

*A Case Study of Shadowing as a Means of Helping EAP Students to Prepare for Oral Presentations: Effects on Pronunciation and Anxiety*

Heidi Haufe

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### Abstract

Oral presentations are a standard requirement of students in English for Academic Purposes (EAP) courses; however, they are a major source of anxiety, since students often fear that their English pronunciation will cause them to be misunderstood. This mixed methods case study investigated the use of a technique called *shadowing*, in which a student simultaneously reads aloud with a model recording, as a means of helping improve pronunciation in preparation for oral presentations, and it measured the effectiveness of shadowing as a means of helping to overcome presentation anxiety. The study focused on the participant's pronunciation of voiceless /th/ and word-final /s/ - segmental aspects of pronunciation that she consistently pronounced inaccurately during an initial diagnostic test and pre-interview. The student worked with the researcher as she prepared for an in-class oral presentation. In preparation for the oral presentation, she was asked to submit a written summary of the presentation topic and then shadow the researcher's audio-recorded version of the summary 20 times in the two weeks prior to the presentation date. The participant rehearsed the presentation in front of the researcher the day before the in-class presentation. Pronunciation during the presentation rehearsal was then compared to her pronunciation during the diagnostic and pre-interview in order to identify pronunciation improvements. Later, pronunciation during the in-class presentation was compared to the presentation rehearsal in order to determine the effect of shadowing on presentation anxiety. The findings suggest that shadowing is an effective activity for pronunciation improvement, but it is not an especially effective way to help students overcome presentation anxiety.

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## **Chapter One**

### **Introduction**

#### **1. 1 Background and Justification for the Study**

##### **1.1.1 English for Academic Purposes (EAP)**

English for Academic Purposes (EAP), which began as a small subcategory of English for Specific Purposes (ESP) in the 1980's, is at the forefront of English as a second/foreign language (ESL/EFL) teaching, learning and research today (Hyland, 2006). This is not surprising, since every year, more and more international students enroll in post-secondary programs in English-speaking countries, such as Canada, the United States, the United Kingdom and Australia (Hyland, 2006). In 2008, Statistics Canada concluded that there were 87,798 international students (i.e. 8% of the student body in Canadian universities/colleges) studying in Canada, which is an increase from the 36,822 in 1992 ([www.statcan.gc.ca](http://www.statcan.gc.ca)). This increase in international students has led to an increase in the number of EAP teachers hired and courses offered (Hyland, 2006).

Universities and colleges tend to offer two types of EAP courses: English for General Academic Purposes (EGAP) and English for Specific Academic Purposes (ESAP) (Hyland, 2006; Liu, Chang, Yang, & Sun, 2011). In EGAP courses, teachers focus on objectives that are common across disciplines (Hyland, 2006). At Carleton University, for instance, the three levels of ESL for academic purposes focus on introducing and developing the research and analytical skills that students will need in order to succeed in university ([www.carleton.ca](http://www.carleton.ca)). In ESP courses, on the other hand, teachers focus on discipline or skill-specific objectives (Hyland, 2006; Liu, Chang, Yang, & Sun, 2011). For example, an ESP course could focus on journalistic

or technical writing (Liu, Chang, Yang, & Sun, 2011). Throughout this study, EAP will refer to courses that would fall under the category of EGAP.

### **1.1.2 Focus on Reading and Writing**

As previously mentioned, the overall objective of EAP courses is to prepare students for the tasks that they will be expected to complete in content courses in their degree/diploma program. Most university/college courses require students to listen to lectures, read textbooks/academic articles, write essays and exams, participate in class discussions and deliver oral presentations. Although each of these tasks is important for success in university/college programs, most EAP courses tend to heavily emphasize reading and writing skills. Moreover, the majority of research that has been done in the area of teaching and learning academic English has centered on these two skills (Ferris & Tagg, 1996a, 1996b; Kim, 2006). In particular, previous researchers have investigated the expectations that university/college professors have of student reading and writing in content courses and how to best assist students in meeting these expectations (Ferris & Tagg, 1996a, 1996b; Kim, 2006). There has been little research into how to prepare ESL students for the listening and speaking skills that will be required of them in content courses; however, these skills have become much more important in university/college programs than they were in the past (Ferris & Tagg, 1996a, 1996b; Kim, 2006).

According to Scarcella (2003), due to new advances in technology and educational research, the nature of academic English is constantly “evolving” (p. 9). She claims that in order for students to succeed in their future educational and professional endeavors, they must have advanced competency in the four skills, not just reading and writing. She proposes a Conceptual Framework of academic English, which suggests that language learners must develop the

following competencies within the linguistic dimension of academic English in order to be proficient users of English in academic contexts: phonological competence, lexical competence, grammatical competence, sociolinguistic competence and discourse competence. Her (2003) Conceptual Framework is an extension of the Communicative Competence Model by Canale and Swain (1980) and Canale (1983), which listed slightly different competencies within the linguistic dimension of academic English: grammatical competence, sociolinguistic competence, discourse competence and strategic competence (p. 11). The fact that Scarcella (2003) includes phonological competence in her Conceptual Framework is a reflection of the changing nature of academic English. In order to succeed in educational and professional settings, ESL/EFL students must be able to clearly communicate through both of the productive skills – writing *and* speaking.

### **1.1.3 Need for Speaking in EAP**

An investigation of the teaching styles used by university/college professors in content courses today provides evidence of the changing nature of academic English. According to Kim (2006), most professors no longer expect their students to solely listen to lectures and take notes; they have turned to a more interactive mode of teaching, which requires students to play a larger role in the learning process by participating in and leading class discussions, asking questions, and delivering oral presentations. Although such an interactive mode of teaching tends to “help learning and enliven classrooms” (Brookfield & Preskill, 1999), not all students are comfortable with speaking in front of their professor and classmates. Research (e.g. Kim, 2006; Skryme, 2010; Radzuan & Kaur, 2011) has shown that this is especially true for students who speak English as a second/foreign language. Ferris and Tagg (1996b), for instance, interviewed professors of content-courses in a variety of disciplines at four different universities in order to

determine how university/college professors perceive the listening and speaking abilities of ESL students. The professors who participated in their study commented that the ESL students in their courses had “great difficulty with class participation, asking and responding to questions, and general listening comprehension” (p. 297). According to Kim (2006), East Asian students in particular have earned the reputation of being “silent or reticent in class” (p. 480). The inability for ESL students to adequately meet the speaking expectations that are required of them in university/college content courses suggests that EAP teachers need to more heavily emphasize this skill in their courses and design activities that more closely resemble the assignments that they will be expected to complete in their degree/diploma programs (Ferris & Tagg, 1996a, 1996 b).

University/college professors are not the only ones who claim that ESL students struggle with academic speaking tasks; ESL students themselves claim that they have difficulty with these course requirements. In fact, research has shown that ESL students consider academic speaking requirements to be some of the most difficult expectations in undergraduate university/college courses (Berman & Cheng, 2010). According to Berman and Cheng (2010), at the graduate level, speaking tasks, such as delivering oral presentations, participating in class discussions, and asking/answering questions are not only difficult for ESL students but also for native English-speaking students.

Ferris (1998) surveyed 768 ESL students from three university campuses and a variety of disciplines (i.e. engineering, computer science, physical and biological sciences, arts and humanities, social sciences, and business) in order to determine what listening and speaking tasks students themselves believe they have difficulty with. With regard to academic speaking skills, the majority (i.e. 65–75%) of students who participated in the study claimed to struggle

with delivering oral presentations, leading class discussions and participating in large-group debates (Ferris, 1998). They explained that the ESL classes that they had taken prior to enrolling in content courses had not provided them with adequate speaking instruction; the focus of the classes had been reading and writing (Ferris, 1998). According to the students surveyed, they would have benefited from additional instruction in conversation, oral presentations and pronunciation (Ferris, 1998). They blamed their limited in-class participation and conversation with native English speakers on the fact that they did not have confidence in their English speaking skills and pronunciation (Ferris, 1998).

#### **1.1.4 Oral Presentations in EAP Courses**

Oral presentations are considered to be “generic academic practices” (Hyland, 2006), since they are commonly required of students in all university/college programs. For this reason, most EAP courses require students to deliver an oral presentation at some point throughout the term. As previously mentioned, though, students do not believe that they receive enough instruction about giving oral presentations in these courses. A review of the literature suggests that the reason for the lack of instruction that students receive may be due to the fact that little research has been done in this area; specifically, there is little research about how to prepare students for oral presentations and how to evaluate them (Meloni & Thompson, 1980). After surveying ESL teachers, Meloni and Thompson (1980) found that many teachers are unenthusiastic about assigning oral presentations in their courses, because they are unsure of what students actually learn from doing them. According to Meloni and Thompson (1980), teachers tend to be especially unsure of how to give feedback; they question whether or not they should interrupt students while they are presenting in order to correct errors, and they consider grading to be very subjective.

Although students in university/college content courses often claim that they did not receive adequate instruction in how to prepare for and deliver oral presentations in their ESL/EAP courses, ESL/EAP teachers claim that their students are not motivated in this area. They find that students do not enjoy preparing for and delivering oral presentations, and they do not pay attention while their classmates are presenting (Meloni & Thompson, 1980). A major reason for this is that students find oral presentations to be stressful assignments, because they are anxious about speaking in front of their teacher and classmates (Woodrow, 2006; Radzuan & Kuar, 2011).

### **1.1.5 Student Anxiety**

According to Woodrow (2006), ESL students consider presenting in front of the class to be one of the highest forms of in-class speaking anxiety. This is especially true for students from Asian countries, such as China, Japan and Korea, where students are expected to be silent and passive learners (Woodrow, 2006; Bankowski, 2010). As stated by Woodrow (2006), in-class speaking anxiety can manifest itself in physiological (i.e. perspiring, blushing, rapid heartbeat, etc.), cognitive (i.e. worrying, forgetting, etc.) and/or behavioural forms (i.e. stammering, fidgeting, excessive talking, etc.) (p. 321). There are many reasons that ESL students experience such high levels of anxiety about oral presentations. One participant in Woodrow's (2006) study explained that he felt anxious about speaking in front of the class because he did not have enough practice in speaking, while another explained that her anxiety about speaking in front of the class made her forget everything that she wanted to say (p. 320-321). Similar studies (e.g. Kim, 2006; Skryme, 2010; Radzuan & Kaur, 2011) have revealed that ESL students are anxious about speaking in front of their teacher and classmates because they are afraid of being misunderstood; they do not feel that they have adequate vocabulary knowledge or English

pronunciation. Many ESL students claim that their pronunciation leads to “breakdowns in communication” (Derwing and Rossiter, 2002 as cited by Foote, Hotlby & Derwing, 2011, p. 3) and that they would be more highly respected by Canadians if they had native-like English pronunciation (Derwing, 2003 as cited by Foote, Hotlby & Derwing, 2011). Despite the fact that EAP teachers and researchers (e.g. Morley, 1991; Chennell, 1999; Murphy, 2004; Kim, 2006; Skryme, 2012) realize that intelligible pronunciation in academic tasks, such as oral presentations is a problem for students, ESL/EAP courses do not provide students with the pronunciation instruction that they need (e.g. Ferris & Tagg, 1996a, 1996b; Deng et al., 2009).

### **1.1.6 Pronunciation in EAP Oral Presentations**

In preparation for oral presentations, students in EAP courses are often taught how to choose and narrow down a topic, develop a research question, conduct secondary research, cite references, organize information, and support claims (Meloni & Thompson, 1980; Bankowski, 2010). In addition, they are usually taught that when presenting it is important to introduce the topic in a way that will grab the audience’s attention, follow an outline, use appropriate eye contact and gestures/body language, incorporate visual aids, and answer questions (Meloni & Thompson, 1980; Bankowski, 2010). However, it is unlikely that their EAP courses will help them to improve their pronunciation in preparation for presentations. This is unfortunate not only because students could benefit from pronunciation instruction but also because the rubric that teachers use for grading oral presentations usually includes a pronunciation component. In the EAP courses at Carleton University, for example, pronunciation marks often fall under the category of presentation “delivery” and are grouped together with marks for rate and volume of speech. More specifically, they belong to the subcategory of “language clarity”, which includes grammatical structures and both suprasegmental (e.g. stress and intonation) and segmental

aspects (e.g. individual phonemes). Similarly, the oral presentation rubric presented by Quigley (1998) places pronunciation in the category of presentation “delivery” along with criteria, such as manner of speech (i.e. planned yet conversational), eye contact and gestures, use of notes, rate, volume and clarity of speech, use of visual aids, and presentation length. In such presentation rubrics, the mark for pronunciation is quite small; however, some teachers place a larger emphasis on pronunciation in their grading rubrics. Meloni and Thompson (2011), for instance, include an entire category for “pronunciation, stress and intonation” rather than grouping this component with other aspects of the presentation, and they leave space on the rubric for teachers to record “sample mistakes and sounds to practice” (p. 507). Regardless of the weight assigned to pronunciation in the grading rubric, whether or not it is fair to grade students on their pronunciation during oral presentations is questionable, since they do not receive instruction in this area prior to delivery of the presentation.

There are many reasons that ESL/EAP teachers do not include a great deal of (or any) pronunciation instruction in their courses. For instance, many teachers do not think it is necessary to teach pronunciation (Brown, 1999 as cited by Deng et al., 2009). They believe that pronunciation instruction is not a worthwhile use of class time, since it is not included in their course objectives (Baker, 2011) and previous research suggests that adults are not capable of attaining native-like pronunciation (e.g. Flege, 1988; Cummins, 1981). Further, many teachers avoid pronunciation in their courses because they do not feel adequately trained to teach it (Foote, Hotlby & Derwing, 2011), and they have difficulty finding time to learn more about it (Baker, 2011). In comparison to the other skills taught in ESL/EAP courses, there is little research for teachers to consult about pronunciation instruction (Deng et al., 2009), and this

contributes to the feelings of inadequacy and frustration that many teachers have toward teaching this component of oral communication.

## **1.2 Purpose of the Study**

The current study is a single-participant case study. Its primary purpose was to examine shadowing – an activity that is commonly used in interpreter training courses – as a means of helping students in EAP courses to improve their pronunciation in preparation for oral presentations. The participant incorporated shadowing in a preparation process that was carried out over six weeks and included a number of stages (i.e. writing a summary of their presentation topic, learning how to shadow, shadowing an edited and audio-recorded version of their written summary, rehearsing their presentation, and presenting in class). The researcher focused on the participant's pronunciation of target phonemes (i.e. voiceless [th] and word-final [s]) that are identified as troublesome sounds for the participant to pronounce during a diagnostic reading test and pre-interview. Additionally, another purpose of this study is to determine whether or not shadowing can be used as a means of helping students to overcome the anxiety that they experience in regard to oral presentations.

## **1.3 Research Questions**

This study aims to answer the following research questions:

- 1) To what extent does shadowing help EAP students to improve their pronunciation of target phonemes (i.e. segmentals) in preparation for oral presentations?
- 2) To what extent does shadowing help EAP students to overcome their anxiety about oral presentations?

## **1.4 Organization of the Study**

Through this study, the researcher sought to discover whether shadowing could effectively bridge the gap between the lack of pronunciation instruction in EAP courses and students' need for pronunciation instruction as they prepare for academic speaking assignments, such as oral presentations. The researcher also aimed to determine whether shadowing can reduce the anxiety that students experience when presenting in front of their teacher and classmates. Chapter one provides background and justification for the study; it explains the current focus of most EAP courses and expresses the need for a stronger emphasis on speaking skills, especially oral presentation skills, which include pronunciation; it lays out the purpose of the study, research questions and organization of the study. Chapter two presents a literature review of pronunciation instruction in ESL/EAP teaching. Chapter three presents a literature review of shadowing. Chapter four explains the research methodology used in this study. Chapter five reveals the results of the study. Chapter six discusses the findings. Chapter seven provides the conclusions, implications and limitations of the study, as well as suggestions for future research.

## **Chapter Two**

### **Literature Review: Pronunciation Instruction in ESL/EAP Courses**

As explained in the previous chapter, pronunciation instruction is often overlooked in ESL/EAP courses. This has not always been the case, though. Throughout the history of English as a second language teaching, pronunciation instruction has been viewed with varying levels of importance. There are many reasons for the lack of pronunciation instruction in ESL/EAP courses today, which include the question of whether or not pronunciation can be taught, teachers' beliefs about teaching pronunciation, the question of whether or not attaining native-like pronunciation is important, uncertainty about what aspects of pronunciation to focus on, and the fact that little research has been done in this area. Although ESL/EAP teachers and researchers do not seem to place as much importance on pronunciation as they place on other skills – especially, reading and writing – (e.g. Ferris & Tagg, 1996a, 1996b), an investigation of students' beliefs about pronunciation (e.g. Derwing & Rossiter, 2002, 2003) suggests that this area of second language acquisition should receive much more attention in ESL/EAP courses and research than it currently does.

#### **2.1 Historical Background of Pronunciation Instruction**

##### **2.1.1 The Grammar Translation Method**

Beginning in the early 1800's, languages were taught according to the Grammar Translation Method, which overlooked pronunciation entirely. Rather than providing students with opportunities to interact in the second language, classroom communication was conducted in the students' first language. The focus of instruction was grammatical rules, translation of vocabulary and phrases, and reading comprehension. Pronunciation instruction was not

necessary within this method, since the objective was to provide students with the structure of language rather than to focus on spoken communication (Celce-Murcia et al., 1996, p.2). However, the Grammar Translation Method placed an emphasis on reading aloud, which included pronunciation, to some extent.

### **2.1.2 The Direct Method**

However, in the 1900's, accurate pronunciation began to be viewed with a higher level of importance as the Direct Method, which advocated that second language learning should model first language learning, gained popularity (Brown, 2001, p. 21). Because of its foundation in first language acquisition, the Direct Method greatly varied from the Grammar Translation Method that had been used almost exclusively throughout the previous century. Teachers used the second language as the means of communication in the classroom, rather than relying on the students' first language and translation. Grammar instruction became much more implicit than it had been in the Grammar Translation Method, and the development of listening and speaking skills was included in the learning objectives. Students were taught authentic vocabulary and phrases and encouraged to speak. Within this method, teachers provided students with opportunities to practice their oral communication skills and focused on phonological accuracy (Brown, 2001, p. 21).

### **2.1.3 The Audiolingual Method**

This focus on accurate pronunciation became even more heavily emphasized in the 1940's and 1950's with the rise of the popular Audiolingual Method, in which students learned the second language through the repetition and memorization of target phrases. Careful consideration was given to segmental aspects, such as individual phonemes, phonetic contrasts

(i.e. minimal pairs) and phonological rules, as well as suprasegmental aspects, such as stress, intonation and rhythm (Morley, 1991, p. 484-485). Phonological accuracy was of utmost importance; therefore, the content of target L2 phrases was considered to be less important than pronunciation, and students were expected to learn grammar inductively through the phrases that they repeated/memorized (Brown, 2001, p. 23).

#### **2.1.4 The Cognitive Approach**

However, the strong emphasis that the Audiolingual Method placed on pronunciation instruction diminished with the rise of the Cognitive Approach in the 1960's. The usefulness of teaching pronunciation was brought into question as the focus of second language research and teaching shifted from phonology to grammar. As a result of Chomsky's (1959) work on transformational-generative grammar, attention was drawn to the syntactic structure of language (Kess, 1992); language was viewed as a set of universally similar rules – rules that could be easily learned by second language students. Meanwhile, researchers, such as Penfield and Roberts (1959) claimed that adult learners do not have the capability to learn a second language with the same level of proficiency as children, since they have passed the critical period (i.e. puberty) for learning a second language (Cummins, 1981, p. 132). Scovel (1969) explained that the inability of adults to attain native-like fluency in a second language is due to the cerebral dominance, or lateralization, of the brain, and therefore, whether or not a learner is able to achieve native-like pronunciation is more strongly affected by biological factors (i.e. nature) than the student's learning environment (i.e. nurture) (p. 249). Due to these findings regarding grammar and the critical period for pronunciation learning, the Cognitive Approach of the 1960's focused on grammar and vocabulary instruction, considering pronunciation to be an "unrealistic [teaching] objective" (Celce-Murcia et al., 1996, p. 5).

### **2.1.5 The Silent Way and Community Language Learning**

The level of importance attached to pronunciation instruction changed again with the emergence of two new approaches to second language teaching in the 1970's: the Silent Way and Community Language Learning. These popular approaches took the teacher's responsibility in pronunciation instruction and placed it on the student. The Silent Way, for instance, emphasized learning pronunciation through self-discovery and problem-solving (Brown, 2001, p. 28-29). Grammar, vocabulary and pronunciation were taught through the use of visual and tactile materials, such as charts and coloured rods. Within this approach, there was a heavy emphasis on accurate pronunciation. The teacher used gestures and the aforementioned materials to model how English sounds are produced, rather than providing students with explicit phonetic explanations (Celce-Murcia et al., 1996, p. 5). As a "silent" model, the teacher allowed students to monitor their own pronunciation, providing very little error correction.

Similarly, within the Community Language Learning approach, students monitored their own production of English sounds, and the teacher corrected and emphasized pronunciation at the students' discretion. As in the Audiolingual Method, students learned the second language through translation and repetition of target phrases; however, the role of the teacher shifted from instructor or guide to counselor or "human computer" (Celce-Murica et al., 1996, p. 7). Students directed their own learning by choosing the phrases that they wanted to learn; the teacher simply translated and modeled the phrases that students added to an ongoing classroom conversation. These conversations, which consisted solely of L1 phrases translated by the teacher and then repeated by students, were recorded for later analysis and practice.

### **2.1.6 The Natural Approach**

The heavy emphasis on pronunciation instruction throughout the 1970's was lost again, though, as new second language acquisition theories arose in the 1980's. Specifically, Krashen's (1982) input hypothesis, which claims that "accuracy develops over time as the acquirer hears and understands more input" (p. 22) caused second language researchers and teachers to shift their attention from output to "comprehensible input" (p. 22). Based on Krashen's claim that there is a natural order of acquisition and that spoken language develops with natural communicative input, the Natural Approach to second language teaching emphasized meaning over form (Brown, 2001, p. 31). Just as child L2 learners "may say very little for several months following their first exposure to the second language" (Krashen, 1982, p. 26), the Natural Approach encouraged students to listen first and speak later. Therefore, teachers who used the Natural Approach and focused on language input were not concerned with helping students to develop accurate pronunciation. Krashen (1982) noted that his research specifically addressed the teaching and learning of syntax and morphology (p. 55); however, his work greatly impacted the course of pronunciation research and instruction by deemphasizing the importance of spoken output, and therefore, causing minimal or no attention to be given to pronunciation in many second language classes. As a result of Krashen's (1982) work, teachers seemed to believe that, given time and input, pronunciation would take care of itself.

### **2.1.7 Communicative Language Teaching**

Along with the Natural Approach, Communicative Language Teaching gained immense popularity throughout the 1980's. The proponents of Communicative Language Teaching (e.g. Wilkins, 1976; Widdowson, 1978; Breen & Candlin, 1980; Savignon, 1983) viewed

language as a means of communication, stressing that L2 learning should be meaning-based. Since language is used to accomplish a variety of functions in everyday life, advocates of the Communicative Approach argued that language should be taught through the use of authentic materials and activities and providing students with opportunities to engage in meaningful interactions with classmates and native speakers. Students learned and practiced language that would enable them to achieve communicative goals; therefore, a stronger focus was placed on fluency and language outcomes than on (phonetic and grammatical) accuracy (Brown, 2001, p. 43). Limited pronunciation instruction was provided for students within this approach due to the all-encompassing focus on communication and completion of tasks.

### **2.1.8 Task-based Language Learning**

The Communicative Approach's emphasis on meaning and student interaction led second language acquisition researchers (e.g. Skehan, 1998; Ellis, 2003; Willis & Willis, 2007) to more closely examine the role of tasks in language learning. Within this teaching methodology, a task is considered to be an activity that requires the use of language and is, first and foremost, focused on meaning (Ellis, 2003); it has a purpose that resembles a real-world activity (Skehan, 1998 as cited by Willis & Willis, 2007). Further, students are evaluated according to the outcome of the task (Skehan, 1996a as cited by Ellis, 2003). Although task-based language learning places such a heavy emphasis on meaning and communication, it does not overlook grammatical accuracy. In most cases, meaning-focused tasks are followed by activities that focus on form (Willis & Willis, 2007). Willis and Willis (2007) explain that there are "different stages in a task cycle" (p. 113); if a teacher presents a language form in the beginning of the cycle, students will be more concerned with grammatical accuracy than expressing meaning. Therefore, tasks that focus on meaning and allow students to make use of their prior knowledge should precede tasks that focus

on grammar. According to Willis and Willis (2007), teachers should pause throughout meaning-focused tasks in order to focus on language. In other words, the teacher should help students to work through unfamiliar vocabulary, prepare for follow-up tasks, or record their work in written/spoken form. Then, in tasks that focus on form, teachers should bring students' attention to grammar by providing opportunities for them to learn/ recall grammatical rules and use them in activities that go beyond the textbook (e.g. fill-in-the-blanks or multiple choice) (Willis & Willis, 2007). In form-focused tasks, error correction is important (Willis & Willis, 2007); however, there is little or no focus on pronunciation. Moreover, the research literature that focuses on "corrective feedback" is concerned with syntax and morphology – not pronunciation (e.g. Lightbown & Spada, 1990; Lyster & Ranta, 1997; Panova & Lyster, 2002).

### **2.1.9 Content-based Language Instruction**

In the 1990's, content-based language instruction, which specifically deals with ESL teaching in university/college settings, also gained popularity. In content-based instruction, students learn language skills while studying a university subject. Courses that follow this approach focus on one overarching theme (e.g. ethics, business, social issues, health and nutrition) throughout the term, rather than covering a series of unrelated thematic units, as many ESL textbooks and courses do. According to Gaffield-Vile (1996), following one topic that can be applied to students' university education is more authentic and meaningful for them than studying language through random topics that they do not consider to be interesting or useful (p. 114). Since the students in EAP classes are preparing to study in various university programs, the topic covered in content-based instruction needs to be generic enough to have applications in a variety of disciplines. This approach has been widely advocated in EAP, since it "[provides] a more effective bridge between language courses and university first-year courses" (Gaffield-

Vile, 1996, p. 108). Research (e.g. (Kasper, 1997; Song, 2006) suggests that content-based approaches more adequately prepare students to perform well in regular university content courses than other ESL/EAP courses do.

