ability to hear, isolate and manipulate certain words with /l/ and /r/ phonemes would be highly difficult for learners. This is the case for Japanese and Korean adult L2 learners of English.

**Japanese learners**

Japanese learners of English can experience difficulties learning L2 phonemes. Best suggests the reasons for these difficulties contribute to the perception of L2 (as cited in Hattori & Iverson, 2009, p. 469). This is because many Japanese learners perceive similarities of /l/ and /ɾ/ phonemes in the L1 and L2. Flege added that learning an L2 is particularly difficult when there are similar categories in the L1 (e.g. phonetic or phonemic) to the new L2 categories of the learner (as cited in Hattori & Iverson, 2009, p. 469). In Japanese, the closest equivalent phoneme of English /ɾ/ is the apicoalveolar tap /ɾ/ (as cited in Hattori & Iverson, 2004, p. 469). The apicoalveolar tap is a combination of a voiced fricative and aspiration in which the tongue hits the alveolar ridge (roof of the mouth) and creates an aspirated (breathy) sound. Because the phonemes are different from English, this is especially challenging for learners because they cannot distinguish the difference between English and Japanese phonemes of /l/ and /ɾ/.

**Perception and production.** Hattori and Iverson (2009) presented a study that investigated Japanese learners’ abilities to identify English /l/ and /ɾ/ phonemes. The results concluded that the learners could identify these sounds based on wide ranges of language abilities. After, they looked at the results to determine whether these learners could assimilate the English phonemes with the L1 /ɾ/ sound. They found that there was indeed a causal relationship between experienced Japanese learners’ abilities to assimilate
the correct phonemes with the same L2 category. This means that the learners do not necessarily associate the Japanese /ɾ/ with English /r/. Rather, the results demonstrated that they produce the /ɾ/ with English phoneme /l/. The Japanese language, unlike English does not have the individual phoneme of /ɾ/, which is difficult for learners who learn the TL.

Korean learners

Borden (1983) looked at whether /l/ and /ɾ/ are contrastive in Korean as they are in English. He concluded the Korean phonemes are different from English because /l/ and /ɾ/ occur post vocally at the end of a word (Borden, 1983, pp. 500-501). In other words, in the Korean language, both phonemes occur, at times, simultaneously as a double consonant sound, rather than separately as single consonants.

Borden’s (1983) methodology included measuring changes in /l/ and /ɾ/ production, listening discrimination tasks, identification of phonemes and self-perception of sounds during rigorous training sessions for Korean learners. In one of his studies, he performed listening discrimination tasks with minimal pairs using both phonemes, meaning each pair of words had one sound that was different than the other (Borden, 1983, p. 500). For instance, rock versus lock. The learners checked whether each pair sounded the same or different between each set. The higher scores of both sounds among Korean adult learners varied. One of the factors for the variation included language experience and the length of time that subjects had lived in the United States (Borden, 1983). Self-perception with learners also showed higher scores than production. Borden (1983) concluded these higher scores to indicate that self-perception involves the learner’s ability to perceive their own mistakes and errors when producing sounds (p.
After the study, Borden (1983) also found a strong relationship between the ability to produce an appropriate /l/-/r/ contrast and the ability to identify an acoustic continuum between the phonemes according to the English classification system. (p. 516). The approach to /l/-/r/ production and perception are useful in a way that would benefit ELs in the classroom. If learners are aware there is a distinction of both sounds in both production and recognition, the chances of succeeding in pronunciation-related tasks are high.

