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Implementing Computer-Assisted Language Learning in the Teaching of Second Language Listening Skills

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IMPLEMENTING COMPUTER-ASSISTED LANGUAGE LEARNING IN THE TEACHING OF SECOND LANGUAGE LISTENING SKILLS

By
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DEDICATION

First, I would like to thank God for allowing me to fulfill this momentous task. To my friend, Kyle Sparks, for without whom the completion of this degree would not have been possible. To my friends, Kerry and Chelsea, thank you for inspiring me to fulfill my dreams since Argentina. To my advising committee, Dr. Esther Smidt and Dr. Nancy Drescher, I will never forget the incredible support and encouragement that you two have given me. Finally, to my family, many thanks for supporting me during my graduate studies.

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CHAPTER ONE: Introduction

The acquisition of second language listening skills is an area of second language research that has, until recently, been seen as being a passive skill that was acquired simply by listening to a conversation. Due to this assumption, students were expected to comprehend the meaning of an aural text in terms of what took place and in what context. Over time, this failed approach has made second language instructors question the efficacy of their listening instruction and the effect it had in the classroom.

Today, listening has changed from being thought of as a passive skill, to one that requires interaction in order to be fully acquired. This new concept in the acquisition of listening has forced second language instructors to reexamine their listening approach and to seek out alternative ways to engage students in the target language.

Based on research by numerous academic authorities (Brown, 2007; Cross, 2009; Vandergrift, 2003 & 2004), listening has been identified as being better taught through the use of an integrative approach that encompasses both top-down and bottom-up processing to capitalize on students' past knowledge of social contexts and grammar (Vandergrift, 2004). It is thought that by using previously acquired knowledge, learners will be able to better comprehend both the context and linguistic content that are present in everyday conversations.

To enhance this approach to listening instruction, specific learning and listening strategies have been identified as being highly effective at developing listening skills in second language learners (Oxford, 2001; Vandergrift, 2004). These strategies have been

identified by Oxford (2001) as being cognitive, metacognitive, and socioaffective in nature, each with its own way of making audible language more comprehensible. By utilizing such strategies, listening activities have become more interactive and dynamic in terms of how language is employed to the advantage of second language learners.

With the advent of the Internet, the implementation of computer-assisted language learning (CALL) has become a key factor in how second languages are taught all over the world. Language instructors can now, in seconds, access authentic language materials that were only a dream to have two decades ago. Today, the use of websites like *YouTube* offers an infinite array of possibilities about how to increase the efficacy of listening instruction. When various audiovisual and audio-only materials are applied with the aforementioned listening strategies, listening uptake has been shown to increase among second language listeners (Jones, 2008). However, technology integration in regard to listening instruction may be a problem among second language professionals.

Because technology is in a state of constant change, it can be hard to keep up with operate tools and utilize materials to benefit student learning. Because of this difficulty, it has been suggested that second language instructors who are not proficient in CALL may resort to more traditional means of listening instruction with which they are familiar (Frane, Beltrán, Petit, Tweddle, & Barge, 2009). If this is the case, second language learners may be at a disadvantage due to the trepidation felt by their teacher. To resolve this dilemma, all language instructors should be properly trained in the effective use and implementation of CALL-based materials inside the classroom (O'Bryan & Hegelheimer, 2007). Students will then be able to capitalize on their listening potential using authentic materials suitable for the twenty-first century classroom.

The focus of this alternate plan paper is to research how computer-assisted language learning can be applied to second language listening instruction. Beyond this goal, the author also focuses on how specific listening strategies can be applied to classroom curricula through an integrated approach in an ideal second language setting. To gain a better understanding of how this integration may be achieved, two intermediate Spanish classes were observed as part of an informal investigation into how the teaching of listening can be conducted with CALL materials.

Chapter One of this paper outlines the general arguments regarding how listening instruction has been perceived in the field of second language education, advocates for a more interactive method of instruction, and argues that the inclusion of technological materials could greatly enhance the listening capability of language students. Chapter Two builds on this argument by looking at what research says about teaching listening in conjunction with technological materials. It also stresses that the implementation of an integrated strategy-based approach to listening should be used for the benefit of all students. Chapter Three looks at how the listening approaches of two second language professionals compares and contrasts with the literature review of Chapter Two. Finally, Chapter Four concludes with some final recommendations and thoughts regarding listening instruction and what was observed.

Related Terminology

For the purpose of clarity, the following terminology has been defined for the convenience of the reader.

- *Bottom-Up Processing* – The way learners construct understanding in language through meaningful connections associated with grammar and lexical items (Vandergrift, 2003).

- *CALL* – Computer-assisted language learning, the use of computer materials in language learning and teaching (Chapelle, 1990)

- *Cognitive Strategies* – The mental strategies students utilize to comprehend what they hear (Vandergrift, 2003).

- *Metacognitive Strategies* – Ways in which students identify personal learning preferences and necessities (Oxford, 2001). They also utilize information from cognitive thoughts to guide language learning through planning, monitoring, and evaluation (Ellis, 1994).

- *Socioaffective Strategies* – How students interact with each other in various social settings (Ellis, 1994).

- *Top-Down Processing-* The way learners comprehend language by connecting it with "prior knowledge" and through familiarity with the situational context. (Morley, 2001, p. 74).

CHAPTER TWO: Review of Literature

The emergence of technology use inside the second language classroom has afforded new opportunities to enhance language learning, especially in the area of listening, which Vandergrift (2004) states "is probably the least explicit of the four language skills, making it the most difficult skill to learn" (p. 4). Therefore, the focus of this paper is to research the role that technology has on the teaching of listening, and how technology can be fully integrated into second language classrooms using effective teaching approaches and strategies. The importance of this topic cannot be overlooked, according to Smidt and Hegelheimer (2004), because "the mere provision of media and resources alone" (p. 541) is not enough to ensure the successful implementation of various new and complex tools. To resolve any issues with such implementation, proper training must be provided to instructors to ensure that CALL-based listening instruction for students is successful.

The use of technology to teach listening is a complex process that involves many factors such as listening approaches, strategies, and the incorporation of new technology. The best way to come to understand this complicated balance of pedagogy and technology is to first learn what research has found in the teaching of listening before the advent of CALL.

Listening As A Skill

The utilization of both top-down and bottom-up language acquisition processes has been widely acknowledged as an effective approach to language learning. Recent research has suggested that using these two processes together could be the best way of

enhancing listening for students learning another language as it allows them to benefit from each approach rather than focusing on one process in isolation.

In conjunction with these approaches, the instruction and use of various listening strategies is advocated among researchers like Vandergrift (2004) to help learners understand the process by which listening content is made comprehensible. The instruction of cognitive, metacognitive, and socioaffective strategies have been shown to greatly enhance the understanding of various listening texts when combined with the aforementioned approaches (Vandergrift, 2004). Examples of such strategies include having students predict, hypothesize, and evaluate information heard in a listening activity.

Once a firm understanding of processes and strategies has been achieved within the context of listening instruction, the use of media such as technology and its role is more easily understood. The use of various forms of multimedia resources such as videos, podcasts, CD-ROMS and others in conjunction with authentic language materials is an excellent way to aid in the implementation of listening approaches and strategies inside the language classroom.

Listening Processes

Throughout the history of teaching listening in second language contexts, two main approaches or processes have been emphasized. First, in the top-down approach to listening comprehension, learners use background information, also known as schemata, to help them form connections with what is being heard. Second, in the bottom-up approach, learners are able to use their knowledge of various grammatical structures to interpret the overall meaning of an aural text. While the approaches described above

appear to be simple enough, their use and implementation have sparked various debates regarding which one would be more suitable for improving listening instruction.

Cross (2009) suggests that the teaching of listening should predominantly be focused on top-down processing so that learners who have trouble understanding listening in another language can better comprehend what is being said; however, he also suggests that a bottom-up approach to listening should not be ignored either, as this may be a critical approach to learning more grammatical structures. This idea is supported by Brown (2007), who points to the fact that learners should learn to use both processes so that they can maximize meaning from any listening act; however, he also warns against the overuse of bottom-up processing because it could hinder a learner's acquisition of automaticity in understanding spoken segments of language. It appears that while these two processing approaches may be beneficial for various ways of teaching listening, they may not be so successful if taught to students separately in individual activities. This very idea is evoked by Richards (1990) who says:

> Too often, listening texts require students to adopt a single approach in listening, one which demands a detailed understanding of the content of a discourse and the recognition of every word and structure that occurs in a text. Students should not be required to respond to interactional discourse as if it were being used for a transactional purpose, nor should they be expected to use a bottom-up approach to an aural text if a top-down one is more appropriate (p.83).

Moving beyond the top-down versus bottom-up debate, it has been advocated that listening is "neither top-down or bottom-up processing, but an interactive, interpretive

process where listeners use both prior knowledge and linguistic knowledge in understanding messages" (Vandergrift, 2003, p. 427). In addition to this, any approach used by listeners may need to take into account learner's proficiency level and knowledge of topical content (Vandergrift, 2003).

Now that top-down and bottom-up processes have been clearly defined, it is important to distinguish between the types of activities that each one uses. As stated by Peterson (2001), top-down exercises "focus on meaning" (p. 93) while utilizing schematic knowledge to help connect language. The author goes on to state that an activity is considered bottom-up "if focus is on form and the exercise deals with one of the structural systems of English" (Peterson, 2001, p. 93). In other words, if the main goal of an activity is to understand a grammatical function, it would be considered bottom-up due to the non-topical grammatical nature of the task. In comparison, if an activity were to focus on meaning in order for learners to come to understand a given text, it would be considered top-down since comprehensibility would be determined based on the student's prior knowledge and familiarity with the context of the material. Specific listening activities for each process will be discussed further in the chapter.

In sum, the use of both top-down and bottom-up processing needs to be individualized to specific learning goals within specific activities and the mode of instruction should be chosen by the teacher to meet those specific goals. However, it is important to remember that both processes are dependent on the listening level as well as the overall language proficiency of the student, both of which may directly affect the pace and way in which the processes are utilized (Vandergrift, 2004).The following two

subsections will discuss in depth each listening process and the role each one has in teaching listening to second language students.

Top-down processing.

Hegelheimer and Tower (2004) state that in order to be successful in learning a new language, the learner must participate and practice it in a meaningful way, which is a notion supported by second language acquisition theory. In her research about technology use in language classrooms, Jones (2008) echoes this sentiment by stating that historically, language instructors have deemed it necessary for students to use language in an authentic manner. She further identified the communicative approach as a method of teaching that "emphasized a more active use of language to perform tasks based on meaning, not form" (p. 402). In other words, learners must not be bogged down in grammar-translation listening activities that do not emphasize the purpose or meaning of the language text being heard. A top-down approach then, may be the best way to facilitate such a meaning based listening activity in second language classes while utilizing appropriate topics to capture students' attention and heighten their motivation to listen more carefully.

Numerous researchers, such as Morley (2001) reveal that top-down processing involves the use of a "bank of prior knowledge" and a set of "global expectations about language and the world" (p. 74). The author goes on to say that these mechanisms are utilized to help the listener foretell what the text being heard is going to mean, and how it fits into their prior knowledge (Morley, 2001). Brown (2007) concurs by interjecting that schemata, also known as schematic knowledge, may be used to comprehend the meaning

of a text through a broader view. Moreover, the use of schematic knowledge with top-down processing may hint at the fact that listeners could use it as a blueprint to comprehend specific texts (Vandergrift, 2003).

Various forms of schematic knowledge have been identified, such as "knowledge of the topic, the listening context, the text-type, the culture or other information stored in long-term memory as schemata (typical sequences or common situations around which world knowledge is organized)" (Vandergrift, 2003, p. 427). With this definition in mind, the use of a top-down approach to listening would have students behaving like native English speakers, requiring them to use schematic features to produce meaningful language (Tsinghong, 2010). In this scenario, second language listeners would be using the presented audible language in a way similar to native speakers of English when they first acquired their listening skills. A top-down processing approach may give a more authentic feel to listening instruction so that students are more apt to acquire what is being heard rather than memorizing and forgetting new knowledge soon after it is utilized.

The challenge that remains is how teachers should encourage the use of top-down processing in their classrooms. By using oral and written texts that are beyond the linguistic ability of students to comprehend, as recommended by Hulstijn (2003), students may be more likely to use this approach, which appeals to their schematic knowledge to decipher meaning. Another way of encouraging the use of top-down processing would be to directly teach listening strategies to students who are looking to improve their listening skills in class (Cross, 2009). The explicit teaching of listening strategies will be discussed in later sections. Teachers could also emphasize the use of

top-down processing by using recordings of native speakers of a target language while promoting the overall understanding of a challenging listening text (Jones, 2008).

Top-down listening activities.