In content-based courses, students complete activities and assignments that resemble the work that is required of students in English-speaking universities. For instance, students listen to lectures, take notes, and present oral summaries; read textbooks, take notes and produce written summaries; write essays and provide references; deliver lengthy oral presentations with visual aids; study for and take exams (Gaffield-Vile, 1998). Unfortunately, the literature about content-based instruction gives little or no attention to pronunciation. Gaffield-Vile (1998) mentions that both fluency and accuracy, which includes pronunciation, can be focused on when teaching students how to prepare for oral presentations; however, she mentions pronunciation very briefly and does not explain how to incorporate it in a content-based course.

## **2.2 The Current State of Pronunciation Instruction**

Presently, Communicative Language Teaching is still promoted as the overarching approach to second language teaching in the majority of second language schools, programmes and classes. Language continues to be taught for the purpose of communication and meaning, and fluency is stressed over accuracy. Many curriculum writers have sought to bring attention to phonological accuracy; however, in comparison to reading, writing, listening, speaking and grammar, pronunciation still receives very little attention in ESL textbooks, and many teachers choose to omit the short pronunciation exercises included in many textbooks due to their own beliefs or uncertainty about pronunciation instruction (Foote et al., 2011).

In 2010, Foote et al. (2011) conducted a survey (based on Breitzkreutz, Derwing & Rossiter, 2001) of pronunciation instruction in Canadian adult ESL programs. A total of 201

teachers from eight provinces responded to the online survey, which included questions about teacher education and pronunciation training, resources and approaches used in class, and teacher beliefs about pronunciation instruction. As a result of their study, Foote et al. (2011) found that 70% of the teachers were able to incorporate pronunciation instruction in their classes; although, the researchers noted that being *able* to incorporate pronunciation may not be the same as *actually* incorporating it. The researchers calculated that the teachers devoted approximately 6% of their class time to pronunciation instruction, and about half of the teachers did not use the pronunciation activities that were included in their textbooks. However, they also found that 59% of the teachers were using pronunciation textbooks in addition to their course book, and 43% of the teachers claimed that their school offered “stand-alone pronunciation classes” (p. 11).

### **2.3 Pronunciation in EAP courses**

Unfortunately, pronunciation tends to receive very little attention in EAP courses. As explained in the previous chapter, EAP began as a branch of ESP in the 1980’s, and its objective was to enable students to meet their educational and professional goals (Hyland, 2006). Benesch (2001) further explained that since EAP was established, it has had two “fluctuating” approaches: a general approach, which focuses on language, genres and discourse that are generally used in all or most disciplines, and a specific approach, which focuses on language, genres and discourse that are used in a particular discipline (p . xi). The popularity of EAP courses has increased, since the 1980’s, due to the global emphasis that is placed on English (Hyland, 2006). In order to be successful in university courses, research, publishing and the academic workplace, second language learners must “master” various aspects of academic communication; for instance, they must be proficient in reading and writing research articles and delivering oral presentations (Hyland, 2006).

Although it is important for ESL learners to be competent in each of the four skills, EAP courses tend to place a greater emphasis on reading and writing than on listening and speaking (e.g. Ferris & Tagg, 1996a, 1996b). In particular, they pay little attention to speaking. This is not surprising, since most of the research that has been conducted in the area of EAP has focused on writing (Skryme, 2010). A search of the literature quickly reveals a number of articles on topics related to genre-specific writing, as well as reading, and the link between these two skills. Due to the focus on reading and writing in EAP courses, many second language learners get the impression that developing these skills is more important than developing their speaking ability. Skryme (2010) interviewed twelve international undergraduate students from China in order to learn about communication between undergraduate EAP students and their teachers, and she found that the students “quickly came to the belief that university study made greater demands of reading, writing and listening than it did of speaking” (p. 212). In fact, one of the participants commented that he did not need to talk in order to study in a university; he simply needed to go to class, take notes and complete his assignments (p. 212). According to Skryme (2010), “speaking was the skill least required and most feared by the students” (p. 212).

ESL students tend to fear speaking in academic contexts, since it leads to judgement and, sometimes, misunderstanding from their teachers and classmates (Skryme, 2010; Kim, 2006; Radzuan & Kaur, 2011). As explained by Jordan (1997), one of the reasons that students struggle with participating in class discussions is that they have trouble with English pronunciation. Their pronunciation (i.e. individual sounds, stress, intonation and rhythm) may cause their teacher and classmates to find their speech unintelligible (Jordan, 1997). Many ESL students believe that their pronunciation is to blame for their “breakdowns in communication” (Derwing and Rossiter, 2002 as cited by Foote, Hotlby & Derwing, 2011, p. 3). Further, many ESL students think that

having native-like pronunciation would cause them to be more highly respected by Canadians (Derwing and Rossiter, 2002 as cited by Foote, Hotlby & Derwing, 2011).

According to Morley (1991), undergraduate and graduate students, who study in universities/colleges in English-speaking countries are in “special need of attention to pronunciation” (p. 490). She explains that students may be able to “survive” in university without polished oral language skills; however, attention to spoken communication (i.e. pronunciation) in EAP courses is important if students are to “succeed” in university (p. 490). As an example, she suggests that it may be difficult for graduate ESL students, who work as teaching assistants, to communicate intelligibly, if they have problems with pronunciation. Further, many of these ESL students may later become researchers, university faculty members, or professionals in fields, such as business or technology; moreover, having proficient English speaking skills is crucial in order to be successful in each of these contexts.

Research (e.g. Skryme, 2010; Kim, 2010; Ferris & Tagg, 1996a, 1996b) into the speaking skills of second language learners in undergraduate and graduate programs reveals that EAP courses need to place a stronger emphasis on speaking and pronunciation than they currently do. In other words, EAP courses need to provide students with opportunities to develop their ability to successfully complete the speaking tasks that will be required of them in university/college, as well as in their future workplace. For instance, EAP courses should enable students to practice and become comfortable with participating in class discussions, asking questions (both in and outside of class), and delivering oral presentations. These are necessary skills not only in university courses but also in professional settings. As an example, employees are often required to participate in discussions and/or give presentations in business meetings (Morley, 1991). Moreover, in a modern university lecture, students are required to be more actively involved in

the learning process than they were in the past (Kim, 2006). Lectures tend to be more interactive, and students may be expected to ask questions, participate in discussions, lead small group and class discussions, and/or deliver oral presentations (Kim, 2006). Therefore, if EAP courses are truly going to help students to meet their educational and professional goals, their requirements should more closely resemble the tasks that students will be asked to complete outside of language courses; they should enable students to easily move from being “learners” of English to “users” of English (Kim, 2006).

#### **2.4 Can pronunciation be taught?**

One of the reasons that there is little attention given to pronunciation in ESL/EAP courses is that research (e.g. Scovel, 1969) has suggested that there is a critical period for learning language. According to the Critical Period Hypothesis, adults do not have the same ability that children do to learn a second language (Scovel, 1969). In particular, adults and children differ in their ability to acquire the pronunciation of a second language. Children are capable of learning to speak a second language without “any trace of the foreign accent” (Ferguson and Garnica, 1975 as cited by Flege, 1981, p. 443), but attaining such native-like pronunciation is much more difficult for adults. In fact, Scovel (1969) claimed that adults “never seem able to rid themselves of a foreign accent” (p. 245). He explained that adults do not have the brain plasticity that children do before they reach puberty; the process of neurological maturation and lateralization has been completed, and therefore, they are not able to learn a second language as fluently as they learned their first language. In particular, they are not able to attain the same phonological ability as someone who had learned the language as a child. Flege (1987) cites Wash and Diller (1981), who proposed that the reason that adults are unable to fully acquire the pronunciation of a second language is that “pronunciation is a ‘lower order’ linguistic function” (p. 163), which relies on parts of the

brain (i.e. neuronal circuits) that develop early in life, unlike “higher order” functions (e.g. vocabulary) that rely on parts of the brain (i.e. stellate cells) that are still developing later in life (p. 163).

Although the idea of a critical period was widely accepted by language teachers and researchers, Flege (1981, 1987) questioned this hypothesis. He (1987) argued that “an examination of the existing empirical and theoretical literature leads to the conclusion that there is no conclusive support for the existence of a critical period for human speech learning” (p. 162). According to Flege (1987), there are many reasons to doubt the Critical Period Hypothesis. For instance, the idea of a critical period was originally developed to explain animal behaviour, such as imprinting, and most of the characteristics that were used to define a critical period do not actually apply to language learning (Flege, 1987). Further, Oyama (1979 as cited by Flege, 1987) argued that the critical period does not place a time limit on language (or behavioural) learning; instead, there may be a “sensitive period” in which people are more responsive to the stimuli in their surrounding environment. Moreover, Oyama (1982a as cited by Flege, 1987) claimed that research has not definitively stated that lateralization of the brain weakens the ability to learn language. Rather than attributing the difficulty that adult learners face in attaining native-like pronunciation to the Critical Period Hypothesis, Fledge (1981, 1987) suggests that adults may have trouble with second language pronunciation due to interference from their first language. He proposes that further research needs to be done in this area.

Whether or not adults can attain native-like pronunciation, studies (e.g. Kendrick, 1997; Couper, 2006; Saito, 2011) have shown that pronunciation instruction does, indeed, lead to pronunciation improvement. Kendrick (1997), for example, incorporated a number of pronunciation activities (i.e. segmental discrimination and production; syllable and word stress;

speech rhythm; individual audio recordings; and role-plays) in her intermediate ESL class over a period of nine months and found that students benefited from the pronunciation instruction that they received. She observed that students made improvements in both segmental and suprasegmental aspects of pronunciation. In particular, there was an improvement in the students' use of schwa in unstressed words and pronunciation of word-final voiced consonants, such as [s]. Further, there was an improvement in their ability to understand how word/sentence stress affects meaning in both speaking and listening.

In 2006, Couper incorporated numerous pronunciation activities in five classes in order to determine whether or not pronunciation instruction would help students to improve the following aspects of pronunciation: epenthesis (i.e. adding an extra sound before a consonant) and absence (i.e. deleting a sound before a consonant). From the speaking tests that he administered multiple times throughout the study, he concluded that the participants made significant improvement in their pronunciation. Based on the listening tests, though, the participants did not make significant improvements in their ability perceive epenthesis and absence. Couper (2006), therefore, suggested that learners may not be able to apply their pronunciation knowledge to their listening as readily as they can apply it to their speaking.

Saito (2011) conducted a study, which investigated whether or not a combination of perception and production activities could help Japanese ESL students to improve their pronunciation of consonants (i.e. segmentals) that are not found in Japanese. Half of the 20 students were placed in the experimental group, and the other half were placed in the control group. As a result of the study, Saito (2011) found that those in the experimental group made improvements in their comprehensibility in both planned and spontaneous speech. However, they did not display a significant improvement in accent reduction.

## **2.5 What aspects of pronunciation should be focused on?**

### **2.5.1 Segmentals**

As explained by Pennington and Richards (1986), “segmental features are minimal units of sound [i.e. phonemes] defined in phonetic terms” (p. 208). In earlier methods of ESL teaching, such as Audiolingualism, the Silent Way and the Contrastive Analysis Hypothesis, segmental features were the focus of pronunciation instruction (Pennington & Richards, 1986). Pennington and Richards (1986) referred to this type of pronunciation instruction that focuses on teaching students how to distinguish between and produce individual sounds (i.e. vowels and consonants) of the target language as a “bottom-up” approach. Such a bottom-up approach is primarily concerned with language at the word and sentence level.

Although segmental pronunciation instruction was popular within earlier teaching methodologies, its popularity dwindled with the rise of Communicative Language Teaching in the 1980’s. Within the communicative framework of ESL teaching, language was taught for the purpose of communication and meaning, and fluency was stressed over accuracy (Pennington & Richards, 1986). The focus of Communicative Language Teaching caused the purpose of pronunciation instruction to shift from helping learners to master the individual sounds of the language to helping students to master the suprasegmental aspects of the language.

### **2.5.2 Suprasegmentals**

Pennington and Richards (1986) proposed that ESL teachers and researchers should focus on aspects of pronunciation that are above the word and sentence level. They suggested that the following suprasegmental features should receive attention: voice setting, stress, intonation, prosody, and coarticulation. According to Pennington and Richards (1986), these aspects of

pronunciation are important to teach, since they impact various types of meaning. Pennington (1989) added that phonological fluency and gestures should also receive attention in meaning-focused pronunciation teaching.

Although the teaching of suprasegmental features has been strongly advocated in the literature (e.g. Pennington & Richards, 1986; Pennington, 1989; Deng et al., 2009), the teaching of segmental features should not be overlooked, since it is possible for the mispronunciation of segmentals to affect overall meaning as well (e.g. Munro & Derwing, 2006). Munro and Derwing (2006) explained that teachers should focus on segmentals that have a high functional load; in other words, they should focus on phonemes or phonetic features that have a high possibility of leading to miscommunication (Deng et al., 2009). Munro and Derwing (2006) cited Catford (1987) and Brown (1991), who developed ranking systems in order to determine whether individual phonemes (or phonetic features) have a high or low functional load. The ranking systems developed by Catford (1987) and Brown (1991) used criteria, such as the following to determine whether a segment had a high functional load: “frequency of minimal pairs, the neutralization of phonemic distinctions in regional varieties, segmental position within a word, and the probability of occurrence of individual members of a minimal pair” (Munro & Derwing, 2006, p. 525). According to this criteria, phonemes that are commonly found in minimal pairs (e.g. [b] and [p]; [l] and [n]) have a high functional load and should be attended to in pronunciation teaching.

In the current study, the researcher studied the participant’s pronunciation of voiceless /th/. According to Brown (1974 as cited by Brown, 1991), voiceless /th/ has a high functional load when the second language speaker replaces it with a phoneme, such as /s/, which is more acoustically distinct from voiceless /th/ than a phoneme, such as /f/ (p. 211). Since voiceless /th/

and /s/ are distinct phonemes, it is easy for miscommunication to occur if one is replaced by the other (Brown, 1974 as cited by Brown, 1991). Voiceless /th/ and /s/ form many minimal pairs (e.g. think – sink; thought – sought; thank – sank; math – mass; myth – miss); therefore, if a second language speaker pronounces voiceless /th/ as an /s/, the listener may not realize that he/she has misunderstood what the speaker actually wanted to say (Brown, 1974 as cited by Brown, 1991).

The researcher of the current study also investigated the participant's pronunciation of word-final /s/. According to the criteria mentioned above, this phoneme may not have a very high functional load. Word-final /s/ is a morphological marker; for instance, it marks an English word as plural or present tense. In this sense, word-final /s/ is not typically found in minimal pairs. Although it may not make an acoustic distinction between two words, word-final /s/ has the potential to make a meaningful distinction between two words. As an example, word-final /s/ can change the meaning of a word by changing it from singular to plural.

### **2.5.3 Intelligibility and Comprehensibility**

According to the Intelligibility Principle (Levi, 2005), pronunciation instruction should be focused on aspects that will enable learners to be better understood by others. The notion of intelligibility is primarily concerned with the way in which second language speech is understood by listeners. Research (e.g. Levi, 2005; Dauer, 2005) suggests that it is more important for second language speakers to have intelligible pronunciation than native-like pronunciation. Further, pronunciation instruction should provide students with opportunities to improve the comprehensibility of their speech (Munro & Derwing, 2006). In this context, comprehensibility refers to the way in which listeners judge a second language speaker's

pronunciation (i.e. whether it is easy or difficult to understand) (Munro & Derwing, 1995a, 1997 as cited by Munro & Derwing, 2006). In order to help students develop intelligible and comprehensible pronunciation, teachers should focus on suprasegmentals, as well as segmentals that have a high functional load, since these aspects of pronunciation affect communication and meaning.

#### **2.5.4 Accent and Identity**

Jenkins (1998) argued that attaining native-like pronunciation is an “unrealistic” and unnecessary goal. She claimed that many ESL students are not primarily concerned with developing a native-like accent, because they do not plan to use English for communication with native English speakers; rather, they plan to use English for communication with other second language learners. Further, Jenkins (1998) explained that English is an international language, and there are many variations of the English accent (e.g. Canadian, American, British, Australian); therefore, ESL/EAP courses should not place such a “narrow focus on a standard British or American accent” P. 120). Since English has become the “international lingua franca”, Jenkins advocates that pronunciation should be taught for the purpose of intelligibility, and not for the purpose of developing an accent that fits into the mould of one English variation. Munro and Derwing (2011) agree with Jenkins (1998), claiming that focusing on the development of an accurate, native-like accent is “at odds with a long-standing observation that it is intelligibility... that is most crucial for successful communication in [a second language]” (p. 317).

Research (e.g. Peirce, 1995; Golombek & Jordan, 2005) suggests that a person’s language is a crucial aspect of his or her social identity. Therefore, it may not be desirable for

second language learners to rid themselves of their accent. According to Avery and Ehrlich (1992 as cited by Golombek & Jordan, 2005), whether or not a second language learner wants to attain native-like pronunciation of the target language is related to how much he or she wants to identify with that language/cultural group. For instance, some students may want to sound like Canadian English speakers, while others may want to maintain their identity as a member of their first language group. Sometimes students do not want to change their pronunciation, or they do not think it is necessary to change, or they do not believe that they are capable of changing (Pennington, 2004 as cited by Celce-Murcia, Brinton & Goodwin, 1996).

The fact that intelligible pronunciation may be more important than native-like pronunciation does not mean that improving one's ESL accent is unnecessary. There are reasons to believe that reduction is still imperative, especially in the context of EAP. According to Munro, Derwing and Sato (2006), second language accents can lead to misunderstanding and discrimination. They explain that foreign accents often cause "negative social evaluation" (p. 68) due to stereotypical views that people hold about different cultural groups. For instance, people with accents are often judged to be ignorant or less sophisticated (Munro et al., 2006). Despite the fact that accents may not interfere with listener comprehension, second language speakers with foreign accents are often treated differently than those who sound like native speakers (Munro et al., 2006). As an example of this, Munro et al. (2006) tell the story of a Polish substitute teacher, who received a negative evaluation because of his accent; the evaluator commented on his file that he "did not speak English", which caused schools to stop requesting him to supply teach (p. 70). They further illustrate the negative consequences of having a foreign accent by explaining that teachers in content courses tend to underestimate the language

proficiency of students who have an accent, and employers often want to hire people who have native accents rather than foreign accents.

## **2.6 Teacher's Beliefs about Pronunciation Instruction**

According to Foote et al. (2011), not all teachers agree about the importance of pronunciation in ESL classes. The researchers surveyed teachers from eight Canadian provinces about pronunciation instruction in their schools. In response to the survey, some of the participating teachers commented that pronunciation instruction does not receive enough attention in class and that they could be doing more to incorporate it in their lessons; however, others claimed that pronunciation instruction is not as important or valuable as the other skills (i.e. reading, writing, listening, speaking and grammar). Foote et al. (2011) found that teachers tend to be “pessimistic about the ability of pronunciation instruction to create permanent changes” (p. 17). Further, they consider pronunciation instruction to be discouraging, since students tend to be unmotivated, bored, and unaware of the instruction's value (Foote et al., 2011).

After interviewing eight ESL teachers about their views toward pronunciation instruction and their teaching practices, MacDonald (2002) found that many teachers “avoid [pronunciation] or are reluctant to teach [it]” (p. 3). The majority (i.e. 75%) of teachers, who participated in her study, did not like to teach pronunciation, and over half (i.e. 62.5%) believed that they were not “good at [it]” (p. 5). The teachers explained that pronunciation was not emphasized in their course objectives or curriculum; moreover, they felt that they needed more direction about how to teach pronunciation.

In their survey of pronunciation instruction across Canada, Foote et al. (2011) found that only half of the 201 participating teachers had received some type of formal training (i.e. conference workshops or college/university courses) in pronunciation. As in MacDonald's (2002) study, whether or not they had received pronunciation training in the past, the majority (i.e. 75%) of Foote et al.'s (2011) participants admitted that they would like to learn more about teaching pronunciation. Finding time for "extracurricular reading or research" (Baker, 2011, p. 284), though, is not an easy task for teachers (Baker, 2011). Regardless of the amount of time that teachers are willing/able to devote to reading and studying, there is limited research for teachers to consult about pronunciation instruction (Deng et al., 2009).

## **2.7 Pronunciation Research**

In 2009, Deng et al. examined fourteen academic journals (i.e. *Language Learning, System, Modern Language Journal, Studies in Second Language Acquisition, Journal of Multilingual and Multicultural Development, Applied Linguistics, Prospect, ELT Journal, TESL Canada, Language Testing, Language Awareness, TESOL Quarterly, Canadian Modern Language Review* and *Applied Language Learning*) in order to discover how much attention had been given to pronunciation in the research published between 1999 and 2008. They found that attention to pronunciation had slightly increased between 2004 and 2008 in eight of the fourteen journals that they studied, but they concluded that despite this increase, pronunciation continues to be "underrepresented in the literature" (Deng et al., 2009, p. 3). Over the ten-year span that they studied, the percentage of articles focusing on pronunciation ranged from 0.54% in *Language Testing* to 5.08% in *Applied Language Learning*.

Deng et al. (2009) found that the topics of teacher education, student pedagogy, intelligibility/comprehensibility/accent, fluency, acquisition, identity/discrimination, and World

Englishes were covered in the pronunciation articles that they identified (p. 3). Interestingly, the few articles (i.e. five out of 2, 912) that covered the issue of teacher education expressed the fact that teachers are uncomfortable with pronunciation instruction and tend to avoid it, because they do not think they have adequate phonological knowledge (p. 3-4). In contrast to the information revealed in the teacher education articles, though, the articles about student pedagogy revealed that students need and want more pronunciation instruction than they are currently receiving in ESL classes (p. 4).

## **2.8 Student Beliefs**

Derwing and Rossiter (2002) interviewed 100 ESL speakers about their pronunciation needs and the strategies that they use in order to deal with “breakdowns” in communication (p. 155). As a result of their study, they found many of their respondents did not feel that “they were getting the pronunciation instruction that they needed and wanted” (Derwing & Rossiter, 2002 as cited by Deng et al., 2009) that just over half of the respondents believed that their pronunciation led to communication difficulties, and a third of the respondents commented that people often had difficulty understanding them because of their accent. Many (i.e. 37%) of the respondents also claimed that people often asked them to repeat what they said. When asked specifically about their pronunciation difficulties, the majority (84%) of respondents stated that they struggled with segmental features of pronunciation, such as voiced and voiceless /th/ and /l/ and /r/. The remaining 16% claimed that they had difficulty with unfamiliar words, word and sentence stress, intonation, speech rate, cognates (p. 161).

In a continuation of their (2002) study, Derwing and Rossiter (2003) found that 95% of their 100 respondents wanted to speak English with a native accent, and 53% thought that they

would be more highly respected by Canadians if they had better English pronunciation, and they did not feel that losing their accent would threaten their identity. In regard to their perceptions about how Canadians judged their pronunciation, a quarter of the respondents suggested that Canadians view accents negatively, and a third suggested that they were discriminated against because of their accent. Further, the respondents provided the researchers with more negative than positive comments about how Canadians view and deal with accents. For instance, they told the researchers that people misunderstood them, ignored them, made faces at them, became angry with them, or simply chose not to comprehend what they said. Many of the respondents were able to provide the researchers with detailed stories of Canadians being rude or angry with them due to their accent.

In accordance with Derwing and Rossiter's (2002, 2003) findings, Kendrick (1997) found that students rated pronunciation instruction highly. After incorporating a number of pronunciation activities in her intermediate class, she observed that students highly rated activities which focused on distinguishing between and producing segmental features of pronunciation, in particular. She also noticed that students considered producing and listening to audio recordings to be useful. Although Kendrick's (1997) study included a question about students' concern about accurate pronunciation, she did not address it in her discussion of "significant points" (p. 554).

## **2.9 Importance of Pronunciation Instruction**

Although many ESL/EAP teachers are hesitant about teaching pronunciation (MacDonald, 2002; Baker, 2011; Foote et al., 2011), pronunciation instruction is important and should receive more emphasis in ESL/EAP classes and research (Deng et al., 2009). This is especially true in reading

and writing-intensive EAP classes, since the purpose of EAP is to help students to develop the skills that they will need in order to succeed in their future academic and professional life (Morley, 1991; Hyland, 2006; Kim, 2006). In order to be successful in these endeavors, it is imperative for students to develop intelligible pronunciation, since inaccurate or heavily accented pronunciation can lead to misunderstanding and/or discrimination (Munro et al., 2006). Despite that fact that not all teachers are confident that teaching pronunciation is worthwhile, research has shown that many students want to work on their pronunciation and do not believe that they are getting the pronunciation instruction that they need (Derwing & Rossiter, 2002 as cited by Deng et al., 2009).

The fact that current teaching methodologies (e.g. Communicative Language Teaching) tend to focus on meaning over accuracy does not mean that pronunciation instruction should be left out of the course objectives. As stated by Pennington and Richards (1986),

“It is artificial to divorce pronunciation from communication and from other aspects of language use, for sounds are a fundamental part of the process by which we communicate and comprehend lexical, grammatical, and sociolinguistic meaning” (p. 208).

Accurate pronunciation is important, even at the segmental level, since sounds are like “building blocks” that lead to more advanced communication and meaning (Pennington & Richards, 1986, p. 208). The following chapter will discuss shadowing, an activity that can be used to teach both suprasegmental and segmental aspects of pronunciation.

## Chapter 3

### Literature Review: Shadowing

#### 3.1 Background

Shadowing has frequently been used as a method of studying memory in experimental and cognitive psychology. Specifically, it has been used in studies of selective attention, short-term and long-term memory (e.g. Yates, 1965, Norman, 1969; Slowiaczek, 1994; Goldinger, 1998). Norman (1969), for instance, employed a shadowing task in order to build upon previously existing theories in selective attention. Specifically, the purpose of his study was to determine whether material that is presented to one ear while participants shadow material that is presented to the other ear is stored in short-term or long-term memory. As a result of his study, Norman (1969) found that participants are capable of storing information that they receive on an unattended channel during a complex task, such as shadowing, in short-term memory but not in long-term memory. In other words, unlike previous theories had proposed, humans can focus their attention on more than one incoming stream of information, and they can remember that information, at least in the short-term (Norman, 1969).