**Achieving Comprehensibility in Speech**

**Producing /l/ and /r/.** In L2 acquisition and adult learning, recognition and production of sounds are necessary to achieve comprehensibility. Articulation is another key factor. Neufeld (1978) was interested in articulation of the TL in his study by looking at “carefully controlled language learning situations” in order to understand how adults retain potential for acquiring native-like proficiency (p. 164). He discussed the relationship between prosody and articulation of sounds in the TL. Prosody refers to the manner in which a person speaks. In the study, there are two approaches to test the “critical period hypothesis”, by providing adequate evidence that some adults could achieve native-like proficiency in another language (Neufeld, 1978, p. 164). There were two components: 1) to test purely at a phonetic level without any interference, and 2) to test if learners could acquire linguistic features associated with a native-like accent with no reference to grammar or lexical meaning (Neufeld, 1978, p. 163). Achieving comprehensibility in speech comprises recognition and production of sounds. If ELs achieve these steps in their language learning, the testing components would prove true.
Articulation and intelligibility. Non-native speakers whose first languages are not English have trouble articulating /l/ and /r/ phonemes. These learners generally have difficulties with learning L2 phonemes for reasons of sound recognition and inability to recognize sound patterns in their L1 (Hattori, 2009, p. 469). Recognition of sounds and producing sounds are two separate concepts that learners must master to articulate the phonemes correctly in Standard American English. For instance, some Japanese learners attempt the articulation of English sounds in their L1. Hattori (2009) stated that, “English /l/ and /r/ are hard to perceptually distinguish because they are the same with regard to the Japanese phonological system” (p. 469). The learner would have difficulty articulating this in English because they would not hear a distinction in the sounds based on the phonological level. The same consideration could apply to Karen adult speakers learning English. Is there a connection between Japanese, Karen, and Korean learners’ abilities to recognize and produce sounds? It is clear from the research above that Japanese and Korean learners have the difficulties with perception of /l/ and /r/ phonemes because of similarities in their L1.

Although accents are a common measure of how a person makes the sounds in another language, the assessment of a learner’s needs, such as production or articulation, may be achieved through intelligibility scores (Derwing, Munro & Wiebe, 1997, p. 219). Derwing et al. (1997) added how to test those intelligibility scores by interviewing thirteen non-native speakers of English over the course of twelve weeks. This was done through a general improvement speaking course that required students read aloud true and false statements throughout the entire 12-week time frame. The results showed that only three individuals improved significantly with their speech (Derwing et al., 1997, p. 229).
They found that learners who were intelligible with their speech prior to the experiment and methods improved slightly. Those improvements were attributed to students’ body language and speech volume with the task. Those who were not intelligible increased their intelligibility much more.

**Pronunciation Instruction**

Richards defines curriculum design as the process of deciding what learners need to know in a program through knowledge, skills, and values including how this learning takes place through planning, measuring, and evaluating (as cited in Alghazo, 2015). The instructor will decide how the curriculum will be designed according to the factors of planning, measuring, and evaluating. To put forth a comprehensive pronunciation curriculum, teachers and educators must consider how to make learning productive and conducive for language learning. These include everything from objectives and expectations of students.

Morley stated that there is not much indication that classroom pronunciation is effective (as cited in Derwing, Munro & Wiebe, 1997). The reason for this is because there are few textbooks that address pronunciation instruction or have effective strategies. Derwing et al. (2000) in a different study showed that the long-term effects of ELs’ pronunciation improved through a 12-week program. This was primarily due to speech samples of native listeners’ transcriptions. The speech samples comprised short sentences or snippets of the speaker’s voice. After, the ELs listened to the transcriptions. Although this listening technique produced favorable outcomes, the instructors only allowed limited use of the strategy among each learner. By limiting the strategies used in the study, many learners did not have the opportunities to showcase their abilities to provide
meaningful and thorough answers. Likewise, instructors had considerable difficulty giving valuable feedback. Thus, this led to the conclusion that the instructors did not have a way of knowing whether this strategy was actually effective because it only focused on perception and production (Derwing et al., 2000, p. 395).

Although the previously-mentioned study did not have significant impact on phoneme production, the strategies have changed since then. Pronunciation instruction has changed significantly in the past three decades. The high rates of change are because different teachers and educators have changing perspectives on how to teach, what to teach and how to bring effective instruction into the classroom. Morley (1991) asserted that professionals in the ESL profession have the professional responsibility to provide instructional programs for adult learners that adhere to their educational, career-oriented, and personal needs (p. 489). Also, ESL professionals must also provide “reasonably intelligible pronunciation instruction” that would enable learners to use those skills to survive and succeed in life (Morley, 1991, p. 489).

