# EXPLICIT PRONUNCIATION INSTRUCTION AND ITS IMPACT ON THE INTELLIGIBILITY OF LITERACY LEVEL ADULT EL LEARNERS

by

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To all of my students
The strength, determination, and courage that you show every day
reminds me why I love to teach.
And to my husband, Greg, for his unfailing love and support.

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# CHAPTER ONE: INTRODUCTION

> We have eyes, but are blind. Our ears turn deaf…We have difficulty going into the store to buy food. We do not know how or what to ask; therefore, we cannot tell whether the food we want to buy is delicious or not, or whether it is salty or sweet. Some of us even buy animal food by mistake. (Malicky & Derwing, 1993, p. 399)
>
> "[She was] like a mute tree; she had a mouth but could not speak." (Malicky & Derwing, 1993, p. 399)

Many refugees and immigrants who have moved to the United States to start a new life tell stories of the hardships and difficulties that they face in learning English as an adult. There are tales of loneliness, marginalization, fear and uncertainty, of mothers and fathers dependent on their small children to communicate with the outside world, of men and women feeling that they have been reduced to babies, unable to communicate their needs within this new English-only world. There are also tales of triumph, hope, love and friendship, of new communities forming, cultures learning and growing from and with one another, and the amazing capacity of human beings to connect across language and cultural barriers. Inspiring or heartbreaking, there is one constant through all of the stories: Learning English for the first time as an adult is a daunting task.

It is harder for some than others; more and more we are seeing new arrivals in Minnesota who have had no or very limited access to formal education in their native countries due to civil war, economic hardships or lack of educational opportunities.

These learners face additional challenges in the English Language (EL) classroom since they are attending school for the first time in their lives, as adults, where they face a double challenge: developing oral skills in English while simultaneously learning to read and write for the very first time ever, in a language that they are just beginning to understand. Oral skills are the building blocks that they need in order to acquire literacy skills; in order for these learners to begin to read and write, they must first be able to speak and listen. Strube tells us that along with their limited literacy skills, these learners' often have a very restricted grasp of second language (L2) oral skills; therefore, their vocabulary and their knowledge of sounds, words, and sentences are "inadequately developed" (2009, p. 50). Additional research has revealed that oral processing skills are interconnected with print literacy skills, making it more difficult for literacy level learners to focus on segments of a language or notice recasts involving grammatical corrections (Bigelow & Vinogradov, 2011; Tarone, 2010; Tarone, Bigelow, & Hansen, 2009). Historically, many teachers and schools have been unprepared to teach learners with such limited first language (L1) literacy skills, and literacy level learners frequently struggle to keep up with the rest of the class, while teachers strive to meet their literacy and speaking needs. The lack of teacher preparation to teach these literacy level learners can lead to frustration on the part of the teacher, and minimal language gains on the part of the learners (Vinogradov & Liden, 2009).

Literacy level learners are generally defined as learners who are learning a new language without being print literate in any language and who have not had access to formal schooling. Almost all of current second language acquisition (SLA) research is

based on literate and often highly educated second language (L2) learners and hasn't taken literacy level learners into account (Strube, 2009; Tarone, 2010). As a result, it is questionable whether current SLA theory applies to literacy level learners. Additionally, teaching practices based on current SLA theories are also called into question when it comes to this population of learners.

Low literacy adult EL learners have pressing needs for systematic, effective instruction in all areas of English language learning, as well as some of the most immediate and dire communication needs. For many literacy level learners, the classroom is their only source for developing the L2 (Strube, 2009) and may also be the only place that they feel safe enough to practice speaking their new language out loud. In order for these new language learners to become successful communicators in English, they need to be able to apply what they learn in the classroom to the outside world.

At this level, many learners identify oral skills as the most important aspect of learning English and the one most vital to their day to day survival. Coming, as many of them do from rich oral traditions (Bigelow & Vinogradov, 2011), they view speaking English as the way to connect with the new culture and to help their families and children be successful. When I have interviewed learners in my beginning level EL class about their EL goals, many low-literacy learners state the most important thing for them is to learn how to speak. They give long lists of the people that they want to be able to interact with: their neighbors, apartment managers, their children's teachers, employment counselors, caseworkers, childcare providers, doctors, hiring managers…the list goes on and on. All of their most immediate and pressing needs require spoken English. Implicit

in this is the need to speak with pronunciation that enables them to be understood by native English speakers, yet few teachers at any level of EL instruction feel confident about teaching pronunciation effectively (Burgess & Spencer, 2000; Couper, 2006; Darcy, Ewert & Lidster, 2012; Derwing & Munro, 2005; Gilbert, 2010).

According to Couper, who reviewed the research and has shared practical guidance for teachers, "This lack of research and consequent lack of training has meant that some teachers have serious misgivings about the effectiveness of teaching pronunciation at all" (2006, p. 47). It is evident that there is a need for increased study into the effectiveness of classroom pronunciation methods, in order to better inform teachers and to help them prepare their students for successful interactions in their communities. All of the learners in my classes want to be good neighbors, good parents, and good citizens. They want the United States to become their new home. But, as one learner in my class asked me while his daughter interpreted for him, "How can this become my home when I can't even speak to people that I meet on the street?" If EL learners are to communicate successfully with the world around them, they need to learn to speak English, and they need to learn to speak English in a way that is intelligible for the native English speakers that they interact with on a daily basis.

With the current focus in the field on communicative competence, many EL teachers have chosen to focus on speech fluency, rather than speech quality and therefore have very low expectations regarding their learners' pronunciation. Gilbert points out the paradox that exists in this method of teaching, stating "communicative competence downplays the importance of accuracy in general, but overlooks the fact that

pronunciation is an immediate barrier to communication unless there is a certain degree of accuracy" (2010, p. 2).

Many an EL teacher has heard their learners say, "Teacher, only you understand me." I have often wondered if we teachers are doing our learners any favors by adapting our listening to their pronunciation discrepancies and not offering explicit feedback and instruction regarding their pronunciation. I know that I subconsciously fill in dropped consonants and syllables, navigate incorrect word and sentence stress, and make extensive use of my wide background knowledge of my learners and their cultures in order to comprehend what the learners in my class are saying. It is also not uncommon for me to have to step in to act as an "interpreter" between one of the learners in my class and a native English speaker, even though the learner is speaking English, in order to prevent the communication from breaking down completely. Clearly, there is a need within my classroom for a more intentional focus on pronunciation. This is not uncommon within EL classrooms. Teachers tend to encourage learners to produce as much oral language as possible and offer very minimal pronunciation correction. The teachers are able to comprehend their learners' heavily accented speech, but in no way does that mean native English speakers with minimal interactions with English language learners will find their speech intelligible. In their 1997 research report, Derwing, Munro, and Wiebe call for an increase of investigations into successful classroom practices to improve intelligibility using blind ratings by disinterested listeners, stating that "in the final analysis, ordinary listeners are the people to whom ESL students must be comprehensible" (p. 408). It is not enough for their teacher to understand them; learners

must be intelligible to native English speakers who have had limited interactions with non-native speakers.

In discussing the importance of pronunciation in assimilation and/or acculturation in an English-speaking society, Parrino asks the question, “Is entry facilitated by possessing good second-language pronunciation, or does one speak well because one is given the opportunity and/or chooses to belong?” (1998, p. 179). The implications within this question raise enormous concerns when discussing adult literacy level learners whose language and pronunciation abilities often result in isolation from NSs. Frequently, when adult literacy level EL learners first begin to speak English, they face enormous challenges in successfully communicating with native English speakers. It is not uncommon for these learners to have negative experiences when they first begin producing oral language outside of the classroom because the native English speakers (NSs) that they interact with perceive the learners’ pronunciation of English as unintelligible, and are then unable or unwilling to negotiate meaning. As either a direct result of, or fear of being subjected to these negative experiences, many beginning EL learners are hesitant to initiate language interactions with English speakers in their communities, which severely limits their opportunities to improve their speaking skills (Zielinski, 2012). It is important that we consider what is at risk for these learners. With their limited English vocabularies, they simply don’t have the language skills to negotiate meaning with NSs. We owe it to our learners to help them be intelligible and comprehensible when they first work up the courage to try out their English in the community, increasing the chances for them to have a successful experience, and be

encouraged to continue practicing. Within this current study, comprehensibility refers to the listener's perception of how easy or difficult it is for them to understand an utterance, and intelligibility is defined as how much of the utterance they actually understand (Derwing & Munro, 1997, 2009; Derwing, Munro, & Wiebe, 1998). For some learners, it only takes one negative experience to make them feel ashamed and afraid of speaking English with strangers. As teachers, it is vital that we balance an open and welcoming classroom environment with systematic, research-based pronunciation instruction. As Morley (1991) states, not attending to a student's pronunciation needs is "an abrogation of professional responsibility" (p. 489).

As stated previously, pronunciation is taught infrequently in the adult EL classroom, and when it does make an appearance, it is generally incorporated in an unsystematic manner, applied as a corrective measure when speaking errors are too severe to ignore (Derwing, 2003; Derwing, Munro, & Wiebe, 1998; Gilbert 2010; Levis & Grant, 2003), leaving learners with insufficient instruction on how to improve their intelligibility. As a result, many teachers are doubtful about the effectiveness of targeted pronunciation instruction, and question its value in classroom curriculum (Gilbert, 2010). Even when teachers are enthusiastic about teaching pronunciation, they are able to find little in the way of research that informs them on how to incorporate pronunciation into the listening and speaking components of an ESL course (Derwing et al., 1998; Gilbert, 2010; Levis and Grant, 2003). I personally have struggled with successfully integrating regular pronunciation instruction into the classes that I teach; there are no appropriately leveled texts or curricula to offer guidance for how to systematically teach pronunciation

to literacy level learners who are just beginning to recognize print. Additionally, the sheer range of pronunciation needs in one beginning level class can be overwhelming. It is difficult for me and other teachers of literacy level learners to even know where to start. What skills should I teach that will have the most immediate impact on my learners intelligibility? According to the research, I am not alone in noticing a distinct lack of pronunciation literature and trainings.

Gilbert (2010) describes pronunciation as the "poor relation of the English language teaching world" (p. 1). In a 2001 survey of Canadian EL teachers, only 30% responded that they had any formal training in pronunciation pedagogy (Derwing, 2003). Far too frequently, pronunciation instruction occurs at an intermediate or advanced level, where it has been considered to be "remedial training" and is an indication that the pronunciation levels of the learners in the class has fossilized at a fairly low level (Chela-Flores, 2001).

At the same time, many accent-specific classes and learning tools are designed for advanced speakers that have been out of an EL class for a long time (Darcy et al., 2012; Derwing et al., 1997), rendering them unsuitable for classroom use in the lower levels. Additionally, there is a noticeable lack of research pertaining to literacy level learners (Bigelow & Vinogradov, 2011 Chela-Flores, 2001; Strube, 2009; Tarone, Bigelow, & Hansen, 2009; Tarone, 2010), especially in the area of oral skills production. In her 2001 article, Chela-Flores stresses the importance of thorough pronunciation instruction, beginning in the first stages of learning and continuing throughout a language program (2001), but admits that there is a glaring lack of materials that are appropriately leveled

for literacy level learners. There has been research in the area of beginning level pronunciation that suggests that a majority of perceptual and phonetic learning takes place during the first year of extensive exposure to the L2, and that pronunciation is most "malleable" within the first few months (Darcy et al., 2012).

During the course of my MAESL program, I took a required course on phonetics and phonology instruction. I was fascinated by everything that I read and learned about pronunciation instruction; and immediately began to try and apply what I learned in my classroom. As a part of a class assignment, I observed a Nepali and a Karen speaker and analyzed their English speech. One characteristic in particular that I noted was that both speakers exhibited very little jaw and lip movement while they were speaking. I wondered how much this contributed to their English pronunciation difficulties. Other teachers who worked with similar populations also shared similar observation-based anecdotes, and I kept this in mind as I began to explore ideas for teaching pronunciation to literacy level learners.

While looking into literature on pronunciation instruction and effectiveness, I came across the concept of *voice quality settings* (also referred to as articulatory settings by some researchers). Laver (1980) describes three different types of voice quality settings:

> supralaryngeal settings (i.e., settings above the larynx that involve phenomena such as tongue position, lip rounding or spreading, presence or absence of nasality, etc.) laryngeal settings or phonation types (i.e., whether the voice can be characterized as whispery, creaky, modal or neutral, or falsetto), and overall

muscular tension (as cited in Celce-Murcia, Brinton, & Goodwin, 2010 pp. 31-32).

In their 1983 article, Esling and Wong state that "voice quality features may function linguistically, to characterize the particular language or dialect…or they may function paralinguistically, to signal mood or emotion…or they may also fuction extralinguistically to characterize or identify the speaker" (pp. 89). This current study will focus primarily on the supralaryngeal voice quality settings and how they function linguistically. Esling and Wong go on to explain that features of voice quality settings that occur in EL learners' native languages, but do not occur to the same degree in English, can be obstacles to intelligibility (1983). When someone first begins to speak a new language, it is natural for them to apply the voice quality settings from their first language. When the voice quality settings between the two languages are dissimilar, this can impede their pronunciation in the new language. It is hypothesized that focusing on voice quality settings may help teachers to avoid drilling segmentals, asking the learners to repeat the same English phonemes over and over (Thornbury, 1993). If the learners are introduced to the main voice quality settings of English, their production of segmentals may improve naturally (Kerr, 2000). This poses the idea that teaching voice quality settings for the new language from the very beginning of instruction may not only increase intelligibility from the start but could also be easily retained and utilized as fluency increases. Such instruction may also have the added benefit of giving EL learners a strong foundation in pronunciation as they move throughout a language program or acquire language skills outside of the classroom. Based on my observations

of Karen and Burmese speakers' lack of facial movement while they were speaking, explicit instruction in English voice quality settings seemed like an interesting and worthwhile area to examine. The current study is based on these assumptions about language learning and pronunciation and seeks to apply them to a classroom of literacy level learners in order to ascertain if the learners' English pronunciation becomes more intelligible as a result.

The detrimental effect that incorrect voice quality settings and a lack of pronunciation instruction can have on intelligibility is illustrated by an interaction that I had with Mai, an intermediate level learner who had attended several years of English classes at various schools. We had taken our adult learners on a fieldtrip to a local elementary school, and Mai wished to ask the principal a question. She attempted to ask her question multiple times, first to the principal, then to me, then to the other EL teacher who was with us. Even after extensive negotiation, none of us were able to understand her question. Mai was speaking English, but as I was observing her, I realized that there was very little motion in her lips and her jaw; she didn't appear to be speaking English at all. As the other teacher remarked to me later, "It sounded like she was speaking English in Hmong." This simple and accurate observation indicates that while Mai was using the words of English, she had not adjusted her voice quality settings to match the language that she was speaking nor was she able to draw on past English pronunciation instruction. She was therefore unintelligible, even to several sympathetic listeners. All three of us listening had extensive experience working with non-native speakers (NNSs), we all knew the context of the question, and we all were willing to try and negotiate out what

Mai was saying, but to no avail. Mai had mastered the vocabulary and grammar forms to ask her question in English, but her pronunciation rendered her nearly completely unintelligible, and her attempts at communication were unsuccessful. Her inability to use English voice settings and English pronunciation elements when speaking English was a huge impediment to communication; none of her previous schooling had included an adequate amount of pronunciation instruction. In my research project, I attempt to offer instruction that will provide learners like Mai with a basis for intelligible pronunciation of American English at the very beginning of their EL instruction. By exploring pronunciation training in the area of voice quality, I hope to help learners communicate successfully with NSs that they encounter in their daily lives.

Besides dealing with a lack of resources detailing how to instruct literacy level learners in pronunciation, literacy teachers also must work to increase their learners' self-confidence. According to Bigelow and Lovrien Schwarz, many adult EL learners may lack confidence in their abilities to learn (2010). I have observed from working with many literacy level learners that it's generally not a question of whether or not they are able to speak the word in English, but if they can do so in a way that is audible and physically unobstructed. Many new speakers of English who are unsure of their abilities tend to speak at a very low volume, often self-consciously covering their mouths, ducking their heads, or visibly tensing up when called upon to speak. All of these serve to muffle their speech even further and can potentially give the impression that these EL learners have less English knowledge than they actually possess, as well as cause the learners to come across as timid and lacking in self-confidence. Esling and Wong claim

that focusing on voice quality settings helps to improve the image that EL learners project when they are speaking English (1983), which could also have the effect of increasing learner confidence. It should be acknowledged that the tendencies mentioned above can also be a result of different cultural communication styles, rather than a reflection of learner confidence. While this study is not large enough to address the variation between cultural communication styles, it will seek to give participants the tools that they need to make the choice to communicate in a manner that is more familiar to NSs of English in a way that is respectful of the participants' cultural preferences.

As I began to plan out the classroom intervention portion of the study, I puzzled over how to balance the necessary teacher-led instruction on explicit features of English voice quality settings with activities that would be fun and interactive for the learner participants. One evening, I was describing some of the voice quality settings exercises that I was planning to use in the classroom to teach pronunciation to my husband, who has an extensive background in theater. He noted that the exercises I was describing were very similar to theater voice training exercises that he'd learned when he was acting, and he suggested several voice and body warm-ups. I was intrigued by this parallel and began looking at research on using theater voice training and drama activities in the EL classroom. I discovered that drama and voice training were natural extensions of teaching voice quality settings and decided to incorporate these areas into the explicit pronunciation instruction classroom component. Using drama in the low literacy EL classroom is another area that has not received a great deal of attention, but that I believe has strong potential for supporting EL learners' language development, particularly in the

areas of voice quality settings and building confidence. Davies claims that the use of drama and theater activities builds confidence by encouraging learners to get up and produce language and movement in front of one another, and that these types of activities reinforce memory and fix language in the minds of learners through visual association and active learning (1990). Additionally, many researchers agree that using drama activities such as pantomimes, simulations, role-plays, scripted plays, and improvisations in the EL classroom can noticeably lower the affective barrier that inhibits learners from producing language (Archibald, 1987; Davies, 1990; Hardison & Sonchaeng, 2005; Maley & Duff, 1984; Stern, 1980). This study will employ both theater voice training techniques to help reinforce the teaching of English voice quality and drama activities to provide learners with the opportunity to practice pronunciation and language production in a communicative, creative manner.