To further illustrate the use of shadowing for studies in memory, Goldinger (1998) used immediate and delayed single-word shadowing activities for the purpose of investigating speech perception and production in relation to the mental lexicon. His research was based on Semon's (1909; 1923) episodic theory of memory, which proposed that individual experiences leave distinct traces in the memory that are later activated upon recognition of similar information (Goldinger, 1998). He applied this theory specifically to vocabulary learning, seeking to discover whether or not the mental lexicon is built upon the episodic traces of words that are stored in the

memory, hypothesizing that the participants' production of the words would become closer to that of the model with every repetition in the immediate shadowing condition. The results of his (1998) study confirmed his hypothesis: "the acoustic content of shadowers' speech reflects underlying perceptual processes [, and] these processes are seemingly affected by detailed episodic traces" (p. 258).

Shadowing research is not limited to the field of psychology, though. Many studies have been conducted in applied linguistics with the purpose of examining the use of shadowing as an activity in language classes. Previous research (e.g. Schweda-Nicholson, 1990; Lambert, 1988; Hiramatsu, 2000; Li-Chi, 2009; Shiota, 2012) suggests that shadowing is an effective means of training language interpreters (i.e. translators), as well as teaching English as a second or foreign language. In particular, there is research (e.g. Rongna & Ryoko, 2012; Acton, 1984; Ricard, 1986; Nye & Fowler, 2003) to suggest that shadowing is an effective means of teaching pronunciation. However, shadowing is a cognitively complex activity; therefore, it is best suited for students who are at the high-intermediate or advanced level of target language development (Hiramatsu, 2000).

### **3.2 Definition of Shadowing**

Shadowing is a language activity in which students listen to and simultaneously repeat a model's speech. The shadower is expected to repeat the model's speech "word-for-word, and in the same language" (Lambert, 1988, p. 377). Throughout the literature in applied linguistics, shadowing has also been referred to as tracking (Morley, n.d. as cited by Acton, 1984), oral reading (Acton, 1984; Ricard, 1986), auditory naming (Goldinger, 1998), etc. As emphasized by Hiramatsu (2000), shadowing and repeating are two distinct language activities. Shadowing requires rapid

repetition as a model is speaking – there is a continual stream of discourse that the student must follow; whereas, repeating provides students with units of language to be imitated during given pauses in the flow of speech (Hiramatsu, 2000). While shadowing, students are focused on closely following the model; therefore, they do not have time to carefully think about what they are saying as they imitate the speaker (Luo, Shimomura, Minematsu, Yamauchi & Hirose, 2008). For this reason, shadowed speech often contains errors, such as “omitted [and] mispronounced syllables” (Nye and Fowler, 2003, p. 71). Luo et al. (2008) explain that it is common for students’ pronunciation during shadowing to be “corrupt and inarticulate” (Luo et al., 2008, p. 2808). Unlike repeated speech, the immediacy of repetition required in shadowing often causes shadowed speech to be incomprehensible (Luo et al., 2008). This is especially true for students who are unfamiliar with shadowing (Luo et al., 2008).

According to Schweda-Nicholson (1990), shadowing passages can be fluent texts or lists of unrelated words and/or sentences (p. 34). She explains that “the general rule is to choose materials which are representative of the work that the [student] will be performing” (Schweda-Nicholson, 1990, p. 35). Using authentic texts that resemble the contexts in which students will apply the language skills that they practice makes shadowing meaningful, and contributes to students’ positive reception of and motivation toward this activity (Acton, 1984).

In the current study, the participant shadowed an audio-recorded version of a written summary that she wrote in preparation for her oral presentation. She shadowed the recording by reading aloud, while listening to and simultaneously repeating the model’s (i.e. researcher’s speech).

### **3.3 Types of Shadowing**

Shadowing can be used in different ways and for different purposes. Throughout the literature, various researchers (e.g. Norman, 1976; Schweda-Nicholson, 1990; Someya, 1996; Goldinger, 1998; Lambert, 1988; Hiramatsu, 2000) have identified distinct types of shadowing, based on factors, such as the amount of information that is being repeated at once, the time period between each chunk of information to be repeated, the speed at which the model speaker talks and the participant is expected to follow, and the desired outcome of the shadowing task.

#### **3.3.1 Phonemic Shadowing and Phrase Shadowing**

Lambert (1988) and Schweda-Nicholson (1990) cite Norman (1976), who divided shadowing into the following two categories: phonemic shadowing and phrase shadowing. In phonemic shadowing, the participant is expected to repeat the model speaker's words immediately, rather than waiting until the completion of a word or phrase; he or she must speak at the same pace as the model in order to catch each phoneme (Lambert, 1988; Schweda-Nicholson, 1990). In phrase shadowing, on the other hand, the participant waits until the model has completed a phrase or unit of meaning before repeating what he or she hears (Lambert, 1988; Schweda-Nicholson, 1990). The latency (i.e. time delay) between repetitions is at least 250 milliseconds (Norman, 1976 as cited by Lambert, 1988).

#### **3.3.2 Adjusted Lag Shadowing**

Schweda-Nicholson (1990) identified an additional type of shadowing: adjusted lag shadowing. On a continuum, adjusted lag shadowing would fall directly between Norman's (1976) phonemic shadowing and phrase shadowing. Rather than repeating every phoneme as he or she hears it or waiting until the end of a phrase or unit of meaning, the participant in adjusted

lag shadowing is expected to remain a previously decided number of words (i.e. less than ten) behind the model speaker (Schweda-Nicholson, 1990). As explained by Schweda-Nicholson (1990), this type of shadowing requires the participant to constantly be conscious of how closely he or she is following the model; therefore, it is “more difficult than ‘phonemic shadowing’” (p. 34).

### **3.3.3 Immediate Shadowing and Delayed Shadowing**

In his study of episodic memory, Goldinger (1998) employed two types of shadowing, which he referred to as immediate shadowing and delayed shadowing. Although they are labeled differently, Goldinger’s (1998) categorization of shadowing types is similar to Norman’s (1976) classification. Immediate shadowing, as the name suggests, requires the participant to repeat the model’s words immediately; whereas, delayed shadowing ( Balota & Chumbley, 1985 as cited by Goldinger, 1998) requires the participant to wait for 3-4 seconds before repeating (Goldinger, 1998). According to Goldinger’s (1998) findings, there is a higher likelihood that participants will notice whether or not their speech is a close representation of the model’s speech in immediate shadowing than in delayed shadowing.

### **3.3.4 Prosody Shadowing, Content Shadowing and Silent Shadowing**

As previously mentioned, shadowing may be used for various purposes. Hiramatsu (2000) cites Someya (1996), who identifies three types of shadowing, which are used for three distinct purposes. According to Someya (1996), prosody shadowing is intended to help participants to improve their active listening skills and pronunciation; content shadowing is intended to help participants to improve their comprehension of content and use of prosody; and silent shadowing is intended to help participants to follow rapid speech (i.e. at least 180 words per minute)

(Hiramatsu, 2000). Prosody shadowing is likely the most “mechanical” of the three types aforementioned, since it requires participants to focus on imitating the prosodic features (i.e. accent, stress, intonation, emotions) of the model’s speech as closely as possible at the expense of meaning (Hiramatsu, 2000, p. 315).

### **3.3.5 Conversion Shadowing and Varied Speed Shadowing**

Hiramatsu (2000) identifies two additional types of shadowing: conversion shadowing (Hiramatsu, 1997) and varied speed shadowing. The purpose of conversion shadowing is to help participants to improve their interpreting (i.e. translating) skills. Hiramatsu (2000) claims that conversion shadowing “seems to be the most difficult type of shadowing” (p. 315), since it requires participants to listen to, repeat and silently translate language simultaneously. Although this type of shadowing is immensely cognitively demanding, it is thought to leave an “acoustic image” in the brain, activating both the brain and the memory (Hiramatsu, 2000, p. 316). While the focus of conversion shadowing is translation from one language to another, the focus of varied speed shadowing is the participants’ first language. The purpose of this type of shadowing is to help participants to improve the speed in which they are able to process their first language.

### **3.4 Shadowing as a Means of Interpreter Training**

Due to the immediate imitation required in shadowing, this activity is often used for training language interpreters (i.e. translators) (Hiramatsu, 2000). Schweda-Nicholson (1990) admits that shadowing has been criticized by researchers, such as Coughlin (1989) and Gran (1989); however, she continues to advocate for this language activity, claiming that it has been used as an effective method of training interpreters for “many years” (Schweda-Nicholson, 1990, p. 33). This is especially true in Japan, where numerous scholars have researched shadowing as an

interpreter training tool and many universities now regularly use shadowing in their interpreter training programs (Hiramatsu, 2000; Li-Chi, 2009).

According to Gerver (1975), “interpreters have been found to simultaneously listen and speak 65% of the time with lag time between input and output ranging from two to eight words, depending upon the difficulty of the material” (as cited by Green et al., 1990, p. 109). Therefore, shadowing is a highly beneficial learning activity for interpreters-in-training, since it closely resembles the nature of speech interpretation (i.e. translation). The interpreter must catch everything that the speaker says in order to translate it for a target audience; likewise, the participant must listen quickly and carefully in order to simultaneously repeat the model’s speech. As explained by Lambert (1988), interpreters usually engage in the task of simultaneous interpretation, which is similar to phrase shadowing, but differs in one crucial way: the interpreter must translate the model’s speech, rather than repeat it in the same language. Because simultaneous interpretation requires the interpreter to listen to an ongoing stream of discourse, translate phrases into a target language, and monitor his or her own speech at the same time, it has been deemed “one of the most demanding human information processing tasks” (Lambert, 1988, p. 378).

When used for the purpose of interpreter training, the primary objective of shadowing is to help students to improve their listening and speaking skills (e.g. Hiramatsu, 2000; Li-Chi, 2009; Schweda-Nicholson, 1990). The use of shadowing for this purpose is supported by research (e.g. Tamai, 1998 and Torikai, 1997) that has revealed that shadowing can improve listening comprehension as well as speech production (Hiramatsu, 2000). Further, by helping interpreters-in-training to improve their listening and speaking skills, instructors are also helping them to

process and, therefore, translate information at a much faster pace. As previously mentioned, this is crucial, since interpreters must listen and speak (in a different language) at the same time.

Because shadowing so closely resembles the nature of interpreting, it is not only used as a training tool for interpreters, but it is also used as a method of testing. As explained by Schweda-Nicholson (1990), shadowing is often included in entrance examinations for interpretation programs. Listening and speaking at the same time is not an easy task, and some people find it immensely difficult to do both simultaneously; therefore, asking prospective interpreting students to complete a shadowing activity is an effective way to reveal whether or not they will be able to handle the cognitively complex task of simultaneous interpretation in the future (Schweda-Nicholson, 1990). According to Schweda-Nicholson (1990), “shadowing has consistently proven to be a strong indicator of future performance” (p. 33).

### **3.5 Shadowing as a Means of Language Teaching**

Shadowing is frequently used as an English as a foreign language (EFL) teaching activity in Asian countries, such as Japan, China and Taiwan (e.g. Hiramatsu, 2000; Li-Chi, 2009; personal communication, 2012). Moreover, the majority of research about the use of shadowing as a teaching activity in English language classes has been conducted in Asia and published in Asian languages. Specifically, there is an abundance of Japanese scholars, who have researched and written about applying shadowing, as it is in used in interpreter training courses, to EFL classes (e.g. Someya, 1996; Torikai, 1997; Komatsu, 1999; Hiramatsu, 2000; Shiota, 2012). In comparison to EFL contexts, very little empirical shadowing research has been done in ESL contexts.

### **3.5.1 Teaching Listening and Speaking**

As explained by Hiramatsu (2000), “the practice of shadowing has the possibility of converting the receptive skill of listening to the productive skill of speaking since instantaneous oral repetition and reproduction are carried out” (p. 313). Li-Chi (2009) studied the use of shadowing as an activity to help junior high EFL students in Taiwan to improve their listening and speaking skills. Over a period of five weeks (i.e. fifteen hours), the participants (i.e. twenty-five eighth graders) shadowed two audio-recorded texts from the textbook, *Go Super Teens (Book 2)* by Longman (2007). The effectiveness of using shadowing as an activity to help junior high students to improve their EFL listening and speaking skills was evaluated by comparing their scores on pre- and post- listening and speaking tests.

Upon completion of the study, Li-Chi (2009) found that both the participants’ listening and speaking skills significantly improved as a result of shadowing. More specifically, shadowing enabled the participants to further develop their listening comprehension and, therefore, gain confidence in their listening abilities (Li-Chi, 2009). Shadowing also helped the participants to gain confidence about speaking by helping them to improve their fluency and pronunciation (i.e. stress and intonation) (Li-Chi, 2009).

### **3.5.2 Evidence for Language Learning through Imitation**

ESL researchers and teachers should seriously consider the use of shadowing as a language teaching activity, since it closely resembles the way in which children acquire their first language. While shadowing, participants imitate a model speaker; likewise, while learning to speak their first language, children imitate the sounds that they hear from the adults and other children around them (Babel, 2012). This imitation of sounds begins by the time children are

twelve weeks old (Kuhl & Meltzoff, 1996 as cited by Honorof, Weihing & Fowler, 2011), and it continues as children mature and acquire the dialect around them (Babel, 2012).

Moreover, such imitation is not limited to children; adults also imitate the speech of others (Nye & Fowler, 2003; Honorof et al., 2011; Babel, 2012). Giles, Coupland and Coupland (1991 as cited by Honorof et al., 2011) illustrate this by explaining that adults gauge their accent and the rate and intensity of their speech in accordance with the speaker(s) they are conversing with. This tendency of adults to change the way that they speak in order to resemble the speech of their conversation partner(s) is largely due to the fact that one's manner of speaking (accent, especially) marks the social class that they affiliate with (Honorof et al., 2011). Babel (2012) cites numerous researchers (e.g. Trudgill, 1986; Munro, Derwing & Flege, 1999; Harrington, Palethrope & Watson, 2000; Harrington, 2006, 2007; Howell, Barry & Vinson, 2006; Delvaux & Soquet, 2007; Evans & Iverson, 2007) who have shown that the imitation tendency of adults is especially evident when they move to a new area that speaks a different dialect; within a short period of time, their speech begins to show similarities to the speech of those around them (p. 177).

### **3.5.3 The Neurobiology of Shadowing**

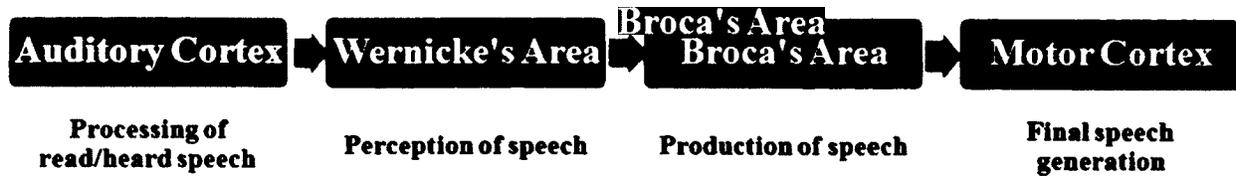
Not only does shadowing resemble the way in which children (and adults) acquire their first language, but it also entails holistic second language acquisition, since it activates multiple areas of the brain (Uemura, 2005 as cited by Hiramatsu, 2000). As previously explained, shadowing requires participants to listen and speak simultaneously. However, each of these language activities requires distinct cognitive functions.

Speech perception is generated in Wernicke's area, which is located in the posterior part of the left temporal lobe (Grodd, Wildgruber & Kumar, 2009). After studying this part of the brain, Wernicke (1874) revealed that people who have a lesion in this area have extreme difficulty perceiving language (Grodd et al., 2009). Wise et al. (2011 as cited by Price, 2012) revealed that speech perception also activates part of the left lateral posterior superior temporal sulcus, which plays a role in imitation, repetition, longitudinal acquisition of vocabulary and retrieval of vocabulary items from memory (Price et al., 2012). Speech perception also involves language processing. The acoustic processing of heard and read words activates the same area of the brain: the auditory cortex (Grodd et al., 2009), or temporoparietal cortex (Petersen et al., 1998 as cited by Price, 2012).

Speech production, on the other hand, is generated in Broca's area, which is located in the posterior part of the frontal lobe of the left inferior frontal cortex (Grodd et al., 2009). Like Wernicke (1874), Broca (1861) found that people with a lesion in this area have difficulty producing both spoken and written language (Weiten & McCann, 2007; Grodd et al., 2009).

#### **3.5.4 The Link between Speech Perception and Production**

According to Grodd et al. (2009), there is a "tight interrelationship between language perception [and] production" (p. 144) that fMRIs are not able to unravel (see figure 1 below). Often the parts of the brain that are responsible for speech perception and speech production work together in a very short amount of time (Indefrey & Levelt, 2004 as cited by Grodd et al., 2009). Not only is this seen in shadowing, which requires simultaneous listening and speaking, but it is also seen in every day conversation, which requires continuous listening and speaking exchanges (Grodd et al., 2009).



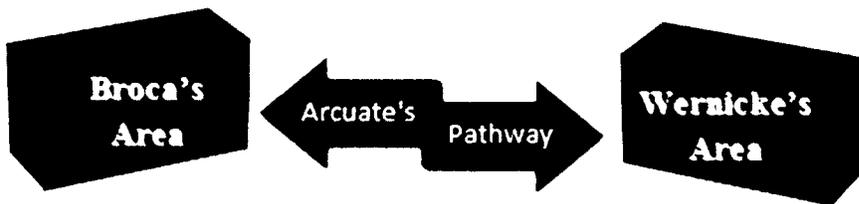
(Grodd et al., 2009)

Hickok and Poeppel (2007 as cited by Grodd et al., 2009) proposed a dual stream model for speech processing. According to this model, the ventral stream, which includes the superior and middle parts of the temporal lobe, is responsible for recognizing, processing and comprehending speech, and the dorsal stream, which includes the posterior frontal lobe, posterior temporal lobe, and parietal operculum, is responsible for transferring heard speech to the frontal lobe in the form of “articulatory representations” (Grodd et al., 2009, p. 143). Particularly, the dorsal stream plays a crucial role in the ability to repeat heard speech (Peschke et al., 2009). Repeated and, especially, shadowed speech clearly reveals the link between the ventral stream and the dorsal stream, since it requires quick and/or simultaneous transfers of auditory input to spoken output.

Further, the temporal lobe (i.e. home to Wernicke’s area and the ventral stream) and the frontal lobe (i.e. home to Broca’s area and the dorsal stream) are connected by the arcuate pathway, or arcuate fasciculus (Grodd et al., 2009; Peschke et al., 2009). The white matter that constructs this pathway enables humans to repeat heard speech (Grodd et al., 2009). In their (2005) study, Catani, Jones and Ffytche (as cited by Peschke et al., 2009) revealed that the arcuate fasciculus is one of two pathways connecting the temporal lobe and frontal lobe. As explained by Peschke et al. (2009), the arcuate fasciculus is the “direct” path; it quickly and automatically produces a spoken representation of auditory input. The indirect pathway, on the

other hand, transfers auditory input from the temporal lobe to the parietal lobe for intervention, such as translation before transferring it to the frontal lobe for production (Peschke et al., 2009). Regardless of the pathway that is used, there is clearly a strong link between speech perception in the temporal lobe and speech production in the frontal lobe. The link between speech perception and production is further illustrated by the fact that people who experience injury to either Wernicke's area or Broca's area fall subject to a condition called aphasia, which hinders their ability to perceive and produce language (Hiramatsu, 2000; Grodd et al., 2009).

Figure 3.2: Articulate Pathway



(Grodd et al., 2009)

### 3.5.5 The Connection between Shadowing and Memory

Hiramatsu (2000) explains that shadowing is an effective activity for language learning, since it has the potential to increase the length of time that students remember the material that they are learning (i.e. shadowing/repeating). According to Hiramatsu (2000), shadowing employs a branch of short-term memory, known as working memory, which is responsible for controlling input while the brain simultaneously performs multiple tasks. The information that is being held in working memory must be repeated (i.e. passed around the “articulatory loop”) in order to be remembered; the faster the information is repeated, the longer it is remembered (Cook, 1996 as cited by Hiramatsu, 2000).

remembered; the faster the information is repeated, the longer it is remembered (Cook, 1996 as cited by Hirmatsu, 2000).

### **3.5.6 The Psychology of Shadowing for Language Learning**

According to Torikai, Tamai, Someya, Tanaka, Tsuruta and Nishimura (2004 as cited by Shiota, 2012), shadowing is an effective language learning activity, because it requires students to pay close attention to the task at-hand. Tamai (2005 as cited by Shiota, 2012) supports this claim, adding that the repetitive nature of shadowing makes it an effective language learning activity, since it allows students to see the progress that they have made. Further, shadowing requires students to be active learners; this activity does not permit them to be passive listeners. For reasons, such as these, Torikai et al. (2004 as cited by Shiota, 2012) suggest that shadowing increases intrinsic motivation. Li-Chi's (2009) research supports Torikai et al.'s (2004) suggestion that shadowing increases learner motivation, revealing that participants were "somewhat more interested or active in learning English after shadowing" (p. 50). However, the participants expressed positive attitudes toward learning English at the onset of the study, and therefore, the difference between their attitudes before and after shadowing was not significant (Li-Chi, 2009). As expressed by Shiota (2012), the effects of shadowing on learner motivation need to be examined further, since very little research has been done on the psychological effects (i.e. motivation and emotions) of shadowing.

### **3.7 Shadowing as a Means of Teaching Pronunciation**

Language teachers and researchers should seriously consider incorporating shadowing as a means of teaching pronunciation, in particular. Babel (2012) cites Goldinger (1998) and Namy, Nygaard and Sauerteig (2002), whose studies in shadowing have revealed that participants

imitate model speakers phonetically. According to Goldinger (1998 as cited by Peschke et al., 2009), the phonological features that are evident in the speech of shadowing participants are often transferred “automatically and unconsciously” from the auditory input of the model to the spoken output of the participant (p. 393).

### **3.7.1 Shadowing to Improve Suprasegmental Features**

Rongna and Ryoko (2012) specifically studied the use of shadowing for teaching pronunciation, and their research yielded encouraging results. In their study, they investigated the use of shadowing to help Japanese as a second language (JSL) students to improve their pitch accent. Shadowing was chosen as a language teaching activity in their study, since correct pitch accent is crucial to comprehensibility in Japanese speech (Rongna & Ryoko, 2012), and shadowing has been shown to “improve prosodic features of ... pronunciation (Mori, 2011 as cited by Rongna & Ryoko, 2012).

The participants in Rongna and Ryoko’s (2012) study shadowed a dialog ten times per week over a period of three weeks; before and after each recorded shadowing activity, the participants read the dialogue aloud. Upon completion of their study, the researchers found that there was a significant improvement in the participants’ pitch accent from the first reading to the final reading. As explained by Rongna and Ryoko (2012), there was a significant difference between reading 1 and 2 and reading 1 and 4, which suggests that pitch accent improved with repeated shadowing (n.p.).

According to Yonehara (1994 as cited by Hiramatsu 2000), shadowing is much more useful as an activity that focuses on pronunciation than as an activity that focuses on content. She claims that shadowing should be used for the following purposes: “acquiring pronunciation,

intonation and natural sentence patterns and expressions” (as cited by Hiramatsu, 2000, p. 315). Hiramatsu (2000) supports Yonehara’s (1994) claim, adding that shadowing has the capability of helping students to improve features of their pronunciation, such as accent and stress.

### **3.7.2 Shadowing to Improve Segmental Features**

Not only do participants pay attention to suprasegmental aspects of pronunciation, such as pitch accent, stress and intonation while shadowing, but research suggests that they also pay attention to segmental features. Nye and Fowler (2003) conducted two shadowing experiments, focusing on the “effect ... [participants’] familiarity with the phonetic patterning of English” (p. 63) had on their imitation of model speakers. All of their twelve adult participants were native English speakers. As explained by Nye and Fowler (2003), participants’ performance in shadowing activities is largely led by their knowledge of the language they are imitating; shadowing productions are more likely to closely resemble the model(s)’ speech if the language being imitated has not already been stored in their memory (Goldinger, 1998). The results of Nye and Fowler’s (2003) study confirmed this statement, revealing that participants are far more likely to accurately imitate phonetic sequences that they are unfamiliar with than phonetic sequences that they know well. From this conclusion, drawn from native English speakers shadowing English, we can hypothesize that EFL/ESL learners would be likely to accurately imitate phonetic sequences while shadowing a native English-speaking model, especially if the sounds presented are not found in their native language.

### **3.7.3 Support for Teaching Pronunciation through Shadowing: Motor theory**

As aforementioned, there is a strong link between speech perception and speech production. One of the most widely referenced explanations of the link between speech

perception and production is Motor Theory, which was originally proposed by Liberman et al. (1967) and Liberman and Mattingly (1985) (Goodman, Lee & DeGroot, 1994). Unlike the dual stream model of speech processing, which suggests that input is perceived as acoustic sounds, Motor Theory suggests that input is perceived as “phonetic gestures” (Goodman et al., 1994; Goldinger, 1998; Peschke et al., 2009). According to Motor Theory, humans perceive spoken input by distinguishing the phonetic gestures, or articulations, that are responsible for its production (Goodman et al., 1994); moreover, their ability to perceive spoken input is strongly connected to their understanding of how it is produced (Best, 1994 as cited by Goodman et al., 1994). Motor Theory claims that speech perception and production activate the same cognitive functions in a “linguistic module [of the brain that] evolved specifically for communication” (Lotto et al., 2009, p. 110); moreover, the shadowing activity reveals that there is a “detailed phonetic signal [that] bridges the relationship between perception and production in speech” (Babel, 2012, p. 178). From a neurological perspective, then, shadowing is an effective way of teaching pronunciation, since it not only activates parts of the brain responsible for listening and speaking, but it also activates parts of the brain responsible for pronunciation. Therefore, shadowing can be considered a holistic approach to teaching pronunciation (Hiramatsu, 2000).

#### **3.7.4 Self-Monitoring and Changing Pronunciation through Shadowing**

Ricard (1986) suggests that shadowing (i.e. on a regular basis) can help adult ESL learners to change fossilized pronunciation. She proposes that shadowing be included in ongoing oral reading assignments, which would unfold as follows: the teacher records a text, and the students shadow the teacher’s recording numerous times before recording their best production. This process would be repeated many times with new teacher-recorded texts for the students to shadow. According to Ricard (1986), incorporating shadowing in such oral reading assignments

allows students to self-monitor their progress; they can listen to their recordings and compare their recent productions with the recordings they made earlier in the course. They can also go back and compare their productions to the teacher-produced recordings. By self-monitoring their progress in this manner, students are developing the ability to correct their pronunciation errors and take responsibility for their own learning (Ricard, 1986).