**Summary**

From the research discussed in this chapter, these are the main points that will be considered for the development of the project. First, the definition of fossilization helps the reader understand how it affects adult language learners in their L2 acquisition. Despite a learner’s concerted efforts or exposure to the TL, the progression towards native-like competency is still difficult. Any future teacher or educator who teaches adult learners will readily understand why fossilization is important and how it affects language acquisition in their classrooms. It is not an instructor’s goal for learners to have perfect pronunciation. It is more about the foundational knowledge of why pronunciation is
difficult for learners, how they are affected throughout the process and what instructors should know about adult L2 acquisition.

Second, phonemic awareness is crucial for building high proficiency in speaking skills – not just for Japanese and Korean learners, but for Karen learners as well. It is important for teachers to understand how the phonemes in a learner’s L1 differ from the L2. This knowledge is standard since it is not enough for learners to acquire phonemic awareness or articulation of phonemes without explicit instruction.

Chapter Three Preview

Chapter Three will introduce the project in depth. It will detail the project description, project audience, instructional framework and key strategies, and the unit time frame. Finally, the chapter will close with a timeline about the completion of the project.
CHAPTER THREE

Project Description

This chapter provides a description of the curriculum project designed to help students discriminate between /l/ and /r/ phonemes in the English language. It is also a project designed for teachers as a guide to build their own lessons if they choose to practice with different phonemes. The project includes detailed information about the overall framework, setting and participants involved, and key strategies used to help teachers. The underlying goal of this paper and project help answer the question: in order to implement effective pronunciation instruction, to what extent does fossilization affect adult learners’ ability to acquire another language? Chapter Three aims at the necessary methods for effective pronunciation instruction for adult L2 learners.

Project Audience

The curriculum has been developed for a class of English learners, although it can be adapted for other levels. Although the focus is on two phonemes /l/ and /r/, the concepts and ideas can be adapted for any other phoneme pair that students have difficulties with. These lessons are designed in ways that promote accurate identification and production of the two sounds during classroom tasks since many Karen students struggle with these sounds in English.

The lessons are also suitable for students whose first languages are not Karen. Teachers and English as a Second Language (ESL) professionals can use or adapt the
materials to fit the needs of students whose languages are different. This might mean that teachers adapt the materials to be more culturally responsive to other students’ backgrounds, or even focus on two other phonemes that lack distinction in English. Not all students will need explicit /l/ and /r/ practice, so adapting the materials for other phonemes might be more suitable depending on the students’ needs.

**Instructional Framework**

The primary resource used for this curriculum project was *Understanding By Design* (Wiggins & McTighe, 2006). The source also became the basis for the lessons. Wiggins and McTighe (2006) used an approach called “backward design” which involved three key steps. First, one must begin by setting the desired results or learning goals. Next, one must choose what sort of evidence or assessments will be required to determine if students have met the desired results (Wiggins & McTighe, 2006). Lastly, once the desired results and acceptable evidence have been determined, then the instructor may plan lessons and activities that will help students achieve the desired results (Wiggins & McTighe, 2006).

**Desired Results**

My ultimate desire for this project was to provide teachers and educators a better understanding of pronunciation barriers that affect adult L2 learners and how /l/ and /r/ phonemes contrast in the English language. The desired results for this project are for adult Karen speakers of English to be able to distinguish /l/ and /r/ through speaking and listening activities.
Acceptable Evidence

For each lesson, the evidence varies depending on the content of the lesson. For example, in Lesson One of Week One, the week’s content covers the topic of Family Tree. The evidence for this topic is that students would demonstrate the production of the consonants with the corresponding mouth shape. They will form the /l/ phoneme by bringing the tongue to the alveolar ridge (roof of the mouth), and the /r/ phoneme by pulling tongue back without touching the top. Secondly, students would correctly use the phonemes with content vocabulary: family tree, siblings, family, parents, children, grandparents. In subsequent weeks, the lessons will introduce vocabulary, which will be practiced, along with supplemental activities to enhance learning and engagement.

Unit Time Frame

The instructor determines the timeframe for the lessons, but the suggested maximum takes 30 minutes of instruction per lesson for all ten lessons. This means one thirty-minute pronunciation lesson for Tuesdays and Thursdays. Mondays are reserved for review from the previous week. Wednesdays are reserved for review from Tuesday’s lesson. Fridays are reserved for review from Thursday’s lesson. This allotted timeframe is brief on Tuesdays and Thursdays, but the review days compensate for the short periods. In essence, these brief, weekly lessons allow learners to practice the phonemes in context, and build accuracy through identification and production with the sounds.