In order for literacy level EL teachers to feel confident in to prioritizing pronunciation instruction in their classrooms, it is vital that they have access to research on whether or not they can expect that explicit pronunciation instruction will have a positive impact on their learners' abilities to communicate intelligibly with native English speakers. Additionally, these teachers need to be familiar with what types of pronunciation instruction will be the most effective when taught in the classroom. To that end, the research question of the present study is

*How does explicit pronunciation instruction in the primary area of voice quality settings impact low-literacy level learners' perceived intelligibility by native English speakers, and how do low-literacy learners respond to this type of instruction?*

In this study, I attempted to shed light on these questions by looking at the effectiveness of a pronunciation intervention in a low-literacy adult EL classroom where the participants focused on improving, in particular, their English voice quality settings. In order to gather the necessary information, I followed a multiple step process. To begin, I interviewed the learners who participated in this study in order to acquire a clear picture of their attitudes regarding pronunciation: how important they believe it is, their own pronunciation difficulties, and instruction in the classroom. I then collected short speech samples from all of the participants. An eight week classroom pronunciation intervention followed, where the learners received targeted pronunciation instruction for three to five hours a week. At the end of the intervention, I collected short speech samples and interviewed participants to determine if their attitudes towards pronunciation were changed by the classroom instruction. Also, the post- interview asked how they felt about the activities and exercises utilized during the classroom intervention. Once the classroom and learner components of the study were completed, I asked three small panels of NSs to act as raters to listen to the learners' speech samples, and rate them based on intelligibility, comprehensibility, and perceived accent.

As a result of this study, I was able to determine whether incorporating voice quality instruction in low-literacy classrooms improves the intelligibility of the students to the point where their progress can be favorably noted by native English speakers.

This classroom-based research was done with the view of making communication outside of the classroom a more positive experience for listener and speaker alike, thus increasing the likelihood that the learners' self-confidence will rise and they will be more

inclined to use their English skills outside of the classroom. In order to ensure that the learners are becoming more intelligible to the wide variety of people that they encounter outside of the school setting, neither I nor other EL professionals rated the speech samples. Instead, I asked NSs with limited exposure to NNSs to act as the raters. I believe that it is essential that the listeners who rate the pronunciation have no previous training in phonetics or phonology, and limited exposure to communicating with NNSs in order to simulate an experience similar to what would happen in a real-life context. Derwing and Munro reiterated the importance of using untrained raters, stating that "researchers cannot assume their own observations of students coincide with those of community members with whom second language students commonly interact. In fact, a researcher's perception of an improvement may not be shared by others" (2005, p. 381). This study contributes to the field of practical research on teaching pronunciation, and on literacy level learners in particular.

## Conclusion

In conclusion, it is imperative that literacy level learners are taught to speak English in a manner that is intelligible and comprehensible to native English speakers. Literacy level learners face additional challenges in an EL classroom context since they are unable to access print literacy as a tool for English language learning, a skill which is developed when one becomes literate in their first language. To date there has been little SLA research that focuses on these learners. Along with a gap on empirical studies pertaining to literacy level learners, there is a distinct lack of resources and trainings regarding pronunciation instruction, leaving many adult EL teachers uncertain of how to

approach it, and uncertain to the effectiveness of teaching pronunciation in their classrooms. This current study will attempt to shed light on the effectiveness of teaching explicit pronunciation instruction in a literacy level classroom to help inform other literacy level teachers, as well as advance the current available research on pronunciation and literacy level learners.

In the following chapter, I introduce the current research on literacy level learners and define their general learning characteristics. I examine the research that explores the history and the importance of pronunciation instruction in the EL classroom, as well as the definitions and current research regarding accent, intelligibility and comprehension. Additionally, I explore the merits of various types of pronunciation instruction, including voice quality, setting obtainable goals, and classroom instruction that integrates aspects of theatre and drama. Finally, I share the current research and pronunciation materials that are available to teachers of beginning and literacy level learners. In the third chapter on Methods, I will outline the elements of my study that include the setting, the participants, the research model, implementation methods, data elicitation and analysis. Chapter Four will discuss the findings of the study, and Chapter Five will conclude with a summary, a discussion of limitation, ideas for further research, and final comments.

# CHAPTER TWO: LITERATURE REVIEW

Intelligible pronunciation is an important component in improving the communicative competence of EL learners, but it is rarely introduced in low-literacy curricula or a regular part of beginning level EL instruction. Literacy level learners, who are a traditionally understudied population, need to be able to speak English in a "listener friendly" (Gilbert, 2010) manner that enables NSs to understand them easily, in order to prevent a breakdown of communication which can result in the learner feeling isolated and rejected. The goal of this study is to explore how explicit pronunciation instruction in the primary area of voice quality settings impacts low-literacy level learners' perceived intelligibility by native English speakers, and how low-literacy learners respond to this type of instruction.

To frame the need for this type of research, this chapter will review pertinent studies in the areas of literacy level learners, history and relevance of pronunciation instruction, intelligibility, comprehensibility, and accent, research on the value of various types of pronunciation instruction, including voice quality settings and drama in the EL classroom, and the current research and pronunciation materials that are currently available and appropriate for beginning and low-literacy learners.

## Characteristics of Literacy Level Learners

According to the Migration Policy Institute (2007, as cited in Bigelow & Lovrien Schwarz, 2010), the population of low literacy learners in the United States is steadily growing as global migration increases. In a 2010 report published by the National Institute for Literacy, it was reported that between the years of 2004 and 2007, between 17 to 21 percent of adult learners enrolled in federally funded adult EL programs were at a beginning literacy level (Bigelow & Lovrien Schwarz, 2010). In this paper, literacy level learners refers to adult EL learners who have had no or limited access to education in their native languages, and who are developing basic literacy skills for the first time in English (Bigelow & Lovrien Schwarz, 2010). A lack of access to literacy instruction can be caused by a variety of reasons, including war, poverty, cultural expectations, migration, and civil politics (Bigelow & Lovrien Schwarz, 2010; Florez & Terrill, 2003; Vinogradov & Bigelow, 2010). The instructional needs of literacy level learners in the EL classroom are different from all other learners, even those with basic literacy skills in their L1(Bigelow & Lovrien Schwarz, 2010; Florez & Terrill, 2003; Parrish, 2004; Vinogradov & Bigelow, 2010).

Literacy level learners generally haven't been well-served in conventional EL classes where the class usually is focused around a book, and the curriculum takes for granted that all the learners are starting with a certain level of print literacy (Condelli & Wrigley, 2006). Many literacy level learners may lack self-confidence in their abilities to learn a new language (Bigelow & Lovrien Schwarz, 2010; Zielinski, 2012); they may have oral skills in English that far surpass their English literacy abilities, or they may be

equally limited in both areas (Bigelow & Lovrien Schwarz, 2010; Vinogradov & Bigelow, 2010). Either way, they must speak and understand a word in English before they can successfully read it. It is claimed that oral and literacy skills are interdependent, and that oral skills help to pave the way for literacy (Bigelow & Lovrien Schwarz, 2010; Florez & Terrill, 2003; Genesee, Lindholm-Leary, Saunders & Christian, 2006; Tarone, 2010; Vinogradov & Bigelow, 2010). In her 2010 paper on the relevance of research done on literacy level learners in regards to the field of SLA, Tarone describes a three-part study on oral L2 processing that was carried out with low-literate EL learners and confirmed that "alphabetic print literacy level has a significant impact on oral L2 processing" (p. 75). Additional studies have shown that literacy level learners struggle to mark word boundaries, have a more challenging time recognizing words as phonological entities, and have difficulties with manipulating phonemes; they are also less likely to notice recasts than their peers with print literacy skills (Bigelow & Lovrien Schwarz, 2010; Tarone, 2010). Tarone concludes her article with an urgent call to SLA researchers to increase the amount of studies done with literacy level learners, a call which is echoed by many in the EL community.

As more and more of the EL population in our communities and classrooms have not had an opportunity to develop their L1 literacy skills, it is essential that teachers are trained and prepared to meet their needs. Yet teachers generally have less experience in teaching learners who have little or no formal education, or are not print literate (Bigelow & Vingradov, 2011; Vinogradov & Liden, 2009; Florez & Terrill, 2003). Teachers of low literacy adults may also struggle to find appropriate texts for their classes, as a result,

"heavy reliance on teacher-made materials is usually necessary" (Bigelow & Lovrien Schwarz, 2010, p. 13). An extensive, longitudinal, and multi-state research study that sought to establish successful practices for teaching adult literacy level learners found four key findings related to instructional practices in the EL classroom: establishing connections between the real world and classroom activities and materials, judicious use of the first language, allowing for varied practice and interaction, and that the rate of attendance is more important than the number of hours of attendance (Condelli & Wrigley, 2006). In an interview discussing these findings, Wrigley emphasizes the importance of connecting literacy development with oral language development that ties into to the learners' lives outside of the classroom. She states, "You can't read in English if you don't know English" (2003, p. 16). This sentiment is echoed by Kurvers, who stresses the necessity of simultaneously teaching oral vocabulary development with literacy skills when working with emergent readers. Without the vocabulary development, she declares that "reading is like sounding out nonsense words" (2007, p. 41). Both of these statements support the claims of the previously mentioned studies; teachers should strive to assist their literacy level learners in obtaining oral skills in the L2, while simultaneously developing their literacy skills. As teachers strive to include successful teaching practices in their lessons, emphasizing oral communication as advocated in the studies above, it is crucial that they spend time on explicit instruction on pronunciation. The importance of including pronunciation instruction in the EL classroom, and the consequences of marginalizing its role are discussed in the following section.

## Importance of Pronunciation Instruction

The function of pronunciation instruction is to provide students with the tools that they need to gain accurate control within the sound system that they are learning (Murphy, 1991). However, the role of pronunciation in the EL classroom and the most effective methods of instruction have long been debated. Throughout the 1940's to the 1960's, pronunciation was widely considered to be an essential skill in learning English, primarily taught through the system of audiolingual methodology (Morley, 1991). Interest in pronunciation waned for several decades, but then began to again gather momentum in the 1980's with the emergence of the communicative approach, which remains the primary method in language teaching today (Celce-Murcia et al., 2010).

With this focus on communicative competence, many pronunciation researchers maintain that it is vital for pronunciation to be a regular part of EL curricula and taught in conjunction with communication competency (Celce-Murcia et al., 2010; Chela-Flores, 2001; Couper, 2003, 2006; Derwing & Munro, 2005; Gilbert, 2010; Llurda, 2000; Morley, 1991), since lack of pronunciation skills is a barrier to effective communication. One study found that NSs perceived pronunciation errors and hesitation to be more distracting than other factors such as word choice, grammar, and intonation (Fayer & Krasinski, 1987) when judging NNSs intelligibility, indicating that a lack of pronunciation skills can be a major obstacle to successful communication. Celce-Murcia and her colleagues assert that there is a "threshold level" that NNSs of English have to obtain, and that if their pronunciation level stays below this level, they will have verbal communication problems, no matter how much grammar and vocabulary they master

(2010, p. 8). Other researchers cite the social costs that may result from a lack of pronunciation skills as they interact with NSs, claiming that NSs evaluate and judge NNSs on the basis of their accent and intelligibility, thus limiting access to positions and employment, slowing acculturation, and restricting opportunities for practicing English in meaningful communication settings (Anderson-Hsieh, Johnson, & Koehler, 1992; Bailey, 2005; Derwing, Munro, & Thompson, 2008; Derwing & Munro, 2009; Parrino, 1998; Parrish, 2004; Rubin, 1992).

Even when adult EL learners have lived for years in an English-speaking environment, without formal pronunciation instruction, they may still be highly unintelligible and unsatisfied with their pronunciation (Derwing et al., 2008; Derwing et al., 1997; Parrish, 2004; Zielinski, 2012). Celce-Murcia et al. draw their readers' attention to the fact that many ESL learners live in language "islands" where they live out their daily lives with minimal exposure to English (2010), which would result in few opportunities to improve their English pronunciation. A lack of opportunity to speak English outside of the classroom directly impacts ESL learners' abilities to increase their English fluency and to improve their English pronunciation through practice and NS feedback (Derwing et al., 2008; Zielinski, 2012). Flege's 1988 study showed that it is unlikely for NNSs to show spontaneous improvement or change in their verbal productions after the first year in an L2 environment without instruction (as cited in Derwing et al., 1998). Despite the rising concern regarding the lack of explicit pronunciation instruction in many ESL classrooms, a majority of teachers still lack training in systematic pronunciation instruction in the EL classroom, or struggle to find

appropriate pronunciation resources for their learners (Celce-Murcia et al., 2010; Chela-Flores, 2001; Couper, 2003; Darcy et al., 2012; Derwing & Munro, 2005, 2009; Gilbert, 2010; Llurda, 2000; Morley, 1991).

In a learner-centered adult EL classroom, teachers shape instruction around their learners' immediate needs and interests in order to enable them to meet the demands of their lives in an English speaking context. While there have not been many studies that seek out the perceptions of EL learners on the importance of pronunciation, a prominent study that included learners' opinions revealed that a majority of EL learners feel that accurate pronunciation is an essential part of speaking English successfully. In her 2003 study, which included a survey of 100 adult ESL learners living in Canada, Derwing reports that 97% of the participants felt that it is important to pronounce English well, and 95% agreed that they would like to pronounce English "like a native speaker" (2003, p. 555). Even a majority of the study participants who didn't feel that they personally had pronunciation difficulties considered pronunciation to be a critical aspect of communication. Other participants shared negative experiences that they felt were caused by their non-standard pronunciation. One participant reported, "I felt afraid that people were afraid to sit down with me sometimes. Because they felt that maybe they can't understand me or I can't understand them" (p. 550). The findings from this study indicate that learners feel it is important to have good pronunciation of English, so that component should be addressed in EL classrooms. Furthermore, all of the learners participating in Derwing's study were EL students in an intermediate level class at a community college. While we can assume that their experiences interacting with NSs

may differ than those of newly arrived, literacy level learners, perhaps literacy level learners will express an even greater need for immediate pronunciation instruction. This current study attempts to gather information from literacy level learners on their views regarding pronunciation instruction in the EL classroom.

Even teachers who firmly believe that pronunciation should play a crucial role in classroom instruction often find themselves wondering where to begin and what areas to focus on (Chela-Flores, 2001; Couper, 2006, Darcy et al., 2012; Derwing & Munro, 2005; Derwing et al., 1998; Gilbert, 2010; Levis & Grant, 2003). In numerous studies and papers around the area of pronunciation instruction, researchers sound the call for both new and continuing research on the effectiveness of various approaches to teaching pronunciation (Anderson-Hsieh, Johnson, & Koehler, 1992; Bailey, 2005; Celce-Murcia et al., 2010; Chela-Flores, 2001; Darcy et al., 2012; Derwing et al., 1998; Derwing & Munro, 2005, 2009; Derwing & Rossiter, 2003; Gilbert, 2010; Morley, 1991) and making that research readily available to teachers. This study contributes to the literature within the area of effective types of pronunciation instruction in the EL classroom, particularly in regards to pronunciation instruction for literacy level learners.

Native Speaker Reaction to Non-native Pronunciation

Research has shown that being unable to comfortably communicate in English can limit the social, educational, and career choices for adult immigrants and refugees who are settling in English-speaking countries (Derwing & Munro, 2009; Derwing et al., 2008; Major, Fitzmaurice, Bunta & Balasubramanian, 2002; Parrino, 1998; Zielinski, 2012). This can have an immediate and dramatic impact on the quality of EL learners'

daily lives. NSs have exhibited reactions that range from irritation to discrimination when communicating with NNSs that have an accent or a non-native dialect (Derwing & Munro, 2009; Lindemann, 2002; Munro & Derwing, 1995). Research studies have shown that listeners are capable of projecting negative qualities onto speakers when they are assessing non-native accents (Munro & Derwing, 1995; Llurda, 2000; Major et al., 2002), and judging NNS accents to be less intelligible than they actually are when the speaker is perceived as coming from an ethnic group that varies greatly from the dominant culture (Derwing et al., 2008; Lindemann, 2002; Rubin, 1992). Lippi-Green suggests that negative attitudes towards specific cultures can result in listeners choosing to reject their part of the "communicative burden" and insist that is the accent of a NNS renders them unintelligible, even when the NNS has good pronunciation and communication skills (as cited in Lindemann, 2002). It is surmised that even when NSs don't have negative mindsets towards ethnic groups that are visibly different from their own culture, "they may lack confidence in their own ability to interact successfully with L2 learners and thus avoid conversations with newcomers" (Derwing et al., 2008, p. 374). These negative attitudes, both intentional and unintentional, could severely hamper a NNS' job search within their new community or limit their ability to create meaningful interactions with NSs.

It is clear that accent discrimination can affect speakers whose pronunciation and accent differ from that of the dominant culture. While the pronunciation instruction used in the current study does not by any means seek to eliminate the accents of the participants, it is hoped that helping EL learners to achieve stronger pronunciation skills

in English will prevent some of the biases that they face from being escalated by a lack of intelligibility. As Derwing et al. state, “Accents don’t cause discrimination; the fault is with intolerant, often monolingual interlocutors” (2008, p. 486).

## Perceived Accentedness, Intelligibility, and Comprehension

The present study explores NNSs’ pronunciation in terms of perceived accentedness, intelligibility and comprehensibility, using the definitions of these terms as laid out by Derwing and Munro over the course of several studies. According to these researchers, *accent* is defined as speech that “deviates in non-pathological ways from native speaker norms” (1995, p. 302). They simplify their definition in their 2009 article, referring to accent as “how different a pattern of speech sounds compared to the local variety” (2009, p. 478). Since accentedness tends to be a more subjective measure of ease or difficulty of understanding on the part of the listener, it will be referred to as *perceived accentedness* throughout this study. *Intelligibility* is used to refer to how much of a speaker’s message is processed successfully, and *comprehensibility* indicates how difficult a listener perceives it to be to understand L2 speech production. Comprehensibility is a subjective assessment as opposed to a measure of actual intelligibility, and comprehensibility ratings have been found to directly correspond with the amount of time and effort that it takes a listener to process utterances (Derwing & Munro, 2009; Derwing, Munro, & Wiebe, 1997, 1998). It is important to note that these three concepts are related but partially independent, and Derwing and her colleagues do not grant them equal importance. They claim that intelligibility is the most important aspect, followed by comprehensibility, with accent being the least important factor in a

NNS being understood (Derwing & Munro, 1997, 2009). In a 1995 study completed by Munro and Derwing, accent was determined not to be a reliable predictor of intelligibility and comprehensibility. As a result of these findings, they dismiss the notion that foreign accent reduction instruction will automatically improve comprehensibility and instead suggest that teachers focus on aspects of L2 that affect comprehensibility and intelligibility, rather than those associated with accent.