In an earlier article about changing fossilized pronunciation, Acton (1984) also suggests shadowing (i.e. tracking). He incorporates shadowing in a program for adult ESL learners with at least a post-secondary education, who are working in an English-speaking country but need to improve their “poor communication skills or ‘accent’” (p. 72) in order to advance in their job. Among other daily activities that are intended to help them to improve their pronunciation, Acton (1984) requires that students shadow another person’s speech pattern and mirror their gestures. He describes shadowing (i.e. tracking) as “an intense experience” (p. 77) but claims that it “forces learners to focus on intonation contours, stress and rhythm” (p. 77). Like Ricard (1986), he claims that shadowing provides students with the opportunity to self-monitor their progress in pronunciation improvement.

### **3.8 Conclusions Drawn from Previous Research**

Based on what we know about how the brain perceives and produces language, as well as what shadowing research, such as the aforementioned studies, have revealed about the use of shadowing in the context of applied linguistics, we can conclude that there are many benefits to including shadowing in courses that aim to train language interpreters, teach ESL/EFL listening and speaking skills, and improve target language pronunciation. However, Hiramatsu (2000) warns that shadowing may not be an effective language teaching activity for all students.

Shadowing is a very complex and cognitively demanding activity; therefore, it is more suitable for language learners who already have an intermediate or advanced level of proficiency in the target language (Hiramatsu, 2000; Rongna & Ryoko, 2012).

When deciding whether or not to include shadowing activities in EFL/ESL courses, the teacher must consider the needs of the students: do they need to improve their overall language proficiency or further develop specific areas of weakness (Hiramatsu, 2000). Hiramatsu (2000) cites Torikai (1997), who suggests that shadowing can help students to work on weaknesses in their language skills that are not fully addressed in the communicative approach, such as “vocabulary, prosody, accuracy, critical thinking (logical analysis), and intercultural communication” (p. 313). At the intermediate or advanced level, shadowing can help students to improve skills, such as top-down processing, listening and speaking, which contribute to the development of second language acquisition (Torikai, 1997 as cited by Hiramatsu, 2000). It can also help students to improve their pronunciation, especially suprasegmental features, such as stress and intonation (Hiramatsu, 2000). The current study applies shadowing to the context of oral presentations in EAP courses for the purpose of improving segmental pronunciation and overcoming anxiety. The following chapter will describe the research methodology (i.e. sampling, participants, procedure and materials) and data analysis used in the study.

## Chapter 4

### Method

As explained in chapter one, the current study is a single-participant case study, which primarily investigates the extent to which shadowing can help EAP students to improve their pronunciation in preparation for oral presentations; however, an additional goal is to determine the extent to which shadowing can help students to overcome their anxiety about delivering oral presentations. The study consisted of eight phases of data collection: pre-interview, questionnaire, diagnostic test, written summary, shadowing, presentation rehearsal, in-class presentation and post-interview. The pre-interview, questionnaire and diagnostic provided the researcher with information about the participant's previous ESL experience, pronunciation, familiarity with delivering oral presentations, and level of anxiety about presenting in front of their class. The participant was given two weeks to shadow the written summary that she had prepared about the presentation topic, and which the researcher had edited/recorded. The day before she presented in-class, the participant met with the researcher individually to rehearse the presentation. The researcher used this rehearsal to determine the extent to which the participant's pronunciation of voiceless /th/ and word-final /s/ had improved since the first phase of data collection. The in-class presentation was then used to provide the researcher with information about the participant's level of anxiety about oral presentations before and after shadowing.

The present study is a mixed methods study. Although the majority of past research in applied linguistics has been quantitative in nature (Lazarton, 2005), both quantitative and qualitative research can reveal important information about second language learning. According to Lazarton (2005), there is an important role for quantitative empirical research in applied

linguistics, but not for all research questions, in all social contexts, with all language users” (p. 219). As explained by Sandelowski (2003 as cited by Dorneyi, 2007), using a mixture of quantitative and qualitative research provides the researcher with a “fuller understanding of the target phenomenon” (p. 164). Further, mixed methods research allows the researcher to confirm his or her findings through the process of triangulation (Sandelowski, 2003 as cited by Dorneyi, 2007), which is valuable in research for the purpose of “[ensuring] research validity” (Erzberger & Kelle, 2003 as cited by Dorneyi, 2007, p. 165).

In the present study, both quantitative and qualitative methods were used to answer each of the research questions. In order to answer the first question (i.e. the extent to which shadowing helped the participant to improve her pronunciation), the researcher compared the number of accurate/inaccurate occurrences of the target sounds (i.e. voiceless /th/ and word-final /s/) in the first phase of data collection (i.e. diagnostic and pre-interview) with the number of accurate/inaccurate occurrences in the presentation rehearsal, which took place after the participant had been given two weeks for shadowing. The researcher also used qualitative data that was gathered through semi-structured pre- and post-interviews to determine how the participant perceived her pronunciation, whether or not she thought shadowing helped her to improve her pronunciation, and how she would evaluate shadowing as a pronunciation activity. In order to answer the second question (i.e. the extent to which shadowing helped the participant to overcome anxiety), the researcher relied heavily on qualitative data provided in the pre- and post-interviews. During the pre-interview, the participant rated her level of anxiety about delivering an oral presentation and commented on whether or not she had given a presentation in English before. Then, to determine whether or not shadowing had helped her to overcome anxiety, the researcher asked her, during the post-interview, to compare her level of anxiety at

the presentation rehearsal and the in-class presentation. The researcher also counted and compared the number of accurate/inaccurate occurrences of the target sounds in the presentation rehearsal and in-class presentation, hypothesizing that student anxiety would cause the number of inaccurate occurrences to be higher when the participant presented in front of the whole class rather than just the researcher. Throughout this chapter, the method, procedure and materials used in this study will be explained in further detail.

## **4.1 Method**

### **4.1.1 Sampling**

The researcher employed non-probability, convenience (i.e. opportunity) sampling in recruiting the participant for the study. As explained by Dornyei (2007), in this type of sampling, “members of the target population are selected for the purpose of the study if they meet certain practical criteria, such as geographical proximity, availability at a certain time, easy accessibility, or the willingness to volunteer” (p. 98-99). Convenience, or opportunity, sampling is often used in studies with second language students, since it is most suitable for the researcher to recruit participants from within his or her school (Dornyei, 2007). In the current study, it was necessary for the participant to meet the following criteria: she needed to have an intermediate or advanced level of English, be studying in an English for Academic Purposes (EAP) class, and be required to give an oral presentation as part of her coursework that semester. Further, the teacher of the participant’s EAP class needed to be willing to have her student receive additional help, outside of class time, from the researcher.

With the permission of that year’s EAP coordinator, who strongly believed in the study, the researcher pitched her project to all of the instructors teaching in the EAP program at

Carleton University that summer. One instructor responded with a genuine interest in the project and a willingness to work with the researcher. Therefore, participants were recruited from one 1300 (introductory EAP) level class (see Appendix A). After presenting the study to the class, students were encouraged to voluntarily sign-up to participate. They were informed, by the researcher and their teacher, that participating in the study would not affect their grade in the course; it was strictly a voluntary opportunity for them to practice their presentation and work on their pronunciation.

#### **4.1.2 Participants**

One male and one female volunteered to participate. Both were international students from China, who spoke Mandarin as their first language. The male participant was 19 years old and had studied English for eight months at Algonquin College before enrolling in the EAP program at Carleton University. At the time of the study, he had only been studying at Carleton for two months. He was majoring in Business; however, he was only registered in EAP 1300 at that time. Likewise, the 21 year-old female participant had only been studying English at Carleton for two months. She was majoring in Communication but was only taking EAP 1300 that summer. Unlike the male participant, she had never studied English in an English-speaking country prior to enrolling in the EAP program at Carleton.

Unfortunately, the male volunteer did not fulfill the requirements of the study, so his results were inconclusive. The researcher had asked the participants to submit a shadowing log in which they recorded the dates and times that they shadowed; however, he did not submit a log and was very uncomfortable when asked how many times he had shadowed during the post-interview. He claimed to have shadowed more than 20 times, but the researcher could not

confirm this for the reasons mentioned above. Further, he rewrote his summary after the researcher had recorded it and given it to him for shadowing. When he informed the researcher of his changes, he had not begun shadowing and there was not enough time to record a new summary and still provide him with adequate time for shadowing before the presentation rehearsal and in-class presentation. Therefore, if he had shadowed, he would have been shadowing his original text, which did not match what he planned to present. Not only did he change his summary but he also changed his presentation in between rehearsing it for the researcher and delivering it in class. Upon completion of the study, the researcher found that he did not show any improvements in his pronunciation of voiceless /th/ from the diagnostic test and pre-interview to the presentation rehearsal and in-class presentation, and his pronunciation of word-final /s/ was inconsistent. Since the researcher could not confirm that he had shadowed, his presentations did not match the shadowing text or each other, his pronunciation of voiceless /th/ did not change, and his inconsistent use of word-final /s/ could have been a result of his grammatical knowledge rather than his pronunciation, it was impossible for the researcher to draw conclusions about the effect of shadowing on his pronunciation of the target phonemes. Therefore, only the female participant's data will be presented and analyzed throughout the remainder of the study.

#### **4.2 Procedure and Materials**

The study took place over a period of six weeks and consisted of the following eight phases: pre-interview, questionnaire, diagnostic test, written summary, shadowing, presentation rehearsal, in-class presentation and post-interview. Prior to commencing the study, the participant read and signed a consent form (see Appendix B), which explained the purpose and

requirements of the study, the recording and storage of data, and their right to withdraw at any time.

#### **4.2.1 Pre-Interview**

At the onset of the study, the researcher met with the participant individually and conducted a semi-structured interview (see Appendix C). The purpose of this initial interview was to determine how the participant viewed her English pronunciation, how familiar she was with shadowing, how much experience she had had with giving oral presentations in English, and how comfortable she was with presenting in English. As previously mentioned, the data gathered through this interview was later used in combination with quantitative data and additional qualitative data from the post-interview to provide information about the participant's pronunciation and anxiety before and after shadowing.

#### **4.2.2 Questionnaire**

As well as answering interview questions, the participant also completed a questionnaire (see Appendix E) about her previous experience with English. The questionnaire was adapted from *The Language Contact Profile* by Freed, Dewey, Segalowitz and Halter (2004). The researcher chose to use an adaptation of Freed et al.'s (2004) questionnaire in the current study, since it met her goal of discovering important background information about the participant, such as her "demographics, language-learning history, contact with native speakers, [and] use of the [target] language..." (Freed et al., 2004, p. 349). As explained by Freed et al. (2004), researchers often spend a large amount of time creating questionnaires that will aid them in learning about their participants' previous experience with English; however, *The Language Contact Profile* can be used and modified by researchers in order to save them from "reinventing" the process (p.

349). It was adapted from earlier questionnaires, which were developed by well-known researchers, such as Seliger (1977), Bialystok (1978), Day (1985), Spada (1986) and Freed (1990; 1995), and since used in numerous studies (e.g. Kohro, 2001; Paige, Cohen, Kappler, Chi, & Lassegard, 2002; Dewey, 2002) (Freed et al., 2004). *The Language Contact Profile* by Freed et al. (2004) includes questions that target each of the four skills; however, the purpose of the questionnaire in the current study was to investigate the participant's prior use of spoken English and exposure to English pronunciation. For this reason, the researcher condensed the original questionnaire, only including questions that dealt with speaking and listening.

#### **4.2.3 Diagnostic Test**

During the first meeting, the researcher also conducted a diagnostic test with the participant. The text used for diagnostic testing (see Appendix F) was "Reading 3" in *Well Said* by Linda Grant (1993, p. 7). The purpose of the diagnostic test was to aid the researcher in identifying segmental aspects (i.e. phonemes) of pronunciation that the participant had difficulty producing accurately. The researcher chose to use the reading passage from *Well Said*, which was adapted from a journal article by Hall (1976) in *Psychology Today*, for diagnostic testing, since it contains a wide variety of phonological segments and has academic vocabulary and content. Further, using the text from *Well Said* made sense, since Grant (1993) had specifically designed it for this purpose. In the first chapter of the textbook, she explained that the reading text(s) (among other activities) were intended to make the students and teacher aware of the students' pronunciation difficulties. As explained by Grant (1993), the researcher informed the participant that she should "read [the text] as naturally as possible" (p. 1).

Although there has been an emphasis on suprasegmentals in the recent history of pronunciation teaching and research (e.g. Pennington & Richards, 1986; Pennington, 1989; Deng

et al., 2009), the researcher chose to focus on segmental aspects of pronunciation in the present study for a number of reasons. First, research by Derwing and Rossiter (2002) revealed that students commonly self-identify their pronunciation difficulties as segmental. According to their study, 84% of the 61 participants, who were able to identify their pronunciation problems, claimed that they had trouble with phonological segments. Many of the participants specifically mentioned that they had difficulty pronouncing /th/. Second, students believe in pronunciation instruction that focuses on the improvement of segmental. After incorporating a number of pronunciation activities in her class, Kendrick (1997) found that students specifically commented on their “faith in phoneme practice” (p. 557). Third, inaccurate pronunciation of segments can interfere with the intelligibility and comprehensibility of an ESL learner’s speech, especially if the segment has a high functional load (Munro & Derwing, 2006). As explained in chapter two, of the two phonemes under investigation in the current study, voiceless /th/ has a higher functional load than word-final /s/, especially since the participant replaced it with /s/, which is an acoustically distinct phoneme (Brown 1974 as cited by Brown, 1991). Finally, improving segmentals can lead to the improvement of other aspects of pronunciation and communication. As stated by Pennington and Richards (1986), “phonological segments are the building blocks for higher levels of meaning” (p. 208).

#### **4.2.4 Written Summary**

Since the purpose of the current study was to determine whether or not shadowing could help students to improve their pronunciation during oral presentations, the researcher concluded the initial meeting by asking the participant to submit a one-page written summary about her presentation topic (see Appendix G). The researcher emphasized that the assignment was to write a *summary* of what her presentation was going to be about – not to write her presentation word-

for-word. This detail was crucial in order to prevent the participant from memorizing what she would later shadow. However, the researcher encouraged her to include vocabulary items that she planned to use in her presentation. Including the same vocabulary items in her summary that she would include in her oral presentation would allow her to practice her pronunciation by shadowing the researcher's model; further, it would allow the researcher to determine whether or not the participant had made improvements in her pronunciation. The deadline for submission of the summary was two weeks later in order to provide the participant with adequate time for shadowing before the rehearsal and actual delivery of her presentation.

Although the focus of the study was spoken language (i.e. pronunciation), the researcher asked the participant to submit a written summary of her presentation topic because she wanted her to have an authentic text to shadow – a text that would resemble the actual task that she was preparing for (i.e. oral presentation) (Schweda-Nicholson, 1990). The researcher believed that having the participant write her own shadowing text would ensure that the text included words that the participant planned to use in her presentation. Further, summary-writing is a common task in EAP courses, and it would provide the participant with an extra opportunity to plan and prepare for her presentation. Throughout the study, the researcher sought to incorporate pronunciation in the regular EAP course material (i.e. vocabulary learning, summary writing, and oral presentations), since previous research (e.g. Morley, 1991b) has suggested that pronunciation should not be treated as an isolated component of language learning.

#### **4.2.5 Audio-Recorded Summary**

Once the researcher had received the participant's written summary, she edited it for incorrect grammar and vocabulary usage. After correcting the participant's summary, she made

an audio recording of herself reading it (see Appendix H). She also recorded herself reading a text (i.e. “Reading 2”) from *Well Said* (see Appendix I), which would be used when teaching the participant how to shadow. The sample shadowing text from *Well Said* was chosen because of its length (i.e. just over one minute) and academic content (i.e. intercultural communication). In other words, it resembled the texts that the participant would shadow in preparation for her oral presentations (Schweda-Nicholson, 1990).

#### **4.2.6 Shadowing**

After recording the participant’s summary, the researcher held a second meeting with her in order to teach her how to shadow. The participant met the researcher and practiced shadowing “Reading 2” from *Well Said*. In the current study, the participant was expected to use adjusted lag shadowing; therefore, the researcher explained that she should stay three words behind her in the recording, closely following her voice in order to catch every word and sound (Lambert, 1988; Schweda-Nicholson, 1990). During this learning session, the researcher demonstrated how to shadow by shadowing the text that she had read and recorded from *Well-Said*. Following the researcher’s example, the participant then practiced shadowing the text. Based on Luo’s (2008) claim that shadowed speech is often incomprehensible, especially when the students are unfamiliar with shadowing, the researcher told the participant that it was all right if she struggled with shadowing the first few times and missed some of the words/sounds throughout the recorded text. The purpose of the present study was to determine the outcome of shadowing, not to investigate the shadowing process itself – reading aloud while listening to and repeating the audio-recorded summary.

At the close of the meeting, the researcher explained to the participant that she had emailed her an audio-recording of the summary that they had written about their presentation topic. She told the participant that she should shadow the summary 20 times over the next two weeks, leading up to their presentation rehearsal and in-class presentation. She asked the participant to keep a written log of her shadowing, recording the number of times that she shadowed and the date and time of each of those occurrences. Throughout the previous shadowing research, there is no consensus on how many times a text should be shadowed; usually, specific numbers are not given. However, in their study of shadowing as a means of improving pitch and accent in Japanese as a foreign language (JFL), Rongna and Ryoko (2012) required their participants to shadow a text 10 ten times in three sessions over a period of seven weeks. Based on this model, the researcher asked the participant to shadow 20 times, or 10 times per week.

#### **4.2.7 Presentation Rehearsal**

The day before the in-class presentation, the participant met with the researcher to rehearse her presentation (see Appendix K). The purpose of the presentation rehearsal was to give the participant an opportunity to practice her presentation for a one-person audience before delivering her presentation in front of their teacher and classmates. Based on previous studies (e.g. Woodrow, 2006; Bankowski, 2010) about student anxiety, the researcher hypothesized that the participant would feel less anxious and, therefore, make fewer pronunciation errors during the rehearsal than they would during the actual in-class presentation. The researcher recorded the participant's presentation rehearsal in order to compare her pronunciation before and after shadowing. The purpose of this phase of data collection was to answer the following research question:

To what extent does shadowing help EAP students to improve their pronunciation of target phonemes (i.e. segmentals) in preparation for oral presentations?

#### **4.2.8 In-class Oral Presentation**

On presentation day, the researcher attended the class and recorded the participant's oral presentation (see Appendix L). The purpose of recording and analyzing the participant's in-class presentation was to compare her pronunciation at that time to her pronunciation during the rehearsal the previous day. Through this stage of data collection, the researcher sought to answer the following question:

To what extent does shadowing help EAP students to overcome their anxiety about oral presentations?

#### **4.2.9 Post-interview**

After the in-class presentations, the participant met with the researcher one last time in order to answer some final interview questions. During this semi-structured interview (see Appendix M), the researcher asked the participant about her use and assessment of shadowing (i.e. how many times they had shadowed the audio-recorded summary at home, how she would evaluate shadowing as a pronunciation activity, and whether or not she thought that shadowing had helped her to improve her pronunciation) as well as her level of anxiety during the presentation rehearsal and in-class presentation (i.e. whether it was the same, lower or higher during each of these presentation deliveries). The purpose of the post-interview was to provide the researcher with a qualitative account of the participant's experience with shadowing and feelings of anxiety while presenting.

### 4.3 Data Analysis

In order to determine the impact of shadowing on the participant's pronunciation, the researcher assessed the participant's pronunciation of the target sounds in the diagnostic test and pre-interview and then again in the presentation rehearsal. The number of accurate and inaccurate occurrences of each target sound in the diagnostic, pre-interview and presentation was recorded and compared. To determine the impact of shadowing on the participant's presentation anxiety, the researcher compared her pronunciation of the target sounds during the presentation rehearsal and in-class presentation. The researcher hypothesized that the participant's anxiety would cause the number of accurate occurrences of the target sounds to be higher in the presentation rehearsal than the in-class presentation.

The results of the study are presented in the following chapter.

## Chapter Five

### Results

This chapter presents the results of the current study. It presents both qualitative and quantitative data. Firstly, the participant's questionnaire is analyzed in order to gain an understanding of her previous experience with English, particularly, her experience with listening and speaking. Secondly, the participant's pronunciation at the onset of the study is analyzed through the use of a diagnostic test and pre-interview. The pre-interview is also analyzed in order to learn about her experience with preparing for and delivering oral presentations. Thirdly, the text that the participant used for shadowing is then analyzed in order to determine the number of times that the target phonemes (i.e. voiceless /th/ and word-final /s/) were shadowed. Fourthly, the participant's pronunciation of voiceless /th/ and word-final /s/ is analyzed in the presentation rehearsal and compared to her pronunciation in the diagnostic test and pre-interview in order to determine the effectiveness of shadowing as a means of helping them to improve her pronunciation. Finally, her pronunciation of voiceless /th/ and word-final /s/ is analyzed in the in-class presentation and compared to the presentation rehearsal in order to determine the effectiveness of shadowing as a means of helping her to overcome her oral presentation anxiety. The post-interview is also analyzed to gain a fuller understanding of the participant's use and evaluation of shadowing, perception of improvement, and feelings of anxiety.

#### 5.1 Questionnaire

In the beginning of the study, the participant completed a questionnaire adapted from *The Language Contact Profile* by Freed et al. (2004), which asked her about her previous experience

with English (see Appendix E). The first half of the questionnaire specifically dealt with her language use at home and school. Her answers revealed that she had primarily used her first language, Mandarin, in her home and pre-college education; however, she had studied English for more than two years in elementary school, secondary school, and college/university. At the time of the questionnaire, she had only been studying English (i.e. EAP) at Carleton University for two months, and she had never studied in any other English-speaking country. Therefore, almost all of the English language teaching that she had received up to that point had been from her teachers in China.

The second half of the questionnaire specifically dealt with her use of English listening and speaking skills. According to her responses on the questionnaire, prior to the start of the semester, she had only spoken English with native or fluent speakers a few times throughout the year. Similarly, throughout the year, she had only used English to speak with her teacher outside of class or communicate with English-speaking strangers a few times. Further, she claimed that she never spoke English with her friends, classmates or service personnel in stores/businesses, and she had never been in a situation that required her to speak English with a host-family. Although her answers to the speaking questions revealed that she rarely used English for spoken communication, her answers to the listening questions revealed that she took advantage of more opportunities to practice her English listening skills. For instance, a few times a year, she watched English television; monthly, she watched English movies; and weekly, she listened to English music.

The results of the questionnaire revealed important information about the participant's practice with and exposure to English pronunciation. Although she heard English pronunciation through English classes and media in China, she had few opportunities to practice her own

English pronunciation through oral communication. Further, it is quite possible that the majority of English she listened to was not produced by native speakers and, therefore, she may not have learned accurate pronunciation of segmental and/or suprasegmental aspects of native-like English.

## 5.2 Pre-interview

During the initial meeting with the researcher, the participant also responded to five semi-structured interview questions (see Appendix C). The first interview question asked the participant to rate her English pronunciation on a scale of 1 to 10, with one being incomprehensible and 10 being near native. The researcher explained the terms *incomprehensible and near-native*, and in response to this question, the participant gave herself a four out of 10; however, the participant's answer suggests that she still did not fully understand what was being asked of her. For clarification, the researcher re-explained the question, simply stating that on the scale of 1 to 10, one means that people do not understand your pronunciation and 10 means that you sound just like a Canadian English speaker. After this explanation, the participant laughed and confirmed her answer, but her justification for her rating was not very clear or related to pronunciation. She explained that she felt nervous when she spoke with Canadians and didn't know what to say. She also commented about understanding, but it was not clear whether she was referring to her understanding of Canadians or Canadians' understanding of her.

The second interview question dealt with the participant's awareness of her pronunciation difficulties, specifically asking her to identify sounds that she had a hard time producing in English. Again, the participant did not seem to understand the question. Rather than identifying

pronunciation problems, she explained that she did not know how to create sentences to accurately describe her thoughts. The researcher re-explained the question, and then the participant claimed that she did have difficulty pronouncing an English sound, but she could not remember it at that time.

The third interview question addressed shadowing. The researcher explained that shadowing is an activity in which you listen to and simultaneously repeat a text, and then asked the participant if she had done this activity before. In response to this question, the participant explained that she had tried shadowing before but was unable to do it. She informed the researcher that her teacher in China had told her that shadowing is a good way to improve English, but the teacher did not use shadowing in class; he or she simply encouraged the students to try shadowing at home on their own, suggesting that they shadow English movies, since they are interesting and easy to follow.

The fourth interview question asked the participant if she had ever given an oral presentation in English before. The participant explained that she had given one oral presentation in English. The presentation had been in an IELTS class, and she believed that her “speaking English [was] very bad, so [the] presentation [was] very bad” (Participant, July 13, 2012). The presentation had been about a city and the type of food you would find there.

The final interview question dealt with anxiety. The researcher asked the participant to rate her level of anxiety about giving an oral presentation in English on a scale of 1 to 10, with one being very low and 10 being very high. The participant responded by giving her level of anxiety a seven. When asked why she gave herself a seven out of 10, she justified her rating as follows:

“Uh, because I have to, uh, use English [to] say a long thing... I don't know why, uh, because, uh, if not another, um, classmate I will feel better, but if I feel all the classmates look at me, I say, wow, I feel very nervous” (Participant, July 13, 2012).

She further explained that she was nervous about not being able to describe her thoughts and, therefore, not being understood by her teacher and classmates.

### 5.3 Diagnostic

Before concluding the initial meeting, the researcher conducted a diagnostic test (see Appendix F) with the participant. After analyzing the diagnostic test, the researcher found that the participant had difficulty pronouncing the following two phonemes: /θ/ (i.e. voiceless *th*) and word-final /s/. The fact that the participant struggled with the pronunciation of these two phonemes in particular is not surprising, since they are problematic sounds for Chinese speakers to pronounce (Chang, 1987). The mispronunciation of voiceless /θ/ is a common error among Chinese speakers of English as a second/foreign language, since this sound is not found in Chinese (Chang, 1987, p. 311). According to Chang (1987), Chinese speakers tend to substitute voiceless /θ/ with /t/, /s/ or /f/ (p. 311). Likewise, it is common for Chinese speakers of English to struggle with the pronunciation of word-final /s/, especially if the word ends in a consonant, due to the fact that Chinese words do not usually end in consonant clusters (Chang, 1987; Murcia, Brinton & Goodwin, 1996). For this reason, Chinese speakers tend to drop the /s/ at the end of English words or insert a schwa between a word-final consonant and /s/ (Chang, 1987). As an example, a Chinese speaker might pronounce the word *cats* as [kæt] or [kætez].