This paper now turns to a description of various top-down listening activities. Table 1, adapted from Brown (2007), identifies key top-down activities that may be useful to second language teachers. The activities listed below are based on the level of the learners and all activities take the form of a content-based approach to listening. For example, a beginner listener may be asked to simply listen to a text and identify a picture that resembles what is being heard, while a more advanced listener may be asked to listen to an academic text and infer the specific meaning being implied.

Table 1

Top-down listening activities (From Brown, 2007, pp. 313-317)

Listening Level	Listening Goal	Activity
Beginner	Discriminate between emotional reactions	Listen to a sequence of utterances. Place a checkmark in the column that describes the emotional reaction that you hear: interested, happy, surprised, or unhappy.
Beginner	Recognize the topic	Listen to a conversation and decide what the people are talking about. Choose the picture that shows the topic.
Intermediate	Analyze discourse structure to suggest effective listening strategies	Listen to six radio commercials with attention to the use of music, repetition of key words, and number of speakers. Talk about the effect these techniques have on the listeners.

Table 1 continued

Intermediate	Listen to evaluate themes and motives	Listen to a series of radio commercials. On your answer sheet are four possible motives that the companies use to appeal to their customers. Circle all of the motives that you feel each commercial promotes: escape from reality, family security, snow appeal, sex appeal.
Advanced	Use the introduction to the lecture to predict its focus and direction	Listen to the introductory section of a lecture. Then read a number of topics on your answer sheet and choose the topic that best expresses what the lecture will discuss.
Advanced	Find the main idea of a lecture segment	Listen to a section of a lecture that describes a statistical trend. While you listen, look at three graphs that show a change over time and select the graph that best illustrates the lecture.

The activities in table 1 outline the key components of a top-down approach to listening instruction based on Peterson's (2001) criteria that such activities should focus on meaning in conjunction with "global listening strategies" (p.93). Each activity requires the listener to use schematic information and to actively listen for meaning in a specified text; furthermore, none of the activities focus on grammar or fill in the blank type responses. Therefore, the activities require a more meaningful response that use language in an authentic way, a key identifier of a top-down processing approach to listening comprehension.

Bottom-up processing.

Having examined a top-down approach to listening instruction, this paper now focuses its attention on the bottom-up approach. According to Vandergrift (2003), in this approach, language learners construct understanding from a listening text by making meaningful connections associated with grammar and lexical items. This construction of meaning is achieved by utilizing their linguistic repertoire that has been linked with the use of bottom-up processing. This idea is enhanced by Morley (2001), who states that bottom-up processing is the way that a learner comes to know the meaning of a spoken text. This is accomplished through the ability to process "familiar sounds to words to grammatical relationships to lexical meanings" (Morley, 2001, p. 74). She further claims that bottom-up processing requires the listener to listen very carefully to oral input (Morley, 2001). Careful listening is necessary due to the fact that a bottom-up approach to listening requires learners to listen for very distinct details in spoken language. Brown (2007) concurs, stating that bottom-up processing is built around the understanding of various grammatical configurations such as sounds, words and other factors that attribute to oral output; however, he stresses that teachers should not employ the use of bottom-up processing frequently due to the claim that it may hinder the acquisition of automaticity with respect to spoken oral input.

Because of the confusion between how much either process should be used in listening instruction, Tsui and Fullilove (1998) conducted a seven year study looking at which process, top-down or bottom-up, would be more effective in teaching listening. The study, which included the participation of 20,000 students from the University of Hong Kong, examined students' listening responses while taking the Hong Kong

Certificate of Education Examination (HKCEE). The study analyzed student responses to two different question types. The first question type was labeled global questions (top-down), which required examinees to understand the listening text and draw inferences. The second was deemed local questions (bottom-up), which included seeking specific information in a text. Furthermore, two schemata types were also evaluated. The first, matching schema, allowed the examinee to follow the text in search of the answer they were looking for by finding linguistic cues that corresponded with both the written and oral material. The second, non-matching schema, consisted of questions where the examinee was required to readapt their understanding of the listening text due to a change of input in the oral text. An example taken from the study has an announcer asking "What saved the estate from burning down?" (Tsui & Fullilove, 1998, p. 440). Given this prompt, students are given a clue as to what information they are looking for (firemen); however, in the text which explains the work of the firemen, it turns out that it was the direction of the wind that saved the estate from burning down (Tsui & Fullilove, 1998). This additional information requires students to change their initial perception of what they thought the answer would be to something much more specific in the listening segment.

By taking the mean of all of the participants' responses, the results suggest that non-matching questions rather than matching ones yielded better results among more-skilled listeners of English, regardless of the question type. Because of this finding, the authors purport that bottom-up processing may be more important in listening instruction rather top-down in their study, since students need to be able to listen for specific linguistic information that may contradict prior input. Taken in context, this argument is

contrary to the belief that students would be best served through the implementation of a top-down approach. Given this conflicting information, it should be noted that research overwhelmingly favors top-down processing.

Interestingly enough, "successful listening comprehension" (Vandergrift, 2004, p. 7) skills have been partly attributed to the implementation of bottom-up processing inside classrooms, suggesting that less advanced listeners will need to undoubtedly learn it in order to succeed at listening as a skill. Vandergrift (2004) goes on to state that the use of these skills appear to be associated with which "word recognition skills are automatized" (p. 8). Contrary to this idea, Osada (2001) interjects that the overuse of bottom-up processing by beginner students could be linked to their failure to comprehend listening overall due to their inability to fully understand every word in a given text. So, while the use of bottom-up processing skills and how much to use them has been debated among researchers, it is reasonable to conclude that this approach to listening instruction is, at the very least, necessary to some degree in successfully acquiring listening skills in a second language.

Bottom-up listening activities.

Regarding bottom-up listening activities, Table 2, adapted from Brown (2007) outlines several bottom-up activities which can be utilized by teachers to better improve the lexical and grammatical competence of learners listening to an oral text. Examination of Table 2 shows the grammatical scope of various bottom-up activities and how they increase in difficulty as the language level of the learner increases. For example, a beginning level student may be asked to relate similar words to new vocabulary, whereas

an advanced learner may be asked to infer meaning of a text based on explicit key words

that are used in a listening text. What remains constant is the focus on form in relation to

the activities.

Table 2

Bottom-up listening activities (From Brown, 2007, pp. 313-317)

Listening Level	Listening Goal	Activity
Beginner	Discriminate between intonation contours in sentences	Listen to a sequence of sentence patterns with either rising or falling intonation. Place a check in column 1 (rising) or column 2 (falling), depending on the pattern you hear.
Beginner	Discriminate between phonemes	Listen to pairs of words. Some pairs differ in their final consonant, and some pairs are the same. Circle the word "same" or "different," depending on what you hear.
Beginner	Listen for normal sentence word order	Listen to a short dialogue and fill in the missing words that have been deleted in a partial transcript.
Intermediate	Recognize fast speech forms	Listen to a series of sentences that contain unstressed function words. Circle your choice among three words on the answer sheet – for example: "up," "a," "of."
Intermediate	Find the stressed syllable	Listen to words of two (or three) syllables. Mark them for word stress and predict the pronunciation of the unstressed syllable.

Table 2 continued

Intermediate	Recognize words as they are linked in the speech stream	Listen to a series of short sentences with consonant/vowel linking between words. Mark the linkages on your answer sheet.
Advanced	Use features of sentence stress and volume to identify important information for note-taking	Listen to a number of sentences and extract the content words, which are read with greater stress. Write the content words as notes.
Advanced	Become aware of sentence-level features in lecture text	Listen to a segment of a lecture while reading transcripts of the material. Notice the incomplete sentences, pauses, and verbal filters.
Advanced	Become aware of lexical and suprasegmental markers for definitions	Look at a lecture transcript and circle all the cue words used to enumerate the main points. Then listen to the lecture segment and not the organizational cues.

Integrative approach.

With the debate between top-down and bottom-up processes continuing, an overall compromise to listening instruction may be more beneficial for students. Researchers such as Vandergrift (2004) imply that second language students should learn to use both approaches so that they can maximize meaning from oral input. This idea is also echoed by Brown (2007) who with Vandergrift (2004) proposes the implementation of a curriculum with "an emphasis on bottom-up work for long-term language retention but top-down training for quick acquisition by learners" (Vandergrift, 2004, p. 6).

On a different note, Oxford (2001) determines that neither approach is positive or negative, but rather "neutral until the context of its use is thoroughly considered" (p. 362). Similarly, if students know the goals for which they are listening to a specified text, they will be able to better ascertain which approach is more beneficial for their understanding (Vandergrift, 2003). Based on past listening experiences, students may come to better understand which approach is better suited for them by being exposed to both types. A top-down approach may have students identify the setting of an oral text in conjunction with their past knowledge on a topic. On the other hand, a bottom-up approach may require learners to seek out examples of specific language and try to determine the meaning of it through their limited understanding of a new grammar point. By exposing students to both processes, it could better aid them in deciding which one is more suited to their own individual learning needs in a particluar situation.

It may be best if neither approach were to be looked at as the best way to teaching listening. Vandergrift (2003) suggests that learning how to listen should not be defined by anyone approach, but rather, should be considered an 'interactive, interpretive process where listeners use both prior knowledge and linguistic knowledge" (p. 427). Furthermore, it may be incumbent on the teacher to teach both listening approaches for use out of the classroom (Brown, 2007) where students can listen and utilize each process in authentic settings. However, Vandergrift (2003) reminds us that depending on the circumstance, each process will be utilized according to the student's "knowledge of the language, familiarity with the topic, or the purpose for listening" (p. 427).

To summarize, the use of one or both processes will be determined by many factors including but are not limited to the type of listening activity, students' learning

needs, level of the listener, and learning objectives. Regardless, an integrative approach to listening may be the best way in which to instruct all levels of learners as long as class activities are designed around the idea of listening as a whole. Table 3, adapted from Brown (2007), outlines such activities for teachers to use and to expand on in their own classrooms. By examining the activities below, it is obvious that a combination of top-down and bottom-up tasks are being employed. Before these type of activites, a student would be asked to complete a task based on their knowledge of grammar or content; they now have the opportunity to do both. In this sense, a beginner may now be asked to listen to a text while doing something interactive with the information, like drawing a route on a map, and an advanced learner may listen to an academic lecture, take key notes, and be asked to link the main ideas with supporting details.

Table 3

Interactive listening activities (From Brown, 2007, pp. 313-317)

Listening Level	Listening Goal	Activity
Beginner	Build a semantic network of word associations	Listen to a word and associate all the related words that come to mind.
Beginner	Follow directions	Listen to a description of a route and trace it on a map.
Intermediate	Discriminate between registers of speech and tones of voice	Listen to a series of sentences. On your answer sheet, mark whether the sentence is polite or impolite.
Intermediate	Listen to confirm your expectations	Listen to short radio advertisements for jobs that are available. Check the job qualifications against your expectations.
Advanced	Determine the main ideas of a section of a lecture by analysis of the details in that section	Listen to a section of a lecture and take notes on the important details. Then relate the details from an understanding of a main point of that section. Choose from a list of possible controlling ideas.
Advanced	Make inferences by identifying ideas on the sentence level that lead to evaluative statements	Listen to a statement and take notes on the important words. Indicate what further meaning can be inferred from the statement. Indicate the words in the original statement that seem to cue the inference.

Listening Strategies

The previous section explained the importance of an integrated approach to teaching listening through the use of top-down and bottom-up processes. The focus of this paper now turns to specific listening strategies that research has shown help students advance in their listening comprehension.

Vandergrift (2004) states that the "use of these processes in efficient and effective ways will need to balance a top-down, strategies-based approach with remedial, bottom-up training" (p. 14). Oxford (2001) also adds to this thought by suggesting that the instruction of specific strategies can be a good way to implement a strategy-based curriculum inside the classroom. She also theorizes that good listeners link strategies together while less skilled ones use a variety that are not conjoined in any way. It should be noted that Oxford (2001) focuses on learning strategies while Vandergrift (2004) specifies listening strategies. To be clear, the learning strategies defined by Oxford (2001) are for language learning in general and appeal across multiple skills. For the purpose of this paper, these strategies will be examined in terms of how they apply to listening as done by Vandergrift (2004). It should also be noted that both sets of strategies discussed by the two authors achieve the same goals in listening instruction and for this reason are referred to as the same term in this paper. Based on this analysis, listening strategies may play a key part in the acquisition of listening skills in order for second language learners to succeed (Brown, 2007).

To help implement such an approach to listening instruction, a "combination of collaborative learning, judicious teacher input, and a pedagogical cycle encompassing a

task-driven approach could be the optimal route to strategy learning and use" (Cross, 2009, p. 167). However, others have added that the way teachers educate may be directly related to how motivated the students are as well as on their perspective of learning a new language; therefore, factors such as these may have to be considered when thinking about teaching by way of a strategy-based approach to listening (Zheng, Han, &Guo, 2009).