In a study examining the relationships between these three concepts, Munro and Derwing (1995) had 18 NSs of English listen to speech samples of ten Mandarin NSs, and asked NS listeners to transcribe the utterances and rate them on their degree of accentedness and comprehensibility on a nine-point scale. They discovered that a strong foreign accent did not necessarily result in L2 speech to be low in intelligibility or comprehensibility, since the listeners sometimes rated utterances as being strongly accented when they were able to transcribe them word for word. They theorize that this may have been due to the fact that some of the deviations from native speech norms resulted in making the listeners work harder to understand, which brought about longer processing time, and caused them to feel that the speech is more heavily accented.

A similar study was conducted by Parlak in 2010. In this study, two groups of NNSs who were enrolled in an intensive English program at a university were tested to see if explicit pronunciation instruction would improve their intelligibility and comprehensibility as perceived by untrained NSs acting as raters. One of the groups received six weeks of pronunciation instruction with 70% of the time spent on suprasegmental instruction and 30% of the time spent on segmental instruction. The

other group acted as a control group and received no explicit pronunciation instruction. Both groups of participants recorded speech samples before and after the instruction took place. The speech samples were then listened to and transcribed by NSs to gauge intelligibility, then rated for comprehensibility on a seven point Likert scale. While the group that had received pronunciation instruction showed significant positive changes to their intelligibility and comprehensibility, the control group did not show improvement in either area. This led the researcher to claim that explicit pronunciation instruction can help EL learners improve the intelligibility and comprehensibility. It should be noted that the participants in both of these studies were university-educated L2 speakers, and it is most likely that the pronunciation instruction during the classroom components utilized their L2 literacy skills. The participants in the current study were literacy level learners; therefore, the classroom instruction was not able to draw upon their L2 literacy to enhance or inform instruction.

The two previous studies, which gathered data on university level participants, heavily influenced the design of the present study, which researched literacy level participants. In particular, the methodologies used for gathering and analyzing data using Likert scales and listener/raters that are untrained in listening to NNS English were incorporated into the current study. In their 2009 article, Derwing and Munro reiterate their belief that “listeners’ judgments are the only meaningful window into accentedness and comprehensibility” (p. 478), and state they have almost always found inter-rater reliability to be high, with intraclass correlations of above 0.9. In his 2010 study, Parlak

recorded similar results for inter-rater reliability, and he echoes previous calls for the use of untrained raters, asserting:

> The purpose of using untrained raters instead of trained ones was to simulate a native-speaker experience similar to what would happen in a real-life context. Because the majority of the native speakers with whom ESL speakers interact in real-life contexts are not trained to listen to nonnative English, how they assess intelligibility and comprehensibility would be crucial. (Discussion section, para. 1)

Both of the previously mentioned studies used Likert scales (either 7 points or 9 points) for the listeners to rate the comprehensibility of the recorded speech samples, and the Derwing and Munro study used a similar scale to rate accentedness. The present study will use comparable 5-point Likert scales to rate comprehensibility and accentedness. While both studies required their listeners to transcribe the utterances in order to gauge intelligibility, the current study will utilize a 5-point Likert scale to measure this aspect of the speech, due to the limited resources and time. The benefit of employing a scale to gauge intelligibility is that the current study will be able to obtain results from a much larger pool of listeners than would be possible using transcriptions.

## Types of Pronunciation Instruction

A majority of pronunciation researchers agree that intelligibility should be the primary aim of pronunciation instruction (Celce-Murcia et al., 2010; Derwing & Munro, 1997; Derwing & Rossiter, 2003; Gilbert, 2010; Morley, 1991). However, there are distinct avenues of instruction that teachers must choose from as they structure the pronunciation focus of their class. Should they focus on segmentals, the sounds of a

language, or suprasegmentals, the stress, rhythm, and intonation patterns? What about voice quality? With literacy level learners who have had minimal exposure to the English language where does one even begin? To this date, there have been few studies that look specifically at different areas and approaches to pronunciation instruction in order to see if one is superior to others, but a general consensus is emerging that a balanced approach to pronunciation, one that incorporates both segmental and suprasegmental acquisition and production is the most successful (Celce-Murcia et al., 2010; Darcy et al., 2012; Derwing et al., 1998; Derwing & Rossiter, 2003; Gilbert, 2010; Kang, Rubin & Pickering, 2010).

One such study, which was conducted by Derwing and Rossiter (2003), looked at the pronunciation of three different groups of ESL learners before and after a 12 week period during which one group was given no explicit pronunciation instruction, one group was instructed on segmentals, and the third was instructed on suprasegmentals. At the end of the 12 week period, both groups that received pronunciation instruction were rated as being more intelligible than the group that had received no instruction, leading the researchers to call for a diverse and multifaceted approach to teaching pronunciation. Again, the participants in Derwing and Rossiter's study were enrolled in university level classes, which contrasts sharply with the English abilities of the literacy level learners in the present study.

Characteristics of Effective Pronunciation Instruction

Many EL learners are not aware of their own pronunciation problems. They need help in perceiving the difference between their own pronunciation and the target language

(Couper, 2003; Deng et al., 2009; Derwing, 2003; Derwing & Munro, 2005; Morley, 1991; Otlowski, 1998). Evidence indicates that with appropriate perceptual training, learners can begin to self-monitor, which can lead to an improvement in speech production (Couper, 2006; Darcy et al., 2012; Deng et al., 2009; Derwing & Munro, 2005; Morley, 1991), and allow for learning outside of the classroom environment. In his 2003 article, Couper includes perceptual training in describing seven steps that he believes are essential for learners to achieve in order to improve their pronunciation.

Students need to:

1) recognize the importance of pronunciation.

2) develop an awareness of their own areas of deficiency

3) develop the ability to monitor their own pronunciation

4) learn to focus on the pronunciation of native speakers and try to use this information as a model

5) develop their auditory memories the ability to retain and imitate sounds

6) develop physical control over their motor skills

7) lower their affective filters (p. 56).

Other researchers call for teaching pronunciation in conjunction with meaningful communication practice (Levis & Grant, 2003; Morley, 1991; Otlowski, 1998), instruction of language in meaningful units or “chunks” rather than isolated phonemes or individual words, (Chela-Flores, 2001; Derwing, 2003; Gilbert, 2010), and use of “quality repetition” to activate neuronal pathways and convert language to procedural memory (Gilbert, 2010, p. 31; Malicky & Derwing, 1993). When pronunciation

instruction is integrated into a language course, the various phonological and prosodic features can be recycled throughout the program, which gives learners the time and practice to adjust to a new sound system, as well as lower the affective barrier for learners (Chela-Flores, 2001). Additionally, when the pronunciation component is integrated and recycled for the duration of a course, it can help both the learners and teacher to avoid falling into the "perfection trap". This is the phrase that some researchers use to describe what occurs when an individual problem is worked on until it is fully mastered (Chela-Flores, 2001; Morley, 1991), which can contribute to anxiety and frustration on the part of both the teacher and the learners.

Setting Obtainable Pronunciation Goals

In order for L2 learners to feel that they are having a successful experience during a pronunciation course, it is essential for the learner and the instructor to set realistic goals (Celce-Murcia et al., 2010; Couper, 2003; Florez, 1998; Gilbert, 2010; Morley, 1991; Parrino, 1998; Parrish, 2004; Otlowski, 1998) that aim for functional intelligibility, communication skills, and increased self-confidence in their image of themselves as an L2 learner. Many teachers and L2 learners struggle to set obtainable goals for pronunciation instruction. Parrino tells us that "the adult, by virtue of his or her age, is expected to speak intelligibly in a short amount of time" (1998, p.178). According to SLA theory, it is generally far more difficult for adults to become fluent in an L2 than it is for children, and most L2 learners who begin to acquire a second language after the onset of puberty speak that second language with an accent (Celce-Murcia et al., 2010; Derwing & Munro, 1997; Parrino, 1998; Parrish, 2004). There are multiple factors that

researchers believe can affect accent: age, first language, exposure to the L2, motivation, and aptitude for oral mimicry (Derwing & Munro, 1997; Parrino, 1998; Parrish, 2004). For teachers and learners alike, it is unrealistic to expect adult ESL learners to obtain near-native or perfect pronunciation; to do so is to set ESL learners up for failure. Essentially, teachers and learners are best served by focusing on the elements of English that will make their speech more "listener friendly" and viewing pronunciation instruction as "accent addition" rather than "accent reduction" (Gilbert, 2010 p. 3). The goal of the pronunciation instruction used in this study is not to eliminate the accents of the participants but rather to give them the tools to add to their accents so that they are perceived as being more accessible and less of a barrier to communication by NSs.

Voice Quality Settings

To date, there is little available research that focuses specifically on voice quality settings (sometimes referred to as articulatory settings) within SLA research, but it is generally agreed that differences in voice quality settings between languages contribute to foreign accents and are rooted in linguistic and sociocultural influences (Anderson-Hsieh, Johnson & Koehler, 1992; Celce-Murcia et al., 2010; Esling & Wong, 1983; Jenkins, 2000; Jones & Evans, 1995; Kerr, 2000; Thornbury, 1993). Jones and Evans suggest that this lack of attention has perhaps been caused by the fact that voice quality setting instruction defies the formulation of rules that can be taught and practiced (1995). In the simplest of terms, voice quality settings contribute to what is perceived as "accent". Anderson-Hsieh et al., describe voice quality as "characteristics of pronunciation that affect entire utterances" (1992, p. 531) and cite the tight-jawed posture

and dentalized tongue body setting that is common in many Chinese EL learners as examples of voice quality deviance from English norms. Other researchers refer to voice quality as the broadest level of phonology and define it as the suprasegmental features that make up the overall pattern of a sound system and create a general auditory impression of the speaker's voice (Jenkins, 2000; Jones & Evans, 1995). Voice quality settings are defined by Esling and Wong as the "long term postures of the larynx, pharynx, tongue, velopharyngeal system and lips" (1983, p. 89). They identify English voice quality features as spread lips, open jaw, palatalized tongue body position, nasal voice, lowered larynx, and a creaky voice (1983), many which are significantly different from the voice quality features of ELs. Many NNSs of English hold their jaws in a loosely closed position, maintaining minimal jaw movement, which is significantly different from the open jaw that is a distinctive characteristic of American English speech. This type of voice quality setting deviation can adversely affect the intelligibility of the NNSs (Jenkins, 2000).

Some researchers hypothesize that if an adult EL learner can be taught the features of English that characterize its voice quality settings, their pronunciation of segmentals should noticeably improve as a result (Esling & Wong, 1983; Jenkins, 2000; Kerr, 2000). In other words, "by teaching the whole [voice quality settings] the bits [segmentals] might take care of themselves" (Thornbury, 1993, p. 128). Pennington (1996) agrees with this hypothesis, and writes that voice quality can be thought of as the "most global and longest term aspect of prosody" (p. 156). She adds that various aspects of pronunciation, including intonation and stress and the articulation of segmentals are all

directly influenced by a person's voice quality settings. Several researchers claim that teaching English voice quality settings is the most "holistic" way to teach pronunciation (Jenkins, 2000; Jones & Evans, 1995; Thornbury, 1993) and that learners are best served when pronunciation instruction begins with the main settings of the new language before moving to specific phonemes (Esling & Wong, 1983; Jenkins, 2000; Jones & Evans, 1995; Kerr, 2000). In turn, improving English voice quality settings could help to improve the image that ELs present when they speak English, since voice quality creates a "dramatic and identifiable" impression even for literacy level learners (Jones & Evans, 1995, p. 245).

These previous studies influenced the content and direction of the current study by suggesting areas of pronunciation instruction that have the potential to be carried out with literacy level learners. With its emphasis on jaw posture, tongue position, breathing, and strengthening of the vocal muscles, voice quality settings instruction can be carried out with the most basic of language content. Drawing attention to the differences in voice quality settings between EL learners' L1 and English using visual demonstrations such as videos, mirrors, and partner work has the potential to make this area of instruction highly accessible to literacy level learners. Moreover, the kinesthetic feedback that the aforementioned instruction will entail may be more accessible to learners than traditional auditory feedback (Kerr, 2000). This study features a classroom-based, action research component chosen to enable the researcher to answer the question: How does explicit pronunciation instruction in the primary area of voice quality settings impact low-literacy level learners' perceived intelligibility by native English speakers,

and how do low-literacy learners respond to this type of instruction? During the present study's intervention, learners became familiar with English voice quality settings and had the opportunity to practice these features through guided exercises and activities in the classroom. Along with the focused voice quality settings instruction, the classroom component also provided practice in the areas of segmental production and, fluency building through simple verbal exchanges. It is hoped that this study will increase the literature within the area of effective types of pronunciation instruction in the EL classroom, and instruction for literacy level learners.

Specific Voice Setting Issues for Study Participants

Celce-Murcia et al. sound a call for increased research in the area of voice quality setting contrasts across languages, stating that this type of research is imperative "if we are to apply these differences to pronunciation instruction" (2010, p. 32). Their statement highlights the current gap in literature on voice quality settings, especially in regards to voice quality setting differences that pose challenges to NNSs when they speak English. The two main languages spoken by participants in this study were Karen and Nepali. During the course of research for this study, the researcher was unable to locate studies that specifically discussed the voice quality settings for either of these languages. One article was found that contrasted Nepali and English monophthongs. The article claimed that Nepali has significantly fewer "open position vowels" (also known as low vowels) than English does, which can contribute to native Nepali speakers needing explicit practice in producing these types of vowels (Giri, 1987). It also stated that Nepali has four neutral and two rounded vowels, while English has four spread, three neutral, and

five rounded vowels (Giri, 1987), which indicates that native Nepali speakers may need instruction on the lip positions for spread vowels when they are learning English. In regards to Karen, virtually no literature was found discussing contrasting pronunciation. The study was therefore based primarily on the anecdotal observations of Karen and Nepali speakers noted in the previous chapter. The lack of voice quality setting contrasts between these languages and English was not a major impediment to the study. Celce-Murcia et al. emphasize "that part of pronunciation acquisition is awareness of and control over voice quality settings appropriate to the second language settings, which may be quite different from those of the first language" (2010, p. 32); therefore, teaching English voice quality settings should be constructive to NNSs.

Drama and Theater in the EL Classroom

Learning to speak a second language and training a voice for the stage have many parallels between them. Both require dedication and extensive practice, muscle control to effectively articulate and project so that the intended audience can hear and understand, as well as a willingness to put these skills to use in front of people. In this study, it is asserted that pronunciation instruction for adult ELs could glean much from theater voice-training techniques that have been used successfully by countless actors over the years. Building a solid foundation in voice quality settings and control could greatly improve speech production by fostering self-esteem, muscle control and self-awareness. As a researcher on drama in the L2 class noted, "Even if students have learned to produce sounds they are often so self-conscious about their pronunciation that they are too nervous to use these sounds in front of a group of people…muscles don't respond well to

nervousness; we need to warm up muscles and help them relax" (Archibald, 1987, p. 222). Anxiety about performance is believed to cause cognitive interference in most language learning tasks, including speaking, reading, writing, listening, and learning vocabulary (Matsuura, 2007). Implementing voice training techniques in the ELL classroom could help the learners to set the stage for applying English voice quality settings and increasing their volume and articulation during their L2 production, while assisting them in feeling more relaxed and confident in their pronunciation abilities.

As noted by Celce-Murcia and her colleagues, the more relaxed a speaker feels, the more accurate and fluent his or her pronunciation will be (2010). Teaching learners relaxation and breathing techniques can help them to warm up, release muscle tension, become less inhibited, control muscles of the mouth and tongue, and prepare for L2 voice settings (Hardison & Sonchaeng, 2005; Maley & Duff, 1984) as well as be a valuable tool that they can use to prepare for language production outside of the classroom. Activities that they recommend include body relaxation exercise, face and mouth aerobics, abdominal breathing, and practicing vocal production with breathing. In their article, Hardison and Sonchaeng also recommend techniques to increase voice projection and articulation which they claim will work to improve voice quality and confidence (2005). Stern underscores the value of offering explicit instruction in these areas, saying "a strong, clear voice give the language learner confidence" (1980, p. 80). Additional areas for instruction include flow of the voice, song melody and lyrics, shadowing and mirroring, and dramatic monologue (Hardison & Sonchaeng, 2005). While not all recommended areas will be suitable for instruction in a literacy level classroom, a regular

program that employs some of the more basic techniques, combined with familiar language content and explicit instruction in English voice quality settings could be easily accessible for literacy level learners, and could serve to increase their intelligibility when interacting with NSs. These techniques were included in the pronunciation instruction intervention of the present study.

Along with voice training techniques, drama-based learning holds many promising possibilities for teachers who wish to provide their learners with interactive activities to facilitate communicative pronunciation practice as well as build fluency. As with many other areas of pronunciation and oral skills research, literature on using drama and theater techniques in an EL classroom primarily addresses research that has been carried out with advanced level learners; however, there are some promising results that may be duplicated with literacy level learners. Researchers in this field of study all agree that using drama in the EL classroom can noticeably lower the affective barrier that inhibits learners from producing language (Archibald, 1987; Davies, 1990; Hardison & Sonchaeng, 2005; Maley & Duff, 1982; Stern, 1980). Drama pedagogy provides a variety of activities, including pantomimes, simulations, role-plays, scripted plays, and improvisations, all of which facilitate natural communication through creating non-threatening situations where learners draw upon their own language stores in order to express themselves. Learners must produce authentic language as they interact with others and react to what they say. Drama in the EL classroom can also work to bridge the large gap that can exist between scripted dialogues that learners come across in their course materials, and the natural way that English is spoken (Davies, 1990; Stern, 1980).

These types of activities can also encourage creative thinking and problem-solving, and can increase learners' empathy while lowering inhibitions (Stern, 1980). Drama activities also can function as interactive vehicles for practicing suprasegmentals and listening in an engaging manner. During the course of the classroom instruction component of the study, the instructor incorporated selected drama activities that are appropriate for literacy level learners, along with theater voice training techniques. It was hoped that the inclusion of drama activities would provide a vehicle for the practice of English pronunciation in a manner that was engaging, encouraged communication, and leads to diminished tension and anxiety for the learners.