### 5.3.1 Voiceless /th/

The diagnostic only presented two instances of a voiceless /th/; however, the participant pronounced each voiceless /th/ as an /s/. Since the diagnostic presented such a small number of occurrences, the researcher analyzed the participant's pre-interview (see Appendix D) in order to find additional instances of /th/. Throughout the pre-interview, the female participant used a voiceless /th/ three times. As was hypothesized, she struggled with the pronunciation of /th/ throughout the pre-interview as well, pronouncing each occurrence of voiceless /th/ as an /s/.

All 5 times that the female participant used a voiceless /th/ throughout the diagnostic test and pre-interview, she did not pronounce it accurately (see Table 5.1 below). Interestingly, each of the 5 instances of a voiceless /th/ occurred in the word *think(s)*.

**Table 5.1: Participant's Pronunciation of Voiceless /th/ in Diagnostic and Pre-Interview**

Phoneme	Occurrences	Words Including Target Phoneme	Number of Accurate Occurrences	Percentage of Accurate Occurrences	Number of Inaccurate Occurrences	Percentage of Inaccurate Occurrences
/th/	5  diagnostic + pre-interview	think(s)	0	0%	5	100%

### 5.3.2 Word-final /s/

The diagnostic test presented 17 instances of an /s/ in word-final position. The participant did not pronounce (i.e. omitted) the /s/ in numerous instances; however, her inaccurate pronunciation of this phoneme was not as consistent as her inaccurate pronunciation of voiceless /th/. In order to gain additional information about the participant's pronunciation of word-final

/s/, the researcher analyzed her use of this phoneme throughout the pre-interview (see Appendix D) as well. The participant used words that included/should have included a final /s/ 23 times during the interview. As was found in the diagnostic, she omitted the /s/ in her pronunciation of many of these words.

The researcher carefully considered whether or not to include word-final /s/ as a pronunciation difficulty to be analyzed, since the omission of /s/ could be considered an issue of morphology rather than phonology. In other words, the participant's inaccurate pronunciation of /s/ could have been a grammatical error (e.g. subject-verb agreement or verb tense) rather than a pronunciation error. The decision to include word-final /s/ was based on the fact that the pronunciation of the morpheme /s/ affects meaning; it marks a word as plural or present tense, for instance. Therefore, not pronouncing word-final /s/ can affect the listener's comprehension of the speaker's speech.

Whether the participant's omission of word-final /s/ was solely a pronunciation problem or it was also due to incorrect grammar, the researcher speculated that shadowing could help her to improve her pronunciation of this phoneme, since previous research (Liu, 2002; Li-Chi, 2009; Wood, 2009a, b) suggests that shadowing can be used to help second/foreign language learners in a number of ways. As discussed in chapter three, shadowing can lead to the improvement of general listening and speaking skills (e.g. Hiramatsu, 2000; Li-Chi, 2009), since it requires students to develop the ability to listen and speak simultaneously. Liu (2002 as cited by Li-Chi, 2009) argues that students should shadow speakers, who display "clear pronunciation, correct grammar, conscientious and careful diction, and appropriate speaking speed" (p. 21), which suggests that shadowing can help students to improve in each of these areas. Further, Wood (2009a) used shadowing to teach engineering students formulaic sequences and help them to

become more fluent English speakers in the workplace, instructing the students to pay attention to the model speaker's "hesitation patterns and intonation contours" (p. 327). According to Wood (2009b), shadowing can be used to help students with the "automatization" of language input.

Of the 19 times that a word-final /s/ occurred in the diagnostic, the female participant accurately pronounced 13 and inaccurately pronounced 6 (see Table 5.2 below). Similarly, she pronounced 15 of the 23 occurrences of word-final /s/ in the pre-interview accurately, and she pronounced 8 inaccurately. The fact that the number of accurate and inaccurate occurrences of /s/ in the pre-interview was so similar to the number in the diagnostic is important to note, since the pre-interview provided the participant with an opportunity to speak more freely and in a more relaxed environment than the diagnostic (i.e. speaking vs. reading). The pre-interview clearly illustrates her pronunciation of word-final /s/ in everyday speech; moreover, an analysis of the pre-interview and diagnostic together reveals that the pronunciation of word-final /s/ is truly problematic for her.

**Figure 5.2: Participant's Pronunciation of Word-Final /s/ in Diagnostic and Pre-Interview**

Phoneme	Occurrences	Words Including Target Phoneme	Number of Accurate Occurrences	Percentage of Accurate Occurrences	Number of Inaccurate Occurrences	Percentage of Inaccurate Occurrences
/s/	42 diagnostic + pre-interview	thinks (2), cultures (2), outlooks (1), relationships (1), classifies (1), circumstances (1), words (1), themselves (1),	28	66.6%	14	33.3%

		negotiates (1), promises (1), happens (1), connections (1), always (1), generates (1), examples (1), individuals (1), differences (1), attitudes (1), schools (2), means (3), sometimes (4), ladies (4), friends (1), Canadians (1), Tim Hortons (1), essays (1), perhaps (1), studies (1), IELTS (3) classmates (1)				
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#### 5.4 Summary of Presentation Topic

After editing and recording the participant's written summary of her presentation topic (see Appendix H), the researcher counted the number of times that a voiceless /th/ and a word-final /s/ occurred throughout the text. The instances of voiceless /th/ and word-final /s/ were later multiplied by the number of times that the participant shadowed in order to determine the effectiveness of shadowing as a means of helping her to improve her pronunciation of these phonemes. Asking the participant to write a summary of her presentation topic was useful for data collection, since it required her to include vocabulary items that she would use during her

presentation rehearsal and in-class presentation. It provided the participant with the opportunity to design a text for shadowing that was authentic because it resembled the task (i.e. oral presentation) that she was preparing for (Schweda-Nicholson, 1990; Acton, 1984). Further, the fact that the written summary included some but not all occurrences of the target phonemes found in the presentation rehearsal and in-class presentation provided the researcher with a means of comparing the participant's pronunciation of voiceless [th] and word-final [s] in shadowed and non-shadowed words.

The participant's summary included 6 instances of voiceless /th/ and 6 instances of word-final /s/ (see Table 5.3 below).

**Table 5.3: Occurrence of Target Phonemes in Participant's Edited and Recorded Summary**

Phoneme	Word	Number of Occurrences
/th/	seventy-three	1
	Death	1
	Thought	1
	Groupthink	3
/s/	seconds	1
	Astronauts	1
	Fields	1
	Reveals	1
	Characteristics	1
	Mindguards	1

## 5.5 Shadowing

As discussed in the previous chapter, the participant was required to submit a log in which she wrote the number of times that she shadowed the researcher's recording of her summary. She was asked to include the date and time of shadowing beside each entry. The main purpose behind asking the participant to keep a log of her shadowing was simply to confirm

whether or not she shadowed the required 20 times. However, a secondary purpose was to provide the researcher with information about how evenly they had spread their shadowing out between the two weeks.

According to the log that she submitted (see Appendix J), the participant shadowed the recording of her summary 14 times. The information that she recorded in her log revealed that she had done all of her shadowing in three days, rather than two weeks. Her presentation rehearsal was on August 15, 2012, and her three days of shadowing were August, 10, 13 and 14. On the first day, she shadowed the recording twice in a row; on the second day, she shadowed nine times in a row; and on the third day, she shadowed three times in a row. Based on the information that she provided, the researcher concluded that the female participant had shadowed voiceless /th/ 84 times and word-final /s/ 84 times (see Table 5.4 below).

**Table 5.4: Participant's Shadowing of Target Phonemes**

Phoneme	Word	Number of Occurrences	Number of Times Summary was Shadowed	Number of Times Word was Shadowed
/th/	seventy-three	1	14	14
	Death	1	14	14
	Thought	1	14	14
	Groupthink	3	14	42
				<b>Total = 84</b>
/s/	seconds	1	14	14
	Astronauts	1	14	14
	Fields	1	14	14
	Reveals	1	14	14
	Characteristics	1	14	14
	Mindguards	1	14	14
				<b>Total = 84</b>

## 5.6 Presentation Rehearsal

### 5.6.1 Voiceless /th/

Throughout the presentation rehearsal (see Appendix K), the female participant used a voiceless /th/ 22 times. Of the 22 times that she used this phoneme, she pronounced it accurately 20 times and inaccurately 2 times (see Table 5.5 below). This is in sharp contrast to her pronunciation of voiceless /th/ during the diagnostic test and pre-interview in which all 22 instances of this phoneme were pronounced as an /s/.

Interestingly, both inaccurate occurrences of voiceless /th/ were preceded by a stumble in the participant's speech. Her first inaccurate pronunciation of this phoneme occurred about halfway through the presentation rehearsal in the following sentence:

“In the mode, thinking of the, thinking that persons interested in one concurrence of thinking becomes so dominant in the cohesive, cohesive in-group that tends to, that tends to, uh, override a realistic appraisal of alternative course of action” (Participant, August 14, 2012).

As evidenced by the fillers and repetition throughout this sentence, the participant struggled to deliver the content in this part of the presentation. What is especially important to note, though, is where she pronounced voiceless /th/ inaccurately in this instance, since this sentence contains three voiceless /th/s – all occurring in the word, *thinking*. When presenting this sentence, she pronounced the first two occurrences of voiceless /th/ accurately and the last one inaccurately. Although she was struggling with the content when she used the first two /th/s, she was struggling with the pronunciation of a new vocabulary word when she used the last /th/; she had an extremely difficult time pronouncing the word, *concurrence*, just two words before her

inaccurate /th/. It is likely that she inaccurately pronounced the /th/ after *concurrency* because she was flustered from her obvious struggle with the pronunciation of this word. It seemed as though she rushed away from this word, without taking the time to carefully articulate the /th/ immediately following it.

The second occurrence of an inaccurate voiceless /th/ was toward the end of the presentation rehearsal. This time her inaccurate /th/ was at the beginning of a sentence, following a sentence that she had stumbled in:

“They feel that opinion of opposition is too stupid and NASA’s officials never seriously considered the decision raised by, sorry, the suggestion raised by MTI’s engineers. They thought that they completely knew the nature of the joint, of joint problem” (Participant, August 14, 2012).

Not only did the participant stop to correct her vocabulary choice but she also stumbled over the word, *considered*, which preceded her vocabulary mistake. Her hesitation and vocabulary error may have caused her to use the subsequent /th/ without thinking about accuracy of articulation.

**Table 5.5: Comparison of Participant’s Pronunciation of Voiceless /th/ in Diagnostic and Presentation Rehearsal**

<b>Diagnostic + Pre-interview</b>	<b>Number of Occurrences</b>	<b>Number of Accurate Occurrences</b>	<b>Percentage of Accurate Occurrences</b>	<b>Number of Inaccurate Occurrences</b>	<b>Percentage of Inaccurate Occurrences</b>
	22	0	0%	22	100%
<b>Presentation Rehearsal</b>	22	20	90.9%	2	9.0%

The majority of words including a voiceless /th/ that the participant used in her presentation rehearsal were words that she had shadowed in her summary; however, her presentation rehearsal also included a small number of words that she had not shadowed (see Table 5.6 below). After separately analyzing the words that had been shadowed and the words that had not been shadowed, the researcher found that the participant pronounced 18 of the 20 shadowed words accurately and both of the non-shadowed words accurately. This suggests that shadowing seemed to have helped the participant to improve her pronunciation of voiceless /th/ in both shadowed and non-shadowed words. Moreover, it seems that she was able to transfer the pronunciation of voiceless /th/ that she had learned through shadowed words to contexts (i.e. words) that she had not specifically practiced.

**Table 5.6: Analysis of Occurrences of Voiceless /th/ Included in Participant's Presentation Rehearsal**

	Number of Occurrences	Words Target Phoneme Occurred in	Number of Accurate Occurrences	Percentage of Accurate Occurrences	Number of Inaccurate Occurrences	Percentage of Inaccurate Occurrences
<b>Words Shadowed in Summary</b>	20	three (8), seventy-three (1), death (1), thought (1), groupthink (5), think(ing) (4)	18	90%	2	10%
<b>Words not Shadowed in Summary</b>	2	thanks (2)	2	100%	0	0%

<b>Total</b>	22		20	90.0%	2	9.0%
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### 5.6.2 Word-final /s/

Since word-final /s/ serves grammatical purposes, such as marking plural nouns and present tense verbs in English, it is not surprising that the participant's presentation rehearsal included many words that included/should have included a final /s/. Throughout her presentation rehearsal, there were 43 occurrences of words that required a final /s/. She accurately pronounced the /s/ more times and omitted the /s/ fewer times in the presentation rehearsal than she did in the diagnostic + pre-interview (see Table 5.7 below).

Of the 43 instances in which a word-final /s/ occurred/should have occurred throughout the participant's presentation rehearsal, she pronounced word-final /s/ accurately 34 times and inaccurately 9 times. A comparison of her pronunciation of this phoneme in the diagnostic + pre-interview and the presentation rehearsal reveals an improvement of 13% (see Table 5.7 below).

Unlike the inaccurate occurrences of voiceless /th/ in the presentation rehearsal, the inaccurate occurrences of word-final /s/ seemed to be random and unexplainable, which leads back to the question of whether word-final /s/ is a phonological or morphological issue. It is possible that some of the omitted /s/s were grammatical errors, rather than pronunciation problems.

**Table 5.7: Comparison of Participant's Pronunciation of Word-final /s/ in Diagnostic + Pre-interview and Presentation Rehearsal**

<b>Diagnostic + Pre-interview</b>	<b>Number of Occurrences</b>	<b>Number of Accurate Occurrences</b>	<b>Percentage of Accurate Occurrences</b>	<b>Number of Inaccurate Occurrences</b>	<b>Percentage of Inaccurate Occurrences</b>
	42	28	66.6%	14	33.3%
<b>Presentation Rehearsal</b>	43	34	79.0%	9	20.9%

Six of the 43 occurrences of a word-final /s/ in the participant's presentation rehearsal were found in words that she had shadowed in her summary (see Table 5.8 below). Four of the 6 shadowed occurrences were accurate, and 2 were inaccurate. Of the 37 instances of non-shadowed word-final /s/s, 30 were accurate, and 7 were inaccurate. This suggests that shadowing seemed to have helped the participant to improve her pronunciation of word-final /s/ in both shadowed and non-shadowed words. As with voiceless /th/, it seems that she was able to transfer the pronunciation that she had learned through shadowing to other contexts (i.e. words), which she had not practiced with shadowing.

**Table 5.8: Analysis of Occurrences of Word-final /s/ Included in Participant's Presentation Rehearsal**

	<b>Number of Occurrences</b>	<b>Words Target Phoneme Occurred in</b>	<b>Number of Accurate Occurrences</b>	<b>Percentage of Accurate Occurrences</b>	<b>Number of Inaccurate Occurrences</b>	<b>Percentage of Inaccurate Occurrences</b>
<b>Words Shadowed in Summary</b>	6	seconds (1), astronauts (2), characteristics (1),	4	66.6%	2	33.3%

		mindguards (2)				
<b>Words not Shadowed in Summary</b>	37	aspects (1), stakeholders (4), cells (1), centers (6), engineers (2), aeronautics (1), boosters (1), persons (1), becomes (1), tends (2), symptoms (1), occurs (1), members (3), commissions (1), exists (1), standards (1), works (1), discounts (1), warnings (1), officials (3), accepts (1), means (1), details (1)	30	81.0%	7	18.9%
<b>Total</b>	43		34	79.0%	9	20.0%

### 5.7 In-class Presentation

As explained in the previous chapter, the researcher attended and recorded the participant's in-class oral presentations in order to analyze whether or not the pronunciation improvements that she had demonstrated while rehearsing her presentation for the researcher were still evident when she delivered her presentation in front of her teacher and classmates. According to

Woodrow (2006), speaking in class (i.e. asking and answering questions, participating in and leading discussions, and delivering oral presentations) is a major source of anxiety for ESL speakers in North American universities. In the current study, the researcher sought to determine whether or not shadowing could help ESL students in EAP classes to overcome their anxiety about delivering oral presentations. In order to answer this research question, the researcher analyzed the participant's pronunciation of target phonemes throughout the in-class presentation (see Appendix L) and compared her performance to the presentation rehearsal. The researcher hypothesized that there would be fewer accurate occurrences of voiceless /th/ and word-final /s/ during the in-class presentation than there were during the presentation rehearsal due to participant anxiety. After analyzing the participant's pronunciation of these phonemes throughout the in-class presentation, the researcher found this hypothesis to be validated.

### **5.7.1 Voiceless /th/**

The number of occurrences of voiceless /th/ should have been the same (or at least very similar) in the participant's presentation rehearsal and in-class presentation, since she was expected to present what she had rehearsed for the researcher the previous day. This was the case for the participant, who simply omitted 2 of the voiceless /th/s from her rehearsal.

During her in-class presentation, the participant used a voiceless /th/ 20 times. She pronounced 10 out of the 20 voiceless /th/'s accurately and 10 inaccurately (see Figure 5.9 below). Therefore, the number of times that she accurately pronounced voiceless /th/ throughout the in-class presentation was 40.9% lower than the number of times she had accurately pronounced this phoneme throughout the presentation rehearsal.

Half of the occurrences of inaccurate /th/ were inaccurate, and these occurrences were spread throughout the entire in-class presentation. From the beginning to the end of the presentation, she hesitated a lot, stumbled over her words and struggled with pronunciation (i.e. not just of the target phonemes). Therefore, the researcher could not conclude that her inaccurate pronunciation of voiceless /th/ was due to these factors in this case. It is likely that she was not thinking about articulating the phonemes that she had shadowed accurately while she was presenting in class, because she was nervous (i.e. anxious).

**Table 5.9: Comparison of Participant’s Pronunciation of Voiceless /th/ in Presentation Rehearsal and In-class Presentation**

<b>Presentation Rehearsal</b>	<b>Number of Occurrences</b>	<b>Number of Accurate Occurrences</b>	<b>Percentage of Accurate Occurrences</b>	<b>Number of Inaccurate Occurrences</b>	<b>Percentage of Inaccurate Occurrences</b>
	22	20	90.9%	2	9.0%
<b>In-class Presentation</b>	20	10	50%	10	50%

Only 2 of the 20 occurrences of a voiceless /th/ throughout the in-class presentation were found in words (i.e. third and thanks) that the participant had not shadowed. Interestingly, she pronounced the /th/ accurately in both of these non-shadowed words while presenting in class; all 10 inaccurate pronunciations of voiceless [th] were found in words that she had shadowed (see Table 5.10 below).

**Table 5.10: Analysis of Occurrences of Voiceless /th/ Included in Participant's In-class Presentation**

	Number of Occurrences	Words Target Phoneme Occurred in	Number of Accurate Occurrences	Percentage of Accurate Occurrences	Number of Inaccurate Occurrences	Percentage of Inaccurate Occurrences
<b>Words Shadowed in Summary</b>	18	three (8), groupthink (5), death (2), think/ing (3)	8	44.4%	10	55.5%
<b>Words not Shadowed in Summary</b>	2	third (1), thanks (1)	2	100%	0	0%
<b>Total</b>	20		10	50%	10	50%

### 5.7.2 Word-final /s/

The participant used fewer word-final /s/s in her in-class presentation than she did in her presentation rehearsal (see Table 5.11 and 5.12 below). The reason for this is that she hesitated and repeated herself in different places than she did throughout the presentation rehearsal.

Of the 32 occurrences of a word-final /s/ in the female participant's in-class presentation, she pronounced the /s/ accurately 24 times and inaccurately pronounced (i.e. omitted) it 8 times (see Table 5.11 below). In other words, she pronounced the /s/ accurately 75% of the time, which is a slight decline (i.e. 4%) from the number of times that she pronounced this sound accurately during her presentation rehearsal.

**Table 5.11: Comparison of Female Pronunciation of Word-final /s/ in Presentation Rehearsal and In-class Presentation**

<b>Presentation Rehearsal</b>	<b>Number of Occurrences</b>	<b>Number of Accurate Occurrences</b>	<b>Percentage of Accurate Occurrences</b>	<b>Number of Inaccurate Occurrences</b>	<b>Percentage of Inaccurate Occurrences</b>
	43	34	79.0%	9	20.9%
<b>In-class Presentation</b>	32	24	75%	8	25%

Only 6 of the words containing a final /s/ in the female participant's in-class presentation were words that she had shadowed. Of the 6 shadowed words, she pronounced 4 accurately and 2 inaccurately (see Table 5.12 below). Of the 26 words that she had not shadowed, she pronounced 20 accurately and 6 inaccurately. Therefore, she pronounced the /s/ accurately in the majority of both shadowed and non-shadowed words.

**Table 12: Analysis of Occurrences of Word-final [s] Included in Participant's In-class Presentation**

	<b>Number of Occurrences</b>	<b>Words Target Phoneme Occurred in</b>	<b>Number of Accurate Occurrences</b>	<b>Percentage of Accurate Occurrences</b>	<b>Number of Inaccurate Occurrences</b>	<b>Percentage of Inaccurate Occurrences</b>
<b>Words Shadowed in Summary</b>	6	seconds (1), astronauts (2), characteristics (1), mindguards (2)	4	66.6%	2	33.3%
<b>Words not Shadowed</b>	26	aspects (1), stakeholders	20	76.9%	6	23.0%

<b>in Summary</b>		(4), cells (1), centers (5), engineers (1), aeronautics (1), boosters (1), persons (1), becomes (1), symptoms (1), dangers (1), exists (1), flights (1), standards (1), works (1), members (2), officials (1), ideas (1)				
<b>Total</b>	32		24	75%	8	25%

### 5.8 Post-interview

Immediately following the in-class presentation, the researcher conducted a final semi-structured interview with the participant (see Appendix M). During this interview, the researcher and participant discussed the following seven questions:

- 1) How many times did you follow the audio-recorded summary at home?
- 2) On a scale of 1-10, with 1 being very low and 10 being very high, how would you evaluate shadowing as a pronunciation activity?
- 3) Do you think that shadowing helped you to improve your pronunciation?

- 4) On a scale of 1-10, with one being very poor and 10 being very good, how would you evaluate your pronunciation during your in-class oral presentation?
- 5) Do you believe that your pronunciation was better, the same, or worse during your presentation “rehearsal”?
- 6) On a scale of 1-10, with one being very low and 10 being very high, how would you rate your level of anxiety during your in-class oral presentation?
- 7) Do you believe that your level of anxiety was higher, the same, or lower during your presentation rehearsal?

The participant’s responses to the post-interview questions revealed that she had shadowed the audio-recorded summary 14 times and considered shadowing to be a useful pronunciation activity. She gave shadowing a seven out of 10, explaining her rating as follows:

“In the beginning, I think the shadow is very hard, but I follow the shadow, I found my pronunciation is better, uh, but in the oral presentation I’m nervous and maybe I can’t remember some of pronunciation, so I think it’s useful for me” (Participant, August 15, 2012).

She further explained that shadowing had helped her to improve her pronunciation by providing her with an opportunity to “study” the researcher’s pronunciation and compare it to her own; therefore, shadowing enabled her to notice her “mistakes”.

When asked how she would evaluate her pronunciation during the in-class presentation, the participant rated her pronunciation as six out of 10. She justified her answer by explaining that she was very nervous during the in-class presentation and, therefore, forgot the

pronunciation that she had learned through shadowing. Surprisingly, she seemed to believe that her pronunciation was the same during the in-class presentation and presentation rehearsal.

In response to the researcher's final questions, which dealt with presentation anxiety, the participant evaluated her level of anxiety during the in-class oral presentation as an eight out of 10. She informed the researcher that she was more nervous when she presented in front of the class than when she rehearsed her presentation in front of the researcher.

## **5.9 Summary of Results**

### **5.9.1 Voiceless /th/**

During the diagnostic and pre-interview, the participant inaccurately pronounced all 5 occurrences of /th/ as an /s/. However, after shadowing the audio-recorded summary 14 times in the three days before her presentation rehearsal (according to her shadowing log), she was able to pronounce 90.9% of the occurrences of /th/ accurately. In other words, she only pronounced 2 out of 20 occurrences of /th/ inaccurately (i.e. as an /s/). This is an improvement of 90.9%. The number of accurate occurrences of /th/ during the in-class presentation, on the other hand, was much lower. While delivering her oral presentation in front of her teacher and classmates, she accurately pronounced 50% of the 20 occurrences of /th/. Therefore, the accuracy of her pronunciation of voiceless /th/ decreased by 40.9% when she presented in class, compared to when she presented for the researcher alone.

### **5.9.2 Word-final /s/**

According to the data, the female participant also made improvements in her pronunciation of word-final /s/ as a result of shadowing; although, her improvement of word-

final /s/ is not as substantial as her improvement of voiceless /th/. In the diagnostic test and pre-interview, she accurately pronounced word-final /s/ 66.6% of the time, and she missed word-final /s/ (i.e. did not pronounce it at all) 33.3% of the time. After shadowing the audio-recorded text 14 times in 3 days, she accurately pronounced 79.0% of the occurrences of word-final /s/. This is an improvement of 12.4%. As was found for voiceless /th/, the participant's accurate pronunciation of word-final /s/ decreased during the in-class presentation; however, the difference in accuracy between the presentation rehearsal and in-class presentation was very small. While rehearsing her presentation for the researcher, the female pronounced 79.0% of the occurrences of voiceless /th/ accurately, and while presenting in class, she pronounced 75% accurately. This is only a difference of 4%.

### **5.9.3 Overall Pronunciation**

Upon completion of the study, the female participant claimed that shadowing had made her pronunciation "better". However, her comments during the post-interview suggest that her pronunciation improvements did not carry over to the in-class presentation, because she was anxious and forgot the pronunciation that she had learned/practiced through shadowing.

The results of the study will be discussed in the following chapter.

## **Chapter Six**

### **Discussion**

The results of the study suggest that shadowing probably did help the participant to improve her pronunciation in preparation for her oral presentation. However, they also indicate that it is unlikely that shadowing helped her to overcome her oral presentation anxiety. According to the data, her improved pronunciation of the target phonemes, especially voiceless /th/ did not carry over from the relaxed presentation rehearsal to the more anxiety-provoking in-class presentation. These results lead to some valuable findings not only about shadowing but also about pronunciation instruction in general.