Key Strategies

For key methods and strategies, I utilized several key strategies from Celce-Murcia, Brinton, and Goodwin (2010). This book covers useful techniques and activities for phoneme articulation, production and recognition. It is also a comprehensive resource
for educators who seek useful activities about listening discrimination, guided practice and communicative practice for students.

The project follows a curriculum format for five weeks that centers on the unit, School and Family. Each week targets a phase, which is part of an overall framework meant to help learners progress in their /l/ and /r/ phoneme production. The phases are as follows: Description and Analysis, Listening Discrimination, Controlled Practice and Feedback, Guided Practice and Feedback, and Communicative Practice and Feedback. There are two lessons for each phase, for a total of ten, for the five-week unit. Each phase throughout the unit should build on one another as learners continually progress with the phonemes.

**Description and Analysis.** As an educator, the description and analysis phase seemed essential for all teachers. It is the detailed explanation of both consonants, /l/ and /r/ in the English language. Celce-Murcia et al. (2010) suggested this method first to give an introductory ‘how-to’ for teachers by beginning with information about these two sounds contrast (p. 67). Then, the teacher can use additional materials such as the sagittal section diagrams and a consonant chart to display the sound differentiation. A sample activity includes raising learners’ phonemic awareness of where the sounds occur in a set of given words. For example, this may include body parts, colors, professions, or places. The teacher’s decision will ultimately guide the lesson and in which way it will be taught.

**Listening Discrimination.** The listening discrimination activity is the next task once the description and analysis have been established. Once the first step is achieved through Description and Analysis, it is time for students to focus on listening tasks and practice distinguishing the contrastive sounds. Bowen (1975) used minimal-pair
sentences to practice listening discrimination activities, which can be adapted in a number of ways. A sample is below:

1. *The ram/lamb went to market.*
2. *That’s the wrong/long way home.*
3. *Pirates/pilots have affected air safety.*
4. *Now, please correct/collect the papers.*
5. *A great war/wall divides the nation.*
6. *Mom told me to share/shell these walnuts.*

Adapted from Bowen (1975, p. 68-69).

The sample above was a suggested reference within the listening discrimination section, which led to the discovery of very useful and worthwhile minimal-pair sentences. The minimal-pair sentences are a comprehensive section of all contrastive phonemes in English. These sentences are great for teachers to be able to determine if learners will be able to hear and produce the target phonemes with accuracy.

**Controlled Practice and Feedback.** Celce-Muria et al. (2010) also suggested a color-coding task to let learners differentiate sounds. One way to do this is practicing phoneme distinction with the target phonemes. Teachers can create a color-coding system for students to identify vowel sounds without using the International Phonetic Alphabet. For example, blue could represent the /l/ phoneme. Red could represent the /r/ phoneme. These colors could then be used to identify and classify the /l/ and /r/ phonemes within words and minimal pairs. The colors included phoneme distinction that can be used in dialogue activities or shortened into sentence strips with the phonemes clearly outlined.
**Guided Practice and Feedback.** The Guided Practice and Feedback phase is slightly different from the previous phase in the way that it is structured. It involves a little support from the teacher but also provides a task that uses explicit modeling techniques. This is so that learners can transition and work independently with the given task. It is a “departure from the controlled practice stage in which students simply read aloud, focusing on one particular sound” (Celce-Muria et al., 2010, p. 69).

**Communicative Practice and Feedback.** This section comprises the final stage and final two lessons in the curriculum project. For /l/ and /r/ production to be successful through speaking, communicative practice is used to contrast those sounds. Celce-Murcia, Brinton, and Goodwin (2010) suggested using a communicative activity. Communicative practice encourages students to speak openly and freely with minimal support. One way to do this is to engage students in groups to write a collaborative story. To get started, students divide into groups. Students write a story about the same topic in four to five sentences. Afterwards, each group reads their stories aloud, while other students identify the /l, r/ contrast by listening for the words in the stories.

**Timeline**

The curriculum project was completed in spring 2018. The research that led to the formulation of this project began in spring 2017. The final chapter, Chapter Four, was written as a reflection after the completion of the project.