## Pronunciation Instruction for Literacy Level Adult EL Learners

While there is increased interest in pronunciation in the EL world, there has been very little research and materials developed for literacy level and beginning level learners. This is a result of the fact that formal pronunciation instruction, when it is given, usually is aimed at intermediate and advanced level learners. This occurs even with the recognized fact, as Chela-Flores (2001) claims, that learners would reach "a stage of phonological development" that has been thought to be necessary for pronunciation training if the inclusion of pronunciation into classroom language occurred in activities from the very beginning and throughout a complete English learning program (p. 85). Unfortunately, this generally doesn't occur, since many of the course materials that are currently available for pronunciation instruction are designed for intermediate to advanced level learners (Chela-Flores, 2001; Darcy et al., 2012).

There is a noticeable gap in materials that are appropriate for beginning levels of learners, and even the texts that claim to be developed for beginning level learners have high amounts of vocabulary and reading, rendering them unusable for literacy level learners. Many teachers of literacy level learners struggle to find level-appropriate materials that are suitable for their adult learners in the areas of literacy and reading instruction, (Vinogradov, 2008) and there are virtually no available materials to teach literacy level learners pronunciation skills. Most of the current available pronunciation materials are appropriate only for learners with high fluency and reading skills (Chela-Flores, 2001). Even Gilbert's popular text, *Clear Speech from the Start* (2005), requires a level of reading comprehension that is far above the reach of most literacy level learners. Levis and Grant (2010) find fault with most of the higher level texts as well, claiming that the pronunciation-based texts are unsuitable for an oral communication course since they generally consist of highly controlled oral reading or repetition exercises, and that in the speaking-based texts there is a glaring lack of explicit instruction on pronunciation. As a result, the onus of developing a curriculum that includes regular pronunciation instruction and creating level appropriate materials rests with the teachers of low literacy classes.

## Conclusion

This study aims to address the gap in both literacy level learner and pronunciation research through an action research pronunciation intervention carried out in a classroom with literacy level learners. The intervention will focus on employing voice quality and drama techniques, as outlined above, to improve the intelligibility of adult EL learners as

perceived by NSs with little previous exposure to accented English. To this end, the study will draw on the research presented in Chapter Two on characteristics of effective pronunciation instruction, voice quality settings, and drama and theater activities in the EL classroom in order to design a unique classroom intervention targeted towards literacy level learners.

Chapter Two reviewed the characteristics of literacy level learners and the current research that is available on their immediate needs, particularly in the area of oral skills. This chapter examined the research that demonstrates the importance of explicit pronunciation in the EL classroom, as well as studies that demonstrate that pronunciation instruction results in improved intelligibility and perceived comprehensibility by native speakers. Also addressed in this chapter is the current research on various types of EL pronunciation instruction, including characteristics of successful pronunciation programs. Setting attainable pronunciation goals, voice quality training, and theater and drama in the EL classroom were also reviewed, as well as the lack of resources currently available for literacy level teachers who are interested in incorporating pronunciation in their classrooms. The next chapter will outline the research paradigms, the setting and subjects of the study, as well as data collection methods and data analysis.

# CHAPTER THREE: METHODOLOGY

Chapter three outlines the key elements of this primary research study. These elements include the setting, the participants, the research design, implementation methods, data elicitation and analysis. This study is designed to determine how explicit pronunciation instruction in the primary area of voice quality settings impacts low-literacy level learners' perceived intelligibility by native English speakers, and how low-literacy learners respond to this type of instruction. This classroom-based action research study contributes to current research on literacy level oral skill development, and it also adds to the discussion in the field on the role of pronunciation in the literacy level classroom.

## Setting

The setting for this study was an adult EL school located in a large urban area in the upper Midwest which is home to a large number of immigrants and refugees. This school offers daily English classes that teach the modalities of reading, writing, listening and speaking with a focus on daily living skills and work readiness. There are four separate levels of classes: literacy, basic, beginning, and intermediate. These classes are held Monday through Friday, from 9:15 to 1:15. There are two additional 1:30 to 2:30 classes offered for the participants that are designed to develop employment readiness skills. A majority of the learners attending the school are recently arrived refugees from

Southeast Asia, particularly Karen speakers from Burma, and they are assigned county caseworkers and employment counselors. These learners are required to attend classes regularly in order to receive assistance from the county. As a result of this requirement, class attendance tends to be very regular. This school also has a strong spirit of innovation, attracting and hiring dedicated teachers who have strong interests in active learning. For example, the school has formed a partnership with a community thrift shop where learners volunteer, founded a school community garden, and held school fashion shows.

In compliance with federal funding mandates under the National Reporting System, all attending learners are tested monthly on reading skills using a standardized test called the Comprehensive Adult Student Assessment System (CASAS). Scores on the CASAS tests range from 153 (beginning literacy) to 236 (advanced). The CASAS assesses adult NNSs' "basic reading, math, listening writing, and speaking skills in a functional context" (CASAS, 2012, Using CASAS competencies in curriculum, assessment, and instruction, para. 1). The test that is most frequently used for reporting purposes at this school is the reading test.

The learners that participated in this study were in the literacy level class at the school. They had test scores ranging from 153 to 180 on the CASAS 27/28 test. The intervention took place from 11:45-1:15 on Mondays, Wednesdays, and Fridays, with the researcher going into the literacy level classroom to deliver the instructional classroom component of the study. Since the researcher is a teacher at the school where the study took place, all of the study participants interacted with the researcher prior to the study in

one way or another. It was surmised that since the participants were familiar to some degree with the researcher prior to the intervention, that may have assisted them in lowering their affective barriers, and caused them to be more open to participating in the new types of activities and exercises that were introduced during the classroom instruction. Each day's lesson involved one to two non-verbal theater warm-ups, several large group voice warm-ups and exercises, controlled group and partner practice forming specific phonemes with a focus on voice quality, and a speaking activity.

## Participants

The NNS participants in this study were thirteen adult refugees who had been living in the country anywhere from one month and two and a half years at the onset of the study. They came from two countries: Burma and Bhutan. The participants from Burma are refugees of the ongoing civil war in Burma, pushed from their countries by the Burmese military and forced to find refuge in refugee camps in the neighboring country of Thailand. They primarily belong to the Burmese ethnic groups of Karen, Karenni, with some native Burmese. A majority of the learners speak two languages, Burmese and the language of their ethnic group, with some also speaking Thai. Many of the elder learners lived in refugee camps for over 20 years before being relocated to the United States. The participants from Bhutan belong to the Nepalese-speaking minority from the southern part of the country that were pushed from Bhutan into refugee camps in Nepal in the 1990's. All of the L1's represented by the study have written forms that use a non-Roman alphabet. While relative literacy in the L1 varied somewhat, a majority of the learners from both countries had had zero or very limited schooling in their native

countries and were in a formal classroom for the first time as adults. Their ages ranged from 20 to 60. All of them had very limited proficiency in spoken English, ranging from virtually non-existent to being able to volunteer information about themselves, such as where they had gone the day before or that they had family members still living in refugee camps. Participation in the study was completely voluntary, and the researcher used volunteer interpreters to explain the content and rationale for the data collection and classroom intervention to the participants in their native languages before the study began. Any learners who joined the class after the first full week of the classroom intervention were given the same instructions as the study participants but were not included as part of the study.

The other set of participants in the study were twenty-two NSs who listened to and rated the speech samples given by the previous group based on intelligibility, comprehensibility, and perceived accentedness. The raters ranged in age from 15 to 78 years old. All of them were Caucasian, from the Midwest, and verbally reported to the researcher that they had had limited exposure to communicating with NNSs.

## Research Paradigm

Due to the multifaceted nature of this study, mixed methods were employed, which involved qualitative and quantitative research within an action research setting. The data that was collected before, during, and after the classroom intervention was both qualitative and quantitative in nature in order to capture a broader perspective throughout the study. As Mackey and Gass (2010) report, more and more frequently researchers are using a variety and range of data collective methods, realizing that when qualitative data

is included in a primarily quantitative report, it can enrich both the researcher and the reader by supplying insights that would have not been incorporated had only statistical data been used.

Quantitative research attempts to establish a relationship between an independent and dependent variables (Mackey & Gass, 2010) and provide objective evidence that relies on hard data (Mackey & Gass, 2010). The research question proposed in this study consists of two distinct parts. The first part asks how explicit pronunciation instruction in the primary area of voice quality impacts low-literacy level learners' perceived intelligibility by native English speakers this study. It was determined that this portion of the research question would best be answered through the collection of quantitative data. Within this study, the quantitative component consisted of NSs listening to and rating English speech samples given by the NNS study participants. The speech samples were collected both before and after the classroom intervention took place. Each speech sample was rated on three five-point scales. The scales were designed to gather information regarding the intelligibility, comprehensibility, and the perceived accentedness of the NNSs' speech by NSs. This method of data collection was designed to enable the researcher to discover whether or not the pronunciation instruction had a positive impact on the participants' intelligibility as perceived by NSs.

While the greater part of data from this study consists of quantitative research, the small number of participants that were available for the study, as well as the lack of a control group, made the inclusion of a qualitative component essential to the relevance of this study for classroom teachers. Qualitative research is based on data that is descriptive,

and generally doesn't use statistical procedures. It is also characterized by flexibility, and has the ability to evolve to fit the reality of the study (Merriam, 1998). Within this study, it was determined that qualitative data collection would best be able to address the second part of the research question, which asks how literacy learners respond to explicit pronunciation instruction with a focus on voice settings. The qualitative component involved the interviews that were conducted with several selected participants both before and after the classroom intervention in order to ascertain their attitudes towards the importance of correct English pronunciation, pronunciation instruction in the classroom, and their own L2 pronunciation and confidence in their ability to make themselves understood by NSs. Additionally, throughout the classroom intervention, the researcher kept a teaching journal to record learners' responses and reactions to the exercises and activities, and to document any significant observations.

Action Research

Both the quantitative and qualitative data collection took place within a classroom-based action research model. The action research model is generally chosen by teachers who wish to reflect on their own teaching practice, and gather data in order to evaluate what they can change and improve upon for the benefit of their learners (Mackey & Gass, 2010). Crookes (1993) discusses the rationale for of this type of study, stating that "In action research it is accepted that research questions should emerge from a teacher's own immediate concerns" (as cited in Mackey & Gass, 2010, p. 216). In the case of this study, the researcher noted that learners from all levels of EL learning struggled with pronunciation, but that when it was taught, it was mainly focused at the

more advanced levels, despite the fact that literacy level learners could benefit substantially from systematic, targeted pronunciation instruction. Additionally, it was noted by the researcher that it was nearly impossible to find materials suitable for teaching pronunciation at lower levels, since so many of the materials are dependent on some degree of literacy mastery. The researcher determined to find if instructing literacy level learners in the area of voice quality, which could be conceivably taught with a minimum amount of text, could improve intelligibility in their pronunciation. In the classroom intervention portion of the study, the researcher was involved in the classroom instruction, and was a participant along with the EL learners.

## Ethics

NNS participants were informed of the purpose and methods of the study through interpreters in their native languages. Participation was completely voluntary with no negative consequences if a learner chose not to participate or chose to opt out of the study once it began. Due to the low oral skills abilities of the learners, the researcher was required to include some questions that elicited personal information from the participants during the question and answer portion of the recordings in order to obtain a sufficient amount of spoken language for the speech samples. The learners were informed that all data will be destroyed at the end of the capstone process. The learners' names do not appear anywhere in the findings.

NS participants were informed of the purpose of the study before they opted to join. Before each listening session, participants signed a confidentiality form, stating that they would not share any data that they heard with others or keep any records past their

own listening. NS participants rating forms were kept completely anonymous; their names were not recorded anywhere in the data.

## Data Collection

Table 1outlines the study's data sources and the timing of the data collection methods.

Table 1

*Data Collection Methods*

| Phase | Data Collection Activities | Time Collected |
|---|---|---|
| Pre-Intervention | 1) First round of learner-participant speech samples collected | 1 week prior to start of intervention |
| | 2) First round of learner-participant interviews conducted | 1 week prior to start of intervention |
| During Intervention | 1) Initial Voice Quality Settings Introductory Lesson | First day of intervention |
| | 2) Pronunciation instruction with four sections<br>a) Non-verbal theater warm-ups<br>b) Theater voice-training exercises<br>c) Voice quality settings practice<br>d) Communicative activities | 3 times a week throughout 8 weeks of intervention |
| | 3) Teaching Journal with observations and reflections on classroom practice | Throughout 8 weeks of intervention |
| Post-Intervention | 1) Second round of learner-participant speech samples collected | 1 week after conclusion of intervention |
| | 2) Second round of learner-participant interviews conducted | 1 week after conclusion of intervention |
| | 3) Rater-participant listening sessions to rate learner speech samples | 4-8 weeks after conclusion of intervention |
| | 4) Collection of rater-participant responses to listening sessions | 4-8 weeks after conclusion of intervention |

## Pre-Intervention Data Collection

In order to provide a full and accurate perspective of what took place during the study, four different data collection tools were utilized. These tools consisted of 1) pre- and post-intervention speech samples from each of the NNS participants that included a listen/repeat component for all learners, and a question/answer section for the learners with higher English speaking skills which were rated at the end of the intervention by NS participants on three scales to determine intelligibility, comprehensibility, and perceived accentedness (see Appendices A and B); 2) pre- and post- interviews with three of the NNS participants that included questions on prior educational and English instruction, attitudes about pronunciation, and use and confidence in spoken English outside of the classroom (see Appendices C and D); 3) a journal kept by the researcher, with entries made for each day of the pronunciation intervention; and 4) a record of comments made by the rater participants after each rating session. The entries from the teaching journal covered the reactions of the learners during the classroom instruction as well as observations on the success and effectiveness of the activities and exercises.

### Pre-Intervention Speech Samples

The first set of speech samples was recorded during the week before the NNS participants begin receiving explicit pronunciation instruction. Each participant was recorded individually by the researcher in a room away from the classrooms in order to minimize background noise. Since the participants were all literacy level learners, all of the prompts were verbal; at no time were they asked to read. There were two parts to the speech samples. For the first part, the participants were recorded responding to a series

of questions. For each participant, five to seven questions were chosen from a set of questions (Appendix A). The researcher consulted with the literacy level classroom teacher while compiling the list of questions in order to ensure that they consisted of language that the participants were familiar with. Before recording, the researcher asked the questions ahead of time to ensure that the participants were able to answer them. If the participants were able to respond to less than two of the questions, the researcher omitted that portion of the recording for that participant. Four of the participants were unable to complete this portion during the pre-intervention portion of the recordings; three of them were also unable to complete it during the post-intervention recordings due to their English language abilities. During this question and answer portion of the speech samples, the researcher is heard asking the questions, with the participants responding immediately afterwards. For the second portion of each speech sample, every participant was asked to repeat a set of basic sentences in English after the researcher. Again, the recording researcher chose five to six sentences for the participants to repeat from a pre-determined bank of sentences that were compiled with the input of the literacy level classroom teacher (Appendix B). During this portion of the speech samples, the researcher's voice is not heard. It was hoped including both in-context language (the participants answering the questions) and out-of-context language (repeated sentence prompts), would provide a more authentic listening experience to the NS raters during the post-intervention ratings. While conducting the pre-intervention recordings, the researcher used an Olympus DS-50 digital voice recorder that was held in the researcher's hand throughout the procedure.

Pre-Intervention Interviews

In addition to the speech recordings described above, the researcher interviewed three NNS participants in the week prior to the classroom intervention with the assistance of an interpreter. Due to time constraints and the small scope of the study, the researcher chose to interview only three of the participants rather than all thirteen. These interviews asked a series of questions designed to elicit information on the amount of formal education they had completed in their country of origin, how frequently they spoke English outside of the classroom setting, their attitudes around pronunciation instruction, and their confidence levels regarding their English pronunciation skills (Appendix C). All three of the interviews were conducted separately. These interviews were also recorded using the Olympus DS-50 digital voice recorder.

## Intervention

The classroom intervention consisted of three one-and-a-half hour classes per week, over a period of eight weeks. The class met two times rather than three during two of the weeks due to the school being closed on two Fridays. Throughout the intervention, the learners gained knowledge of and practiced speaking with typical American voice quality settings, as well as engaged in theatre voice training techniques and drama activities. This study did not include a control group of any kind, so all learners received the same instruction. Any variation in a learner's exposure to instruction was based solely on their attendance. Initially, the intervention began with 17 enrolled participants. Throughout the eight weeks of intervention instruction, four of the participants stopped out of class, bringing the number of participants down to 13. Any learners who joined

the class after the intervention began were given the same instruction, but they were not considered to be a part of the study since they had not given pre-intervention speech samples.

The overall focus of the classroom intervention was to introduce learners to the concept of voice quality settings and then to teach them how to apply those settings to the English that they produced. With this aim in mind, the instruction was designed to incorporate the seven steps for successful pronunciation instruction that Couper outlines in his 2003 article which included recognizing the importance of pronunciation, developing an awareness of own areas of deficiency, learning to monitor own pronunciation, focusing on and using the production of NSs as a model, developing auditory memories, developing physical control over motor skills, and lowering affective filters. Each section of the intervention instructional lessons was intended to address one or more of the steps, with an emphasis on voice quality settings. Theater voice training exercises and drama warm-ups were also incorporated in the instruction, again, with the intent to explicitly teach voice quality settings within the framework of the seven steps.

At the onset of the intervention, the researcher brought several interpreters into the class to reiterate to the learners the purpose and methods of the study. The researcher explained that the class was going to practice pronunciation, with the intention of becoming more easily understood by NSs in the community. It was explained that the class would work on exercises to strengthen their mouths and voices for speaking English, as well as learn how to move their mouths in the same way as Americans while producing the English language. Again, it was stressed that the learners always had the

option of choosing not to participate in the activities and that they were free to decide not to have their speech samples included in the study at any time without negative repercussions from the researcher or the school.