#### **6.1 Shadowing to Improve Pronunciation**

##### **6.1.1 Lack of Pronunciation Instruction**

During the pre-interview, the participant described her English speaking as “very bad” (July 13, 2012) and acknowledged the fact that she had some problems with pronunciation; however, when she was asked if she was aware of specific pronunciation difficulties, she answered, “Perhaps, uh, yes, but I can’t remember it now” (July 13, 2012). Although the participant was being exposed to native English pronunciation by living in Canada and studying at Carleton, she was not receiving pronunciation instruction in her general EAP course, which heavily emphasised the development of research skills, mostly through reading and writing academic texts ([www.carleton.ca](http://www.carleton.ca)). In other words, her EAP course was not helping her to recognize aspects of pronunciation that she needed to work on or equipping her with the knowledge of how to make pronunciation improvements. Despite the fact that she had not received any formal pronunciation instruction in her EAP course, her final assignment in the

course was to deliver an oral presentation about research she had done (i.e. a case study about the Challenger Shuttle disaster), and part of her grade on the presentation was based on her English pronunciation.

### **6.1.2 Incorporating Pronunciation Instruction in EAP**

Often ESL/EAP teachers do not think that they should spend time on pronunciation, since it is not included in their course objectives (Baker, 2011). As previously mentioned, the objective of ESLA 1300 was to introduce students to academic research, reading and writing skills. Therefore, for the final assignment in the course, the teacher presented the students with a short list of topics; they were required to research and read about one of them, and then deliver an oral presentation about their findings. The researcher sought to incorporate pronunciation instruction (i.e. shadowing) in the regular coursework, rather than treating it as an isolated aspect of language learning, so it would not take time away from the reading and writing tasks in the course outline. The written summary that the participant was asked to produce not only served as a text for shadowing but it also served as an additional opportunity for her to review her research findings and practice summary writing. Further, it allowed her to think about the content and vocabulary that she would include in her oral presentation. Using shadowing to practice the vocabulary and other language that she planned to incorporate in her presentation also enabled the teacher to spend more class time on other tasks, since shadowing was an activity that she could easily do at home, in her own time. Shadowing made it possible for her to receive pronunciation instruction through the example of a native speaker model outside of the classroom while preparing for an in-class assignment.

### 6.1.3 When and How Many Times to Shadow?

Although the researcher's instructions were to shadow the audio-recorded summary 20 times over a period of two weeks, the participant only shadowed 14 times and did all of her shadowing in three days immediately before the presentation. Despite the fact that she did not follow the researcher's guidelines, it seems that her method of shadowing may have been at least somewhat effective. Not only did the quantitative data reveal an improvement in her pronunciation of the target phonemes but the qualitative data also revealed an improvement. In other words, the participant also noticed an improvement in her own pronunciation. During the post-interview, the researcher asked her if she thought that shadowing had helped her to improve her pronunciation, and she answered,

“Uh, yeah, I think, um, because, uh, I can study the pronunciation and... I found some mistakes in my pronunciation” (August 15, 2012).

She claimed that shadowing had made her pronunciation “better” and described her experience with shadowing by saying,

“I just follow your (i.e. the researcher's) pronunciation and I try close to your pronunciation” (August 15, 2012).

Since there was only one participant in this study, it is impossible to determine whether shadowing 14 times in three days was better or worse than shadowing more times over a longer period (e.g. 20 times in two weeks). As discussed in chapter four, previous shadowing research does not specify how many times a text should be shadowed. It seems that shadowing 14 times was effective for the participant in this study, but it would be useful to investigate the effectiveness of more or less shadowing. Further, the fact that the participant seems to have made

pronunciation improvements after packing all of her shadowing into such a short period of time is important to note, since previous research does not provide guidelines about how long (i.e. days or weeks) students should shadow for.

#### 6.1.4 Accurate Occurrences of Shadowed and Non-shadowed Words

As discussed in the previous chapter, the participant made improvements in her pronunciation of voiceless /th/ and word-final /s/ in both shadowed and non-shadowed words. Her pronunciation of voiceless /th/ improved by 90.9% from the diagnostic test and pre-interview to the presentation rehearsal (see Table 6.1 below). Of the 22 occurrences of voiceless /th/ in the presentation rehearsal, she only pronounced 2 inaccurately. Interestingly, both of these /th/s occurred in words (i.e. thinking; thought) that she had shadowed in her summary. There were only 2 occurrences of a word (i.e. thanks) that she had not shadowed in the presentation rehearsal, and she pronounced each of these accurately.

**Table 6.1: Comparison of voiceless /th/ in the diagnostic + pre-interview and presentation rehearsal**

<b>Diagnostic + Pre-interview</b>	<b>Number of Occurrences</b>	<b>Number of Accurate Occurrences</b>	<b>Percentage of Accurate Occurrences</b>	<b>Number of Inaccurate Occurrences</b>	<b>Percentage of Inaccurate Occurrences</b>
	22	0	0%	22	100%
<b>Presentation Rehearsal</b>	22	20	90.9%	2	9.0%
<b>Shadowed Words in Presentation Rehearsal</b>	20 Description: three (8), seventy-three	18	90%	2	10%

	(1), death (1), thought (1), groupthink (5), think(ing) (4)				
<b>Non- shadowed Words in Presentation Rehearsal</b>	2  Description:  thanks (2)	2	100%	0	0%

After shadowing, she also showed a 13% improvement in her pronunciation of word-final /s/ (see Table 6.2 below). Unlike her inaccurate occurrences of voiceless /th/, the majority of her inaccurate word-final /s/s occurred in words that she had not shadowed. Of her 9 inaccurate /s/s, 7 occurred in non-shadowed words (i.e. exists, members, discounts, officials, means, details) and 2 occurred in a shadowed word (i.e. mindguards). Further, she accurately pronounced 4 of the 6 /s/s that occurred in shadowed words and 30 of the 37 /s/s that occurred in non-shadowed words. The fact that the accurate occurrences of the target phonemes occurred in shadowed and non-shadowed words may suggest that she was able to apply the pronunciation that she learned/practiced through shadowing to contexts (i.e. words) in which she had not learned/practiced these phonemes. It is possible that if she had only shadowed voiceless /th/ and word-final /s/ in different words than the ones that she used in the presentation rehearsal and in-class presentation she still would have demonstrated an improvement in her pronunciation of these phonemes. In order to further analyze whether or not the actual words shadowed affect the pronunciation of the target phonemes, future research could present students with shadowing texts that only include the phonemes being studied in words that would not be used in the final presentation.

**Table 6.2: Comparison of word-final /s/ in the diagnostic + pre-interview and presentation rehearsal**

<b>Diagnostic + Pre-interview</b>	<b>Number of Occurrences</b>	<b>Number of Accurate Occurrences</b>	<b>Percentage of Accurate Occurrences</b>	<b>Number of Inaccurate Occurrences</b>	<b>Percentage of Inaccurate Occurrences</b>
	42	28	66.6%	14	33.3%
<b>Presentation Rehearsal</b>	43	34	79.0%	9	20.9%
<b>Shadowed Words in Presentation Rehearsal</b>	6 Description: seconds (1), astronauts (2), characterist-ics (1), mindguards (2)	4	66.6%	2	33.3%
<b>Non-shadowed Words in Presentation Rehearsal</b>	37 Description: aspects (1), stakeholders (4), cells (1), centers (6), engineers (2), aeronautics (1), boosters (1), persons (1), becomes (1), tends (2), symptoms (1), occurs (1), members (3), commis- sions (1), exists (1), standards (1), works (1), discounts (1),	30	81.0%	7	18.9%

	warnings (1), officials (3), accepts (1), means (1), details (1)				
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### 6.1.5 Inaccurate occurrences of shadowed words

As previously mentioned, it was difficult to analyze the inaccurate occurrences of word-final /s/ in the participant's presentation rehearsal, since they were inconsistently spread throughout the presentation, and some of them could have been grammatical errors rather than pronunciation difficulties. The two inaccurate occurrences of voiceless /th/ (see Table 6.3 below), on the other hand, revealed interesting information about when she was inaccurately pronouncing phonemes that she had practiced and seemed to have improved through shadowing.

**Table 6.3: Inaccurate Occurrences of voiceless /th/ in presentation rehearsal**

<b>Thinking</b>	"In the mode, thinking of the, <b>thinking</b> that persons interested in one concurrence of thinking becomes so dominant in the cohesive, cohesive in-group that tends to, that tends to, uh, override a realistic appraisal of alternative course of action" (Participant, August 14, 2012).
<b>Thought</b>	"They <b>thought</b> that they completely knew the nature of the joint, of joint problem" (Participant, August 14, 2012).

Both inaccurate voiceless /th/s occurred in words (i.e. thinking; thought) that she had shadowed in her summary. Further, each time that she inaccurately pronounced a voiceless /th/, she had struggled with the content or stumbled over the vocabulary immediately before that phoneme (see Table 6.4 below). In these cases, she was probably more concerned with clearly communicating the content of her presentation than carefully articulating each phoneme.

**Table 6.4: Context surrounding inaccurate occurrences of voiceless /th/ in presentation rehearsal**

<b>Thinking</b>	“In the mode, <i>thinking of the</i> , <b>thinking</b> that persons interested in one concurrence of thinking becomes so dominant in the cohesive, cohesive in-group that tends to, that tends to, uh, override a realistic appraisal of alternative course of action” (Participant, August 14, 2012).
<b>Thought</b>	“They feel that opinion of opposition is too stupid and NASA’s officials never seriously considered <i>the decision raised by, sorry, the suggestion raised by</i> MTI’s engineers. They <b>thought</b> that they completely knew the nature of the joint, of joint problem” (Participant, August 14, 2012).

During the pre-interview, she had expressed her anxiety about presenting her ideas. She explained, “I will nervous... about how to, uh, describe my think” (July 13, 2012). Her concern with content over pronunciation is understandable, since speaking is very similar to writing; both are “concerned with the production of discourse” (Celce-Murcia & Olshtain, 2000, p. 168). According to Celce-Murcia and Olshtain (2000), “the objective of the speaker is to be understood and for the message to be properly interpreted by the hearer(s)” (p. 166). They explain that speech production requires both top-down and bottom-up processing; however, there are times when one or the other may take priority (p. 14). Based on their speech production framework, top-down processing involves knowledge of background information and context (i.e. “content schemata”), attention to discourse and sociolinguistic factors (i.e. “formal schemata”), and awareness of intention and audience; whereas, bottom-up processing is more focused on language knowledge, such as pronunciation, grammar and vocabulary, and speaking strategies. Delivering an oral presentation may be a speaking situation, which prioritizes top-down processing. Since the objective of the participant’s EAP course was primarily meaning-

focused, to the extent that it overlooked actual language issues like pronunciation, it is highly likely that she was employing more top-down than bottom-up processing at the time of presenting (both during the presentation rehearsal and the in-class presentation). This would explain why she seemed to be more concerned with content (i.e. expressing her ideas) than pronunciation while delivering her oral presentation.

## 6.2 Shadowing to Overcome Anxiety

As previously stated, it does not seem that shadowing helped the participant to overcome her oral presentation anxiety. During the in-class presentation, she accurately pronounced voiceless /th/ and word-final /s/ fewer times than she did during the presentation rehearsal. While delivering her presentation rehearsal, she pronounced 90.9% of the voiceless /th/s accurately; however, while delivering her in-class presentation, she only pronounced 50% of the voiceless /th/s accurately (see Table 6.5 below). As in the presentation rehearsal, each of the inaccurate /th/s occurred in words (i.e. third; thanks) that she had not shadowed.

**Table 6.5: Comparison of voiceless /th/ in presentation rehearsal and in-class presentation**

<b>Presentation Rehearsal</b>	<b>Number of Occurrences</b>	<b>Number of Accurate Occurrences</b>	<b>Percentage of Accurate Occurrences</b>	<b>Number of Inaccurate Occurrences</b>	<b>Percentage of Inaccurate Occurrences</b>
	22	20	90.9%	2	9.0%
<b>In-class Presentation</b>	20	10	50%	10	50%
<b>Shadowed Words in In-class Presentation</b>	18 Description: three (8), groupthink	8	44.4%	10	55.5%

	(5), death (2), think/ing (3)				
<b>Non-Shadowed Words in In-Presentation</b>	2 Description: third (1), thanks (1)	2	100%	0	0%

Moreover, while delivering her in-class presentation, her accurate pronunciation of word-final /s/ decreased by 4% from the presentation rehearsal (see Table 6.6 below). As in the presentation rehearsal, she inaccurately pronounced both shadowed words (i.e. mindguards; characteristics) and non-shadowed words (i.e. members, ideas, centers, exists). Again, this suggests that she may have been able to apply the pronunciation that she learned/practiced through shadowed words to words that she did not shadow. Her pronunciation of the target phonemes may not have been affected by whether or not she had shadowed the specific words that they occurred in; it may simply have been affected by the fact that she shadowed the phonemes in general. Regardless of the words that voiceless /th/ and word-final /s/ occurred in, it seems that it was difficult for her to apply the pronunciation that she had shadowed to a more anxiety-provoking situation (i.e. presenting in front of her teacher and classmates).

**Table 6.6: Comparison of word-final /s/ in presentation rehearsal and in-class presentation**

<b>Presentation Rehearsal</b>	<b>Number of Occurrences</b>	<b>Number of Accurate Occurrences</b>	<b>Percentage of Accurate Occurrences</b>	<b>Number of Inaccurate Occurrences</b>	<b>Percentage of Inaccurate Occurrences</b>
	43	34	79.0%	9	20.9%
<b>In-class Presentation</b>	32	24	75%	8	25%

<b>Shadowed Words in In-class Presentation</b>	6 Description: seconds (1), astronauts (2), characteristics (1), mindguards (2)	4	66.6%	2	33.3%
<b>Non-Shadowed Words in In-Presentation</b>	26 Description: aspects (1), stakeholders (4), cells (1), centers (5), engineers (1), aeronautics (1), boosters (1), persons (1), becomes (1), (1), symptoms (1), dangers (1), exists (1), flights (1), standards (1), works (1), members (2), officials (1), ideas (1)	20	76.9%	6	23.0%

During the post-interview, she told the researcher, “in the oral presentation I’m nervous and maybe I can’t remember some of the pronunciation” (August 15, 2012), referring to the pronunciation that she had shadowed. Because of the fact that her anxiety had caused her to “forget” the pronunciation that she had practiced, she suggested that “the follow the shadow is

better [for]... life and the daily study [than presentations]" (August 15, 2012). In other words, although she thought that shadowing was useful and had helped her to improve her pronunciation in preparation for the in-class presentation, she did not seem to believe that shadowing had enabled her to have more accurate pronunciation at the actual time of presenting it is possible that her attitude toward shadowing may have contributed to the increased number of inaccurate voiceless /th/s and word-final /s/s during the in-class presentation; however, the current study did not investigate participant attitude and, therefore, cannot draw such a conclusion.

In addition to shadowing, the presentation rehearsal itself is another factor that should have helped the participant to overcome her anxiety; however, this seems not to have been the case. As previously mentioned, she struggled with pronunciation more after rehearsing her presentation for the researcher (i.e. in-class presentation) than she did during the presentation rehearsal. She pronounced 50% of the occurrences of voiceless /th/ and 75% of the occurrences of word-final /s/ accurately during the in-class presentation, whereas, she pronounced 90.9% of the occurrences of voiceless /th/ and 79.0% of the occurrences of word-final /s/ accurately during the presentation rehearsal. Therefore, it is possible that she might have been even more anxious during the in-class presentation if she had not shadowed and/or rehearsed beforehand. Unfortunately, there is no way of determining that information from the current study, since she was the only participant; however, future research could reveal valuable insights about the importance of presentation rehearsals by including a control participant or group.

The participant's comment during the post-interview about shadowing being "better [for] life and the daily study" is interesting to note. Her comment and the fact that her pronunciation improvements did not completely carry over to the in-class presentation from the presentation rehearsal lead back to the primary research question in this study: to what extent can shadowing

help EAP students to improve their pronunciation in preparation for oral presentations? If presentation anxiety can cause students to overlook the pronunciation that they have learned, is shadowing in preparation for an oral presentation worthwhile? In the current study, the only pronunciation instruction that the participant had received throughout the semester was the “learn-to-shadow” meeting and three days of shadowing prior to her presentation. Perhaps the extent to which she had improved her pronunciation – and overcome anxiety – as a result of shadowing would have been greater if shadowing had been incorporated throughout the entire course, rather than just a few days before the presentation.

The implications and limitations of the study, as well as suggestions for future research will be discussed in the following chapter.

## Chapter Seven

### Conclusion

Oral presentations are a standard assignment in most disciplines. Therefore, EAP courses, which are intended to help students to develop and improve skills that will be required of them in university content courses, usually require that students deliver an oral presentation throughout the term. Providing EAP students with opportunities to prepare and deliver an oral presentation is important, since previous research (e.g. Woodrow, 2006; Kim, 2006; Radzuan & Kaur, 2011) has revealed that ESL/EAP students experience a great deal of anxiety about oral presentations, mostly because they are afraid of being misunderstood by their teacher and classmates. Inaccurate pronunciation largely contributes to the possibility of the student not being understood while presenting due to the fact that it interferes with speaker intelligibility and comprehensibility; however, EAP courses give little or no attention to pronunciation instruction, particularly in preparation for oral presentations. Although students claim that they need and want more pronunciation instruction (Derwing & Rossiter, 2002), teacher beliefs and uncertainty about pronunciation often cause this skill to be overlooked in ESL/EAP courses (e.g. MacDonald, 2002; Foote et al., 2011; Baker, 2011).

#### 7.1 Review of Results

The current study investigated the use of shadowing as means of helping EAP students to improve their pronunciation in preparation for oral presentations. The researcher determined the extent to which shadowing helped the participant to improve her pronunciation by comparing her pronunciation of voiceless /th/ and word-final /s/ in the diagnostic and pre-interview to her pronunciation of these phonemes in the presentation rehearsal. The results of the study revealed

that shadowing probably did help her to improve her pronunciation of the target phonemes. Before shadowing (i.e. at the time of the diagnostic test and pre-interview), she inaccurately pronounced 100% of the occurrences of voiceless /th/ as an /s/; whereas, after shadowing (i.e. presentation rehearsal), she pronounced 90.9% of the occurrences of voiceless /th/ accurately. Likewise, she inaccurately pronounced (i.e. omitted) 66.6% of the occurrences of word-final /s/ before shadowing, and she accurately pronounced 79.0% of the occurrences of word-final /s/ after shadowing. Further, her improvement of the target phonemes did not seem to depend on whether or not she had shadowed the exact words that she used them in during the presentation rehearsal; she showed improvements in her pronunciation of these phonemes in both shadowed and non-shadowed words.

The current study also investigated the use of shadowing as a means of helping EAP students to overcome their presentation anxiety. The researcher determined the extent to which shadowing helped the participant to overcome her anxiety about delivering an oral presentation by comparing her pronunciation of voiceless /th/ and word-final /s/ during the presentation rehearsal to her pronunciation of these phonemes during the in-class presentation. The results of the study revealed that shadowing probably did not help her to overcome her presentation anxiety. Her pronunciation of both voiceless /th/ and word-final /s/ was not as accurate during the in-class presentation as it was during the presentation rehearsal. As aforementioned, at the time of the presentation rehearsal, she accurately pronounced 90.9% of the occurrences of voiceless /th/; however, at the time of the in-class presentation, she only accurately pronounced 50% of the occurrences of voiceless /th/. Similarly, she accurately pronounced 79.0% of the occurrences of word-final /s/ during the presentation rehearsal and 75% during the in-class presentation. Again, whether or not she had shadowed the exact words that the target phonemes

occurred in during the in-class presentation did not seem to have an effect on whether the occurrence was accurate or inaccurate.

## **7.2 Limitations of the Study**

### **7.2.1 Only One Participant**

In the current study, it seemed that shadowing was an effective way of incorporating pronunciation instruction in the content of an EAP course for the following reasons: the participant shadowed content that she was already learning in the course; she shadowed in preparation for another assignment (i.e. oral presentation); she shadowed at home in order to save class time; and she seemed to make improvements in her pronunciation of the target phonemes. However, a limitation to the study was that she was the only participant who completed the study. Since she was the only participant, the researcher had no way of knowing whether other shadowers would have exhibited improvements of the target phonemes as well, or if their pronunciation would be less accurate during the in-class presentation than the presentation rehearsal due to anxiety. The current study lacks generalizability, since it had such a small sample size.

If there had been more than one participant, the study could have revealed valuable information about the number of times that a text should be shadowed and how long (i.e. days or weeks) it should be shadowed. As previously discussed, the participant in the current study shadowed 14 times in three days. It would have been interesting to determine whether shadowing a larger number of times over a longer period of time would have yielded greater improvements of the target phonemes, since previous shadowing research does not specifically state how many times or how long a text should be shadowed.

### **7.2.2 Pronunciation of Shadowing Text not Analyzed before Shadowing**

In order to determine which segmentals the participant had difficulty pronouncing at the onset of the study, the researcher analyzed her pronunciation in the diagnostic test and pre-interview. Then, to determine whether or not she had made improvements in her pronunciation of the target phonemes, the researcher compared her pronunciation during the presentation rehearsal to her pronunciation during the initial diagnostic and pre-interview. However, the researcher did not record and analyze the participant's pronunciation of the actual shadowing text before she shadowed it. This was a limitation to the study, since the researcher was not able to analyze and compare her pronunciation of the target phonemes in the actual words that she shadowed before and after shadowing; her pronunciation of voiceless /th/ and word-final /s/ in the presentation rehearsal was simply compared to her pronunciation of these phonemes in the words they occurred in during the diagnostic and pre-interview.

## **7.3 Implications of the Study**

### **7.3.1 Grading**

Although the participant's EAP course did not provide her with pronunciation instruction prior to the in-class oral presentation, part of her presentation mark was based on pronunciation. If she had delivered her oral presentation and received a mark for pronunciation at the onset of the study, having received no pronunciation instruction, it is very likely that her mark would have been quite low, since her inaccurate pronunciation of segmentals, such as voiceless /th/ and word-final /s/ were quite noticeable and potentially distracting for the listeners. Grading her on her on her pronunciation without having provided any pronunciation instruction beforehand does not seem fair, though. When preparing tests, for example, teachers are careful to create a set of

questions that have validity; in particular, questions that have face validity. If a test has face validity, the students perceive it as being a fair assessment “of what [they have] achieved or [expect] to achieve” (Brown, 2001, p. 388-389). Pronunciation is an important part of oral presentations, but if students have not received any pronunciation instruction, they may not have even considered the accuracy of their pronunciation and what aspects of it they may need to improve; if this is the case, it is highly unlikely that they have noticed their pronunciation achievements or even had any to work toward. Therefore, if EAP teachers are going to assign a grade for pronunciation during oral presentations, they should take the time to work with the students on their pronunciation prior to the presentation date.

Further, grading pronunciation during an oral presentation, which is an anxiety-provoking activity for ESL/EAP students, may not provide the teacher with an accurate assessment of the student’s pronunciation ability. In the current study, the participant’s pronunciation of the target phonemes was not as accurate during the in-class presentation as it was during the presentation rehearsal, most likely due to the fact that she was nervous and not primarily focusing on pronunciation. Therefore, if a teacher truly wants to evaluate students’ English pronunciation, it may be better to grade their pronunciation in a more relaxed setting, such as a one-on-one presentation rehearsal (as in the current study) or short talk (e.g. IELTS Speaking Test, Part 2: Long-turn Question). This is not to say that pronunciation should not be graded at all during a presentation; rather, an oral presentation should not be the only medium for the evaluation of pronunciation. Teachers should be aware of students’ pronunciation in other tasks as well. If the students demonstrate more accurate pronunciation when they are not in front of the class, their inaccurate pronunciation could be a result of anxiety, and if this is the case, they could benefit from having more opportunities to practice presenting.

### **7.3.2 More than One Presentation throughout the Term**

Most EAP courses only require students to deliver one oral presentation throughout the term; however, one presentation does not enable students to learn from their mistakes, further develop their presentation skills, and make improvements. Rather than only requiring students to present once, EAP teachers should provide students with a range of opportunities to speak in front of others. Since time is often a concern for teachers, who have a lot of material to cover in a short period (Baker, 2011), more frequent presentations should be integrated throughout the course in a way that does not take away from the content that needs to be covered and other tasks that need to be completed. Such integrated presentations could range in length, difficulty and audience, leading up to a final presentation in front of the whole class. For instance, in the beginning of the term, EAP teachers could assign jigsaw reading activities in which students are divided into small groups and required to present different parts of an assigned reading text to their group members. Not only would this help them to develop the ability and confidence to speak in front of their classmates but it would also help them to more fully understand the content of the reading material. Then, as the term progressed, the students could be asked to individually give a very short talk (i.e. 2-3 minutes) about something that they had learned from that day's assigned reading or had read/heard about in the news, simply for the purpose of developing confidence about speaking in front of their teacher and peers. These talks (i.e. mini-presentations) could initially be delivered to only half of the class and then later delivered to the whole class. Finally, before delivering the final in-class oral presentation, the students could be required to rehearse their presentation for the teacher and/or teaching assistant (TA). As discussed in the previous chapter, it is possible that the participant in the current study may have

been even more anxious about presenting in class if she had not had the opportunity to rehearse her presentation for the researcher the day before.

### **7.3.3 On-going, Integrated Pronunciation Instruction**

Just as EAP students should be given frequent opportunities to speak in front of others and develop their presentation skills and confidence, they should also be provided with on-going pronunciation instruction that they can apply to their oral presentations. In the current study, the participant learned how to shadow two weeks before her in-class presentation and shadowed an audio-recorded summary 14 times in the three days before presenting. Although she displayed improvements in her pronunciation of the target phonemes when she rehearsed her presentation for the researcher, these improvements were not fully carried over to the in-class presentation. The fact that her presentation anxiety interfered with her ability to accurately pronounce the phonemes that she had practiced through shadowing suggests that she may not have fully acquired the pronunciation of them. In other words, it is possible that she would have displayed a higher number of accurate occurrences of the target phonemes during the presentation rehearsal if she had been working toward improving them on a more on-going basis, rather than just a few days before the presentation. With this in mind, EAP teachers should find ways to integrate pronunciation instruction in the course content on a regular basis. Pronunciation instruction does not need to be treated as an isolated aspect of language learning; in fact, researchers (e.g. Bowen, 1972; Pennington, 1989; Morley, 1991; Walker, 2005) have argued that it should not be taught in isolation. The question has simply been how to achieve meaningful, integrated pronunciation in ESL/EAP courses.