If the use of strategies is to be considered an important step in the acquisition of listening, it may be equally important to know what makes a specific listening strategy worth using inside a language classroom. Oxford (2001) theorizes that a listening strategy can be used positively if it meets the following criteria: "(a) the strategy relates well to the L2 task at hand; (b) the strategy fits the particular student's learning styles; and (c) the student employs the strategy effectively and links it with other relevant strategies" (p. 362).Vandergrift (2003, 2004) agrees, as demonstrated by his claim that listeners can improve their listening skills if taught how to use specific listening strategies in a cohesive-fashion so that they can form connections to enhance their own listening outcomes.

Building on listening strategy use, it has been asserted that "listeners use metacognitive, cognitive, and socio-affective strategies to facilitate comprehension and to make their learning more effective" (Vandergrift, 2003, p. 427). Directly referring to these strategy types, Ellis (1994) defines each one as follows:

> *Cognitive strategies* refer to 'the steps or operations used in problem-solving that require direct analysis, transformation or synthesis of learning materials' (Rubin, 1987). … *Metacognitive strategies* make use of knowledge about cognitive

processes and constitute an attempt to regulate language learning by means of planning, monitoring, and evaluating. … *Social/affective strategies* concern the ways in which students elect to interact with other students and native speakers [italics in original] (Ellis, 1994, pp. 536-538).

Strategy implementation.

To implement listening strategies, researchers such as Cross (2009) believe that initial strategy instruction should include the use of a top-down approach to enhance comprehension in listeners who may have trouble understanding certain texts; however, a bottom-up approach may also have to be utilized in order to help students form a more "meaning-based comprehension" (p. 154) of language. Furthermore, when listening strategies and students' learning needs are considered, the acquisition of new language may be enhanced (Jones, 2008). Examples of such listening strategies have been identified as: "helping learners to listen for gist, to activate schema in prelistening, and to make predictions and inferences" (Vandergrift & Tafaghodtari, 2010, p. 472). The use of these specific listening strategies may enhance listening if instructors take into consideration the needs of their students, as suggested above, along with how each strategy may influence overall listening outcomes.

According to these researchers, then, it is apparent that the use of a strategies-based approach to listening may be an optimal way to instruct and enhance the listening skills of students at all levels of language acquisition. A strategies-based approach may help beginning listeners to be more confident in their abilities, and also help them develop listening as a vital language skill, while also assisting integrated strategy use by

employing both cognitive and metacognitive skills in listening discourse, an idea that is expanded upon in the following subsections (Vandergrift, 2004).

Cognitive strategies.

The use of cognitive strategies by second language learners is one of three main categories that have been identified as helping students engage in listening in order to comprehend a specific listening text in another language. Vandergrift (2003) defines cognitive strategies as "the actual mental steps listeners use to understand what they hear" (p. 427). These types of strategies include tasks such as organization, summarization, and elaboration of information that students use to manage the oral input they are hearing (Peterson, 2001). Interestingly enough, Smidt and Hegelheimer (2004), who conducted a study on how videotexts may help improve listening comprehension and the acquisition of vocabulary on twenty-four university level students, found that low-level listeners tend to use a majority of cognitive strategies, while more advanced listeners used a mix of both cognitive and metacognitive strategies. Drawing from this conclusion, it may be appropriate to choose specific listening strategies based on the listening level of second language learners. By doing so, language instructors may help students develop appropriate skills and thus improve in their listening comprehension.

Metacognitive strategies.

Metacognitive strategies are used to "oversee, regulate, or direct the listening process" (Vandergrift, 2003, p. 427). The successful application of such strategies has also been said to be used by listeners advancing in their listening skills (Vandergrift & Tafaghodtari, 2010). As shown in Table 4 (pp. 26-27), the use of metacognitive strategies

includes the use of tasks such as planning, monitoring and evaluation (Peterson, 2001).

Further research has identified this set of strategies as being essential "to the development

of self-regulated listening" (Vandergrift &Tafaghodtari, 2010, p. 473), especially among

more advanced listeners who tend to use a plethora of different strategies unlike their

lesser skilled counterparts (Vandergrift, 2003; Vandergrift & Tafaghodtari, 2010).

    Metacognitive strategy use is not limited to those who possess a higher level of

listening comprehension, however. Research has identified the use of metacognitive

strategies in less skilled listeners as being able to help them increase their confidence,

build understanding of listening as a process, and form connections by using

metacognitive and cognitive strategies together (Vandergrift, 2004). In order to facilitate

the practice of listening strategies, "students need repeated and systematic exposure to the

same sequence of metacognitive strategies used by skilled listeners" (Vandergrift, 2004,

p. 12). So, it seems apparent that metacognitive strategies can be taught and utilized by

all second language learners regardless of listening proficiency level.

    An example of the use of these strategies is outlined in Table 4 to help

demonstrate how a task driven, integrative approach using prediction, monitoring, and

problem solving strategies may foster the learning and use of metacognitive skills that is

essential to the enhancement of listening instruction (Vandergrift & Tafaghodtari, 2010).

Table 4

Stages of listening instruction and metacognitive processes (From Vandergrift, 2004, p.

11)

Pedagogical Stages	Metacognitive Processes
Prelistening: Planning/predicting stage 1. After students have been informed of the topic and text type, they predict the types of information and possible words they may hear.	1. Planning and directed attention
First listen: First verification stage 2. Students verify their initial hypothesis, correct as required, establish what still needs resolution, and decide on the important details that still require special attention.	2. Selective attention, monitoring and evaluation
3. Students compare what they have understood/written with peers, modify as required, establish what still needs resolution, and decide on the important details that still require special attention.	3. Monitoring, evaluation, planning, and selective attention
Second listen: Second verification stage 4. Students verify points of earlier disagreement, make corrections, and write down additional details understood.	4. Selective attention monitoring, evaluation, and problem solving
5. Class discussion in which all class members contribute to the reconstruction of the text's main points and most pertinent details, interspersed with reflections on how students arrived at the meaning of certain words or parts of the text.	5. Monitoring, evaluation, and problem solving

Table 4 continued

Third listen: Final verification stage 6. Students listen specifically for the information revealed in the class discussion which they were not able to decipher earlier.	6. Selective attention, monitoring, and problem solving
Reflection stage 7. Based on the earlier discussion on strategies used to compensate for what was not understood, students write goals for the next listening activity.	7. Evaluation, planning

As Table 4 shows, the primary use of metacognitive strategies involves explicit instruction in conjunction with various stages of listening such as pre-listening activities, and listening to a specific text multiple times to achieve comprehension using evaluation and monitoring skills. The reflection stage appears to be a very important part in the integrative nature of strategy instruction since it appears to be where students tie together everything that they understand from a listening activity and reflect on what they can do better on. It is worth noting that metacognitive strategies include the students' ability to plan, monitor, and evaluate their own language performance.

Vandergrift (2003) identifies six tasks that students must know how to do in order to successfully listen outside of the classroom: "(a) analyze the requirements of a listening task; (b) activate the appropriate listening processes …; (c) make appropriate predictions; (d) monitor … comprehension; (e) problem-solve to guess the meaning of what they do not understand; and (f) evaluate the success of their approach" (p. 428).

Using these steps as a guide to instruction in conjunction with those in Table 4 (pp. 26-27), it is apparent that the teaching and utilization of any metacognitive strategy must be done in a process that is integrated with others. Just as with an integrative approach to listening using top-down and bottom-up processes, it could be asserted that listening strategies hold a similar symbiotic relationship with each other in which multiple strategies are used for the benefit and increased acquisition of the listener.

Socioaffective strategies.

The last type of listening strategies used by listeners to enhance understanding is socioaffective strategies. It is thought that socioaffective strategies are most important when second language learners are taking part in real conversation, requiring a response from each participant in a given conversation (Brown, 2007). A clearer definition is proposed by Vandergrift (2003) , namely that these strategies require social interaction among people so that they can be utilized in an effective manner. O'Malley and Chamot (1990) go further by clearly outlining that they "consist of using social interaction to assist in the comprehension, learning or retention of information" (p. 232). Examples of socioaffective strategies include cooperative learning, and asking for clarification on a given set of instructions (Peterson, 2001). Since socioaffective strategies require students to interact with each other, they may not be aware that interacting with their peers is an effective way of enhancing not only listening, but language overall. Therefore, it could be beneficial to explicitly teach students socioaffective strategies and the potential benefits that they may have by telling students that any social interaction in which language is heard and produced could potentially have a positive effect on listening skills.

To conclude, all three types of strategies, (cognitive, metacognitive, and socioaffective) must be used in a cohesive way to help learners become more aware of the various techniques that can be used to help them gain a better understanding of what is being said inside and outside of class. The next section of this paper discusses the importance of technology integration in the teaching of listening.

Technological Materials in Listening Instruction

Up until now, this paper has discussed the importance of an integrative approach to listening instruction in order to make listening input more comprehensible to second language learners. Important approaches like top-down and bottom-up processes have been discussed in detail in order to provide a broad understanding of how to approach the teaching of listening in conjunction with the various listening strategies that have been shown to enhance listening uptake. With all of this knowledge considered, what role does technology play in the teaching of listening when implemented in a strategy-based approach as discussed above?

The use of technology in the second language classroom has been studied for many years. Beginning with the introduction of cassette tapes that accompany language textbooks, to the advent of the internet, the use of technology has been tried and tested on various levels in order to enhance language learning. It could be proposed, however, that the skill that is most greatly improved by technology is listening, due to the advent of online audiovisual materials that improve input. With the use of the internet, an almost infinite supply of authentic resources is available for teachers to utilize. Technology however, still appears to have a reputation of being challenging in the minds of many

educators. Because of this perceived difficulty, it may not be used in a manner that is

productive to improving listening skills. Frane et al. (2009) state that teachers use

approaches that they are accustomed to based upon their personal experiences in the

classroom. Based on this observation, second language instructors may still be wary of

new advancements in technology, and as a result, they may not seize the opportunity to

familiarize themselves with these new tools for the advancement of listening in their

students.

To help overcome this fear of technology use, it is suggested that teachers could

be taught how to use computers and other technologies so that any apprehension towards

them is relieved (O'Bryan & Hegelheimer, 2007). One of the most prominent concerns

among teachers seems to be how to fully integrate technology into the classroom and

what pedagogical changes might occur with these changes. Researchers such as

Stockwell (2007) and Joshi (2010) describe the relationship between technology and

pedagogy as a symbiotic one whereby they rely on each other for their mutual success or

failure in the teaching of languages. Put another way, these two pieces of the puzzle

could be seen as "the chicken or the egg" (Stockwell, 2007, p. 118) debate that as new

technologies emerge, they may allow for new pedagogical changes in teaching. Likewise,

as new pedagogical methods materialize, they may give way to possible advancements in

technology (Stockwell, 2007).

Given that technological materials could directly affect listening instruction in

the classroom, it is imperative that they are implemented through a strategy-based

approach so that listening can be enhanced. However, providing technologically

advanced materials to language classrooms may not be enough to ensure that they are

being used effectively; just like teachers, students may also have to be instructed on how to optimally use them in class activities (Smidt & Hegelheimer, 2004). Proper training in the use of new materials in class may not only enhance the students' learning environment, but could also allow input to become more comprehensible through the easing of anxiety and through the use of various stimuli that new technologies offer to second language learners.

Factors such as the use of sight, sound, and text are three features thought to be used in various technological materials that could potentially help learners enhance their listening skills (Jones, 2008). It has been thought that with continuing innovations in technology, listening tasks may become "more multisensory and interactive" (Jones, 2008, p. 406). If this is true, it may be prudent for teachers to understand that successful implementation of technology in the classroom may be entirely dependent upon the use of pedagogical activities that are not possible in other learning settings (Salaberry, 2001). Thus, the use of technology in a classroom would not be to simply replicate, but rather to enhance the completion of tasks that could only be accomplished through the use of computers or other technological devices (Hughes, Thomas, & Scharber, 2006). Levy and Stockwell (2006) concur with this assertion by stating that "an essential factor in using technology to teach any language skill or area is that technology should provide something that is not available through more traditional means" (p. 180). In other words, if it is possible to complete an activity using a traditional blackboard or other non-technological material, then technology should probably not be used just to replicate the same activity if it did not enhance learning outcomes.

The utilization of technological materials inside the classroom could bring about many new questions as to how they may be combined with teaching pedagogy. How would a teacher fully integrate CALL-based materials into a traditional curriculum that only uses textbooks and audio-cassette tapes? What would strategy instruction look like when integrated with CALL materials? Cross (2009) outlines a specific approach to listening instruction that was used with advanced ESL students in Japan in helping them understand video clips from the British Broadcasting Corporation (BBC). This model combines the use of specific listening strategies with audiovisual technology (videos) to help optimize listening comprehension for students.