Intervention Introductory Lesson

The first instructional portion of the intervention consisted of a lesson designed to introduce the learners to the concept of voice quality settings and to demonstrate how each language has its own unique lip, tongue and jaw movements. It is described in detail below in order to demonstrate how the researcher conveyed this concept to the learners. Since the researcher was working with a literacy level class with extremely limited speaking skills, it was necessary to rely on visual rather than verbal explanations to keep the explanation as concrete and comprehensible as possible. To begin, the researcher played a video created by Meyers and Holt (1997) that shows an American woman speaking English to the camera with the sound off. At the end of the video, the researcher asked the class where the woman was from and what language they thought that she was speaking. All of the learners in the class responded that she was an American and that she was speaking English. The researcher asked how they knew those answers, and several learners imitated the woman's mouth movements, indicating through their facial motions that Americans tend to speak with a large amount of lip motion, open jaws, and visible teeth and tongue. The researcher then played a video from the same series by Meyers and Holt that shows a Korean man speaking English with the sound off. At the end of the clip, the researcher asked the class the same questions. The learners responded that they thought the man was from China, Vietnam, or Japan, and

that he was speaking the corresponding language from that country. When asked how they knew what language he was speaking, again several of the learners imitated his mouth movements, showing a closed jaw, very little lip movement, and minimal facial expression. At that point, the researcher revealed to the class that the man in the video had actually been speaking English. It was asked if they thought that American people would find the man easy or difficult to understand. The consensus of the class was that he would be difficult to understand, because his mouth didn't move like an American's. At this point the researcher explained that different languages require different movements of the mouth in order to speak them well. The researcher handed out hand mirrors to all the class, and asked everyone to watch themselves speaking their native language and to notice how their mouth moved. The researcher first demonstrated in English and then had several of the learners who understood the instructions model for the class. After everyone had several minutes to observe themselves, the learners were put into pairs. One partner spoke in their native language while the other watched their mouth movements, then they switched roles. Once all of the learners had a chance to observe several partners, the researcher asked for a volunteer from each of the languages represented in the class to come to the front of the room and speak their native language while the class noted how their mouths looked during speech. As each speaker was finished, the researcher questioned the class about how their mouths looked while speaking the language. By the end of the activity, all of the learners understood that every language has a specific set of mouth movements and that English is no exception. The researcher explained that in order to speak English and to sound like an American, it

is necessary to use an "American mouth," (American English voice quality settings) since it can be difficult for Americans to understand English that is spoken using a "Karen mouth" or "Nepalese mouth." (The researcher made a point of demonstrating that this was also true when speaking another language; for example, in order to be intelligible when speaking Karen, it is necessary to use Karen voice settings. The researcher demonstrated this by speaking a Karen phrase while employing American voice settings.) The phrase "American mouth" was used throughout the following eight weeks of the intervention by the researcher and the participants. The lesson ended with the class watching the video of the American woman speaking English again and using the hand mirrors to practice moving their mouths in a way that was similar to the woman in the video. As the learners handed their mirrors to the researcher, they were asked to demonstrate their "American mouth." Accompanied by much laughter, each learner opened and closed their jaws and moved their lips and tongues to imitate American speech. The concepts in the lesson described above were revisited numerous times throughout the intervention instruction.

Intervention Lessons and Activities

During the subsequent class instructional times, the lesson was broken up into several distinct parts, each designed with a specific role to play to improve the participants' English pronunciation. Each lesson began with two to three brief theater warm-ups. Due to the language levels of the participating learners, the researcher chose to almost exclusively use non-verbal theater activities. The purpose of the theater warm-ups was to lower the learners' affective filters through creative movement, building a

strong group dynamic, and laughter. Some of the activities used were: “Pass the Motion”, a game similar to the classic “Telephone,” but a motion is passed down the line rather than a whispered phrase or sentence; “What’s in the Box?” a game where the learners take turns opening an empty box, pantomiming pulling out an item and demonstrating it for the group, then putting it back in the box; and “Follow the Leader” where the learners stand in a circle and take turns doing a movement with their bodies that everyone else imitates.

The second part of the lesson included several components: one or two brief relaxation and breathing exercises, face and mouth aerobics, and voice warm-ups and strengthening exercises. Many of these exercises and activities were drawn from Hardison and Sonchaeng’s (2005) article on using theater voice training and technology in teaching oral skills. During the relaxation and breathing exercises, the researcher would have the learners relax different parts of their bodies, roll out their necks, practice abdominal breathing with their hands resting on their stomachs, and do the yoga technique of alternate nostril breathing. For face and mouth aerobics, the learners pretended that they were chewing a huge piece of gum, alternated their “lion face” (mouth open wide in a snarl) and “lemon face” (lips pursed and cheeks sucked in as if they have just bitten into a lemon), tapped the tip of their tongue to the alveolar ridge behind their teeth repeating the tapping sound heard in the English word *butter*, and shaped their mouths to form the vowel sounds /u/, /o/, /a/, /e/, /i/ as exaggeratedly as possible. Within the theater voice warm-ups and strengthening exercises portion of the lesson, the learners practiced the vowel sounds, adding different phonemes onto them

such as /b/, /m/, /s/, etc. They also repeated simple tongue twisters, practiced raising and lowering the volume of their voices, and participated in voice projection activities.

The third part of the lesson integrated building awareness of how specific phonemes in English are formed using the lips, jaw, and tongue with repetitive practice and immediate feedback. The researcher would model the voice settings for a set of four to five phonemes or words for the class. The learners would then attempt to imitate the movements of the researcher's mouth. Throughout the eight weeks of the intervention, the class began with individual phonemes, and then moved on to familiar words (such as the names of common foods, numbers, days of the week), and then progressed to short phrases that they used regularly in their English class (My name is, I am from, I like, etc.). After the class practiced as a whole group, the researcher would pass out individual hand mirrors. The learners would use the mirrors to monitor and adjust their mouth movements as they listened to and watched the researcher demonstrating the voice settings. The researcher would then pass out two lists with ten to fifteen items on each list. The lists contained the phonemes, words, or phrases that were being taught that day, repeated several times in random order. While the two lists had the same content, they were ordered differently. The learners would read silently while mouthing the items on their lists into their mirrors, continuing to monitor the shape of their mouths. After several minutes of practice, the researcher would pair up the learners. Each partner would take turns mouthing the items on their lists for their partner while their partner "lip-read" what they were saying. The learners worked with several different partners

until they were able to fluently and accurately form the voice setting positions for all of the items on the lists.

The final portion of the class involved fluency speaking activities, with the learners paying close attention to their pronunciation of the phonemes, words, or phrases that they had practiced in the previous section of the lesson. The researcher chose speaking activities that would provide the learners with ample opportunities to produce the target language. The researcher would model the activity and the language used, putting particular emphasis on pronouncing the target language. The class would then work in pairs or small groups, with the researcher moving throughout the class to provide support as needed. Some examples of activities used during this portion of the class came from the week in which the learners had been practicing the pronunciation of the numbers one to ten. For one activity, the learners were paired up, and each pair had a set of ten colored chips. One of the partners would select a number of chips, spread them out on the table, and ask, “How many?” Their partner would count the chips out loud, and then state the answer, focusing on their pronunciation. A similar activity involved holding up number cards from a deck of playing cards, and asking “What is the number?” A third activity, more complicated since it included additional language, involved the learners asking each other questions about the amount of members in their families. “How many children do you have?” “How many sisters do you have?” etc. (See Appendix E for a sample lesson plan.)

Teaching Journal

The third method of data collection, which occurred during the intervention time, was a teaching journal kept by the researcher. This journal was used to record the activities and exercises that were used during each lesson of the intervention. The researcher used the journal to keep notes regarding observations of the learners' reactions and responses to the classroom pronunciation instruction, as well as to record the researcher's thoughts on for each day on what worked well, and what could be improved on for the following instructional time. The journal recorded the fluidity of the instructional portion of the study as the researcher adjusted activities and expectations to best meet the abilities of the participants.

## Post-Intervention Data Collection

At the end of the intervention, the researcher collected post-intervention speech samples and learner interviews with the purpose of comparing them to the pre-intervention speech samples and interviews. The researcher also conducted rating sessions with a panel of NSs to listen to and rate the speech samples, and gathered the reactions and responses of the NSs to the rating process.

Post-Intervention Speech Samples

During the week following the conclusion of the classroom intervention portion of the study, each of the 13 participants recorded a second speech sample. The overall structure of the recordings was identical to that of the pre-intervention process; the questions and listen/repeat prompts were taken from the same list used during the first recordings. However, it is important to note several significant details that differed

between the pre and post-recording sessions. The post-intervention recordings were completed by the researcher's assistant, who did not have a background in ESL education and had not previously met or interacted with any of the participants prior to the second recording session. The researcher had worked with the learners throughout the eight weeks of the classroom intervention; the learners' comfort levels with the researcher had increased significantly since the first recording. It was hoped that having the unfamiliar research assistant completing the recordings would generate more a more accurate reflection of each learner's English pronunciation. It must be noted that while the research assistant's lack of experience working with EL learners may have resulted in more authentic second recordings, there were communication barriers that were not present during the first recordings. Also, during the second recording session, the researcher's assistant is heard placing the recorder on the table in between them and the participant, which created background noise and resulted in the recorder being at a greater distance from the research assistant and the learner who was being recorded. Additionally, due to circumstances beyond the control of the researcher, there are several recordings where background noise from the building can be heard.

Post-Intervention Interviews

The post-intervention interviews were conducted with the same three participants from the pre-intervention interviews. In addition to inquiring about how frequently they spoke English outside of the classroom setting, their attitudes around pronunciation instruction, and their confidence levels regarding their English pronunciation skills, the second interviews also asked the participants to share how they felt about the activities

and exercises that were a part of the pronunciation instruction (see Appendix D). This data was elicited to enable the researcher to determine if the intervention had had an effect on the learners' overall attitudes towards their pronunciation abilities, as well as how valuable the learners felt the instruction to be. It also allowed the researcher to analyze the effectiveness of specific lessons and activities for use in future classes.

Speech Sample Ratings

The study asked 23 native English speakers to listen to the speech samples and rate each one on three different scales (see Appendix F). The first scale measured the amount of the utterance that the NS understood (in order to gauge comprehensibility), the second measured how hard the NS felt that they had to work to understand the utterance (to gauge intelligibility), and the third measured how successfully the NS felt that they would be able to communicate with each learner based on the strength of their accent (to gauge perceived accentedness). Each listener rated each factor on a scale of one to five. This method is based on simplified versions of the rating system that was utilized by Derwing et al. in both their 1997 and 1998 studies, in which they used untrained NSs to rate the same three general areas. The rating results were collected during three separate listening sessions involving three unconnected groups of raters. All of the raters received a short training on how to score the speaking samples before they participated in the study. The rating sheets were kept anonymous to encourage the raters to assess the speech samples honestly, without worrying that their scores would reflect poorly on their listening abilities or openness to communicating with NNSs. During the rating process, the researcher played a speech sample, and then paused to allow the raters time to

evaluate the speaker. The rating process took about an hour and a half, with a short break halfway through to try to alleviate listener fatigue.

In order to mitigate the possibility of the halo effect, which occurs when participants attempt to provide the results that they believe the researcher wants or expects (Mackey & Gass, 2010), the pre- and post-intervention speech samples were randomly mixed together so that the raters were not aware of which ones are were recorded before the intervention and which ones were recorded afterwards.

Both the researcher who recorded the pre-intervention speech samples, and the research assistant who recorded the post intervention speech samples were NSs. Within the question and answer portion of each recording, their voices are heard asking the learners the questions. This was an attempt to alleviate rater drift, which is defined by Wheeler, Hartel, and Scriven as "the tendency for assessors and evaluators to unintentionally redefine criteria and standards over time or across a series of ratings" (as cited in Moore, 2009, p. 9). It was hoped that the addition of American accents throughout the speech samples would encourage the raters to use consistent rating criteria throughout the listening session.

Rater Comments

After the initial rating session, several of the NSs spontaneously offered observations and reactions to the speech samples that they had just heard. The researcher had not set out to intentionally solicit this data; however, the researcher wrote down what she considered to be the most pertinent comments during the exchange. At the conclusion of the following two rating sessions, the researcher encouraged the raters to

share their responses to the speech samples and the rating process, again noting the comments that appeared to be the most relevant to the study.

## Data Analysis

In analyzing the results of the data, the scores of the pre- and post-intervention speech samples were compared and the results are discussed. This information is drawn from the raters' evaluations of each speech sample's intelligibility, comprehensibility, and perceived accentedness. Possible factors that may have affected the rating scores are considered and discussed more fully in chapter four. Along with the quantitative data, the responses of the three interview participants are compared for any differences in their responses, particularly in regards to their confidence in their English pronunciation and how frequently they speak English outside of the classroom. Their responses regarding how they perceived the classroom instruction will also be discussed. Finally, the entries in the researcher's teaching journal are examined to see what light they shed on the effectiveness of this type of pronunciation instruction in a literacy level classroom.

## Conclusion

In summary, this chapter has detailed the research design and procedures. It described in depth the research paradigm, the setting, and the participants that were involved in this study, as well as the ways in which data was elicited before, during, and after the study. It also discussed the ways in which this data was examined and analyzed. The next chapter, Results, will provide in detail the ratings for amount of the utterance that the listeners understood, how hard they felt that they had to work to understand the utterance, and how likely they would be to attempt to converse with that learner based on

the strength of their accent for both the pre and post-intervention speech samples, as well as the findings from the participant interviews and the researcher's teaching journal.

# CHAPTER FOUR: FINDINGS AND DISCUSSION

The purpose of this study was to examine how explicit pronunciation instruction in the primary area of voice quality settings impacts literacy level learners' perceived intelligibility by native English speakers, and how literacy learners respond to this type of instruction. The previous chapter described the methodology of research for this study, including a description of the rationale for choosing a mixed methods research model that includes qualitative and quantitative data. Also discussed were the setting, participants, data collection methods, and the classroom intervention procedures.

Chapter Four moves to an analysis of the data collected and the degree to which explicit voice settings instruction may have positively impacted the intelligibility of NNSs spoken English. All of the data collected throughout the study is presented, beginning with the quantitative data that includes the rating results for the pre- and post-intervention speech samples based on intelligibility, comprehensibility, and perceived accentedness. The chapter then moves on to share the qualitative data which include the teaching journal, learner-participant interviews, and rater-participant responses to the speech samples, sharing specific notes and comments from each of the three sources.

## Quantitative Data Results

Chapter Three discussed the research paradigm used in the study, detailing which quantitative data collection methods and which qualitative data collection methods were

used to respond to the study's research question. Due to the fact that there were two distinct parts to the research question that guided the study, it was determined that quantitative data would best answer the first part of the research question which asks "How does explicit pronunciation instruction in the primary area of voice quality impacts literacy level learners' perceived intelligibility by native English speakers?" In the findings detailed below, the researcher discusses the rating results from the pre- and post-intervention speech samples on the basis of intelligibility, comprehensibility, and perceived accentedness. The analysis of this data includes a comparison of the average scores of the pre-intervention recording to the average scores of the post-intervention recording for each learner as well as a comparison of the difference between the scores, and the percentage changed. It is important to note that when the speech samples were played for the raters during the listening sessions, they had been randomly ordered by the researcher, so that the raters were unaware which speech samples were recorded before the intervention and which ones were recorded afterwards.

Intelligibility Results

During the rating process, intelligibility was measured on a 5-point scale which asked the raters the question, "How much of their speech did you understand?" for each speech sample. The possible answers included: "All of the words" (corresponding rating number of 5), "Most of the words" (corresponding rating number of 4), "Half of the words" (corresponding rating number of 3), "Some of the words" (corresponding rating number of 2), and "None of the words" (corresponding rating number of 1). At the end of the process, the intelligibility scores for each speech sample were tallied and averaged,

and then the pre- and post- intervention scores were compared in order to determine if there was a difference between them. Based on the data collected, the results appear to indicate that overall, the learner-participants responded positively to the intervention. Figure 1 shows the results visually.

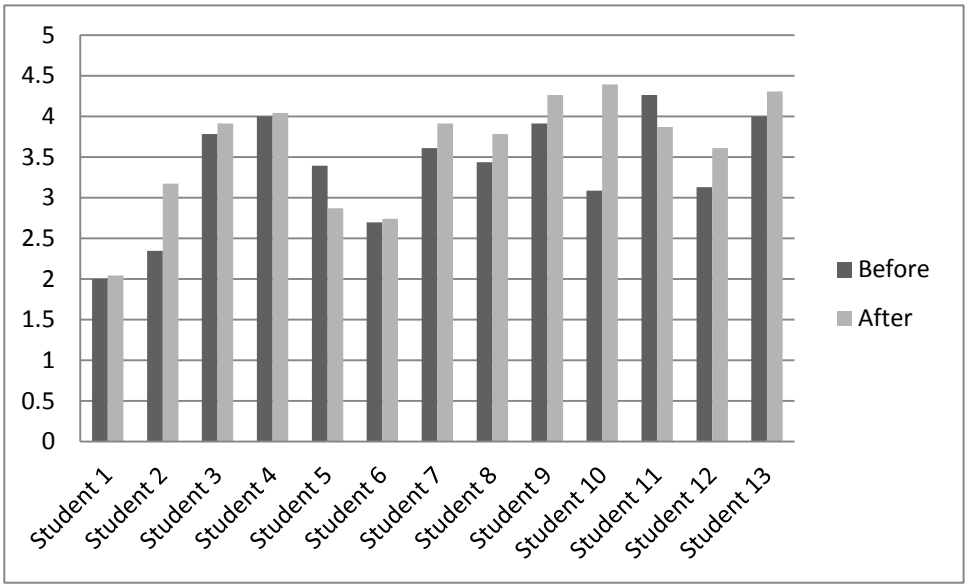


*Figure 1:* Intelligibility Rating Results

In Figure 1, we see that eleven of the thirteen participants received higher scores on their post-intervention speech sample than on their pre-intervention speech sample. The increases seem to indicate that the learner's intelligibility, as judged by NSs, improved as a result of the pronunciation instruction intervention.

Table 2 shows the difference between the pre- and post-intervention rating scores for intelligibility and the percentage change between them for each learner. It also shows the overall average percentage change for all of the learners. Overall, there was an approximate average increase of 9%. Individual scores ranged from approximately a

42% increase in the post-intervention sample rating to a 15% decrease. See Table 2 for the final results.

Table 2

*Intelligibility Percentage Change*

| Speakers | Difference between pre- and post- scores | Percentage change between pre- and post- scores |
|---|---|---|
| Learner 1 | 0.04 | 2.17 |
| Learner 2 | 0.83 | 35.19 |
| Learner 3 | 0.13 | 3.45 |
| Learner 4 | 0.04 | 1.09 |
| Learner 5 | -0.52 | -15.37 |
| Learner 6 | 0.04 | 1.61 |
| Learner 7 | 0.30 | 8.43 |
| Learner 8 | 0.35 | 10.13 |
| Learner 9 | 0.35 | 8.89 |
| Learner 10 | 1.30 | 42.25 |
| Learner 11 | -0.39 | -9.18 |
| Learner 12 | 0.48 | 15.28 |
| Learner 13 | 0.30 | 7.61 |
| Average Percentage Change | | 8.58 |

Comprehensibility Results

Comprehensibility was measured by having the raters answer the question “How easy was it to understand what they said?” on a five-point scale. The possible answers

were “Very easy” (corresponding rating of 5), “Somewhat easy” (corresponding rating of 4), “A little difficult” (corresponding rating of 3), “Very difficult” (corresponding rating of 2), and “Impossible” (corresponding rating of 1). Again, at the end of the process, the comprehensibility scores for each speech sample were tallied and averaged, and then the pre- and post- intervention scores were compared in order to determine if there was a difference between them. The results for the second question also show that, overall, the learners appeared to have responded positively to the intervention. Figure 2 shows the results visually.