**Summary**

In Chapter Three, I outlined the project including the project description, audience, instructional framework and key strategies. I explained the primary resources behind the project and how they influenced the curriculum. Within the primary resources,
I drew on key strategies and outlined the phases for each week of the unit that would benefit learners’ identification and production of /l/ and /r/. Finally, I detailed the unit time frame for each lesson. Finally, I explained the timeline for the completion of the project.

**Chapter Four Preview**

In Chapter Four, I explain the major learnings from my project. I detail new connections with my literature review, as well as project implications, limitations, and future research in ESL. I also provide a conclusion to the project.
CHAPTER FOUR

Conclusion

This paper and curriculum project were created with the original goal of answering the following research question: *in order to implement effective pronunciation instruction, to what extent does fossilization affect adult learners’ ability to acquire another language?* Chapters One and Two answered how fossilization affects adult learners of English while Chapter Three and the curriculum project focused on what educators and teachers could do to implement effective pronunciation instruction. This final chapter and concluding thoughts will outline major learnings, outline review of the literature, project limitations, project implications and future research.

During my first year of teaching, I knew very little about pronunciation but I noticed how learners produced certain sounds, especially consonants. At the time, I was also taking a class called *Phonetics and Phonology*. I was fascinated with the physical properties of sounds and how sounds affect one’s speech. In order to better my teaching strategy, I looked at various pronunciation textbooks and teacher materials to implement this sort of instruction into my weekly lessons. However much I tried, I did not have a solid and strong method to carry out each week. Because of my unsuccessful attempt, I wrote and designed this paper and project to show what research suggests about teaching English phonemes and how to best implement them into practice.
I wanted to know how to teach phonemes correctly and whether the lessons had any influence on a learner’s pronunciation habits of certain consonants and vowels. I also wanted to see if the learners would be fine without any explicit pronunciation instruction and that they would just get the sounds eventually. I also wanted to know why Karen learners struggled with /l/ and /r/ phonemes, and what were the best methods to help them achieve comprehensibility in speech.

**Major Learnings**

Once I began this journey of pronunciation, phonemes and fossilization, I felt inclined to pursue a topic that was much needed, but could also be used as a resource for teachers. I was excited yet nervous because I was unsure of how to approach it. In the initial stages of this paper, I felt quite excited. Towards the final parts, I felt incredibly overwhelmed and discouraged by the topic altogether. From start to finish, I learned how extremely difficult it was to design and devote many hours to write and build a curriculum project.

I also learned that teaching phonemes in context yields better understanding of how to use the phonemes. Teaching pronunciation in isolation can be useful. However, students would feel less engaged without meaningful, contextualized lessons to support and aid the pronunciation instruction. I will be eager to try this curriculum on my learners and see if this pronunciation instruction makes an impact on the mastery of the phonemes. Of course, the learners will need to see and use the phonemes regularly so they do not forget how to articulate them, but I do wonder if the curriculum will provide a more solid foundation and understanding for future lessons that use these phonemes.
Influential Literature

In completing the research on this topic, I found that the research was directly applicable to the project. There were sources that applied directly to L2 learners and effective pronunciation instruction. There were also many sources that benefited teachers and educators to help them in their classrooms. Although there were many other sources that proved valuable, I believe the sources I used provided a deeper understanding of pronunciation instruction and how to develop a project such as this.

When I embarked on the path of pronunciation instruction, I thought more about best practices for intermediate learners than I did for Karen learners in particular. I believe this is due to the minimal and limited research for Karen and Karen-speaking ELs. In the end, I believe this is a benefit because Karen are my largest student group. By focusing on other Asian languages and a general view of what works best for pronunciation instruction, I hope that the research itself provides an introduction of the need for significant amounts of research for these learners.