Table 5

Strategy Instruction using Technology (From Cross, 2009, p. 158)

Instruction Model when using Technology Materials
1) Identify and analyze factors that may influence the extent of comprehension.
2) Expose learners to the material and ascertain whether or not they already apply any listening strategies.
3) Determine suitable metacognitive, cognitive, and social-affective strategies for instruction and consider appropriate activities through which to teach them.
4) Prepare pre-listening, while-listening and post-listening materials and exercises.
5) Conduct integrated and informed strategy instruction, provide substantial practice and feedback, and consistently review.
6) Evaluate the learner instruction on a regular basis and revise where necessary.
7) Encourage self-evaluation and autonomous use of listening strategies.

As Table 5 shows, the specific strategy instruction model, provided by Cross (2009), resembles that of Vandergrift (2004) in Table 4 (pp. 26-27). They both appear to take into account the important role that strategies may have when teaching listening.

The model provided by Cross (2009) was used in his study on students in Japan which looked at the effect of listening strategy instruction on advanced ESL learners. A total of fifteen students participated in the study, including seven students in the experimental group, and eight students in the comparison group. Both groups were exposed to content from *BBC News* videotexts which covered various current events from around the world with an average length ranging between two to three minutes. One video was used during each class between weeks two through nine of the course. While the comparison group was exposed to the videos in class, they did not received twelve hours of listening strategy instruction like their counterparts in the experimental group. Upon concluding his study on how this strategy model would affect students compared to those who did not use it, the experimental group was found to have performed better on the posttest results. However, both groups are noted as making significant progress with listening comprehension.

The main emphasis here is to provide a possible instructional model that brings together the various listening strategies discussed before in conjunction with technological resources that are available in classrooms. The following subsections will discuss the role of audiovisual and audio materials specific to CALL and how they can enhance the teaching of listening.

Audiovisual materials.

For many years research has shown that visual or written stimuli used in conjunction with listening to an aural clip may greatly enhance the listening comprehension of second language learners (Jones & Plass, 2002). Baltova (1999)

researched how the use of subtitled videos would affect the listening ability of ninety-three high school students learning French in the eleventh grade. The study consisted of three groups: 1) a reversed condition group in which a video was viewed in the L1 along with L2 subtitles then viewed again in the L2 along with L2 subtitles; 2) A bimodal condition group where students watched a video in the L2 accompanied with L2 subtitles; and 3) a traditional group that only viewed the video as it was. A comprehension test was given to all the study participants following the video viewings. The results revealed that the reversed and bimodal groups achieved far better comprehension results than the traditional group, but that no great learning disparity existed between the two groups that utilized subtitles.

A different study conducted by Chung (1994) looked at the effect of visual aids on the listening comprehension of students and found that when pictures or video were accompanied with aural segments, that students appeared to understand in greater detail what was being heard. The results indicate that using more advanced technologies which utilize both audio and visual stimuli may help give students a more real world view of the target language that is being studied (Verdugo & Belmonte, 2007). Added to this, the use of multimedia materials such as videos could enable language instructors to make language more understandable by associating it with prior knowledge or other examples (Vanasco, 1994), something that may have been much harder to do before the advent of the computer or the internet.

The use visual cues such as subtitles, is what led Mayer (1997, 2001) to create the Generative Theory of Multimedia Learning. This theory suggests that learning utilizes two different modes, verbal and visual. Using both modes, learners select and organize

pertinent information into intellectual representations that are eventually combined with

the help of schematic knowledge (Morley, 1997). When this combination is achieved,

both visual and verbal modes of input can be utilized to help learners form meaningful

connections to enhance comprehension (Morley, 1997).

As it applies to listening, the use of both visual and verbal modes may include the

use of top-down processing through the use of schematic knowledge that the learner

would already have. Figure 1 below shows an image of what this theory looks like and

how both visual and verbal cues may work together to help learners understand what is

being heard. The use of visual cues may also be directly connected with making aural

input more comprehensible to second language students (Vanasco, 1994).

Figure 1
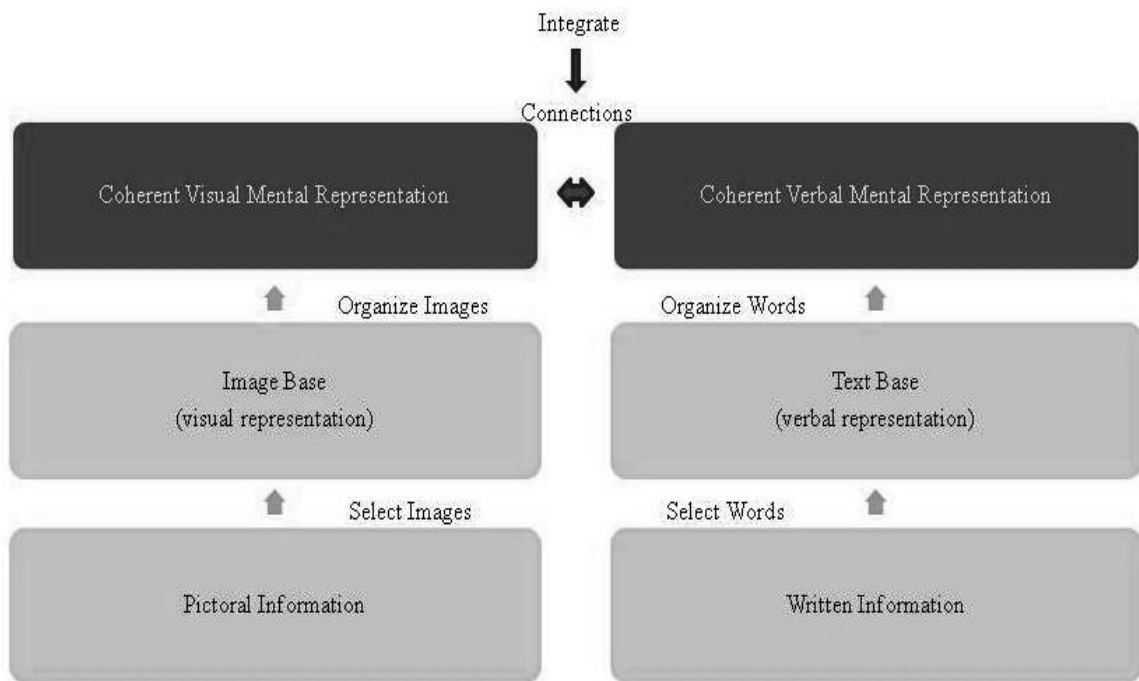
Mayer's (1997, 2001) Generative Theory of Multimedia Learning. (From Jones & Plass, 2002, p. 549)

Using audiovisual materials within a context of strategy instruction may be something that is necessary to stress. Tsinghong (2010) identifies four effective strategies that teachers could use while implementing audiovisual materials such as video clips in the listening curriculum. Table 6 identifies these four strategies as possible ways of utilizing video clips on websites like *YouTube*. It is apparent that each of these specific viewing or listening strategies may be directly linked to the metacognitive strategies discussed earlier in this chapter, namely that they appear to make use of metacognitive strategies such as predicting, selective attention, and evaluation. This example shows how a strategy-based approach to listening could be implemented using audiovisual technology materials in second language classrooms.

Table 6

Audiovisual Strategies using Videotexts (From Tsinghong, 2010)

Strategy	Definition
Jigsaw viewing	Half of a class watches a video without sound while the other half watches it with sound.
Silent viewing	Teacher plays a video with the sound turned off while students speculate about what the characters are saying. Following this, students watch the video with the sound on to check whether or not their predictions were correct.
Freeze frame viewing	Teacher pauses the video at a specific frame while having students predict what a specific character might say.
Sound only viewing	Students listen only to the sound of a video. After this, they guess in what type of setting a specific conversation might take place in. Then they watch the video to confirm their guess.

Some of the strategies outlined in Table 6 appear to separate the audio content from the visual content; however, increased learning in listening comprehension may be more likely to occur when both the aural and visual content are provided at the same time (Jones, 2008). The scaffolding provided by both aural and visual content helps second language learners understand the content area being discussed (Smidt & Hegelheimer, 2004). In addition, when visual and aural content are combined, they may increase the chances of low-level learners comprehending a specific listening text; the corollary of this effect is that "the more students understand an aural passage, the less they rely on pictorial information" (Jones, 2008, p. 408). Considering this possibility, the use of visual cues in conjunction with aural input may be more beneficial to low-level listeners than to those who are more advanced.

Overall, the use of visual cues in the form of video or a picture is interesting to consider when teaching listening. However, what role does the use of captions or subtitles play in listening acquisition? Are these textual cues effective in helping listeners grasp a better understanding of what they are viewing in a video given the fact that they are now required to read, thereby possibly causing less attention to be paid to listening?

Captions and subtitles.

The use of videos in the second language classroom may enhance the provision of input to students by more closely reenacting "real-life face-to-face experiences" (Guichon & McLornan, 2008, p. 86). To achieve this effect, "captions facilitate language learning by helping learners visualize what they hear, especially if the input is slightly beyond their linguistic ability" (Winke, Gass, & Sydorenko, 2010, p. 65). The use of

video captions or subtitles then, while viewing a multimedia video appears to be a very unique way to teach listening since it may give students the increased benefit of visual cues to scaffold a listening text.

A study done by Guichon and McLornan (2008) looked at the effects of multimodality on listening in another language. The study was comprised of forty French undergraduate students who were split into four groups of ten. Each group was shown a *BBC* video clip segment in a different mode. Group One only listened to an audio version of the tape, while Group Two saw the video as it was. Group Three also viewed the video but with subtitles in the participants' L1, while Group Four had subtitles in the target L2. During the viewing participants were allowed to take notes to help them remember key details of the video. Following the video, participants were asked to write an English version of what they had viewed. Upon analyzing the possible semantic groups among the written results, it was determined that both groups which were exposed to subtitles were significantly better able to recount in writing what they had viewed. Similar results were also reported by the study done by Baltova (1999). Therefore, research shows that the use of video subtitles may help learners improve in their ability to translate, pronounce, and comprehend the target language (Brett, 1997), adding to the list of possible benefits that written stimuli may offer language learners in other language skills.

It may also be interesting to understand why subtitles that accompany videos enhance listening comprehension skills. Guichon and McLornan (2008) suggest that since videos with subtitles have two visual modes, pictorial and verbal, they may present oral discourse "in a way that one mode, e.g. exposure to just audio data, might not" (p. 86). In other words those videos could greatly increase students' chances of

understanding what is being said through a better knowledge of the context in which a text is taking place.

Another way in which subtitled or captioned videos may help students is through the way in which they require students to pay greater attention to what is being said by focusing on specific segments of language, which enables students to comprehend more vocabulary (Winke *et al.*, 2010). This added benefit appears to resemble the bottom-up approach used to understand what is going on by segmenting language into different units that contain one or more key ideas in a conversation.

Above all, it appears clear that the use of audiovisual materials, especially those which utilize subtitles or captions, potentially enhances the learning capacity of second language students. Does the superiority of audiovisual materials make materials that only utilize audio input invalid? This question and the benefits of audio-only materials are discussed in the next section.

Audio materials.

The use of audio materials such as cassette tapes and recordings from the internet are perhaps the most traditional technological materials used to enhance listening comprehension. As discussed before, one of the potential benefits that accompanies technological materials is the added use of visual aids such as pictures and videos; however, the use of audio language compact disks and the advent of internet podcasts have kept the role of audio-only materials in play when it comes to listening instruction.

Having students predict outcomes and/or using prior knowledge appear to be good pre-listening activities that teachers can use to help students along with any

listening task. In fact, when students do not have much schematic knowledge about a certain topic, the scaffolding of pre-listening activities using metacognitive strategies potentially becomes more important. Jones and Plass (2002) identified "meaningful interaction" (p. 547) as being imperative for low-level students as it would help them form new connections with the input being presented. The use of this kind of scaffolding may become vital when using audio-only materials since there are no visual cues to help students comprehend the context of what they are listening to.

It may then be said that the use of a strategy-based approach to listening using audio and other technological materials in the classroom is an important factor to facilitate the best learning environment. Giving students a copy of an aural text and using peer-to-peer work have all been shown to help increase uptake in listening (Jones, 2008). By providing students with a visual transcript of what is going to be heard, it could allow them to predict both the context and outcome of what is going to happen. Predicting exercises such as these, as described earlier in Table 4 (pp. 26-27), are identified by Vandergrift (2004) as helping students better understand listening.

Such strategies could be easily employed through the use of internet-streamed podcasts as was done by O'Bryan and Hegelheimer (2007). They suggest that podcasts can be utilized in classrooms to help enhance the use of real life materials while also giving access to authentic language to students both inside and outside of the classroom. In fact, among the possible benefits of using podcasts, is the accessibility that they offer students to complete tasks outside of the classroom which may allow them added time to use the language and extend the amount of work that they can accomplish while in class (O'Bryan & Hegelheimer, 2007). The use of podcasts may also be motivating for

students due to the technological allure that they have and due to the easy access they offer to authentic material (Jones, 2008). This access to material helps students by allowing them to learn at their own pace and by giving them more control of their own learning.