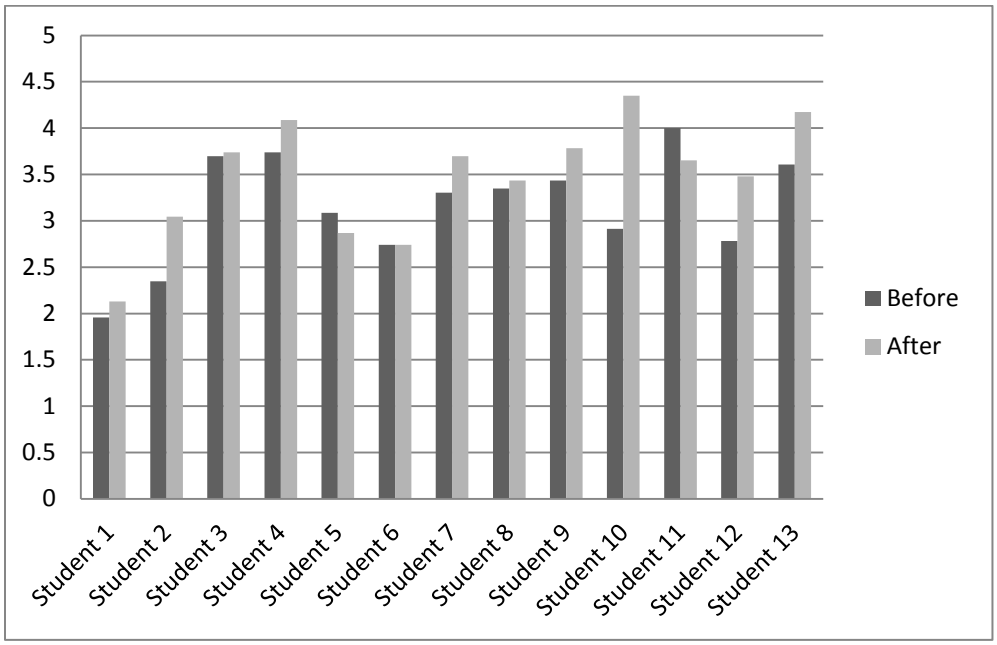


*Figure 2:* Comprehensibility Rating Results

As shown in Figure 2, ten of the thirteen learner participants received a higher score on their post-intervention speech sample than on their pre- intervention one. The findings appear to indicate that a majority of the learners’ comprehensibility, as rated by NSs, improved as a result of the treatment.

Table 3 shows the difference between the pre- and post-intervention rating scores for comprehensibility and the percentage change between them for each learner. It also shows the overall average percentage change for all of the learners. Overall, there was an approximate average increase of 11%. Individual scores ranged from approximately a 49% increase in the post-intervention sample rating to a 9% decrease. See Table 3 for the final results.

Table 3

*Comprehensibility Percentage Change*

| Speakers | Difference between pre- and post- scores | Percentage change between pre- and post- scores |
|---|---|---|
| Student 1 | 0.17 | 8.89 |
| Student 2 | 0.70 | 29.63 |
| Student 3 | 0.04 | 1.18 |
| Student 4 | 0.35 | 9.30 |
| Student 5 | -0.22 | -7.04 |
| Student 6 | 0.00 | 0 |
| Student 7 | 0.39 | 11.84 |
| Student 8 | 0.09 | 2.6 |
| Student 9 | 0.35 | 10.13 |
| Student 10 | 1.43 | 49.25 |
| Student 11 | -0.35 | -8.7 |
| Student 12 | 0.70 | 25 |
| Student 13 | 0.57 | 15.67 |
| Average Percentage Change | | 11.36 |

Perceived Accentedness Results

The final area that the learners were rated on was perceived accentedness. The raters were asked the question, “Based on their accent, do you think that you could communicate successfully with them?” and they responded on a five-point scale. The possible responses were “Definitely” (corresponding score of 5), “Probably” (corresponding score of 4), “Maybe” (corresponding score of 3), “Probably not” (corresponding score of 2), and “Definitely not” (corresponding score of 1). Once again, the perceived accentedness scores for each speech sample were tallied and averaged, and then the pre- and post- intervention scores were compared in order to determine if there was a difference between them. While the previous two questions were aimed towards being more objective, the third question was distinctly more subjective, since it requires the raters to take their own comfort levels in communicating with NNSs into account. The findings show an overall positive trend, but it is smaller than the findings from the first and second questions. Figure 3 provides a visual representation of the data.

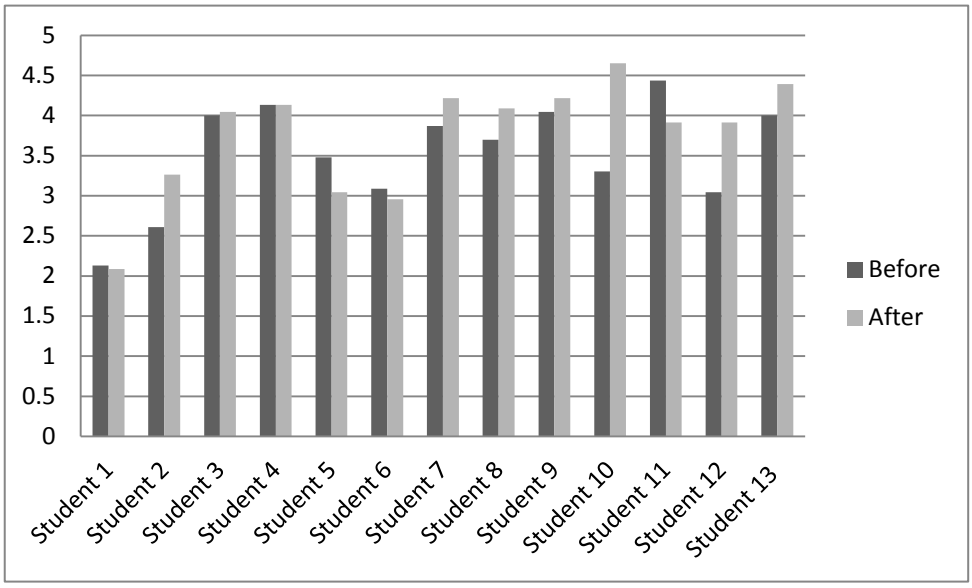


*Figure 3:* Perceived Accentedness Rating Results

For this question, eight of the thirteen learners are perceived as being easier to communicate with after the intervention. While this does not necessarily mean that their accent was reduced in the post-intervention recordings, it does indicate that NSs find it to be less of a barrier to communication than they did in the pre-intervention recordings. One, Student 4, shows no change between his pre- and post- intervention speech samples ratings, and four show a negative change. However, a majority of the learners do show a positive increase in their ratings.

Table 4 shows the difference between the pre- and post-intervention rating scores for perceived accentedness and the percentage change between them for each learner. It also shows the overall average percentage change for all of the learners. Overall, there was an approximate average increase of 8%. Individual scores ranged from approximately a 41% increase in the post-intervention sample rating to a 13% decrease. See Table 4 for the final results.

Table 4

*Perceived Accentedness Percentage Change*

| Speakers | Difference between pre- and post- scores | Percentage change between pre- and post- scores |
|---|---|---|
| Student 1 | -0.04 | -2.04 |
| Student 2 | 0.65 | 25 |
| Student 3 | 0.04 | 1.09 |
| Student 4 | 0.00 | 0 |
| Student 5 | -0.43 | -12.5 |
| Student 6 | -0.13 | -4.23 |
| Student 7 | 0.35 | 8.99 |
| Student 8 | 0.39 | 10.59 |
| Student 9 | 0.17 | 4.30 |
| Student 10 | 1.35 | 40.79 |
| Student 11 | -0.52 | -11.76 |
| Student 12 | 0.87 | 28.57 |
| Student 13 | 0.39 | 9.78 |
| Average Percentage Change | | 7.58 |

General Findings

At the end of the study, ten out of the thirteen learners showed improvement on at least two out of the three factors of intelligibility, comprehensibility, and perceived accentedness when rated by NSs. There was approximately a 9% total increase in scores between all of the learners for all three of the factors. While the resulting increase is

relatively small, these findings provide additional support to the claims made by previous researchers in past studies that targeted pronunciation instruction can result in a noticeable improvement in the intelligibility and comprehensibility of NNSs by NSs (Derwing & Munro, 1997, 2009; Derwing et al., 1998; Parlak, 2010). This study's small size makes it difficult to assert that these results can be generalized to a wider population. Also, the lack of a control group renders the assumption that the voice setting instruction was the primary cause of the improvement problematic. However, the observable increase in the learners' speech sample scores bolsters the conclusion that voice setting instruction is an effective pronunciation tool (Esling & Wong, 1983; Jenkins, 2000; Kerr, 2000; Pennington, 1996; Thornbury, 1993) and that this type of targeted pronunciation instruction is effective with literacy level learners.

Most Improved Learners: Demographic Information and Language Level

Three learners in particular indicate the most dramatic change following the intervention. Reflecting on the tables that show the percentage change between the pre- and post-intervention recordings, it is interesting to note that there are very few demographic parallels between Learners 2, 10, and 12, who consistently show the most dramatic improvement. The lack of demographic parallels between them generates the intriguing conclusion that voice setting instruction works equally well on literacy level learners with a variety of educational and demographic backgrounds.

Learner 2 was a Karenni man in his late 50's who reported that he had gone to school for one year when he was a child in his native country where he had learned to read and write Burmese. Several times the researcher noticed him writing notes in

Burmese in his notebook or on handouts: his writing appeared to be slow and deliberate, indicating that he most likely had limited literacy skills in his native language. At the time of the intervention he had lived in Minnesota for three years. When he was tested on a CASAS test several weeks into the intervention, he received a score of 176 on a 27A test, putting him solidly in the middle of the class score range. Likewise, the researcher gauged his English speaking skills to be on the higher end of the class; although they were relatively low, he was not hesitant to use the language that he had.

Learner 10 was a Karen man in his mid-40's who reported that he had gone to school for three years as a child in his native country of Burma. He frequently wrote himself notes in his native language in his notebook and seemed comfortable with reading and writing in Karen. At the time of the intervention, he had lived in Minnesota for four months. His CASAS score on a 28A test was 181, putting him at the higher end of the class score range. His speaking skills were solidly in the mid-range of the class, and he was initially very tentative to use them.

Learner 12 was a Bhutanese man in his early 30's who reported that he had never attended school. He was unable to read and write in his native language of Nepalese, and was frequently assisted by the other Nepalese-speakers in the class when completing any activity that required letter or number recognition. His CASAS score was 153 on a 27A, which is the lowest possible score on the assessment and put him at the low end of the class score range. He was observed to have very minimal spoken English and was also very uncertain about using English, requiring prompts from other learners or the

researcher when participating in speaking activities. At the start of the intervention, he had lived in Minnesota for six weeks.

The only parallel between these three learners, aside from the fact that they were all refugees from Southeast Asia, was their gender. The research assistant who recorded the post-intervention speech samples was also a man, which gives rise to the speculation that the male learners were possibly less intimidated by a male interviewer than the female learners. However, the four other male learners in the study did not show such dramatic improvements, making it difficult to support this claim.

Least Improved Learners: Explaining their Results

During the data analysis, it was discovered that there were three learners that were scored as having either no change or a negative change. Once again, when looking for demographic connections between these three learners, there does not appear to be any factors that strongly link them together. Learner 5 was a Burmese man in his early 40's who had gone to a couple years of school in his native country. He was observed to read and write in Burmese, but the researcher was unable to ascertain with what level of fluency. At the time of the intervention, he had lived in Minnesota for two months. When he was tested on a CASAS test several weeks into the intervention, he received a score of 184 on a 28A test, putting him solidly at the high end of the class score range. While his English speaking ability was about mid-level for the class, the researcher notes that he was very outgoing and assertive, answering questions and initiating exchanges with the researcher, classroom assistants, and other learners. Learner 6 was a Bhutanese woman in her early 50's who had never attended school. She was unable to read and

write in her native language of Nepalese. She had lived in Minnesota for one year at the time of the intervention. She received a score of 153 on a 28A test, which was at the low end of the class. She also had virtually no English speaking skills and was very hesitant to answer questions or speak in class. She required extensive support from the other learners or the researcher in order to participate in the intervention activities. Learner 11 was also a Bhutanese woman who was in her mid-40's who had never attended school. She was unable to write in her native language of Nepalese but reported that she could read a little. She had lived in Minnesota for two years at the start of the intervention. She scored a 173 on an 81R CASAS test mid-way through the intervention, making her one of the few learners in the class to be tested on the higher level exam. Her spoken English ability was also easily one of the highest in the class, and she was confident enough to use it frequently. Again, the lack of a common thread between the demographics and abilities of these three learners renders it impossible to deduce a trend that caused them all to score more poorly on their post-intervention recordings than on their pre-intervention recordings. However, this does lend credibility to the conjecture that that it was differences in the recording methods, rather than differences in abilities and backgrounds that caused these three learners to receive lower scores. Indeed, had the recording methods been consistent between the two sessions, it is possible theorize that all of the participants may have received higher scores on their post-intervention recording, which makes the gains of the other ten participants all the more impressive.

Further explanations for least-improved learners. As noted above, not all of the participants showed improvement between their pre- and post-intervention scores. This

may be due to several factors, one perhaps being the differences between the pre-intervention recording method and the post-intervention recording method. It is important to note that on all of the pre-intervention recordings, the researcher was careful to record the learners only answering questions that they were confident with. Each learner was given the opportunity to practice both the question and answer section and the listen and repeat section before they were recorded. This did not happen on the post-intervention recordings due to some confusion regarding recording procedures between the researcher and the research assistant. When looking at the results, it can be noted that both Learner 5 and Learner 11 do not follow the positive trend, and received negative scores in all three areas. This may be due to the lack of practice on the second recordings, which caused both learners to take several long pauses before they answered the questions. Even though the raters were instructed not to focus on the learners' fluency, it is possible that the long pauses and marked hesitation on Learner 5 and Learner 11's post-intervention recordings caused the raters to score them lower. Chapter Two reported on a study where NSs indicated that pronunciation and hesitation to be the most distracting factors when listening to NNSs (Fayer & Krasinski, 1987), which supports this theory. While some of the other learners hesitated briefly or asked for the research assistant to repeat a question, none of the other learners' post-intervention recordings contained such extensive pauses.

Learner 6 was the third participant who did not show improvement in two or more areas between her pre- and post-intervention scores. When reviewing her speech samples, it was noted that her pre-intervention recording was significantly louder than her

post-intervention recording; this may be due in part to the location of the voice recorder. During the pre-intervention recordings, the researcher held the recorder in her hand at around face height, midway between the researcher and the learner. During the post-intervention recordings, the research assistant set the recorder on the table in front of them, causing it to be further away from the learner. While all of the remaining learners were also recorded at a greater distance during the post-intervention recording, Learner 6 is the only one whose volume is significantly quieter, indicating that she may need further coaching on projection.

## Qualitative Data Results

The second part of the research question: "How do literacy level learners respond to explicit pronunciation instruction in the primary area of voice settings" was answered through the collection of qualitative data. This qualitative data included anecdotes and notes from a teaching journal, responses from pre- and post-intervention interviews with three learners, as well as feedback from several impromptu post-listening session discussions with NSs. The data gathered through these methods serves to provide a more well-rounded picture of what actually took place within in the study. With a few exceptions, the responses from the learners participating in the intervention were positive and enthusiastic, indicating that they felt the intervention to be helpful and time well spent. In the following sections, data from the teacher's journal, learner interviews, and responses and reactions from the NS raters are shared.

Teaching Journal

As mentioned in Chapter Three, a teaching journal was kept by the researcher. When answering the second part of the research question, the teaching journal was an invaluable tool. The journal served as a daily record of what happened each day during the pronunciation intervention. Included in the journal were notations from the researcher on what had been successful and thoughts on ways to improve the instruction in the future. The journal also served as a space for the researcher to record notes regarding observations of the learners' reactions and responses to the classroom instruction.

Chapter Two discussed the difficulty that literacy level teachers experience in locating level appropriate materials for their classes (Vinogradov, 2008), a task which is virtually impossible in the area of pronunciation for this level of learners (Chela-Flores, 2001; Darcy et al., 2012). As a result of this dearth of materials, the researcher created a system for teaching pronunciation for this study that focused on teaching American English voice settings and integrated theater voice training and drama activities into the classroom instruction that did not include any previously published materials. This required the researcher to incorporate activities and exercises from a variety of sources into their classroom planning, making the teaching journal an invaluable tool to record and track what happened in the classroom during each lesson. The instructor referred to it frequently when planning upcoming lessons. Activities and exercises that were successful and well-received by the learners were used multiple times, and those that didn't go well were redesigned or discarded. In Table 5, the results of the teaching

journal are synthesized into successes (left) and challenges (right) that are more fully discussed in the following section.