I found Borden (1983) to be particularly influential in my current role as an ESL teacher. In my day job, I work as an ESL teacher and my largest student group is Karen. Listening discrimination is one of my primary activities that I visit regularly because of its low-prep and it is easy to demonstrate. Normally, I have two different colors of index cards. Students use these to associate the color with the correct sound. For example, the yellow card would correspond with one phoneme. The orange card would correspond with another. Before this paper, I had never taught with /l/ and /r/ phonemes. The listening element is the most challenging for students and something I plan to implement in my teaching more often as I explore pronunciation further.
I also drew heavily on Han (2004) and the term fossilization. This research was particularly challenging to read, understand and digest. I have learned the term throughout my graduate coursework, but never considered it to be a part of a culminating paper, or have a significant impact on my teaching. However, the term fossilization connects well to my everyday teaching and how I view pronunciation with adult learners.

**Project Implications**

The principal implication of my project is that there is no one-size-fits-all curriculum for effective pronunciation instruction. I do not think it would necessarily be preferable to have a thematic, intense focus on pronunciation. It may be useful to have a mix of both thematic pronunciation units, but also an explicit pronunciation curriculum taught in isolation without content. I believe these the explicit instruction would be beneficial in improving intelligibility and comprehensibility without the interference of content or other context. Teachers may also explore better and efficient lessons that target a wider range of ELs instead of one specific ethnic group.

**Project Limitations**

My first and foremost limitation is lack of enthusiasm surrounding pronunciation. Throughout my short time as an ESL teacher, I have noticed many different obstacles with this project. This curriculum was designed for teachers and educators to implement in their lessons and use at their schools. However, many teachers may not see the need for the project in ESL programs since most of the curriculum encompasses grammar-related or content-related areas of learning. This does not mean that teachers will not use the curriculum as a guide. Teachers may see the benefit of pronunciation instruction, but not necessarily the practicality for the learners’ language development and progress. I would
stress the significance of pronunciation instruction in the classroom especially for teachers whose students need help with phonics and phonemic awareness.

Another limitation is whether or not the ESL program will house a steady wave of Karen speakers. The project was designed with this specific language group in mind. However, I cannot predict who my learners will be at any given time. If the attendance is unpredictable, then there are few chances for learners to become proficient in the target phonemes. Depending on the group of learners on a particular day, the lessons could be moved around to benefit learners at the time. The curriculum could also be adjusted to meet the specific needs of the learners who do not come to class regularly, but need additional practice with /l/ and /r/ phonemes. Teachers could focus on other areas such as guided practice or controlled practice. While adult ELs appreciate the consistency of regular pronunciation instruction, it can difficult for learners to acquire the target phonemes if they do not practice. It can also be difficult if the curriculum does not have context.

In essence, I need to be mindful of students’ outside commitments from class, that there may be a fairly large class in the beginning of the week. Then, towards the end of the week, the class size reduces to very few learners. The fact of the matter is that in most adult ESL courses, a learner might be absent one day and when they return the following day, a new topic is introduced. With a pronunciation-focused unit, I would have to make adjustments to set firmer groundwork for a better curriculum and more time for review.

**Future Research**

In the future, I would like to design and develop thematic, contextualized curriculum with other contrastive consonants or phonemes. Aside from this, I want to
continue to learn about which phonemes would best fit the need of adult ELs not just at the intermediate level, but other levels as well. These small actions would only benefit my teaching in a positive way because I will have the chance to teach pronunciation more effectively.

**Conclusion**

In Chapter Four I discussed my major learnings from my project, and explained which research from my literature review I found influential. I listed implications and limitations for my project, and explained how I plan to implement it and how I will make it available for others. The curriculum I have written focuses on teaching pronunciation to adult ELs in an accessible manner, keeping in mind that many students have limited education, such as the Karen. I hope that the results from this culminating paper and project can be used in classrooms immediately and adapted to fit the needs of students. In researching effective pronunciation instruction for adult ELs, I also hope I have created a resource that may be useful for any teacher, ESL professional or volunteer working in adult ESL programs.

As teachers, we know that language learning is not easy. Adult language learners in particular, are motivated and dedicated individuals who have various reasons for learning other languages. It requires a great deal of practice especially if the language family is entirely different. Thus, it makes it easy to forget teaching pronunciation altogether. My learners practice to have the skills to succeed in English and I hope they continue to sharpen these skills as they explore future endeavors. I also hope that all teachers and learners will stress the importance and necessity for pronunciation
instruction in the years to come and utilize the project for future lessons and projects of their own.
REFERENCES


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