In summary, the implementation of audio materials clearly benefit learners in the instruction of listening by using them in conjunction with the strategies outlined above. By simply incorporating a few small changes to teaching pedagogy, the use of audio resources like podcasts could have a huge potential for the enhancement of listening acquisition.

Conclusion

In order for technology to be implemented successfully inside any second language classroom, it needs to be implemented through a balanced approach to listening instruction that utilizes both top-down and bottom-up processing. With respect to listening comprehension, the mere utilization of technology may not be enough for students to benefit from the advantages that it can offer. Students need to interact directly with the material being used in a way that makes input comprehensible. If this effect is the goal of technology usage, technology should be looked at as simply another mode by which to help students understand a language. With the proper training and support, language classrooms all over the world could be revolutionized to include the ideas discussed in this chapter. The following chapter will discuss the application of the approach to teaching listening presented in this chapter and how it can be implemented with technology sources in actual second language classroom environments.

CHAPTER THREE: Application

Chapter Two discussed how technology could ideally be utilized to benefit students' listening comprehension. An emphasis on an integrated approach of top-down/bottom-up processing along with a special focus on metacognitive strategies were discussed to demonstrate how CALL could be used by all language teachers for the benefit of their teaching and their pupils. The ability to combine technology with listening instruction is an ability that all second language teachers should have, but will second language instructors actually put such skills into practice? Although technology offers many great learning opportunities, it poses an equal, if not greater, number of challenges to language instructors. Technical difficulties and anxiety come with any new incorporation of ideas and as such, ideal ways of teaching may be replaced in favor of older, more traditional ones that have seen their day or have been discredited through academic research.

This chapter will analyze how the approaches and strategies already discussed could be applied in an ideal second language classroom setting, as well as in two actual language classrooms. Teaching approaches and strategies will be analyzed to see how they conform to what research has said is an ideal way to teach listening.

Class Settings

For the purpose of this paper, a qualitative investigation was conducted to see what teaching practices are used inside second language classrooms with regard to listening. The investigation included the observation of two Spanish second language

classes for the duration of one month. Each class met four days per week for a period of

fifty minutes per class. For privacy reasons, the professor from class A will be referred to

as Professor Jane, while the professor from class B will be known as Professor Eve. The

primary focus of each class was to enhance students' writing and speaking abilities at the

intermediate language level. During each observation, academic field notes were taken to

ascertain the listening strategies that were used, as well as what types of technology were

utilized to enhance listening input. It should be noted that each class met in a specially

designed computer laboratory equipped with state of the art laptop computers for each

student, as well as a central teaching computer which included the use of the SANAKO

software system, LCD projector equipment, and other computer programs to aid language

teaching. Both classes had approximately twenty students studying Spanish language and

culture at the intermediate level.

Listening Processes

In the previous chapter, top-down and bottom-up processing were described as

being essential for students to begin to comprehend specific listening texts. While Cross

(2009) advocated a special focus on top-down processing, Brown (2007) proposed that

the learning of both processes, also known as an interactive approach, be implemented so

that learners could maximize their listening potential. More importantly perhaps is what

Vandergrift (2003) said regarding the matter, namely that listening comprehension should

not be approached from one view or the other, but rather it should take into account what

students already know and how they will combine their prior knowledge with the

linguistic repertoire that they already have to understand more language. This way of

approaching listening comprehension was deemed to be an interactive approach that

utilizes both processes without isolating either one for the purpose of listening instruction.

Top-down processing.

The use of a top-down approach to listening comprehension, as discussed in the prior chapter, is an effective way to conduct listening activities in a manner that gives both context and meaningful input to the language learner. Learning is enhanced through the use of what Vandergrift (2003) calls a "conceptual framework" (p. 427) in which learners use new language within a given context or setting to enable them to understand how it would be used in a real second language environment. To create such a learning environment, Hulstijn (2003) suggests that challenging written or oral texts could be used to help students improve their listening comprehension. The use of a written text could further enhance the comprehension ability of students in a listening activity by enabling them to view the video's audio script, which may allow them to better understand the context of the material. Cross (2009) also states that direct instruction of various listening strategies could prove beneficial in getting students to interact with new language in a more authentic and meaningful way, a key trait of a top-down approach to listening.

In an ideal classroom, the use of a topic that students are familiar with would be employed if a top-down approach were to be implemented in teaching listening. A familiar content area would not only give students the confidence they need to succeed, but it would also reduce their overall anxiety about the tasks to be completed. Furthermore, a familiar subject area would also give students the benefit of using their schematic knowledge with the new language. This would help create the "conceptual

framework" (Vandergrift, 2003, p. 427) needed to give students meaningful input to succeed in any task.

Along with a familiar topic, the use of written or oral texts should be utilized to help optimize student learning. In the case of an oral text, it would be best if visual stimuli, such as a video or picture, accompanied it so that students could be aware of the setting in which the language takes place. Even better, giving students a copy of the oral script to accompany the viewing of a video would offer the best use of both video and pictorial input; this would also enable the teacher to conduct a wider variety of listening activities, such as following the script in search of information or trying to guess the context of the video before showing it, to aid student learning. It should be noted that the use of any oral text should be at just above the language level of the students, allowing them to understand what is going on, but still challenging enough to encourage new learning.

Classroom observations.

The scenario described above would be an ideal way to approach a top-down strategy of teaching listening. During the course of the observations of the two Spanish classes, many interesting notations were made. Both classes A and B utilized, for the most part, an overall top-down approach to listening which focused on topics that pertained to the language objectives for each class, as well as topics related to the course textbook. Examples of such topics included, modes of communication, salsa dancing, and current events, among others. In one instance, Class A used salsa dancing as a way to familiarize students with a class project that they were going to complete. The project

was to write a song with respect to a specific social issue in Latin America. A major

requirement for this project was that it had to include rhythm. In order for students to

become familiar with this topic, the instructor used Spanish salsa music to help students

become accustomed to a basic beat. This was done by having students first view a music

video by Celia Cruz, a famous Latin singer. During this class, students were required to

get out of their chairs and form a circle. Professor Jane then taught the students the basic

steps of salsa dancing while a salsa music video was being shown on the overhead

projector.

> The instructor showed a music video of a singer (Celia Cruz) to the class using
> the overhead projection system. During the video, the teacher had the students
> practice Salsa dancing in the middle of the classroom (TPR) to gain a better
> understanding of the material being covered in the video. This appears to be a
> great top-down strategy to teaching. During the dancing activity, the teacher was
> explaining how to dance the salsa while physically demonstrating each step
> (TPR). The students were shy at first, but after a minute they became more
> relaxed at the dancing. (Field Notes)

When asked why this was done, in a post-observation interview, Professor Jane

said that in order for students to comprehend the meaning of what is going on; "you have

to give them a reason to be motivated to listen" (Professor Jane) The context of dancing

while listening to a salsa song could have provided students with the cultural and

linguistic input necessary to help them better prepare themselves for the completion of

their class project while also deepening their cultural understanding of Latin America.

The use of such a topic in combination with a dynamic music video clearly

provided the input and context the students needed to understand the objectives for this

class period which included learning basic salsa steps and preparing students for a class

project where they had to write a Spanish song that contained among other things,

rhythm. In addition to watching the music video before dancing, providing students with a transcript of the lyrics of the song would also have been useful. This would enable them to follow the song lyrics as they are being sung and help students better understand the context of the song. Students would also be able to identify key rhythm beats and how they correlate with the lyrics. The use of a music video in this context is a unique example of how CALL could be used to enhance listening instruction. It can also be a bottom-up strategy, depending on the task being required of students. Its implementation gave students an element of entertainment and also allowed students to visualize what they were hearing using an authentic source of listening material.

Class B also had a very interesting way of approaching top-down processing. Using the topic 'modos de communicación' or modes of communication, which was a topic from the class textbook, students were instructed to listen to a podcast, which had no visual support, regarding newspapers in Latin America. Students were also told that if they wanted to listen to it another time, they could go to a specific website in their own time to listen to it again, allowing them to practice listening exercises at their own pace. Following the podcast, a discussion was conducted by Professor Eve regarding what the students understood from the podcast and how this related to their new topic. This activity was done as an introduction to the theme modes of communication.

> Students were instructed to listen to a podcast, without visuals, regarding newspapers. Students were told to take notes. The podcast was an interview consisting of two people. Students were told that if they wanted to listen to it again, they can go to www.notesinspanish.com and search using the title of the podcast? After the podcast finished, there was a brief comprehension check/class discussion regarding key concepts of the cast. (Field Notes)

In a post-observation interview, Professor Eve reiterated how she wanted to expose students to more authentic language in Spanish regarding a specific theme. She said "in the podcast. … I thought that I wanted to expose them (the students) to a real conversation in Spanish about a specific topic, not just exercises that are done for Spanish learners which are a little bit more artificial sometimes.... This was a real conversation going on between two people regarding communication" (Professor Eve). The use of a podcast in this class session clearly achieved these goals as it was a real conversation recorded by two native Spanish speakers. The ability to create and access authentic materials such as podcasts is an excellent reminder of the advantages that CALL has in terms of authenticity as it relates to listening materials that can be exploited by second language learners. The availability of such listening materials would help language instructors better utilize a top-down approach to listening due to the authentic content that these materials contain. With this in mind, listening strategies could also be easily implemented inside the classroom depending on how a teacher uses listening materials.

The use of a podcast in a second language classroom is relatively new with the advent of the Internet. This activity proved to be very useful as it was meant to give students an introduction to the unit they were about to embark on. By having the comprehension discussion following the podcast, students were able to connect what they heard to the context present in the language; in this case, a conversation between two Spanish speakers regarding newspapers in Latin America. In addition to this activity, it would have also been useful to provide students with a transcript of what was said. This would enable the learners to read what was being heard and also would give them a better understanding of both the context and any inaudible language that they may hear due to

poor recording quality or fast spoken language. However, second language instructors should be careful not to cause dependence for transcripts in every listening activity. Their overuse could lead students to focus more on reading rather than listening.

Throughout the observation period for both classes, frequently used audiovisual materials, such as YouTube videos, along with various top-down activities were employed as identified in the previous chapter. Specific details regarding the videos and the activities associated with them will be discussed further in the chapter. In sum, both classes seemed to have a successful implementation of top-down processing relying on topical content to familiarize students with the language and the settings in which they took place. The focus of this chapter now turns to how bottom-up processing may be ideally utilized and how classes A and B incorporated this approach to teaching listening.

Bottom-up processing.

Along with top-down processing, a bottom-up approach to listening comprehension is also an important part of how second language learners acquire listening skills. While a top-down approach may be more advocated among academics today, a bottom-up approach to listening comprehension has not been totally discredited through academic research. Recalling Vandergrift (2004), second language learners, particularly beginners, will need some bottom-up processing to decipher what they are listening to. Researchers like Morley (2001) identify bottom-up input as the way in which learners comprehend what is being heard by identifying specific sounds in spoken language. In turn, these are then connected to proper grammatical and lexical

relationships that learners may be familiar with, a theory that is also discussed by Brown (2007).

While bottom-up processing may play a key role in acquiring listening skills, researchers like Osada (2001) warn second language instructors not to depend on it too much while teaching students, claiming that a dependence on this approach may hinder improvements in a learner's listening ability.

In an ideal setting, bottom-up processing would be combined with a top-down approach to listening instruction, an approach that will be discussed further in the chapter. It is my belief that only using a bottom-up approach by focusing on grammar is not an ideal way to teach listening; however, it is also recognized that with certain grammar points, learners may be better positioned to learn specific language material in a way that a top-down approach may not be successful in doing. With this in mind, an exclusive focus on a bottom-up approach to language for a particular activity would ideally have students focus only on one or two specific concepts, such as marking intonation contours in a recording, or filling in missing words in a written text as they listen to oral input. While doing such activities, it may also be necessary to explain the grammatical rules of a specific language function so that students are able to notice the differences in what they are hearing as they complete various bottom-up language tasks. As mentioned above, such activities should only be done when necessary, and when they are completed, they should relate to other activities, ideally top-down ones, so that students can further grasp the linguistic context in which a specific grammar point would be used.

Classroom observations.

Bottom-up processing was rarely used in isolation in the two Spanish language classes observed for this paper. As mentioned before, both classes utilized a top-down approach to listening comprehension for the most part; however, the use of bottom-up processing was observed on a couple of occasions in each class.

In class A, students were having problems distinguishing between the preterit and imperfect tenses in Spanish. Rather than approaching this problem from a top-down approach at first, Professor Jane went over sample sentences of each tense in the language and explained the differences to the students while maintaining instruction in Spanish. During this time, students were also presented with an activity in which they had to predict which tense would be used. This was done as Professor Jane read an oral piece aloud to the students and stopping when a blank needed to be filled in with the proper tense.