Table 5

*Teaching Journal Synthesis*

| Successes | Challenges |
|---|---|
| General overall increase in learner self-confidence and participation throughout study; decrease in self-conscious mannerisms. | Activities that required multiple instructions and steps were unhelpful and overly challenging. |
| General overall increase in learner awareness of voice settings for English and native languages and application of this knowledge to own speech. | Differing language abilities made it difficult to use vocabulary that all of the learners had mastered. |
| Many learners acquired ability to monitor one another's voice settings, and developed language for giving feedback. | Difficult to provide opportunities for individual and partner practice that require no literacy. |

Intervention successes. Overall, the purpose behind the pronunciation intervention is strongly supported by the observations made throughout the teaching journal, which documents the learners responding favorably to the pronunciation instruction. At the start of the intervention, a large number of the learners displayed self-conscious behavior and mannerisms while participating in the activities: laughing at themselves, covering their mouths when it was their turn to contribute, deliberately not making eye-contact and/or looking down at the floor, crossing their arms and hunching their shoulders, and turning to their neighbors for prompting and assurance in their native language before taking part. The theater warm-ups that comprised the first portion of each pronunciation class were included to attempt to lower the learners' affective filters and help them to be

more relaxed and confident when speaking English. The researcher deliberately chose mostly non-verbal warm-ups for this portion of the lesson so that all learners, regardless of their spoken English ability, would be able to participate fully. Throughout the weeks of the intervention, the researcher observed that these behaviors and mannerisms decreased for a majority of the learners. This occurred most notably in the theater warm-up portion of the class, but also in the sections that followed. Warm-up activities which were initially successful and repeated multiple times throughout the intervention supplied the most dramatic changes. The "Follow the Leader" activity, where the learners stood in a circle and took turns doing body movements that the rest of the class would imitate, provides an excellent example. The first few times that the learners participated in the activity, many learners needed prompting from the teacher and from their peers in their native language before they took their turn. The movements that they made were for the most part minimal: running in place, rolling their neck, side bends, etc. During the final week of the intervention, only one of the participating learners needed prompting from other learners to participate, and the movements that a majority of the learners chose to do for their turn were far more involved: steps from traditional dances, jumping jacks, push-ups, and one learner who actually stood on his hands. One example of an anecdote that illustrates the learners' enthusiasm for the pronunciation instruction involved a learner who was experiencing significant issues in her personal life. On one occasion, her classroom teacher reported that she had spent the morning in her regular EL class with her head down on the table, declining to participate in any of the activities. During the second part of the day when the researcher came in to lead the intervention, she

enthusiastically participated in all of the activities, laughing and clearly enjoying herself during the theater warm-up portion of the class. It appears that these theater warm-ups were effective at lowering her affective filter, something that was observed for all of the other learners as well. These observations coincide with the claim made by previous researchers that incorporating drama in the EL classroom can noticeably lower the affective barrier that inhibits learners from producing language (Archibald, 1987; Davies, 1990; Hardison & Sonchaeng, 2005; Maley & Duff, 1982; Stern, 1980). Also, the journal entries regarding the third part of the lesson during which the learners used hand mirrors to monitor their own mouth movements also revealed a significant decrease in self-conscious mannerisms throughout the course of the intervention, indicating that the learners became more comfortable observing themselves.

The third part of the lesson during which the learners first worked with hand mirrors in order to observe themselves while speaking English, then practiced lip-reading in partners, was always popular and produced some interesting data. The inclusion of this type of activity was based on Kerr's proposition that this type of kinesthetic feedback may be more accessible to learners than traditional auditory feedback (Kerr, 2000), as well as the assertions by researchers that learners can, with appropriate perceptual training, begin to self-monitor which in turn may lead to an improvement in speech production (Couper, 2006; Darcy et al., 2012; Deng et al., 2009; Derwing & Munro, 2005; Morley, 1991). In the course of the introductory lesson (described in detail in Chapter Three), the researcher presented the learners with the idea that each language has its own set of voice settings. During that lesson, the phrases "Karen mouth," "Nepalese

mouth," "American mouth," etc. were coined to refer to the voice settings for each language. Throughout the intervention, the researcher would refer back to that lesson, reminding the learners to use their "American mouths" as they were practicing forming letters, words, and phrases in English. Within the first few weeks, the researcher began to hear learners reminding themselves and each other to use their "American mouths" while speaking English. At one point, the researcher observed a learner rehearsing English phrases while watching herself in a hand mirror. After several phrases, the learner stopped, said "American mouth" to her reflection, and then continued to practice the phrases using more pronounced jaw and lip movement. Such anecdotal observations lend evidence to the claim that the learners not only increased their perception of voice quality settings for both English and their native languages, but that they were then able to apply this knowledge to their own speech in a manner that visually improved their English voice quality settings. As the intervention progressed, the researcher also observed that the learners in the class were watching the mouth movements of the researcher and classroom volunteers much more closely when they were introduced to new words or trying to pronounce something correctly. Oftentimes they would then silently mouth the new language to themselves before attempting produce it audibly. The researcher also noted that some of the learners also began applying their knowledge of voice settings to teach speakers of other languages how to correctly pronounce words in their native languages. While instructing the researcher and a classroom volunteer in saying a Karen phrase, one of the learners pointed to her mouth, said "Teacher, Karen mouth" and then repeated the Karen phrase, deliberately exaggerating her lip and jaw

movement for the two NSs to imitate. Similar occurrences were observed on several other occasions with interactions between NNSs and NSs, and the researcher also noted a Nepalese-speaking learner using the same technique to instruct a Karen speaker in Nepalese.

The teaching of voice settings appeared to also have a positive effect on the feedback that learners gave each other while interacting during the speaking activities at the end of each pronunciation lesson. A few weeks into the intervention, the researcher began noting learners responding to their peers' speech by offering suggestions through gestures and verbal prompts. Some examples included cupping a hand to their ear or saying "louder" to encourage someone to increase their volume, opening and closing their mouths or their fingers to indicate that the learner should have more jaw movement, and in one case, reaching over and gently removing someone's hand from in front of their mouth that was muffling their speech.

Intervention challenges. During the intervention it was discovered that activities which required multiple instructions and steps often provided a level of difficulty that was too great to be of much value to the learners. For example, one activity that proved to be extremely challenging was the theater warm-up "Freeze Tag." During this activity, two people begin acting out a scene. When someone calls out "Freeze!" they stop what they are doing, and are replaced by two different participants who take the same positions as the people they replaced, and then begin acting out a new scene starting from those positions. When this activity was used during the intervention, the researcher struggled to explain and demonstrate the procedure; when the learners acting out a scene heard

"Freeze!" they would immediately drop their arms rather than maintaining their position, and the learners who replaced them would continue acting out the scene that had been interrupted, rather than going in a different direction. While participating, the learners displayed confusion and hesitance through their movements and facial expressions. After two attempts, it was decided that without a common language to explain the rules, the activity had little usefulness, and it was not repeated. As noted in Chapter Three, qualitative research is characterized by flexibility (Merriam, 1998), which was demonstrated repeatedly throughout the intervention. Due to the evolving nature of the classroom intervention, caused by the lack of previously recorded instruction of this nature, the researcher prioritized responding to the learners' immediate feedback rather than continuing on with previously planned instruction when necessary. This ongoing assessment and evolution of intervention teaching practices rendered the teaching journal a particularly valuable tool throughout the intervention.

Like most EL classrooms, the literacy level class that participated in the intervention varied widely in abilities, resulting in a multi-level class. The learners at the higher end of the class began the intervention with a good deal more language than the learners at the low end of the class. During the intervention, the researcher attempted to avoid introducing new vocabulary, instead drawing from the vocabulary that the learners had mastered during their regular EL class. For the higher level learners in the class, this was a successful strategy, since they were then able to focus all of their attention on the pronunciation aspects of the language that they produced. Several of the lower level learners in the class had been introduced to the language learned in the intervention, but

had not yet had the opportunity to master it. As a result, these learners frequently struggled to recollect and generate language to use during the speaking activities. This made focusing on their English voice settings challenging, since recollecting the necessary vocabulary took up most of their concentration. Due to the fact that the researcher was the only instructor during the intervention for a majority of the lessons, the researcher was unable to work one-on-one or in a small group with the learners who struggled with producing the necessary language for more than a few minutes each class.

One drawback of the mirror and lip-reading portion of the lesson was that it required the learners to have some basic literacy knowledge in order to read the items on the lists that were used during this time. The lists included sets of four to five items: phonemes, words, numbers, or phrases repeated several times. For a couple of the learners, this proved to be extremely challenging, since they were unable to recognize even individual letters without a significant amount of support from the researcher or another learner. For some of the lessons the researcher was able to modify the lists by using pictures as cues (such as food items that the class had worked with in their regular English class), but for the most part these learners required prompting from either the researcher or a classroom volunteer to be able to participate in the individual and partner feedback process throughout the entire activity. While a majority of the activities were taken on enthusiastically by all of the learners, the challenges described above show that there is room for expansion and adjustments to be made to the intervention teaching practices in order for all learners in a literacy level class to be able to participate fully in all aspects of the pronunciation instruction.

Overall, the teaching journal proved to be a helpful reflection, assessment, and organizational tool for the researcher. While all of the learners participated enthusiastically in the intervention, there were challenges and hiccups along the way, leaving room for expansion and adjustments.

Learner Interviews

As discussed in Chapter Three, the researcher chose to interview three focal participants. The pre-intervention interviews asked a series of questions designed to elicit information on the amount of formal education they had completed in their country of origin, how frequently they spoke English outside of the classroom setting, their attitudes around pronunciation instruction, and their confidence levels regarding their English pronunciation skills. The post-intervention interviews posed the same questions, as well as several additional questions designed to elicit their opinion of and response to the classroom intervention. None of the interviews revealed any important changes in attitudes towards pronunciation instruction, increases in using English inside or outside of the classroom, or adjustments in comfort levels when speaking English. All of their responses were virtually unchanged between the two interviews.

All three of the learners stated that they felt comfortable speaking English inside the school, but that they rarely spoke English to NSs outside of the school. They all also felt that NSs struggled to understand them when they spoke English, both before and after the intervention. All three of the learners agreed that they thought English pronunciation was difficult but important, and that instruction in the area of pronunciation was essential in improving their speaking skills. When asked what they

identified as their main pronunciation barriers, one learner responded during his post-intervention interview by laughing and saying, “I need to practice using my American mouth.” This response was the one answer that was noticeably different between the interviews. The other two learners replied to the question by stating that they needed to learn more English. In light of the study and its impact, these interview responses do not yield enough information to draw substantive conclusions. The limitations of the learner interviews will be further explored in the following chapter.

When the learners were asked about their opinions on the pronunciation intervention, their responses were predominately brief and somewhat vague, but they all responded positively to questions about the intervention and the activities. All three of them reported that they had enjoyed practicing pronunciation during the intervention, and that they liked all of the activities. None of them offered any negative feedback when asked if there was any part of the intervention that they didn’t enjoy. When asked if they felt if there was any particular thing that they learned during the intervention that was helpful to them, all three of the learners replied that they thought “speaking English” was the most valuable part. One of the learners also stated that he had really enjoyed the “exercise”. This response is most likely referring the physically active theater warm-ups that were a part of every class. The last question of the interview asked if they thought that their pronunciation had improved as a result of the pronunciation intervention. Two of the three learners responded that they thought their English pronunciation was better now than it had been before, while the third replied that she still had “no English.”

Again, in regards to the impact of the study, the small sample size and the brevity of the interview responses make it difficult to infer how effective the pronunciation intervention actually was. However, when coupled with the enthusiasm and positive trends documented in the teaching journal, it is evident that the learner-participants in the study responded favorably to the intervention.

Rater-Participant Responses

When this study was initially designed, the researcher did not plan to interview and include responses to the rating process from the rater-participants. However, after the completion of the first rating session, several of the raters spontaneously shared their impressions and thoughts on the process. Upon reflection, it was decided that the inclusion of these observations could be a valuable additional source of data, and the researcher was careful to note the raters' comments and reflections after each of the three listening sessions. Below are selected excerpts:

- After two of the three sessions, several raters commented that they felt as if it became easier to understand the speech samples as the session went on: They attributed this to the fact that they were becoming "used to" the learners' accents.
- After all three of the sessions, raters shared that they believed that the speech samples underscored the importance of context. They considered it to be far easier to understand what the learners were saying during the question and answer portion of the speech samples during which they heard the researcher ask the question, than in the listen and repeat portion.

- One rater confided that she was “rooting for them [the learners]” while listening to the speech samples. She revealed that it was difficult for her to remember to rate the learners on their abilities, because she instinctively wanted to give the learners who struggled the most a higher score to reward them for how hard they tried.
- Following one session, a rater shared that he felt like he consistently rated the third question (Based on their accent, do you think that you could communicate successfully with them?) higher than the first two questions. He explained that on several occasions he had visited EL classrooms, and that he had always managed to communicate with the learners in the class, even when they had limited English and strong accents, causing him to feel confident in his ability to communicate with NNSs.
- One rater shared that the only NNS she communicated with on a semi-regular basis was her son’s mother-in-law, who was Vietnamese. The rater disclosed that she had struggled to understand the woman’s heavy accent for a number of years, until she realized that the Vietnamese accent caused her to drop consonant sounds from the ends of words. Once she realized that fact, it became much easier for her to understand the Vietnamese accent. She explained that when she applied the same listening strategy to the speech samples, she felt that she was better able to understand them.

- After all three listening sessions, several raters commented that the learners said the word Minnesota "Just like us!"

These comments and responses point towards some interesting ramifications regarding how past experiences, empathy, and confidence in their own communicating abilities can have an impact NSs attitudes towards NNSs' accents. While this is not the focus of the current study, the possible implications for future research will be discussed in the following chapter.

## Study Results Summary

In light of the findings presented above, the two questions that this study set out to explore can both be answered affirmatively. The explicit teaching of voice quality appears to have a positive impact on literacy level learners' perceived intelligibility by native English speakers, and literacy learners responded favorably to this type of instruction. With respect to the first part of the question, comparisons of the pre- and post-intervention speech sample scores show a majority of the learners making gains in the areas of intelligibility, comprehensibility, and perceived accentedness as rated by NSs after the conclusion of an eight-week classroom intervention that focused primarily on instructing the learners in English voice quality settings. The observations made by the researcher in the teaching journal attest to the fact that the learners were deliberately applying the classroom instruction in English voice quality settings to their own speech, and that furthermore, they were using this knowledge to provide feedback to other learners in the class. The positive response to the second part of the question was supported by observations made in the teaching journal that detailed the learners'

enthusiasm and animated participation throughout the intervention. This positive response was also echoed in learners' responses to questions about the classroom activities during the post-intervention interviews.

The center of the study was based around teaching voice quality settings to literacy level learners during a targeted pronunciation intervention that spanned eight weeks. The subsequent increase in scores on the post-intervention speech samples, along with the teaching journal observations, indicate that this intervention model had a positive effect on the learners' pronunciation abilities that was substantial enough to be noted by NSs. This study took into account the claims by researchers that learners are best served when pronunciation instruction begins with the main settings of the new language (Esling & Wong, 1983; Jenkins, 2000; Jones & Evans, 1995; Kerr, 2000) during the design of the instructional classroom component, first exposing learners to English voice quality settings, then allowing for targeted segmental and communicative practice. Learners quickly grasped the difference between different languages' voice quality settings and used that knowledge to monitor and improve their own pronunciation and the pronunciation of their classroom peers, as noted in the teaching journal. The results from this study add further evidence to the research base indicating that teaching voice quality settings will improve the English pronunciation of NNSs (Esling & Wong, 1983; Jenkins, 2000; Kerr, 2000; Pennington, 1996; Thornbury, 1993).

In order to successfully teach English voice settings, the intervention utilized theater voice training and drama activities during each session. Recalling Hardison and Sonchaeng's (2005) article, employing theater voice training activities such as body

relaxation exercises, face and mouth aerobics, abdominal breathing, and practicing vocal production with breathing can help learners to relax and prepare for L2 voice settings. These types of activities, along with projection exercises and mirroring activities were included in the classroom instruction. The literature review also discussed the effect that nerves can have on L2 language production, and multiple researchers recommended using drama in the EL classroom in order to lower the affective barrier that prevents learners from producing language (Archibald, 1987; Davies, 1990; Hardison & Sonchaeng, 2005; Maley & Duff, 1982; Stern, 1980). The issue of affective filters can be especially prevalent with literacy level learners who may lack self-confidence in their new language abilities (Bigelow & Lovrien Schwarz, 2010; Zielinski, 2012). Throughout the classroom intervention, the learners' use of self-conscious mannerisms noticeably decreased, most conspicuously during the first portion of each class where drama warm-ups were used. Again, the researcher noted positive responses from all of the learners during the classroom activities, indicating that the learners reacted favorably to this type of classroom instruction, as well as positive responses during the post-intervention learner interviews.

## Conclusion

This chapter has discussed the findings of the study. These findings include results from pre- and post-intervention speech sample ratings as well as an analysis of the demographics of learners with notable results, pre- and post-intervention learner interviews, a synthesis and discussion of the researcher's teaching journal, and rater responses. Chapter Five concludes with a summary of the study, limitations, suggestions

for final research, and some final comments on the relevance of the study and some of the ways that the findings might influence the researcher's future classroom instruction.

# CHAPTER FIVE: CONCLUSION

This inquiry explored how explicit pronunciation instruction in the primary area of voice quality settings impacts literacy level learners' perceived intelligibility by native English speakers, and how literacy level learners respond to this type of instruction. Through this study, I hoped to discover if teaching voice quality settings was an appropriate and useful tool when teaching literacy level learners pronunciation. To answer the research questions, learners were recorded speaking English before and after a classroom pronunciation intervention, and their speech samples were rated by NSs. Additional data sources included a teacher journal and interviews with focal participants. Chapter Five concludes this study with a summary and discussion of the major findings and their implications. The limitations of the study are also discussed, and suggestions for further research are offered. The capstone ends with some final comments.

## Study Summary

This study took place in a literacy level EL classroom in an urban school for adults in the Midwest. The aim of this study was to determine how explicit pronunciation instruction in the primary area of voice quality impacts literacy level learners' perceived intelligibility by native English speakers, and how literacy level learners respond to this type of instruction. This study employed both quantitative and qualitative methods within a classroom-based action research model. I chose the mixed methods research

model to bring a well-rounded perspective to the data from the study and to make the study as relevant as possible for literacy level teachers. Results from the study were based on a variety of data collection methods, including pre- and post-intervention speech samples from the NNS learner-participants which were rated by the NS rater-participants, findings from the researcher's teaching journal, and pre- and post-intervention learner interviews. Also included were responses from the raters following the listening sessions.

Thirteen adult learners participated in the intervention portion of the study. The learners were refugees from Burma and Bhutan, and all had had minimal access to education prior to coming to the United States. All thirteen learners recorded 1) speech samples in the week prior to the intervention and 2) speech samples in the week following the intervention. The classroom intervention itself spanned eight weeks, with instruction provided an average of three times a week for an hour and a half each time. Three focal learners participated in pre- and post-intervention interviews designed to elicit information on attitudes regarding pronunciation, frequency of English use, and opinions on the classroom pronunciation instruction. Throughout the intervention, I maintained a teaching journal to note successes and barriers of the classroom instruction and to capture learner responses. Excerpts from the teaching journal, the learner interviews, and rater feedback composed the section of qualitative data collection.