As presented in the current study, shadowing is one example of a pronunciation activity that can be easily incorporated in the existing course content. Among other examples of integrated pronunciation instruction are conducting and analyzing native speaker interviews as part of a research project (Clennell, 1999), studying pronunciation while learning new vocabulary from assigned reading texts (Murphy, 2004), and using oral dialogue journals (Celce-Murcia, Brinton, & Goodwin, 1996; Beh-Afarin, Moradkhan & Monfared, 2009). According to Morley 1991, ESL/EAP teachers should incorporate a variety of pronunciation activities in their courses, which make use of a variety of “instructional formats, modes and modules” (p. 508). For instance, she suggests that integrated pronunciation activities could include the whole class, small groups or individuals; be done inside or outside of class; and be recorded with video or audio equipment.

#### **7.4 Suggestions for Future Research**

There are a number of ways in which the research presented in this study could be expanded upon. For instance, the current research was conducted over a period of six weeks in the second half of an EAP term. This time period included participant recruitment, diagnostic testing, a questionnaire and interviews, summary writing, learning to shadow, three days (intended to be two weeks) of shadowing, a presentation rehearsal, and an in-class presentation. Future research could extend the length of the study, incorporating pronunciation instruction through shadowing throughout the entire course, in order to determine whether such on-going, integrated pronunciation instruction leads to greater pronunciation improvements than only shadowing close to the presentation date.

Future research with a larger sample size could also investigate whether the number of times and duration of time that a text is shadowed impacts the outcome of shadowing. The researcher could require participants to shadow a different number of times over varying lengths of time and then compare the participants' outcomes in order to determine what is an effective amount and timeframe to shadow. This could reveal useful guidelines for ESL/EAP teachers.

Further, future research could focus on the words that participants shadow – or do not shadow. Specifically, it could investigate whether participants would still demonstrate improvements in their pronunciation of target phonemes if they only shadowed the phonemes in different words than they would occur in during the final presentation. Such a study would reveal whether or not the actual words that students shadow matter, or if, while presenting, they can show improvements in the target phonemes even if they only shadowed them in different contexts (i.e. words).

Finally, upon completion of the current study, the participant commented that she found shadowing “hard” and that she did not think that it was as useful for presentation preparation as it would be for other everyday language tasks. She claimed that she was very nervous during the in-class presentation and forgot what she had learned through shadowing. Although the researcher asked the participant how she would evaluate shadowing and why, the purpose of the current study was not to investigate student attitude. The investigation into whether shadowing can help students to overcome presentation anxiety could be continued, though, by studying whether or not students' attitudes toward shadowing have an impact on whether or not shadowing helps them to cope with anxiety.

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## Appendix A: Invitation to Participate



### School of Linguistics and Applied Language Studies

#### Invitation to Participate

Dear Students in ESLA 1300,

I would like to invite you to participate in my graduate research project, entitled, *A Case Study of Shadowing as a Means of Helping EAP Students to Prepare for Oral Presentations: Effects on Pronunciation and Anxiety*. Participation is completely voluntary and will *not* affect your grades in ESLA 1300 or any other course.

As a research participant, you will receive pronunciation instruction as you prepare for your oral presentation. In the beginning of the study, you will be asked to complete a questionnaire, answer a few interview questions, and read a short text. The next phase of the study will require you to write a one-page summary of what your oral presentation in ESLA 1300 will be about. The researcher will make an audio recording of your corrected summary, and you will be asked to shadow it 20 times at home. The day before your oral presentation in class, you will meet with the researcher to practice your presentation. After delivering your presentation in class, you will meet with the researcher one last time to answer a few final interview questions.

With your permission, you will be audio recorded when you answer interview questions, read the short diagnostic text, practice your presentation, and deliver your presentation in class. If you are uncomfortable during the recordings, you have the right to request that the recording be discontinued. The researcher will manually transcribe the data collected during audio recordings.

Participating in this research project will provide you with an opportunity to work on your English pronunciation and practice your presentation with a native English speaker. If you are interested in participating or would like more information, please email me at [hhaufe@connect.carleton.ca](mailto:hhaufe@connect.carleton.ca).

Thank you,

Heidi Haufe

## Appendix B: Consent Form



### School of Linguistics and Applied Language Studies

#### Participants' Informed Consent Form

**Title of Research Project:** *A Case Study of Shadowing as a Means of Helping EAP Students to Prepare for Oral Presentations: Effects on Pronunciation and Anxiety*

**Date of Ethics Clearance:** July 5, 2012

**Ethics Clearance for the Collection of Data Expires:** May 31, 2013

#### **Purpose of the Study:**

- 1) To determine whether or not providing EAP students with pronunciation instruction through a technique called “shadowing” will help them to improve their pronunciation in preparation for an oral presentation
- 2) To determine whether or not improvements in pronunciation will be evident in the actual delivery of the presentation

**Requirements:** In the beginning of the study, you will be asked to complete a questionnaire, answer a few interview questions, and read a short text. The next phase of the study will require you to write a summary of what your oral presentation in ESLA 1300 will be about. The researcher will make an audio recording of your corrected summary, and you will be asked to shadow it 20 times at home. The day before your oral presentation in class, you will meet with the researcher to practice your presentation. After delivering your presentation in class, you will meet with the researcher one last time to answer a few final interview questions.

**Recording:** With your permission, you will be audio recorded when you answer interview questions, read the short diagnostic text, practice your presentation, and deliver your presentation in class. If you are uncomfortable during the recordings, you have the right to request that the recording be discontinued. The researcher will manually transcribe the data collected during audio recordings.

**Storage of data:** The recordings and typed transcriptions will be stored in electronic format on a removable storage device and securely kept in the researcher's home office. Only the researcher and the research supervisor will have access to the data.

**Anonymity/Confidentiality:** The data you provide for this study will be kept anonymous. Therefore, your name will not be used to label the recordings or the typed transcriptions.

**Potential risk/discomfort:** There are no physical, emotional or social risks to participating in this study. The study is intended to help you improve your English pronunciation and become more comfortable with oral presentations.

**Right to withdraw:** As a voluntary participant in this study, you have the right to withdraw at any time. If you choose to withdraw, you must sign a form, which states that you have chosen to discontinue the study, and the data that you have provided will be destroyed.

**Research Personnel:**

Dr. David Wood, research supervisor

Email: david\_wood@carleton.ca

Tel: 613-520-2600, ext. 6684

Heidi Haufe, researcher

Email: hhaufe@connect.carleton.ca

Tel:

**Agreement:**

I have read and understood the consent form, and I voluntarily agree to participate in this study. I realize that my decision to participate/not participate in this study will *not* affect my grades. The researcher has provided me with a copy of the consent form.

I give the researcher permission to audio-record two interviews, a diagnostic reading, my oral presentation “rehearsal” and the oral presentation that I give in class.

I do not want the researcher to audio-record two interviews, a diagnostic reading, my oral presentation “rehearsal” and the oral presentation that I give in class.

Name (printed): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Researcher: Heidi Haufe

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Appendix C: Pre-Interview Questions**

1. On a scale of 1-10, with 1 being incomprehensible and 10 being near native, how would you rate your English pronunciation?
2. Are you aware of any specific difficulties that you have with English pronunciation? If so, what are they?
3. Shadowing is an activity in which you listen to and simultaneously repeat a text. Have you ever done this activity before? If yes, please explain your use of shadowing.
4. Have you given an oral presentation in English before?
5. On a scale of 1-10, with 1 being very low and 10 being very high, how would you rate your level of anxiety about giving an oral presentation in English?

## Appendix D: Transcription of Participant's Responses to Pre-Interview Questions

1. Um, pronunciation, um, in in school the teacher will give the textbook and uh maybe all the high school have the uh the cd for the the word list, so I will listen to the cd and follow, uh, follow speak.

[əm, prɒnənsiəfən, əm, ɪn ɪn skul ðə ti:tʃər wɪl ɡɪv ðə tɛkstbʊk ænd ə meɪbi ɔl ðə haɪ skul hæv ðə ə ðə sɪdi fɔr ðə ðə wɜrd lɪst, so əj wɪl lɪsən tu ðə sɪdi ænd fəlo, ə, fəlo spɪk]

Uh, incomprehensible means sometimes I don't understand the speaking, uh 4

[ə, ɪŋkəmprəhensəbəl mɪnz səmtajmz əj dont əndərstænd ðə spɪkɪŋ, ə fɔr]

Uh, the number ten, one to ten, the one is easy, and ten is easy?

[ə, ðə nʌmbər tɛn, wən tu tɛn, ðə wən ɪz ɪzi, ænd tɛn ɪz ɪzi?]

Four, uh sometimes uh i don't know why i find i uh uh talk with the lady i will feel little, uh, nervous... so sometimes i don't know what to say. Okay no understand but but uh when my friend uh talk the lady or Canadian i say hey i understand i understand what you say, i know what it means, um, but i don't know why i talk to the ladies i understand, so i choose four.

[fɔr, ə səmtajmz ə əj dont no wəj əj fəjnd əj ə ə tʌk wɪð ðə ledi əj wɪl fi:l lɪtəl ə lɜrvəs... so səmtajmz əj dont no wət tu se. okej no əndərstænd bət bət ə wən məj frɛnd ə tʌk ðə ledi ɔr kənediən əj se he əj əndərstænd əj əndərstænd wət ju se, əj no wət ɪt mɪnz, əm, bət əj dont no wəj əj tʌk tu ðə lediz əj əndərstænd, so əj tʃuz fɔr]

... when I talk with the ladies I don't know how to, how to choose the sentence to impress, to impress my think, my idea. Its, I think, it's really hard to me.

[... wən əj tʌk wɪð ðə lediz əj dont no haw tu, haw tu tʃuz ðə sentəns tu ɪmpres, tu ɪmpres məj sɪŋk, məj əjdɪə. ɪts, əj sɪŋk, ɪts rɪli hɑrd tu mi]

...for example, I go to the store, want to buy some, I don't know, uh, how to (unclear), to go to the Tim Hortons, I want, I want one chocolate tea and a small iced cappucino but I see, I watch, uh, some, some easy in, on the internet, write by the Chinese, say you should say could you, could you give me some, could you give me a coffee, so I don't know how to choose which sentence is very, uh, how to say the word, uh, sorry.

[...fɔr ɪgzæmpəl, əj go tu ðə stɔr, wɒnt tu bæj səm, i dɒnt no, ə, hɔw tu \_\_\_\_\_ tu go tu ðə tɪm hɔrtəns, əj wɒnt, əj wɒnt wən tʃɔklət ti ænd ə smɒl əjst çæpətʃɪno bət əj si, əj wɒtʃ, ə, səm, səm ɪzi ɪn, ən ðə ɪntərnət, rəjt bæj ðə tʃəjnz, se ju ʃʊd se kʊd ju, kʊd ju ɡɪv mi səm, kʊd ju ɡɪv mi ə kafi, so əj dɒnt no hɔw tu tʃuz wɪtʃ sɛntəns ɪz vɛri, ə, hɔw tu se ðə wɔrd, ə, səri]

Uh..uh... how to say that?

[ə.. ə... hɔw tu se ðæt]

Accurate?

[ækjərət]

Oh, correct.

[o, kərəkt]

2. ... perhaps, uh, yes, but I can't remember it now.

[... pər'hæps, ə, jɛs, bət əj kənt rəmɛmbər ɪt nɔw]

3. Uh, I tried, but I could not do it.

[ə, əj traɪd, bət əj kʊd nɒt du ɪt]

Uh, mmm, uh, the teacher, i studied English in China, my teacher told me, to, uh, follow, the, mmm, uh, follow the listening is a good way to, uh, impress? Improve?

[ə, mmm, ə, ðə tɪtʃər, əj stədɪd ɪŋɡlɪʃ ɪn tʃaɪnə, məj tɪtʃər tɒld mi, tu, ə, fəlo, ðə, mmm, ə, fəlo ðə lɪsənɪŋ ɪz ə ɡʊd we tu, ə, ɪmpres? ɪmpruv?]

Improve the studies, so improve English, so, um, so i, sometimes i tried to do it, tried to do it. Um, my teacher told me the, uh, the drama or the movie is a good way because the movie is, uh, very interesting, and you cannot feel, uh, boring, you can follow it.

[ɪmpruv ðə stədɪz, so ɪmpruv ɪŋɡlɪʃ, so, əm, so əj, sɛmtaɪmz əj traɪd tu du ɪt, traɪd tu du ɪt. əm, məj tɪtʃər tɒld mi ðə, ə, ðə drəmə ɔr ðə muvi ɪz ə ɡʊd we bɪkɒz ðə muvi ɪz, ə, vɛri ɪntərəstɪŋ, ænd ju kænət fi:l, ə, bɔrɪŋ, ju kæn fəlo ɪt]

Mmm, at home by myself.

**[mmm, æt hoʊm baj maɪself]**

---

4. Uh, yeah, I, mmm, if I want, mmm, apply this university, I have to join a language test, ielts, uh, uh, but I don't know the ielts how to uh, mmm, uh, how to say that, mmm, uh, I join the, uh, I could chose the school, about language school, ... so the teacher is about the, ielts, uh, so the ielts have the four part, so the one teacher is the, uh, speaking teacher, it, uh, she maybe give the oral presentation.

**[ə, jæ, əj, mmm, ɪf əj want, mmm, əplaj ðɪs juːnɪvɜːsəti, əj hæv tu dʒɔɪn ə læŋgwɛdʒ test, ielts, ə, ə, bət əj dont no ðə ielts haʊ tu ə, mmm, ə, haʊ tu se ðæt, mmm, ə, əj dʒɔɪn ðə, ə, əj kʊd tʃoʊz ðə skul, əbawt læŋgwɛdʒ skul, ... so ðə tiːtʃər ɪz əbawt ðə, ielts, ə, so ðə ielts hæv ðə fɔːr pɑːt, so ðə wʌn tiːtʃər ɪz ðə, ə, spɪkiŋ tiːtʃər, ɪt, ə, ʃɪ meɪ ɡɪv ðə ɔːrəl prɛzəntetʃən]**

Um, she want, uh, describe the city and, uh, describe the food.

**[əm, ʃɪ want, ə, dəskraɪb ðə sɪti ænd, ə, dəskraɪb ðə fud]**

Yeah, but my, my, uh, speaking English is very bad, so presentation is very bad.

**[jæ, bət maɪ, maɪ, ə, spɪkiŋ ɪŋɡlɪʃ ɪz vɛri bæd, so prɛzəntetʃən ɪz vɛri bæd]**

Uh, yeah, it's not good.

**[ə, jæ, ɪts nɒt ɡʊd]**

---

5. Low is very easy?

**[ləʊ ɪz vɛri ɪzi]**

Uh, uh, it means not easy?

**[ə, ə, ɪt miːnz nɒt ɪzi]**

Oh, maybe 7.

**[oʊ, meɪbi sɛvən]**

Uh, because I have to, uh, use English say a long thing, um, and, um, I don't know why, uh, because, uh, if not another, um, classmate I will feel better, but if I feel all the classmates look at me, I say, wow, I feel very nervous.

**[ə, bɪkɒz əj hæv tu, ə, juːs ɪŋɡlɪʃ se ə lɒŋ θɪŋ, əm, ænd, əm, əj dɒnt noʊ wəʒ, ə, bɪkɒz, ə, ɪf nɒt ənəðər, əm, klæsmeɪt əj wɪl fɪl bɛtər, bət ɪf əj fɪl ɒl ðə klæsmeɪt lʊk æt mi, əj se, wəʊ, əj fɪl vɛri nərvəs]**

Uh, yeah, I will be very nervous.

**[ə, jæ, əj wɪl bi vɛri nərvəs]**

Yeah. Uh, I will nervous, and, um, uh, about how to, uh, describe my think.

**[jæ. ə, əj wɪl nərvəs, ænd, əm, ə, əbawt haʊ tu, ə, dɛskraɪb maɪ θɪŋk]**

## Appendix E: Questionnaire

### “The Language Contact Profile” – Adapted from Barbara Freed et al. (2004)

#### Part 1: Background Information

1. Gender: Male/Female
2. Age: \_\_\_\_\_
3. Country of birth: \_\_\_\_\_
4. What is your native language? 1) English 2) Arabic 3) Mandarin 4) Other
5. What language(s) do you speak at home? 1) English 2) Arabic 3) Mandarin 4) Other
6. In what language(s) did you receive the majority of your *precollege* education?  
1) English 2) Arabic 3) Mandarin 4) Other
7. Have you studied English in school in the past at each of the levels listed below? If yes, for how long?
  - a. Elementary school: Circle one: Yes/No \_\_\_ less than 1 year \_\_\_ 1-2 years \_\_\_ more than 2 years
  - b. Secondary (high) school: Circle one: Yes/No \_\_\_ less than 1 year \_\_\_ 1-2 years \_\_\_ more than 2 years
  - c. University/College: Circle one: Yes/No \_\_\_ less than 1 year \_\_\_ 1-2 years \_\_\_ more than 2 years
8. How long have you been studying English at Carleton University? \_\_\_\_\_
9. Prior to attending Carleton University, did you study English in any other English-speaking country? Circle one: Yes/No
  - a. If yes, when? \_\_\_\_\_
  - b. Where? \_\_\_\_\_
  - c. For how long? \_\_\_ 1 semester or less \_\_\_ 2 semesters \_\_\_ more than 2 semesters
10. What is your major? \_\_\_\_\_

#### Part 2: Use of English

11. On average, how often did you communicate with native or fluent speakers of English *in English* in the year prior to the start of this semester?  
\_\_\_ never \_\_\_ a few times a year \_\_\_ monthly \_\_\_ weekly \_\_\_ daily
12. Use this scale provided to rate the following statements.  
0) never 1) a few times a year 2) monthly 3) weekly 4) daily  
Prior to this semester, I tried to speak English to:
  - a. My teacher outside of class \_\_\_\_\_
  - b. Friends who are native or fluent speakers of English \_\_\_\_\_
  - c. Classmates \_\_\_\_\_
  - d. Strangers whom I thought could speak English \_\_\_\_\_
  - e. A host-family, if I was living in an English-speaking area \_\_\_\_\_

- f. Service personnel (e.g. bank clerk, cashier) \_\_\_\_\_
13. For each of the items below, choose the response that corresponds to the amount of time you estimate you spent on average doing each activity *in English* prior to this semester.
- a. Watching English television  
 0) never 1) a few times a year 2) monthly 3) weekly 4) daily
- b. Watching English movies  
 0) never 1) a few times a year 2) monthly 3) weekly 4) daily  
 1) never 1) a few times a year 2) monthly 3) weekly 4) daily
- c. Listening to English music  
 0) never 1) a few times a year 2) monthly 3) weekly 4) daily
14. Please list all of the courses you are taking in English (ESL and university content courses) you are taking this semester.

Course name	Course number	Brief description
_____	_____	_____
_____	_____	_____
_____	_____	_____

**Appendix F: Diagnostic Test**

Please read the passage from *Well Said*, page 7 as naturally as possible. You will be audio-recorded as you read.

*Note:* Due to copyright laws, the actual passage from *Well Said* (about high- and low-context cultures) cannot be reproduced here. However, the citation for this textbook follows:

Grant, L. (1993). *Well Said: Advanced English Pronunciation*. Boston, MA: Heinle & Heinle Publishers.

**Appendix G: Written Summary****School of Linguistics and Applied Language Studies****Summary of Presentation Topic**

Thank you for volunteering to participate in the project, *A Case Study of Shadowing as a Means of Helping EAP Students to Prepare for Oral Presentations: Effects on Pronunciation and Anxiety*.

Please write a one page summary of what your oral presentation will be about. It is important to remember that you are being asked to write a **summary** – *not* what you will actually say when you deliver the presentation in class.

The researcher will correct your summary and make an audio recording of it for you to shadow.

Your written summary must be typed and submitted by email to [hhaufe@connect.carleton.ca](mailto:hhaufe@connect.carleton.ca) by July, 12, 2012.

## **Appendix H: Text for Shadowing**

*Note: This is the edited version of the participant's written summary, which was audio-recorded by the researcher for shadowing.*

### **Event**

The Challenger Shuttle disaster occurred on January 28, 1986. The explosion, which happened when the Space shuttle had been in-flight for 73 seconds, resulted in the death of seven astronauts. Undeniably, technical deficiency is the key factor that caused this tragedy. Although the dominating issue of this tragedy was technique, most researchers who used this accident as a case study thought the tragedy was also caused by groupthink in NASA.

### **Stakeholder**

After the Challenger accident, the president of the United States, Ronald Reagan, created a special commission—Rogers Commission—to investigate the accident. Media coverage of the accident was extensive, and Ronald Reagan and First Lady, Nancy Reagan, attended the memorial service. This event has been used as a valuable case in different academic fields.

### **Groupthink in Challenger Disaster**

Not only does the Challenger Disaster reveal deficient technique, but it also reveals groupthink in NASA. Social psychologist Irving Janis identified eight characteristics of groupthink, which are illusion of invulnerability, unquestioned belief in the group's morality, rationalization, stereotyped view of opponent, conformity pressure, self-censorship, illusion of unanimity and mindguards.

**Appendix I: Sample Text for Shadowing**

“Reading 2” (p. 5)

*Note:* Due to copyright laws, the actual passage from *Well Said* (about high- and low-context cultures) cannot be reproduced here. However, the citation for this textbook follows:

Grant, L. (1993). *Well Said: Advanced English Pronunciation*. Boston, MA: Heinle & Heinle Publishers.

**Appendix J: Shadowing Log**

One = 10/08/2012 2:10 PM  
Two = 10/08/2012 2:22 PM  
three = 13/08/2012 11:31 AM  
Four = 13/08/2012 11:53 AM  
Five = 13/08/2012 11:57 AM  
Six = 13/08/2012 12:00 PM.  
Seven = 13/08/2012 12:14 PM.  
eight = 13/08/2012 12:18 PM  
nine = 13/08/2012 12:53 PM.  
Ten = 13/08/2012 12:25 PM  
eleven = 13/08/2012 12:28 PM.  
12 = 14/08/2012. 9:30 AM.  
13 = 14/08/2012. 9:32 AM  
14 = 14/08/2012. 9:34 AM.

## Appendix K: Female Presentation Rehearsal

**Hello everyone.**

[həlo evriwən]

---

**My name is \_\_\_\_\_.**

[maj nejm ɪz \_\_\_\_\_]

---

**If you can't remember it, you can call me my English name, \_\_\_\_\_.**

[ɪf ju kənt rəmembər ɪt, ju kæn kɔl mi maj ɪŋɡlɪʃ nejm \_\_\_\_\_]

---

**My case is, uh, the Challenger Shuttle Disaster.**

[maj kejs ɪz, ə, ðə tʃæləndʒər ʃətəl dɪzæstər]

---

**Today I will introduce my case from three different aspects, uh, which are**

[tədeɪ aj wɪl ɪntrədus maj kejs frəm θri dɪfərənt æspekts, ə, wɪtʃ ɑr]

**the description of the event, stakeholders and, um, uh, group think in**

[ðə dɛskrɪpʃən əv ðə ɪvent, stɛkholdəz ænd, əm, ə, grʊp θɪŋk ɪn]

**Challenger Disaster.**

[tʃæləndʒər dɪzæstər]

---

**Now I'm beginning my case.**

[naw ajm bɪɡɪnɪŋ maj kejs]

**Uh, first, description of the event.**

[ə, fɜrst, dɛskrɪpʃən əv ðə ɪvent]

---

**Uh, the Challenger Shuttle Disaster occurred on January 28, 1986 when**

[ə, ðə tʃæləndʒər ʃətəl dɪzæstər əkərd ən dʒænjuəri twenti eɪt naɪntɪn eɪtɪ sɪks wɛn]

**the Shuttle, uh, Space Shuttle Disaster, uh, broke apart 73 seconds, uh,**

[ðə ʃətəl, ə, spes ʃətəl dɪzæstər, ə, brɒk əpɑrt səvənti θri sekəndz, ə,]

**led to the death of seven astronauts.**

[led tu: ðə deθ əv səvən æstrənɒts]

---

**Mmm, the space craft, craft, uh, disintegrated, um, over the Arctic Ocean.**

[Mmm ðə speɪs kræft kræft ə dɪsɪntəgreɪtɪd əm ovər ðə ɑrktɪk oʃən]

---

**I don't want to spend too much time on explaining the reason, technical**

[aj dont want tu spend tu mætʃ taɪm ən ɪksplənɪŋ ðə rɪzən tɛknɪkəl]

**reason because it's very complex.**

[rɪzən bɪkəz ɪts veri kəmpleks]

---

**Uh, in short, the key factor, the key technical factor was one of the o-ring**

[ə, ɪn ʃɔrt ðə ki fæktər ðə ki tɛknɪkəl fæktər wəz wən əv ðə ɔ rɪŋ]

**cells failed, uh, at the liftoff.**

[sɛlz feɪld ə æt ðə lɪftɒf]

---

**Now, I'm moving, I will moving to the stakeholders.**

[naw ajm muvɪŋ aj wɪl muvɪŋ tu ðə steɪkholdərz]

---

**Stakeholders consist of uh, uh, seven astronauts, NASA, uh, three center,**

[steɪkholdərz kənsɪst əv ə ə səvən æstrənɒts nəse ə θri sentər]

**space centers, and, uh, and MTI company's, the engineers of MTI's, uh, and**

[spejs sentərs ænd ə ænd əmtiaj kəmpəliz ðə ɛndʒənɪrɪz əv əmtiajs ə ænd]

**the management of, uh, three, space, uh, three space centers also belong**

[ðə mænədʒmənt əv ə θri spejs ə θri spes sentərz ɒlso bəloŋ]

**to stakeholders.**

[tu stejkholdərz]

---

**NASA's full name is national aeronautics and, uh, and space administration,**

[næsəz fʊl neɪm ɪz nəʃənəl ɛrənəʊtiks ænd ə ænd spejs ædmiːnɪstreɪʃən]

**which, um, which formulated in and implemented the project of the, uh,**

[wɪtʃ əm wɪtʃ fɔːmjəleɪtəd ɪn ænd ɪmpləmentəd ðə prɒdʒekt əv ðə ə]

**space shuttle Challenger.**

[spejs ʃʊtəl tʃæləndʒər]

---

**Um, the NASA have three space centres, the Kennedy centre in Florida, the**

[əm ðə næsə hæv θri spejs sentərz ðə kenədi sentər ɪn flɔːrədə ðə]