> Teacher used the book projected via the ELMO, a device that projects documents in color onto the overhead projector, as a visual aid to help describe the differences between the preterit and imperfect verbs listed. It appears that the ELMO is used as a visual stimulation device with activities that the students are completing in class. Following giving examples of the uses of these tenses, the professor read aloud from a script that was on the overhead projector. She stopped talking when she came to a blank space that needed to be filled in with the correct tense. Granted, the activity isn't geared toward listening comprehension, however, when the instructor, who is speaking in the L2, uses the book as a visual aid, it may help the students 'understand' better. (Field Notes)

> Likewise, in class B, Professor Eve turned to a more bottom-up approach when reviewing the subjunctive tense in Spanish. In this case, she clearly explained the grammatical rules in both Spanish and English while providing written examples on the

marker board. This was a very straightforward approach as compared to class A, which

was conducted all in Spanish during the course of this activity. Following the explanation

of the rules, Professor Eve sought examples of the subjunctive tense from students in the

classroom, which were then written on the board next to the other examples. Unlike class

A, students were not exposed to listening to an oral text that was read by the professor,

but rather, were prompted for more sentence-based samples of this specific grammar

point while listening to Professor Eve instruct in the target language.

> Using the textbook projected on the ELMO, the class took a bottom-up approach
> to learning the subjunctive tense by going over the rules and examples of it.
> During this time, the instructor was instructing in Spanish and in English, perhaps
> to help improve understanding of the grammatical rules and/or comprehension
> overall. After the textbook explanation, the teacher used the whiteboard to write
> down examples of the subjunctive while eliciting answers to questions from
> students. This may enhance the listening aspect of the class since students are able
> to see examples of the tense, giving them a visual or mental reminder of what the
> teacher is lecturing about. (Field Notes)

It should be noted that in both cases, the use of a bottom-up approach to listening

in the target language was done with two very specific grammatical points that second

language learners of Spanish have difficulty with, the differentiation between the preterit

and imperfect tenses and the subjunctive tense. The way in which these activities were

conducted were appropriate and later connected with further activities related to specific

content areas.

In sum, both top-down and bottom-up processing are essential for a well-rounded

approach to listening instruction. While a top-down approach may be more advocated

than its bottom-up counterpart, the latter is still needed in specific language scenarios

where top-down activities may not be as effective.

Integrative approach.

With the debate between top-down and bottom-up processing continuing, one fact cannot be denied, and that is that both approaches must be utilized for the benefit of listeners looking to improve their comprehension. Vandergrift (2003) advocates for this method of utilizing both processes by suggesting that neither approach is better than the other; but rather, they are part of an "interactive, interpretive process" (p. 427) in which language is comprehended through the use of linguistic and prior knowledge. Furthermore, before either approach is utilized inside a classroom, its context, as advocated by Oxford (2001), should be considered to determine the impact it may have on listeners and the way they process the language.

With the aforementioned beliefs considered, both top-down and bottom-up processing would be used inside a classroom as part of an interactive curriculum that advocates the use of schematic knowledge, to help students build on what they already know. While doing so, linguistic knowledge would also be combined with schematic knowledge to help better understand a given context. With both of these considerations adhered to, the vast majority of listening instruction would utilize top-down processing, as it involves the most interactive use of language. Likewise, a bottom-up approach would also be used in cases where students may have difficulty in deciphering what is being heard during an oral text or to improve on specific language features that are perceived as difficult or problematic for students.

In an ideal setting, both top-down and bottom-up processing activities would be combined so that they are in sync with each other. Examples of top-down activities, as

identified in Table 1 (pp. 11-12) of the previous chapter include interacting with the language in a meaningful way by describing what is being heard in an oral text, or by correctly identifying a picture of a scenario that students are listening to, among many others. In addition, bottom-up activities as identified in Table 2 (pp. 16-17), include tasks where the primary focus is on grammar. Examples of these types of activities include listening for proper speech forms, and distinguishing between listening contours of spoken language. So how can these two types of listening activities be combined to focus on both approaches?

Table 3 (p. 20) of the previous chapter, taken from Brown (2007), identifies several interactive activities that can be utilized for listening comprehension. One such activity would include listening to a series of sentences about a certain topic and identifying them as either polite or impolite. An activity like this would not only have a top-down theme, but would also incorporate a grammatical function of language. A more simplistic activity would also include listening to a set of driving directions and having students trace the route on a map. Again, this incorporates both a top-down and bottom-up approach to listening by combining a thematic topic with linguistic features that must be paid attention to in order to complete the task. When activities such as these are combined in a thematic, content-based unit, they would create the ideal conditions for teachers to use both processes and decide which kinds of activities would best suit their students for optimal listening comprehension.

Class observations.

With respect to the classes observed, an integrated approach to listening instruction was not seen. While acknowledging an overall presence of both top-down and bottom-up processing, each seemed to be separate from the other in the way they were presented to each class. In other words, when top-down or bottom-up processing were used, they seemed to be done in a separate, not integrative, manner. This finding is not surprising, since the main goals for both courses were not focused on listening, but rather on speaking and writing skills. Given the fact that implementing an integrated approach takes a good amount of class time, this approach may not be seen as often in a class setting not specifically devoted to listening skills.

The separate use of both top-down and bottom-up approaches in relation to the same listening activity could perhaps, be identified as a form of integrating approaches in a manner that keeps them separate, but still linked to the material. This use of both approaches was identified in Class B when Professor Eve was reviewing the subjunctive tense.

> Using the textbook projected on the ELMO, the class took a bottom-up approach to learning the subjunctive tense by going over the rules and examples of it. After the textbook explanation, the teacher used the whiteboard to write down examples of the subjunctive while eliciting answers to questions from students. Finally, the instructor had students listen to a song/watch the music video that uses the subjunctive. She instructed them to listen for examples of the grammar point. The use of a videotext gives this activity high interest to the students and is a good example of a top-down approach to teaching in a lesson that up until now has been primarily bottom-up. Following two viewings of the video, the class was given lyric quotes where they needed to write in the correct subjunctive tense according to what they heard in the song, a bottom-up activity. (Field Notes)

Not finding a model integrated approach to listening does not mean that the approaches used in each class were implemented in a way that was ineffective, but rather that each class chose a more top-down approach that may have been deemed more appropriate given the level of the students and the topical content of the course. The focus of this chapter turns to specific listening strategies that can be implemented with activities like the ones discussed above and in the previous chapter.

Listening Strategies

In conjunction with an integrative approach to listening instruction, the teaching of various listening strategies was also advocated in the previous chapter to help students interact with the language being heard in a more meaningful way. Research has shown that when language learners utilize multiple strategies, their listening skills improve (Vandergrift, 2003). However, in order for any general strategy to be used successfully, it must go along with the language activity being conducted in the class, align with students' learning styles, and be executed in a way that incorporates the use of other strategies (Oxford, 2001). While Oxford (2001) discusses at length various learning strategies rather than focusing on listening strategies, the similarities between both strategies could equally apply to listening as a skill, especially given how factors like context and linguistic usage influence how much is understood during any oral input.

According to Vandergrift (2003), listening strategies comprise three specific categories – metacognitive, cognitive, and socioaffective. Metacognitive strategies involve listeners using language in a way that makes them predict, plan, and evaluate what is being heard (Vandergrift, 2004). Cognitive strategies involve organizing,

summarizing, and elaborating on information to help students understand what they are listening to (Peterson, 2001). Finally, socioaffective strategies involve students interacting with each other by reinforcing the language they are listening to (O'Malley & Chamot, 1990).

Cross (2009) suggested that when teaching listening strategies to language learners, it may be helpful to do so in a predominantly top-down approach to help students better understand listening texts; however, he also advocated the use of a bottom-up approach when using listening strategies for the purpose of helping students gain a better "meaning-based comprehension" (p. 154) regarding grammatical features that are present. With this recommendation, the link between listening approaches and listening strategies can clearly be seen. Depending on the approach taken, listening strategies may be better implemented and more effective inside a classroom when utilized together in a way that respects students' learning preferences. Such preferences could include interactive group work where student discuss and predict certain outcomes, or the inclusion of specified topics that focus on both content and grammar-based items in language. Students may also prefer the use of certain listening strategies over others that they identify as being more helpful.

Table 4 (pp. 26-27) from the previous chapter, which scaffolds listening instruction into pre, during-, and post listening activities with the aforementioned listening strategies, is an example of how various listening strategies could be implemented inside a classroom for second language learners. It may be worth noting that for the purpose of his study, Vandergrift (2004) focused only on metacognitive listening strategies as it applied to listening instruction. For the purpose of this paper, this style of

teaching has been expanded to include the use of all three listening strategies previously mentioned. By replicating the style of listening instruction used in Vandergrift (2004), instructors of second language classrooms could greatly enhance the listening capability of their students.

The style advocated in Table 4 (pp. 26-27) scaffolds the listening process in multiple steps such as, pre, during, and post listening activities that aid students in using several listening strategies, in this case, the utilization of planning, monitoring, problem solving, and evaluating skills. This three-step model is an ideal way to introduce students to various listening strategies in a way that is neither overwhelming nor complicated. Furthermore, the fact that the listening process is divided into several segments allows the learner to experience and better comprehend new material in a way that respects their own learning style and pace, allowing for better language acquisition and perhaps retention of information.

Classroom observations.

During the observations conducted for this paper, the approach advocated in Table 4 (pp. 26-27) was partially implemented in both classes. WhileTable 4 refers to an ideal way to teach listening, not all of the steps described need to take place in order for a listening activity to be successful. For example, on certain occasions when a video was being viewed during a listening activity, there was not always a pre-listening warm-up or discussion that took place to help students familiarize themselves with the setting of a video. However, students were often required to expand on what took place in the video they watched in the form of answering comprehension questions or analyzing it in the

form of a summary about what the key points of the video were. It should be noted that

all post-activities were completed after viewing a specific video multiple times.

> Class began by viewing a video on the overhead screens together. They watched it two times. As a post listening activity, the professor is dividing up the book comprehension questions to the student groups for them to answer. After a few minutes, the class answered each questions in a discussion held with the teacher. To help the students visualize scenes from the movie, the teacher projected the book information regarding the videotext. This may help the students remember more about the video. (Field Notes)

> It was the viewing of videos multiple times that corresponded well to the

approach described in Table 4 (pp. 26-27), which included presenting listening materials

multiple times to students. This was the one common theme that each class had when

conducting listening activities. While not completely adhering to the style of instruction

in Table 4, both classes implemented at least some of the guidelines to enhance listening

for students. However, adhering to the format completely could have resulted in better

listening responses from the students at times when there was difficulty.

> Class began by having students watched the videotext on the overhead screens. It appears that the first viewing is just for content comprehension. The videotext featured a native Spanish speaker who spoke throughout the video. Students were instructed to view this again at home for further comprehension. … During the second viewing, the students are noticeably more attentive and are writing what appear to be the answers to various questions. (Field Notes)

> Class began by viewing a video on the overhead screens together. They watched it two times. (Field Notes)

> Finally, the instructor had students listen to a song/watch the music video that uses the subjunctive. She instructed them to listen for examples of the grammar point. The use of a videotext gives this activity high interest to the students and is a good example of a top-down approach to teaching in a lesson that up until now has been primarily bottom-up. The class watched this music video twice. (Field Notes)

Again, it is worth noting that the classes observed did not pay special attention to listening as a skill and as such, not as much time may have been devoted to it. It is also important to realize that the listening instruction being advocated presently may take up a considerable amount of time during a typical class session of fifty minutes. As such, the utilization of every step, while beneficial, would not be realistic given the circumstances of these two classes. This chapter will now analyze how each listening strategy category was utilized in both classes.

Cognitive strategies.

The use of cognitive listening strategies is one of the three primary listening strategy groups that have been identified as helping second language learners acquire better listening skills. Specifically, cognitive strategies aid learners in listening by bringing them through multiple stages of comprehension (Vandergrift, 2003). Some of these strategies or stages include the organization, summary, and elaboration of material that is presented to students (Peterson, 2001). The use of these types of strategies prepares students to better comprehend what they are hearing by allowing them to focus on specific details in a specific oral text.

Cognitive strategies have also been identified as one of the most used listening strategies among second language learners (Smidt & Hegelheimer, 2004). For this reason, this type of strategy may be most beneficial when implemented in listening instruction, especially when used in conjunction with metacognitive strategies, which would expose students to multiple strategies used in combination with each other. To elaborate, Smidt and Hegelheimer (2004) found evidence of cognitive strategy use in more advanced

learners who also tended to use metacognitive strategies. Given this, there is reason to believe that their implementation could prove to be beneficial to second language learners.

In a model scenario, cognitive strategies would be used according to how they impact second language listener's performance. In this case, it appears as though cognitive strategies would be most beneficial for lower-level students who need the proper organization skills to comprehend oral texts. However, the use of cognitive strategies should still be conducted in more advanced settings where organizing oral information is still important and perhaps the foundation for implementing the use of multiple strategies at the same time.

Class observations.