The other group of study participants consisted of twenty-three NSs who listened to the learner speech samples and rated each one based on intelligibility, comprehensibility, and perceived accentedness. The scores from the rating sessions were

collected and compiled, then the results were analyzed. I modeled the quantitative data collection section of the study after previous studies (Derwing & Munro, 1997, 2009; Derwing, Munro, & Wiebe, 1998; Munro & Derwing, 1995; Parlak, 2010), which used similar methods to have NSs rate the effectiveness of pronunciation interventions. These researchers also call on pronunciation research to utilize NSs as raters who do not have a background in working with NNSs since those are the types of interactions that will happen in EL learners' daily lives.

I chose to focus on pronunciation for literacy level learners based on growing concern around the lack of pronunciation instruction in EL classrooms, shortfall of research around teaching pronunciation to literacy level learners, and my own struggles to effectively instruct learners in this area. Through my own observations in the classroom, I noticed that many of the learners whose English was the most difficult to understand were the ones who exhibited the least lack of jaw and lip movement, many who also came across as being inhibited and reluctant to speak. These observations caused me to become intrigued by the concept of teaching voice quality settings, which are described as "characteristics of pronunciation that affect entire utterances" (Anderson-Hsieh et al., 1992, p. 531). They referred to the tight-jawed posture and dentalized tongue body setting that is common in many Chinese EL learners as examples of voice quality deviance from English norms. Pennington asserts that intonation, stress, and the articulation of segmentals are all directly influenced by a person's voice quality settings. It is also claimed by some researchers that if an adult EL learner can be taught the features of English that characterize its voice quality settings, there is a good chance

that their pronunciation of segmentals will noticeably improve (Esling & Wong, 1983; Jenkins, 2000; Kerr, 2000). As a result of this research, I decided to instruct the learner-participants in English voice quality settings during the intervention period, hoping that this instruction would give them a strong foundation in pronunciation that could be maintained and utilized as their fluency and vocabularies grew. This study set out to investigate whether or not this type of instruction with literacy level learners would impact how NSs perceived the learners' pronunciation.

This study also attempted to gauge how the literacy level learners involved in the study felt about the type of pronunciation instruction that they encountered throughout the intervention. While designing the instructional intervention component, I kept Couper's seven steps for effective pronunciation instruction in mind. He stated that learners need to recognize the importance of pronunciation, develop an awareness of their own areas of deficiency, learn to monitor their own pronunciation, focus on and use the production of NSs as a model, develop their auditory memories, develop physical control over their motor skills, and lower their affective filters (2003). I also attempted to incorporate "quality repetition," meaningful communicative practice that connected the classroom instruction to the learners' daily lives, and varied practice and interaction, in order to utilize best practices for literacy level learners and pronunciation instruction (Condelli & Wrigley, 2006; Gilbert, 2010, p. 31; Levis & Grant, 2003; Morley, 1991; Otlowski, 1998). I also decided to integrate theater voice training exercises found in Hardison and Sonchaeng's 2005 article on teaching pronunciation, and drama activities with the purpose of helping learners to relax, have fun, and lower their affective filters

(Archibald, 1987; Davies, 1990; Hardison & Sonchaeng, 2005; Maley & Duff, 1982; Stern, 1980). A full description of the classroom instruction can be found in Chapter Three. Additionally, a sample lesson plan and an accompanying handout can be found in the appendices, along with speech sample questions and prompts, interview questions, and an example of the rating scales that were utilized during the listening sessions.

The quantitative data that was collected in this study attempted to answer the first part of the research question: How can explicit pronunciation instruction in the primary area of voice quality impact literacy level learners' perceived intelligibility by native English speakers? The data indicate that this type of instruction can have a positive impact on how intelligible, comprehensible, and how much of a barrier to communication NNSs accents perceived as being by NSs. Ten out of the thirteen learners showed improved scores for two or more of the three factors that they were rated on, with an overall approximate net gain of 9%. These gains were achieved despite more challenging conditions for their post-intervention recordings.

The qualitative data that was collected throughout this study also indicates a positive response to the second part of the question, which asked how literacy level learners respond to voice quality settings instruction. Based on notes collected in the teaching journal, the learners responded favorably to the exercises and activities that were introduced and utilized during the classroom intervention. Some of the main findings from the teaching journal included successes such as a notable increase in learner self-confidence and participation, a learned awareness of voice quality settings for English and native languages, and an improved ability to monitor one another's pronunciation

and to give effective feedback. Also, responses from the pre- and post-intervention interviews with three of the learners indicate that they enjoyed the pronunciation instruction and found it to be helpful.

## Limitations

Some limitations to this study include the size of the class and the uniformity of the native language backgrounds of the learner-participants, the lack of a control group, the differences between the pre- and post-intervention recordings, the absence of trained interpreters, and the constraints of using volunteer raters. Though the thirteen learners that participated in the study had regular attendance, the small size of the participant pool makes it difficult to generalize these findings beyond this literacy level classroom. Additionally, the fact that the learners came exclusively from two countries, Burma and Bhutan, sets this classroom apart from many other more multi-level EL classrooms, or classrooms that have learners from different cultural backgrounds. Learners from different cultural and language backgrounds might not have benefited or reacted so enthusiastically to the teaching methods used during the intervention. Again, that makes it difficult to apply these findings beyond this classroom.

Due to the size and scope of this study, it was not possible to have a control group. The presence of a control group would have resulted in more reliable findings, since without one, it is difficult to say if the higher scores that learners achieved after the intervention were caused solely by the pronunciation instruction used during the study, or if there were other factors that contributed to the higher post-intervention scores, such as increased exposure to spoken English both in and outside the classroom.

While the results from the learner interviews were included in the findings, it is challenging to draw many conclusions from them. This could have been due to the fact that the interpreters that were used for the interviews were learners from the school who were in the intermediate level class. Since the interpreters were EL learners themselves, it is very likely that their lack of interpretation experience resulted in the learner-participants not fully understanding some of the questions. Several times during the pre- and post-intervention interviews it was necessary for the researcher to explain vocabulary or paraphrase questions in order for the interpreters to understand what was being asked. This, combined with their lack of interpretation experience, could have contributed to the brevity and vagueness of the learner-participants' answers.

Finally, the raters who participated in the study were all volunteers that were not compensated for their time. I was aware of this fact when I was designing the data collection tools, so the scoring process was constructed to be brief and unobtrusive. A more in-depth analysis of the learner's speech samples could have resulted in more definitive results.

## Suggestions for Further Research

While this study answered many questions for my own personal teaching, it also opened the door to many additional questions that could be explored through further research. The creation of a similar study that utilizes a control group would provide more answers in regards to how great of an effect the targeted pronunciation intervention actually had on the learners' improvements in intelligibility. Also, a similarly designed study that employed more sophisticated methods of data collection, such as controlled

recording parameters and/or requiring the raters to transcribe what they hear, could yield more conclusive results.

This study attempted to help the learners with lowering their affective filters and giving them the skills needed to communicate with NSs in a way that was audibly more "listener friendly." To this end, the study relied on audio recordings that NSs rated and required the NSs to make judgments based solely on what they heard. While this method gave some insight to how communication between NSs and NNSs could be positively impacted through pronunciation instruction, it was unable to take into account how the learners' increased use of jaw movement, lip movement, and active tongue movement impacted the NSs' perceptions of their speaking skills, as well as other nonverbal visual communication, such as eye contact, gestures, body language, etc. that plays an integral role in human interactions. An intriguing proposal would be to design a similar study, but record the participants on video rather than audio equipment. This would enable the researcher to gauge how much of an impact explicit instruction in voice quality settings has on NSs reactions to NNSs utilizing English voice settings when they speak, and whether teaching American nonverbal communication norms causes NSs to respond in a more positive manner.

The overall focus of this study was on the NNS participants, but included in the study's findings were the reactions of the raters to the speech samples that they listened to and scored. While this study did not have the opportunity to delve further into these responses, as discussed in Chapter Two, it is most likely that listener confidence levels affected the scores that the raters assigned to the learners' speech samples. Further

research into the role of exposure to non-native accents, the level of empathy with NNSs, and personal preferences on the part of NSs perceptions of accents would be an interesting parallel to this study.

Additionally, while there is a slowly growing body of research into the importance of simultaneously developing oral skills and literacy skills when working with literacy level learners, I was unable to find any literature connecting pronunciation instruction to reading instruction. It is possible that explicit pronunciation instruction which helps literacy level learners to increase their communicative confidence and develop a heightened awareness of English sounds may assist them in their emergent reading skills. This is also a potential area for further research that could enrich and inform both pronunciation and literacy skills instruction with literacy level learners.

## Final Comments

In this study, I sought to answer questions about the effectiveness of pronunciation instruction for literacy level learners. As discussed earlier, learning a new language as an adult is a daunting task, one that is made more difficult for these learners by the daily pressures and expectations of immigration and resettlement. It is not uncommon for literacy level learners to refer to themselves as “voiceless” or “children” when they move to the United States. It is the role of EL teachers to help learners to find their voices in English, and to become confident and independent in their new home. In order for this to happen, learners need to be able to successfully communicate with the NSs that they meet in their everyday lives. Integrating English voice quality setting instruction in literacy level EL classes could provide learners with valuable tools to

improve their English pronunciation, as well as increase their confidence in their own L2 speaking abilities.

It is my hope that this research contributes to the growing amount of studies on literacy level learners, especially in the oft-neglected area of pronunciation. The findings discussed above indicate that voice quality settings instruction is an effective tool to use in pronunciation instruction and that it gives literacy level learners a strategy for self-monitoring and producing spoken English. As a teacher, I plan to continue to explore teaching voice quality settings in my EL classes using theater voice training and drama techniques and activities. The enthusiastic responses of the learners, and the energy and animation that was generated during many of the activities made the intervention a joy to teach, and it drastically changed the way that I think about pronunciation instruction. In the future, I plan to continue to include the teaching practices that I learned from this study into my own classroom instruction, and to explore ways to share my findings with other teachers who are interested in incorporating pronunciation into their classrooms. Even before the conclusion of this study I was able to present on the intervention techniques during the 2012 Adult Basic Education Summer Institute and the Fall 2012 Minnesota Regional Conference. I am currently in the process of continuing to research and investigate pronunciation instruction for literacy level learners both in my classroom and through collaborations with other teachers and researchers. I hope to present on the findings from this current study and ongoing explorations at the 2013 LESLLA Conference as well as other professional development venues.

# APPENDIX A

## Speech Sample Questions

Speech Sample Questions

How are you?
Where did you go yesterday?
What is your first name?
Where are you from?
What language do you speak?
Where do you live?
What is your zip code?
What is your telephone number?
How many children do you have?
How old are you?
What is your date of birth?
Where do you go to school?
How long do you live in Minnesota?
What day is it today?
What is the month?
Who is your teacher?
How many people are in your family?
How do you spell your first name?
How many sisters do you have?

# APPENDIX B

## Speech Sample Prompts

Speech Sample Prompts

I go to school every day.
I like to eat rice.
He is my brother.
She is my sister.
We are married.
This is my wife.
These are my children.
I like to eat apples.
I go shopping at Sun Foods.
My children go to school.
My baby goes to child care.
I don't like the snow.
It is very cold today.
I am learning English.
I go to school at Arlington Hills.
Sometimes I talk to my job counselor.
I miss my country.
Tomorrow I go to an appointment.
Yesterday I went to an appointment.
My daughter is very sick.
My son has a headache.
Please help me.
I'm sorry, I don't understand.
I like to speak English.
I go to the doctor.
This is my husband.
Today is Wednesday.
Today is Thursday.
Today is Tuesday.
I am married.
I live in St. Paul.
I am from Bhutan.
How are you?
I go to school.
I am 31.
My first name is _____.
I learn English.
I eat bananas.
This month is October.
I am a new student.
That is my first name.

That is my last name.
These are my sons.
Thank you so much.
Please close the door.
I need a school schedule.
Today is raining.
I ride the bus.
I walk to school at 8:00.

# APPENDIX C

## Pre-Intervention Interview Questions

Pre-Intervention Interview Questions

1. What is your name?
2. Where are you from?
3. How old are you?
4. How long have you lived in the United States?
5. How long have you gone to school in the United States?
6. Did you go to school in your native country? How long?
7. Did you learn any English before you came to the United States? How long did you study English? What did you learn? How did the teacher instruct you in English? Did you learn about English pronunciation?
8. Do you feel comfortable speaking English to other learners in the school?
9. Do you feel comfortable speaking English to your teacher?
10. Do you feel comfortable speaking English in front of your class?
11. Do you feel comfortable speaking English outside of the school? Why or why not?
12. Who do you speak English to outside of the school?
13. Do you think that American people can understand you when you speak English?
14. How do you feel when you speak English?
15. Do you think that English pronunciation is difficult? Why or why not?
16. What do you think that your English pronunciation problems are?
17. Do you think that it is important to pronounce English correctly? Why or why not?
18. Do you want to improve your English pronunciation?
19. Do you think that your teacher should help you learn English pronunciation?
20. What do you think helps you to learn English pronunciation?

# APPENDIX D

## Post-Intervention Interview Questions

Post-Intervention Interview Questions

1. What is your name?
2. Do you feel comfortable speaking English to other learners in the school?
3. Do you feel comfortable speaking English to your teacher?
4. Do you feel comfortable speaking English in front of your class?
5. Do you feel comfortable speaking English outside of the school? Why or why not?
6. Who do you speak English to outside of the school?
7. Do you think that American people can understand you when you speak English?
8. How do you feel when you speak English?
9. Do you think that English pronunciation is difficult? Why or why not?
10. What do you think that your English pronunciation problems are?
11. Do you think that it is important to pronounce English correctly? Why or why not?
12. Do you want to improve your English pronunciation?
13. Do you think that your teacher should help you learn English pronunciation?
14. What do you think helps you to learn English pronunciation?
15. Did you like practicing pronunciation with Teacher Andrea?
16. Was there anything that you did in the class that you thought really helped you with your English pronunciation?
17. What activities did you like in the pronunciation class?
18. Was there anything that you didn’t like about the pronunciation class?
19. Do you think that your English pronunciation has changed after taking the pronunciation class?

# APPENDIX E

## Sample Intervention Lesson Plan and Handout

Sample Intervention Lesson Plan and Handout

| Activities | Time | Materials |
|---|---|---|
| **Body Warm-Ups** | | |
| **Pass the Emotion:** In a circle, T turns to S next to them and indicates an emotion (eg. angry, excited, afraid, tired, etc.). The S passes the emotion on to the person next to them. When it returns to the T, they call on a S to start a new emotion going around the circle. | 5 mins | |
| **You:** In a circle, T points to an S and starts the dialogue: "You." Me?" "Yes, you." "Okay." S then points to a different S and repeats dialogue. Continue until everyone has participated. | 5 mins | |
| **Join Up:** Ss and T walk around. T calls out a body part (eg. hand, elbow, foot, etc.) and everyone finds a partner and they join together as indicated. | 5 mins | |
| **Voice Training** | | |
| **Relaxation:** T directs Ss to relax their arms and shoulders and breathe deeply, then lift and drop shoulders several times, roll their heads forward and around several times, then stretch and yawn. | 2 mins | |
| **Breathing:** T counts as Ss breath in for a count of two, then out for two. Increase up to eight. | 2 mins | |
| **Voice Exercises:** Ss pretend that they are chewing a large piece of gum for 30 seconds. Ss open their mouths as far as they can for "lion face" and pull their lips in for "lemon face." | 2 mins | |
| T leads the Ss in forming the vowel sounds /u/, /o/, /a/, /e/, and /i/ in sequence several times, exaggerating the lip and jaw movements. Add the sounds /b/, /p/, /f/, /s/, and /ʃ/ in front of the vowels, repeating the sequence several times with each consonant sound. | 2 mins | |
| Ss listen to and repeat plain bun, plum bun and fresh fried fish and she sells seashells several times each. | 2 mins | |
| **Target Sound Practice** | | |
| **Introduce Target Sounds:** T demonstrates to Ss how to form the sounds /b/, /p/, /f/, /s/, and /ʃ/, exaggerating the mouth movements. Ss watch and repeat. T mouths the sounds, Ss watch and say the sound out loud. T hands out hand mirrors, and leads the Ss saying and mouthing the sounds while Ss watch own mouth movements in mirrors. | 10 mins | |
| **Independent Practice:** T hands out lists of the target sounds. Half of the Ss get list 1, half get list 2. Ss practice saying and mouthing the lists while observing themselves in their mirrors. | 10 mins | |
| **Partner Practice:** T pairs up Ss with list 1 with Ss with list 2. Ss take turns mouthing the sounds from their lists while their partner watches their mouth and says the sound out loud. Switch partners several times. | 10 mins | |

| Fluency Practice | | |
|---|---|---|
| **Fluency Activity:** T goes over the pictures with the vocabulary, emphasizing the target sounds. Ss practice saying the words out loud, first independently, then with a partner. T introduces the phrase I need_____please. Ss practice as a class, independently, and with partners. T divides the class into four groups. In each group one S is the storekeeper. They stand at a table with the set of picture cards. The rest of the Ss take turns asking for the items. When all of the Ss have a set of all of the picture cards, a new S will be the storekeeper, and the activity can be repeated. | 30 mins | |

| | |
|---|---|
| | |
| | |
| | |

# APPENDIX F

## Example of Rating System

Example of Rating System

**Speaker 1**

How much of their speech did you understand?

| | | | | |
|---|---|---|---|---|
| All of the words | Most of the words | Half of the words | Some of the words | None of the words |

How easy was it to understand what they said?

| | | | | |
|---|---|---|---|---|
| All of the words | Most of the words | Half of the words | Some of the words | None of the words |

Based on their speech, do you think that you could communicate successfully with them?

| | | | | |
|---|---|---|---|---|
| All of the words | Most of the words | Half of the words | Some of the words | None of the words |

**Speaker 2**

How much of their speech did you understand?

| | | | | |
|---|---|---|---|---|
| All of the words | Most of the words | Half of the words | Some of the words | None of the words |

How easy was it to understand what they said?

| | | | | |
|---|---|---|---|---|
| All of the words | Most of the words | Half of the words | Some of the words | None of the words |

Based on their speech, do you think that you could communicate successfully with them?

| | | | | |
|---|---|---|---|---|
| All of the words | Most of the words | Half of the words | Some of the words | None of the words |

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