**Johnson centre, space centre, in Houston, the, and the Marshall space centre**

[dʒɒnsən sentər spes sentər ɪn hjʊstən ðə ænd ðə mɑːʃəl spejs sentər]

**in Alabama.**

[ɪn ələbæmə]

---

**Uh, MTI was the contractor responsible for the construction and the**

[ə əmtiaj wəz ðə kəntræktər rɪspənsəbəl fɔː ðə kənstrækʃən ænd ðə]

**maintenance of the shuttle's solid rocket boosters.**

[mejntənəns əv ðə ʃətəlz saləd rakət bustərz]  
**Next, I will try to analyse groupthink in my case.**

[nekst əj wɪl traɪ tu ænəleɪs grʊpθɪŋk ɪn maɪ keɪs]

---

**At first, we should know what the groupthink.**

[æt fɜːst wi ʃʊd no wət ðə grʊpθɪŋk]

---

**The social psychologist Irving Janis defined it.**

[ðə soʃəl saɪkələdʒəst ɜːvɪŋ dʒænis dəfaɪnd ɪt]

---

**In the mode, thinking of the, thinking that persons interested in one**

[ɪn ðə mɒd θɪŋkɪŋ əv ðə θɪŋkɪŋ ðæt pɜːsənz ɪntrestəd ɪn wʌn]

**concurrence of thinking becomes so dominant in the cohesive, cohesive**

[kɒŋkərəns əv sɪŋkɪŋ bɪkəmz so dɒmɪnənt ɪn ðə kəʊhɪsɪv kəʊhɪsɪv]

**in-group that tends to, that tends to, uh, override a realistic appraisal of**

[ɪn grʊp ðæt tendz tu ðæt tendz tu ə ɒvəraɪd ə riəlɪstɪk əpreɪzəl əv]

**alternative course of action.**

[ɒltərnətɪv kɔːrs əv ækʃən]

---

**And he identified eight characteristics of groupthink, which are illusion of**

[ænd hi aɪdentəfaɪd eɪt keɪrəktərɪstɪks əv grʊpθɪŋk wɪtʃ ɑː ɪluʒən əv]

**invulnerability, unquestioned belief in group morality, rationalization,**

[ɪnvələnərəbɪləti ʌŋkwɛstʃənd bəlɪf ɪn grʊp məɹæləti ræʃənələzeɪʃən]

**stereotyped view of opponent, conformity pressure, self-censorship, and**

[stɛrɪətəɪpt vju əv əpənənt kənfɔːməti prɛʃər self-sensəʃɪp ænd]

**illusion of anonymity, and mindguards.**

[ɪluːʒən əv ænɒnɪmətɪ ænd maɪndɡɑːd]

---

**Unfortunately, I found at least six symptoms in this accident.**

[ʌnfɔːrtʃənətli aɪ faʊnd æt liːst sɪks sɪmptəmz ɪn ðɪs æksɪdənt]

---

**Number one, the illusion invulnerability.**

[nʌmbər wʌn ðə ɪluːʒən ɪnvələnərəbɪləti]

---

**When groupthink occurs, most of all of the members of the decision making**

[wɛn ɡrupθɪŋk əkɔːz most əv ɒl əv ðə mɛmbəz əv ðə dəsɪʒən meɪkɪŋ]

**group have an illusion of invulnerability that (unclear).**

[ɡrup hæv ən ɪluːʒən əv ɪnvələnərəbɪləti ðæt \_\_\_\_\_]

---

**Commissions member Richard Feynman concluded from the test mode that**

[kəmɪʃənz mɛmbər rɪtʃərd feɪnmən kɒnkludəd frəm ðə tɛst moʊd ðæt]

**mentality of overconfidence exists due to the extraordinary record of**

[mɛntəlɪtɪ əv ovəkɒnfɪdəns ɪɡzɪst du tu ðə ɪkstrədənəri rəkɔːd əv]

**success of the space flight.**

[səkʃəs əv ðə speɪs flɑɪt]

---

**Although one of the members may seem to think on the next one we can, we**

[əlðəʊ wən əv ðə mɛmbər meɪ siːm tu θɪŋk ɒn ðə nekst wən wi kæn wi]

**can lower our standards, because it always works.**

[laʊər aʊr stændɑːrdz bɪ kɔːz ɪt ə:lweɪz wɜːks]

**Number two, rationalization, the group discounts warnings and the other**

[nəmbər tu ræʃənələzeʃən ðə grup diskawnt wɔːnɪŋz ænd ðə əðər]

**form of the negative feedback.**

[fɔːm əv ðə nɛgətɪv fɪdbæk]

---

**For example, before the launch, the highest level of the management of the three centers,**

[fɔː ɪgzæmpəl bəfɔː ðə lɒntʃ ðə haɪjəst levl əv ðə mænədʒmənt əv ðə θri sentəz]

**three space centers and the MTI company were teleconferencing the meeting.**

[θri speɪs sentəz ænd ðə əmtɪəj kəmpəni wɜː teləkənfrɛnsɪŋ ðə mi:tɪŋ]

---

**MTIs engineer showed evidence that joint would fail.**

[əmtɪəjs ɪndʒənɪr ʃoʊd evədəns ðæt dʒɔɪnt wʊd feɪl]

---

**The MTI's management want to support its engineer, but flight center, but flight center**

[ðə əmtɪəjs mænədʒmənt want tu səpɔːt ɪts ɪndʒənɪr bət flɑɪt sentə bət flɑɪt sentə]

**officials don't want to delay the flight any technical rationalization.**

[əfɪʃəlz dont want tu deɪle ðə flɑɪt ɛni tekɪkəl ræʃənələzeʃən]

---

**Fighting MTIs insight, they emphasized the engineers data were inconclusive.**

[fɑɪtɪŋ əmtɪəjs ɪnsaɪt ðe ɛmfəsəɪzd ðə ɪndʒənɪrɪz deɪtə wɜː ɪnkənklusɪv]

---

**Number three, stereotyped view of opponent, it means that the members of a group often**

[nəmbər θri stɛrɪətəɪpt vju əv əpənənt ɪt miːn ðæt ðə mɛmbər əv ə grup əfən]

**have a stereotyped view of the opposition, of anyone with competing opinion.**

[hæv ə stɛrɪətəɪpt vju əv ðə ɒpəzɪtɪən əv ɛniwən wɪθ kəmpɪtɪŋ əpɪnɪən]

---

**They feel that opinion of opposition is too stupid and NASA's officials never seriously**

[ðe fil ðæt əpɪnjən əv əpəzɪʃən ɪz tu stʊpəd ænd nəseɪz əfɪʃəl nəvər sɪrɪəsli]

**considered the decision raised by, sorry, the suggestion raised by MTI's engineers.**

[kənsɪdərɪd ðə dəsɪʒən reɪzd baj saʊri ðə səgdʒestʃən reɪzd baj əmtɪəjs ɛndʒənɪrɪz]

---

**They thought that they completely knew the nature of the joint, of joint problem.**

[ðej sat ðæt ðej kəmplitli nu ðə neɪtʃər əv ðə dʒɔɪnt əv dʒɔɪnt prɒbləm]

---

**Indeed, they verified the MTI's information and view.**

[ɪndɪd ðej vɛrɪfaɪd ðə əmtɪəjs ɪnfərməʃən ænd vju]

---

**Number four, conformity pressure, group members often give pressure to another who has**

[nʌmbər fɔː kənforməti prɛʃər grʊp mɛmbərz əfən gɪv prɛʃər tu ənədər hu hæz]

**a different value, who supporting the different value.**

[ə dɪfərənt væljʊ hu səpɔːtɪŋ ðə dɪfərənt væljʊ]

---

**The flight center officials pressure MTI to change their position that the joint would fail.**

[ðə flɑɪt sɛntər əfɪʃəlz prɛʃər əmtɪəj tu tʃeɪndʒ ðɛr pəzɪʃən ðæt ðə dʒɔɪnt wʊd feɪl]

---

**Due to the pressure from NASA, finally, MTI management changed their opinion.**

[du tu ðə prɛʃər frəm nəseɪ fɑɪnəli əmtɪəj mænədʒmənt tʃeɪndʒd ðɛr əpɪnjən]

---

**Number four, self-censorship, group members would often withdraw their opinion when**

[nʌmbər fɔː self-sensərʃɪp grʊp mɛmbərz wʊd əfən wəðdra ðɛr əpɪnjən wɛn]

**they have idea that different from the, apart group censorship, consensus, because the**

[ðe hæv əjdɪə ðæt dɪfərənt frəm ðə əpɑrt grʊp sɛnsəʃɪp kənsɛnsəs bɪkəz ðə]  
**disagreements are uncomfortable.**

[dɪsəgrɪmənt ɑr ənkəmfərtəbəl]

---

**Vice president who has officially presented information against the launch; however, he  
 fold to pressure from NASA and changed, uh, changed original view, accepts NASA's  
 rationalization from launch.**

[vajs prezədnt hu hæz əfɪʃəli prɪzɛntəd ɪnfərmɛʃən əɡɛnst ðə lɔntʃ; hawevər, hi]  
 [fowld tu prɛʃər frəm nəse ənd tʃɛndʒd ə tʃɛndʒd əɪdʒənəl vju æksɛpt nəseɪz]  
 [ræʃənəlɪzɛʃən frəm lɔntʃ]

---

**The president was the reason MTI had changed its (unclear) to launch.**

[ðə prezɪdnt wəz ðə ri:zən (MTI) hæd tʃɛndʒd ɪts (ʊnkliər) tu: lɔ:ntʃ]

---

**Number five, number six, mindguard, some group member attempt to protect the group  
 from adverse information which means, uh, destroyed the majority view.**

[nʌmbər fəɪv nʌmbər sɪks maɪndɡɑrd səm grʊp mɛmbər ətɛmpt tu prətɛkt ðə grʊp]  
 [frəm ædvɜrs ɪnfərmɛʃən wɪtʃ mi:n ə dəstrɔɪd ðə mədʒɔrəti vju]

---

**The top ordered resided to contracted flow must (unclear) this launch.**

[ðə tɒp ɔrdəd rɛzajdəd tu kɒntræktəd flo məst \_\_\_\_\_ ðɪs lɔntʃ]

---

**This information and other technical details, connection, the history of the joint problem  
 was withheld at the meeting.**

[ðɪs ɪnfərmɛʃən ənd əðər tɛknɪkəl dɛtəl kənɛkʃən ðə hɪstəri əv ðə dʒɔɪnt prɒbləm]

---

[wəz wɪθheld æt ðə mitɪŋ]

---

**Thanks, thanks for listening my presentation.**

[θæŋks θæŋks fɔr lɪsənɪŋ maɪ prezənteɪʃən]

## Appendix L: In-class Presentation

**Hello everyone.**

[həlo evriwən]

---

**My name is \_\_\_\_.**

[maj nem ɪz]

---

**I'm from China too.**

[ajm frəm tʃaɪnə tu]

---

**If you can't remember my Chinese name, you can call me my English name, \_\_\_\_.**

[ɪf ju kənt rəmembər maj tʃaɪnɪz neɪm ju kæn kɔl mi maj ɪŋɡlɪʃ neɪm \_\_\_\_]

---

**Um, my case is the Challenger Shuttle Disaster.**

[əm maj keɪs ɪz ðə tʃæləndʒər ʃətəl dɪzæstər]

---

**Uh, today I will, I will introduce my Challenger from three different aspects, uh, which,**

[ə tədeɪ aj wɪl aj wɪl ɪntrədus maj tʃæləndʒər frəm θri dɪfərənt æspekts ə wɪtʃ]

**are, which are description of the event, stakeholders, and groupthink in the Challenger**

[ɑr wɪtʃ ɑr dɛskrɪpʃən əv ðə ɪvent stɛkholdəz ænd grupsɪŋk ɪn ðə tʃæləndʒər]

**disaster.**

[dɪzæstər]

---

**Uh, now, I, I'm, now I'm beginning my case.**

[ə nɑw əj əjm nɑw əjm bɪɡɪnɪŋ məj keɪs]

---

**Uh, first, description of the event.**

[ə fɜrst dɛskrɪpʃən əv ðə ɪvent]

---

**The Challenger Shuttle Disaster was, occurred on January 28, 1986 when**

[ðə tʃæləndʒər ʃətəl dɪzæstər wəz əkəd ən dʒænjuəri twenti eɪt naɪntɪn eɪti sɪks wɛn]

**the, when the shuttle space, uh, disaster, uh, Challenger, um, broke apart 73**

[ðə wɛn ðə ʃətəl speɪs ə dɪzæstər ə tʃæləndʒər əm brək əpɑrt sevənti θri]

**seconds, uh, into, into its flight, uh, leading to the death of seven, seven astronauts.**

[sekəndz ə ɪntu ɪntu ɪts flɑɪt ə lɪdɪŋ tu ðə deθ əv sevən sevən æstrənɑts]

**The space craft, uh, disintegrated over the Atlantic Ocean.**

[ðə speɪs krɑft ə dɪsɪntəɡretəd ovər ðə ætlæntɪk oʃən]

---

**I don't want to spend too much time on explaining the technical reason because it's too,**

[aj dont want tu spend tu mætʃ taɪm ən ɪkspleɪnɪŋ ðə teknlɪkəl rɪzən bɪkɑz ɪts tu]

**uh, it's too complex.**

[ə ɪts tu kəmpleks]

---

**So, but, in the short, the, in the short, the key, uh, the key technical factor was the one of**

[so bət ɪn ðə ʃɔrt ðə ɪn ðə ʃɔrt ðə ki ə ðə ki teknlɪkəl fæktər wəz ðə wən əv]

**the o-ring cells failed at the liftoff.**

[ðə o rɪŋ sɛlz feɪld æt ðə lɪftɔf]

---

**Um, now, I will introduce the stakeholders.**

[əm nau əj wɪl ɪntrədus ðə stejkholdəz]

---

**The stakeholders consist of the death of the seven astronauts, the NASA, and the three**

[ðə stejkholdəz kənsɪst əv ðə deθ əv ðə sevən æstrənəʊts ðə nəseɪ ənd ðə sri]

**space centers, three space centers, and the MTI, MTI companies.**

[speɪs sentəz sri speɪs sentəz ənd ðə əmtɪəj əmtɪəj kəmpənɪz]

---

**Uh, the engineer of the MTI and the management of the three space centers also belong to**

[ə ðə ɪnʒənɪr əv ðə əmtɪəj ənd ðə məneɪdʒmənt əv ðə θri speɪs sentəz əlso bələŋ tu]

**the stakeholders.**

[ðə stejkholdəz]

**Uh, NASA full name is International Aeronautics and Space Administration, which**

[ə nəɪfə fʊl neɪm ɪz ɪntərnæʃənəl ɛrənəʊtɪks ənd speɪs ædmiːnɪstreɪʃən wɪtʃ]

**formulated and implemented the project of the space shuttle disaster.**

[fɔːmjəleɪtəd ənd ɪmpləmentəd ðə prədʒekt əv ðə speɪs ʃetəl dɪzæstər]

---

**Uh, Nasa has three, uh, three space centers.**

[ə nəseɪ hæz sri ə θri speɪs sentəz]

---

**Uh, the Kennedy space center in Florida, the Johnson Space Center in Houston, and the**

[ə ðə kenədi speɪs sentər ɪn flɔːrədə ðə dʒɔːnsən speɪs sentər ɪn hjuːstən ənd ðə]

**Marshall Space Flight Center in Alabama.**

[mɑːʃəl speɪs flajt sentər ɪn æləbæmə]

---

**Uh, MTI was the contractor responsible for the construction and the maintenance of the**

[ə əmtɪəj wəz ðə kəntræktər rɪspɒnsəbəl fɔː ðə kənstrækʃən ənd ðə məntənəns əv ðə]

**shuttle's solid rocket boosters.**

[ʃətəlz    saləd rakət bustərz]

**Next, I will try to analyze groupthink in my case.**

[nekst əj wil trej tu ænələjz grupsɪŋk    ɪn maɪ keɪs]

---

**At first, we should know what is the groupthink.**

[æt fɜrst wi ʃʊd    no    wət ɪz ðə grʊpθɪŋk]

---

**Social psychologist Irving Janis defined any mode of thinking that persons engaged in**

[soʃəl saɪkələdʒəst ɜrvɪŋ dʒæɪs dəfaɪnd eni mɔd    əv sɪŋkəŋ    ðæt pɜrsənz engeɪdʒd ɪn]

**when concurrence thinking becomes so dominant (unclear) in group that tends to override**

[wɛn kɔnkərəns    sɪŋkəŋ    bɪkəmz so dɔmənənt \_\_\_\_\_ ɪn grʊp    ðæt tendz tu ɔvəraɪd]

**realistic (unclear) alternative course of action, and he identified eight characteristics of the**

[riəlɪstɪk \_\_\_\_\_ ɔltərnətɪv kɔrs    əv ækʃən ænd hi ɪdentəfaɪd eɪt kərəktərɪstɪk    əv ðə]

**groupthink, which are illusion of invulnerability, um, uh, unquestioned belief in the group**

[grʊpθɪŋk    wɪtʃ    ɑr ɪluʒən    əv ɪnvəlnərəbɪləti    əm    ə    ʌnkwestʃənd bɪf    ɪn ðə grʊp]

**morality, rationalization, stereotyped view of opponent, confirmative pressure, self-**

[mərələti ræʃənəlaɪzəʃən    stəriətaɪpt    vju    əv əpənənt    kɔnfərmɪti    prɛʃər    self]

**ensorship, illusion of unanimity, and mindguards.**

[censərʃɪp    ɪluʒən    əv juːnənɪməti ænd maɪndgɑrd]

---

**Unfortunately, I found at least six symptoms in this accident.**

[ʌnfɔrtʃənətli    əj faʊnd æt list sɪks sɪmptəmz    ɪn ðɪs æksədənt]

---

**First, illusion of the invulnerability, when groupthink occurs, most of the all the group**

[fərst ɪluzən əv ðə ɪnvələnərəbɪləti wɛn grupsɪŋk əkərz most əv ðə ɔl ðə grup]

**members, um, of the decision-making group have an illusion of invulnerability that**

[membərz əm əv ðə dəsɪzən meɪkɪŋ grup hæv ən ɪluzən əv ɪnvələnərəbɪləti ðæt]

**reassure them in the fact of adverse dangers.**

[riəʃʊr ðem ɪn ðə fækt əv ædvərs deɪndʒə]

**Commission member Richard Feynman concluded from the testimony that (unclear)**

[kəmiʃən membər rɪtʃərd feɪnmən kənkludəd frəm ðə testəmoni ðæt \_\_\_\_]

**that, uh, mentality of overconfidence exists due to the extraordinary record of the success**

[ðæt ə məntələti əv ovəkənʃədəns ɛgzəst du tu ðə ɪkstrədənəri rəkɔrd əv ðə səkʃəs]

**of the space flights.**

[əv ðə speɪs flajts]

**Although the member may seem to think that, the next time, we can lower our standards**

[əldəw ðə membər meɪ sɪm tu sɪŋk ðæt ðə nekst taɪm wi kæn lowər əwər stændərdz]

**because it always works.**

[bɪkəz ɪt əlweɪz wɜːks]

**Number two, rationalization, the group discount warning other form of feedback, negative**

[nʌmbər tu ræʃənəlaɪzəʃən ðə grup dɪskawnt wɔːnɪŋ əðər fɔːm əv fɪdbæk neɡətɪv]

**feedback.**

[fɪdbæk]

**Example, before the launch, the highest level of the management of the three space centers**

[ɪgzæmpəl bəfɔː ðə laɪf ðə haɪəst levl əv ðə mænədʒmənt əv ðə θri speɪs sentəz]  
**and the MTI company teleconferencing the meeting.**

[ænd ðə əmtiaɪ kəmpəni teləkɒnfərənsɪŋ ðə mi:tɪŋ]

---

**MTI's engineer showed the evidence that the joint would fail.**

[əmtiaɪs ɪnʒənɪr ʃəʊd ðə evədəns ðæt ðə dʒɔɪnt wʊd feɪl]

---

**The MTI's management want to support its engineer, but flight center official don't want,**

[ðə əmtiaɪs mænədʒmənt want tu səpɔːt ɪts ɪnʒənɪr bət flaɪt sentə əfɪʃəl dont want]

**don't want to delay and find many technical rationalization fighting MTI's insight.**

[dont want tu deɪj ænd faɪnd mæni teknlkəl ræʃənəlaɪzəʃən faɪtɪŋ əmtiaɪs ɪnsaɪt]

---

**The MTI's engineer's data were inconclusive.**

[ðə əmtiaɪs ɪnʒənɪrɪz deɪtə wɜː ɪnkɒnklu:sɪv]

---

**Third, stereotyped view of the opponent.**

[θɜːd steriətaɪpt vju əv ðə əpənənt]

---

**It is mean that members of the group often have the stereotyped view of the opposition of**

[ɪt ɪz miːn ðæt mɛmbə əv ðə grʊp əfən hæv ðə steriətaɪpt vju əv ðə əpəzɪʃən əv]

**anyone with a competing position, uh, of anyone with a competing opinion.**

[eniwən wɪθ ə kəmpɪtɪŋ pəzɪʃən ə əv eniwən wɪθ ə kəmpɪtɪŋ əpɪnjən]

---

**They feel that opposition is too stupid.**

[ðe fiːl ðæt əpəzɪʃən ɪz tuː stʊpəd]

**NASA's officials never seriously considered the MTI's, mmm, the suggestion rised by**

[næsəz əfɪʃəlz nəvər sɪrɪəsli kənsɪdərɪd ðə əmtɪəjs mmm ðə səɡdʒɛstʃən rɪzd bæj]

**MTI's engineer.**

[əmtɪəjs ɛndʒənɪr]

---

**They thought that they, uh, they completely knew the nature of the joint problem.**

[ðej θat ðæt ðe ə ðej kəmplitli nu ðə neɪtʃər əv ðə dʒɔɪnt prɒbləm]

---

**Indeed, the invalidate the MTI engineer's information and view.**

[ɪndɪd ðə ɪnvəlɪdeɪt ðə əmtɪəj ɛndʒənɪrɪz ɪnfərmeɪʃən ænd vju]

---

**Number four, conformity pressure.**

[nʌmbər fɔː kənfɔːrməti prɛʃər]

---

**A group member often give pressure to anyone who is supporting the different view.**

[ə grʊp mɛmbər əfən gɪv prɛʃər tu ɛniwən hu ɪz səpɔːrtɪŋ ðə dɪfərənt vju]

---

**Flight center official pressure MTI to change the position that the launch would fail.**

[flaɪt sɛntər əfɪʃəl prɛʃər əmtɪəj tu tʃeɪndʒ ðə pəzɪʃən ðæt ðə lɔːntʃ wʊd feɪl]

---

**Due to the pressure, MTI, due to the pressure from NASA, finally MTI management**

[du tu ðə prɛʃər əmtɪəj du tu ðə prɛʃər frəm nəseɪ fəɪnəli əmtɪəj mænədʒmənt]

**change their opinion.**

[tʃeɪndʒ ðeɪ əpɪnjən]

---

**Number five, self-censorship.**

[nʌmbər faɪv self sɛnsərʃɪp]

**Group member often withheld their opinion when they have ideas that different from the**

[gru:p mɛmbər afən wɪðhɛld ðɛr əpɪnjən wɛn ðe hæv aɪdiə ðæt dɪfərənt frəm ðə]

**apparent group censorship because the disagreement are uncomfortable.**

[əpərənt grʊp sɛnsəʃɪp bɪkəz ðə dɪsəgrɪmɛnt ɑr ənkəmfərtəbəl]

---

**Uh, (unclear) the president in MTI who had previously presented information against the**

[ə \_\_\_\_\_ ðə prɛzɪdənt ɪn əmtɪaj hu hæd prɪvɪəsli prɪzɛntəd ɪnfərmɛɪʃən əɡɛnst ðə]

**launch; however, folded to pressure from NASA and changed her original view.**

[laʊtʃ haʊevər fəʊldəd tu prɛʃər frəm nəse ænd tʃɛndʒd hɜr ərɪdʒɪnəl vju]

---

**(Unclear) NASA's rationalization for launch write a new information and presented them**

[\_\_\_\_\_ nəseɪz ræʃənəlaɪzɪʃən fɔr laʊtʃ raɪt ə nu ɪnfərmɛɪʃən ænd prɪzɛntəd ðɛm]

**to NASA as the reason that MTI had changed its recommendation to launch.**

[tu nəse əz ðə rɪzən ðæt əmtɪaj hæd tʃɛndʒd ɪts rɛkəmɛndɛɪʃən tu laʊtʃ]

---

**The number six, mindguards, some group members attempt to practice the group from**

[ðə nʌmbər sɪks maɪndɡɑ:ds səm grʊp mɛmbər ətɛmpt tu præktɪs ðə grʊp frəm]

**adverse information which might destroy majority view.**

[ædvɜrs ɪnfərmɛɪʃən wɪtʃ maɪt dəstrɔɪ mədʒɔrəti vju]

---

**The top already decided to correcting the (unclear) previous to the launch.**

[ðə tɒp əlɹɛdi dɛsəɪdəd tu kɔrɛktɪŋ ðə \_\_\_\_\_ prɪvɪəs tu ðə laʊtʃ]

---

**This information and the technical detail connection the story of the joint problem was**

[ðɪs ɪnfərmɛɪʃən ænd ðə tɛkɪkəl dɛteɪl kənɛkʃən ðə stɔ:ri əv ðə dʒɔɪnt prɒbləm wəz]

**withheld at the meeting.**

[wɪðheld æt ðə mi:tɪŋ]

---

**Uh, thanks for listening my presentation.**

[ə θæŋks fɔr lɪsənɪŋ maɪ prɛzənteɪʃən]

**Appendix M: Post-interview Questions**

1. How many times did you shadow the audio-recorded summary at home? Please answer honestly.
2. On a scale of 1-10, with 1 being very low and 10 being very high, how would you evaluate shadowing as a pronunciation activity?
3. Do you think that shadowing helped you to improve your pronunciation? Please explain your answer.
4. On a scale of 1-10, with 1 being very poor and 10 being very good, how would you evaluate your pronunciation during your in-class oral presentation?
5. Do you believe that your pronunciation was better, the same or worse during your presentation “rehearsal”?
6. On a scale of 1-10, with 1 being very low and 10 being very high, how would you rate your level of anxiety during your in-class oral presentation?
7. Do you believe that your level of anxiety was higher, the same or lower during your presentation “rehearsal”?