The use of cognitive strategies was often observed in the intermediate-level Spanish classes. The most common type of cognitive strategy used in teaching listening was *summary* of information seen during a video or podcast and *elaborating* information related to an oral text.

During one class session, while reviewing the uses of the Spanish preterit and imperfect tenses, class A was required to summarize, in a video from the class's textbook website, and following subsequent viewings were again instructed to summarize what they had just seen, this time orally.

> Homework for today's class was to watch a video. Now, the students are grouped in pairs to recollect what they observed using the preterit and imperfect tense in Spanish. The pairs of students are not utilizing any technology for their in-class activity, but rather, utilized a videotext provided in their book as part of a homework assignment. The video is from the students textbook, entitled Sueña.

Text transcripts of what is said are available in the book for students to follow as they watch/listen. (Field Notes)

Likewise, class B was expected to summarize what they had just heard in the podcast regarding Spanish newspapers for their new unit on modes of communication. They completed this task through participating in a class discussion.

Students were instructed to listen to a podcast, without visuals, regarding newspapers. Students were told to take notes. The podcast was an interview consisting of two people. Students were told that if they wanted to listen to it again, they can go to www.notesinspanish.com and search using the title of the podcast. After the podcast finished, there was a brief comprehension check/class discussion regarding key concepts of the cast. (Field Notes)

During a different class period, Professor Eve asked the students to elaborate on the information they had learned yesterday and determine whether or not newspapers would be in existence in the next twenty years.

Prior to showing the video, the class talked about what they thought about newspapers and whether or not they thought they would be in existence in print in the next twenty years. I believe this was a pre-listening activity to help the students focus on the main vocabulary needed to 'get in mode' for the video and to connect with the podcast they listened to yesterday. (Field Notes).

In all of these activities, cognitive strategies were used by the students in these classes to help them understand successfully and verify what they had just heard.

Metacognitive strategies.

Along with the use of the above listening strategies, the use of a metacognitive curriculum has also been shown to significantly increase uptake in listening skills, particularly among higher-level language learners (Vandergrift & Tafaghodtari, 2010). It has also been said that these types of strategies help beginning listeners become confident

in the target language by encouraging the use of both metacognitive and cognitive strategies together (Vandergrift, 2004). Finally, metacognitive strategies have been identified as being vital for listeners to regulate listening input on their own, in order to correctly comprehend what is being said (Vandergrift &Tafaghodtari, 2010).

Peterson (2001) categorizes activities such as planning, monitoring, and evaluating as specific metacognitive tasks that can be performed in listening instruction to aid students. Other strategies such as directed or selective attention, along with problem solving have also been classified as metacognitive strategies used to improve listening in second language learners (Vandergrift, 2004).

In an ideal situation, metacognitive activities would be conducted in a fashion that utilized most, if not all of the strategies mentioned above. Recalling Table 4 (pp. 26-27), the addition of specific scaffolded steps including pre, during, and post listening activities are incredibly useful when utilizing metacognitive strategies.

Class observations.

Throughout the course of the class observations, multiple examples of metacognitive strategies were experienced on several occasions. Among the most common strategies seen was *selective attention*. Together with this, *planning (predicting)* and *evaluating* were also seen during one class period. Overall, more metacognitive than cognitive strategies were observed as being employed with listening activities.

Both classes appeared to use selective attention to certain details while conducting listening activities. Following the salsa dancing video used in class A, an interview with the singer, Celia Cruz, was shown. During the video, Professor Jane instructed students to

listen to how the letter S was pronounced. By doing this, the teacher was modifying the input and attention of the students by giving them an important detail to listen for.

> After the first video, the instructor used an interview of the singer to have the students listen for the S pronunciation and how it is different from other standards of pronunciation. Every few seconds the instructor would pause and replay certain sections to emphasize specific examples of the pronunciation. (Field Notes)

Similarly, in Class B, students were given song lyrics to a song called "A Dios le Pido" by a Colombian singer named Juanes. The lyrics were viewed on the document camera. There were fill-in-the-blank marks for students to write in vocabulary as they listened to the song. By doing this, Professor Eve was making the listener pay special attention to the missing words in order for them to fully grasp what was being sung. However, before the above vocabulary activity took place, the professor first had students listen to the song to see if they could hear any examples of the Spanish subjunctive tense; this too was an example of a selective attention task.

> Finally, the instructor had students listen to a song/watch the music video that uses the subjunctive. She instructed them to listen for examples of the grammar point. … The class watched this music video twice. After listening was over, the instructor put up on the ELMO, various fill in the blank sentences, quotes from the song, to be filled in by the students. This is a great post-listening activity to help review the grammar point. This activity I think is bottom-up processing. (Field Notes)

Finally, class A utilized the strategies of planning and evaluating information. In this instance, students were going to watch a video regarding the trapped Chilean miner's tragedy. Prior to viewing the video however, Professor Jane presented students with a series of questions aimed at getting them to predict what had occurred that very morning in the news. Since this was a famous news story, it is assumed that the professor thought that the students would know about it. For this purpose, specific planning (predicting)

questions were created in order to get the students to predict what had happened. Following the viewing of the video, students were then asked to evaluate their answers compared to what they had thought prior to watching the video. This activity proved effective in getting students to analyze what they had previously thought.

> At the beginning of class, students were asked if they knew what had happened in Chile regarding the miners. Upon seeking various opinions from the students, the instructor told students to find the answers to specific content related questions written on the whiteboard while watching a YouTube video about the Chilean miner's incident. They are using individual headphones while watching the video. They have seven minutes to find the answers to the six questions and to take notes regarding what is being viewed. After the students were done watching the video, the instructor sought answers from the students to each question. (Field Notes)

In sum, the use of metacognitive strategies during the course of this investigation was instrumental in the listening enhancement of students in the observed classes. This chapter will now discuss the final series of listening strategies.

Socioaffective strategies.

The final set of strategies is socioaffective strategies. Socioaffective strategies aid in listening comprehension by having students participate in actual conversation when dealing with listening material (O'Malley & Chamot, 1990). While little research has been done with regards to this specific set of listening strategies, some research suggests that they have the most impact on listening while having students take part in situations where they socialize with other people. With this in mind, activities such as cooperative learning and asking for clarification of directions have both been identified as examples of socioaffective strategies (Peterson, 2001). I would also propose that activities

involving group or pair work as well as class discussions could also be classified as socioaffective strategies due to the social interaction aspect that they entail.

In a perfect classroom environment, socioaffective strategies would be best implemented in pre and post activities that involved the use of an oral text. Similar to the listening style outlined in Table 4 (pp. 26-27) of the previous chapter, these listening strategies would correlate well in tasks where students had to discuss what they think was going to happen, or in follow-up group discussions where they discuss the content of what they heard or viewed. Along these lines, whole class discussions could also be useful in helping students comprehend what they hear during any listening task.

Class observations.

During the course of the observations, socioaffective strategies were identified as being implemented through the use of *collaborative learning* by having students work with a group of fellow students or in pairs, along with *whole class discussions* about materials being viewed.

Class A contained the most obvious presence of socioaffective strategies. As part of a homework assignment, students were required to watch a specific video for class the next day; students were required to partner up with a classmate to discuss what they understood about the video. During this time, students conversed in the target language about what they recollected from the homework assignment.

> Homework for today's class was to watch a video. Now, the students are grouped in pairs to recollect what they observed using the preterit and imperfect tense in Spanish. The pairs of students are not utilizing any technology for their in-class

activity, but rather, utilized a videotext provided in their book as part of a homework assignment. (Field Notes)

In a different class period, students viewed a video about a man selling his soul to the devil. Following multiple viewings of this video, students were ***grouped together*** and instructed to use key vocabulary terms that they understood to create a conversation with the goal of reenacting what took place. In the time allotted for this activity, students were visibly seen discussing what they saw in the video in order to complete this specific class activity.

> A 'demon' video was shown last week in class; after watching it a couple times, the teacher is having the students do group presentations where they create a dialogue using key vocabulary items from the lesson. This appears to be a wrap-up comprehension activity. After each presentation, the instructor would ask comprehension questions regarding the drama act. (Field Notes)

The use of socioaffective strategies during listening exercises was, for the most part, very subtle in Class B. While no specific activities like the scenes from class A were observed, whole class discussions often took place regarding a video that was being viewed. These class discussions often involved students asking the professor questions regarding certain scenes from the videos and answering specific questions regarding what had taken place.

> Class began by viewing a video on the overhead screens together. They watched it two times. As a post listening activity, the professor is dividing up the book comprehension questions to the student groups for them to answer. After a few minutes, the class answered each questions in a discussion held with the teacher. (Field Notes)

> During the second viewing, the students are noticeably more attentive and are writing what appear to be the answers to various questions. The post activity included a general q/a session regarding the questions as well as other thoughts that students had regarding the video. (Field Notes)

Referring back to Peterson (2001), asking for clarification of instructions could be considered a socioaffective strategy. While students did not ask for clarification of instructions, they did inquire about what had happened in multiple videos during the class periods observed, which would require a similar response from the professor in the elaboration of details to help students understand what was being heard.

Strategy connections.

During the course of discussing all three types of listening strategies, it is clear that many of them are intertwined as they correlate with multiple tasks that could be associated with more than one category. Take planning (predicting) as an example, when students are required to predict what they think is going to happen in a listening activity, they are often grouped with another student or group of students to analyze their thoughts and come up with one common hypothesis. While planning is classified as a metacognitive strategy, its implementation could also identify it as a socioaffective task due to the social interaction that is often required in this type of activity.

Another instance of this would be when students summarize (cognitive strategy) a text they have just listened to. If students were to summarize material with a partner, not only would that be a form of socioaffective training, but it could also be classified as an evaluating activity since both students would have their own idea about what would have occurred. As mentioned above, evaluation is identified as a metacognitive activity. Therefore, while these strategies are named under different categories according to what they require students to do, they are closely linked, allowing listening instruction to easily

incorporate various strategies at the same time in one activity. This chapter will now analyze the role that technological materials have in the teaching of listening.

Technological Materials in Listening Instruction

Up until this point in the chapter, key approaches and listening strategies have been looked at to see how listening instruction could occur in a second language classroom setting. An integrated approach that incorporates scaffolded activities while using multiple listening strategies has been advocated as an ideal way to enhance listening. This chapter will now focus on how technological materials, specifically audiovisual and audio materials, could be implemented in the above approach to enhance listeners' comprehension ability.

The use of technological materials in listening instruction is not something that is new. Audio cassette tapes have been used to test students on their listening ability in second language classrooms for decades. With the advent of the internet, a plethora of new multimedia technology resources has been made available for teachers to take advantage of and as such, utilize more authentic and interactive materials. However, the inclusion of new multimedia resources inside the classroom may not be enough to ensure that they are being used in a way that is beneficial for language listeners (Smidt & Hegelheimer, 2004). To help alleviate this problem, second language instructors may need to be taught how to operate and implement specific technologies inside their classrooms (O'Bryan & Hegelheimer, 2007). Just the same, students may also need to be specially educated in how to operate programs that an instructor intends to use while teaching (Smidt & Hegelheimer, 2004).

Nowadays, with multimedia resources being utilized to promote better listening skills, it appears as though listening activities are becoming more multisensory, involving sight, sound, and text features that may not have all been used in older listening tasks (Jones, 2008). As a result of this, researchers such as Stockwell (2009) and Joshi (2010) indicate that computer-assisted language learning has formed a direct link with teaching pedagogy in which both depend on each other for their mutual success or failure inside the classroom.

Since both CALL and pedagogy appear to have a close relationship, listening tasks that incorporate technological materials should enhance the listening experience by having students perform a task that is not possible to complete without the incorporation of a specific technological tool (, Levy & Stockwell, 2006; Salaberry, 2001).

With the above recommendation in mind, a model proposed by Cross (2009) that incorporates the use of technology materials in listening instruction may be an ideal way to balance both CALL use along with pedagogy. In his model, discussed in Table 5 (p. 32) of the last chapter, he outlines a series of steps for instructors to consider before starting a listening task. They include:

1) analyzing features that may affect listening

2) presenting material to students and observe if any strategies are used

3) considering which listening strategies are used during the listening activity

4) conducting pre, during, and post listening activities

5) providing enough practice that involves numerous strategies

6) paying attention to listening uptake in students, and

7) having students analyze their own progress (Cross 2009).

If these steps are adhered to in the use of technological resources in listening activities, greater listening comprehension may occur in language learners. It may also be worth noting that this method of instruction resembles the one proposed by Vandergrift (2004). Both models incorporate the use of various listening strategies in conjunction with scaffolded activities for students. The following subsections will further analyze CALL-based materials and discuss what specific materials were utilized in listening instruction in the classes observed for this paper.

Audiovisual materials.

Research suggests that the use of visual or written input in listening activities, together with aural input, enhance listening skills among second language learners (Jones & Plass, 2002). This may be partially due to the fact that listening comprehension improves when the target language is replicated in authentic language settings. (Verdugo & Belmonte, 2007). Other reasons why listening may be improved through visual stimulations could be because of the existence of various observable clues found in materials such as videos (Vanasco, 1994). The presence of such is essential to making aural input comprehensible to learners (Vanasco, 1994).

The presentation of both visual and aural material together is essential to enhancing listening skills (Jones, 2008). In fact, it has been suggested that when students better comprehend what they are hearing, they tend not to depend as much on the visual stimulation that videos and other audiovisual materials offer (Jones, 2008). Because of this, the inclusion of videos in listening instruction may be most beneficial at the

beginning stages of listening proficiency since lower level students may depend on the visual representation more than their more advanced counterparts.

Since the link between visual and written materials appears to be strong, Mayer (1997, 2001) created the Generative Theory of Multimedia Learning which claims that second language listeners use both visual and written input to comprehend the full meaning of audiovisual stimuli. This may be accomplished by organizing both stimuli into a learner's schematic knowledge base and through this, an organized comprehension is formed via meaningful connections (Mayer, 1997, 2001).

The above theory explains how learners utilize visual input in understanding listening texts. Along with this, specific ways of viewing audiovisual materials have been developed. Tsinghong (2010), as identified in Table 6 (pp. 36) of the previous chapter, suggests four specific ways that teachers can show audiovisual materials to students. These include jigsaw, silent, freeze frame, and sound-only viewing (Tsinghong, 2010). All of these ways of viewing audiovisual materials manipulates the way that students hear the material. In each method, students are required to predict or discuss what it is they think they are viewing by utilizing metacognitive strategies such as predicting and analyzing content (Tsinghong, 2010). These four methods are clearly linked to the metacognitive listening strategies proposed by Vandergrift (2004) in the previous chapter.

It is not difficult to understand why listening may be enhanced through visual aids. Having visually stimulating images could give learners the proper context they need to associate the language that they hear with what they are seeing. However, understanding

how written stimuli, including captions and subtitles, help to improve listening skills is more complex and worth discussing in greater detail.

Captions and subtitles.

A special focal point in audiovisual materials is the use of captions and subtitles. It has been suggested that the use of either captions or subtitles requires students to focus more attention on specific segments of language in a given oral text; this apparently allows for an increased uptake in topic vocabulary which would help students better understand the context of what they are hearing (Winke et al., 2010).

Correspondingly, it has also been proposed that the use of written stimuli in audiovisuals give students the exposure of an additional visual mode, something that audio-only materials lack (Guichon & McClornan, 2008). In their study on the effects of subtitle use on second language listeners, Guichon and McClornan (2008) found that students who viewed videos accompanied by subtitles greatly improved their recollection of what was understood. Baltova (1999), who also studied the effect of subtitles on listening, found similar results

Classroom observations.

By far, both classes utilized the internet and the accessibility that it offers to authentic language sources. Both classes utilized *YouTube* to access language material for students to use in specific listening tasks. Music videos tended to be the most common type of audiovisual material used in both classes. In the case of class A, a music video by the Latin singer Celia Cruz was used, along with an interview with her; while class B used a music video by the Colombian singer, Juanes. Furthermore, both classes also made

use of the class textbook website to access listening material and certain homework

activities.

> The instructor showed a music video of a singer (Celia Cruz) to the class using the overhead projection system. (Field Notes)

> …to listen to a song/music video in Spanish by Juanes called "A Dios le Pido" that uses the subjunctive projected on the overhead. (Field Notes)

> In the case of Class A and its use of the Celia Cruz video interview, the teacher

implemented the use of freeze frame viewing as advocated by Tsinghong (2010).

> After the first video, the instructor used an interview of the singer to have the students listen for the S pronunciation and how it is different from other standards of pronunciation. Every few seconds the instructor would pause and replay certain sections to emphasize specific examples of the pronunciation. (Field Notes)

> During the course of this activity, Professor Jane seemed to follow Cross' (2009)

approach to strategy instruction with technology. She appeared to analyze the factors

necessary to determine successful listening comprehension for this activity. This was

addressed in the post-observation interview when the instructor stated that in order for

students to be successful in listening, "you have to give them a reason to be motivated to

listen." (Professor Jane). She went on to explain that by having students dance and just

listen to the music at first that this may be an effective way to start off this type of

listening activity since it would likely lower the anxiety levels of the students. Also, by

using the music video during the dancing, the professor was exposing students to the

listening material, allowing them to assess what it was they were hearing, as advocated in

step two of Cross' (2009) approach to technology integration which calls for students to

be exposed to the learning material in order to observe any possible strategy use.

Likewise, class B also utilized music videos, like the one sung by Juanes; however, the instructor did not appear to implement any of the viewing strategies offered by Tsinghong (2010) which are explained in Table 6 (p. 36). Because of this, listening may have been impeded in some students due to the lack of strategy use.

With regards to using Cross' (2009) approach, Professor Eve did appear to utilize some of the steps in order to familiarize students with the material. It should be noted that this music video was presented to students as a concluding activity to class; because of this, the first two steps of the approach described in Table 5 (p. 32), which includes analyzing students' learning needs and exposing them to the material, were accomplished by reviewing the specific grammar points with the students.

The first two steps of this approach were accomplished when Professor Eve thought it was necessary to review the grammar point with the class and then by reviewing examples of it on the white-board. While this prior activity is not related to listening, it did take place prior to the listening task in which the students viewed the video. It should be said that during the post-observational interview Professor Eve expressed that her class was rather low-level and as such, needed to review specific grammar points on occasion. Following the grammar review, students were advised by the professor to listen for examples of the subjunctive tense in Spanish. This was accomplished by viewing the video two more times after which students were presented with a fill-in-the-blank activity of the lyrics to the song.

In conclusion, Class A seems to have implemented freeze framing as explained by Tsinghong (2010) while applying in part the beginning steps to Cross' (2009) approach to

listening instruction with technology which advocates presenting students with the material along with which strategies may be used. Likewise, Class B seems to have also implemented similar steps prior to viewing a specific listening video, although no viewing approach identified by Tsinghong (2010) was noticed. Regarding captions and subtitles, I did not notice any captioned or subtitled videos used during the course of the observations.

The above sections discuss in great detail the benefits of audiovisual materials and how they can successfully be implemented into listening instruction by second language instructors. In an ideal classroom, the use of these materials would be through the approach advocated by Cross (2009) in Table 5 (p. 32), which incorporates the use of an integrated approach to listening, so that students would slowly be exposed to listening material as well as have the time to utilize multiple listening strategies in order to comprehend what would be viewed. By further analyzing Mayer's (1997, 2001) Generative Theory of Multimedia Learning, second language instructors could come to better understand how audiovisual materials aid learners in their acquisition of listening. Tsinghong's (2010) suggested use of audiovisual materials may be a good start to introducing videos inside language classrooms in a way that incorporates the approach suggested by Cross (2009) and the strategies proposed by Vandergrift (2004). As previously stated, Tsinghong's (2010) ways of viewing videos already include some metacognitive strategies. This paper now moves on to analyze audio-only materials and how they may have been used

Audio materials.

Improvements in technology over the past decade has allowed for a phenomenal increase in the amount of authentic and semi-authentic listening materials that can be used in listening instruction. With these enhancements, an increased use in audiovisual materials such as videos is now incorporated inside second language classes. This however, does not make obsolete listening materials such as language tapes and internet podcasts that only incorporate an audio component. Because of technological advancements, audio-only materials are now present in the digital age.

While it is acknowledged that old fashioned language tapes and compact disks are still used in various language classrooms, internet podcasts have given new life to listening resources that only incorporate aural input. One of the advantages to using internet podcasts is that they increase exposure of authentic language to second language learners both inside and outside of the classroom (O'Bryan & Hegelheimer, 2007). It has also been purported that podcasts may stimulate better listening in students due to the technological nature that podcasts incorporate in their use (Jones, 2008). This effect may be caused by the increased fascination with technology in today's digital society. With that said, any perceived interest in a topic, such as technology, could provide learners with an increased sense of motivation to interact with the listening material.

In an ideal scenario, the use of audio-only materials, such as podcasts, would give students access to the material they are using outside of class, so they could better ascertain its content in their own time. This access could be added as part of a homework assignment or class project that involved various topics. However, if podcasts were to be

used inside the classroom, language instructors would have to follow closely the steps outlined by Cross (2009) in order to correctly scaffold the content for the students. This method of instruction is perhaps more important in the utilization of audio-only materials due to the lack of visual-input. To help alleviate this setback, second language instructors may want to provide students, particularly beginner level students, with a written transcript so they could follow the rate of speech in the audio recording. This type of visual would help learners understand the context as well as the language being spoken.

Due to the lack of visual support, Mayer's (1997, 2001) Generative Theory of Multimedia Instruction may not apply to the use of audio-only materials. However, providing students with a copy of a written transcript that follows aural material may be a type of written support, similar to captions and subtitles, which could aid students in successfully completing listening tasks. With this consideration, a written connection, as proposed by Mayer (1997, 2001), could lead students to better understand audio-only texts when used inside a second language environment. Furthermore, while transcripts could be thought of as a type of written input, this would not lead to the successful use of Tsinghong's (2010) listening strategies with audiovisual materials. This result is due to the fact that podcasts lack the support of any visual mode.

If the use of transcripts were to be used in conjunction with internet podcasts, the use of pre, during, and post listening activities, as outlined in Step Four of Cross' (2009) Strategy Instruction with Technology would become a vital factor in the success of student's listening comprehension.

Class observations.

During the course of the investigation for this paper, the use of audio-only materials was only noted as being implemented once, in the form of an internet podcast, by Professor Eve. The internet podcast, available at www.notesinspanish.com was used to introduce students to the class's new unit on modes of communication. This podcast, which consisted of two native Spanish speakers, discussed how news and current events were portrayed in Latin American newspapers.

As mentioned before, Professor Eve reiterated her desire to expose her students to authentic Spanish language about the topic the class was going to study; for this, she thought the use of a podcast would be a natural way to present authentic input to the class.

During the course of this class period, the podcast was only listened to one time, but students were encouraged to go to the aforementioned website in their own time to review its contents should they be interested. This recommendation seems to agree with what O'Bryan and Hegelheimer (2007) deemed important in podcast utilization, namely that accessibility to the material should be given to the students outside of class.

Regarding the listening approach outlined by Cross (2009), Step Four, which encourages the use of pre, during, and post listening activities, seemed to be well implemented in this listening activity. Following the listening of the podcast, the students and the professor participated in a comprehensive discussion of what the students understood from the single exposure and also elaborated on the content by comparing how news is portrayed in both Latin American and United States newspapers.

To enhance the listening benefits of the students during this activity, students could have been exposed to the material multiple times before having to complete any post-listening activity. Also, more consideration into the types of activities to use with this media source may benefit learners completing this activity. Considering various types of activities that correlate well with a listening text is what Step Three of Table 5 (p. 32) advocates. Furthermore, preparing students with some sort of pre-listening activity may have better given students an understanding of the context of the podcast, possibly increasing understanding of the material.

It may be worth mentioning, as before, that the classes that were observed for this paper did not have a focus on listening as a main objective and that as such, considerable amounts of time were not going to be allotted for listening instruction. While Cross' (2009) approach to listening with technology is being advocated in this paper, its implementation in classes focused on other skill areas may not be appropriate in such circumstances.

Conclusion

In summary, the teaching of listening, with or without the aid of technology, must be implemented in a pedagogically sound way that strikes a balance between both top-down and bottom-up approaches, along with the use of multiple listening strategies. If second language instructors are going to utilize technological resources, especially audiovisual materials, then they must familiarize themselves with the challenges and opportunities that such materials offer. Likewise, teachers have a responsibility to their students to scaffold the use of technology in conjunction with any listening activity. If the

above considerations are adhered to, listening skills for all language learners would improve greatly when compared to students who are not exposed to proper listening instruction.

As seen in the classes observed for this paper, listening instruction can include various types of activities with any amount of resources. While listening was not a primary objective for these classes, its instruction in both classes was observed as adhering in part to what researchers have said is a recommended way of utilizing technological materials in listening. Given this reflection, the listening comprehension of students in both classes was probably, at minimum, somewhat enhanced due to the fact that both classes utilized various audiovisual materials that coincided with multiple cognitive, metacognitive, and socioaffective activities.

CHAPTER FOUR: Conclusion

This Alternative Plan Paper (APP) has examined how listening instruction in second language classrooms can be enhanced with the inclusion of technological materials that emphasize the use of both audio and audiovisual stimuli. Specific recommendations as to how to include such materials along with a balanced approach to listening instruction has been suggested so that second language teachers can achieve the best possible outcomes for their students.

Balanced Strategy Approach to Listening

To achieve optimal listening outcomes among all second language students, no matter what their linguistic level, a well thought out strategy-based listening approach must be implemented in order to give learners the best learning environment possible. To achieve this, second language instructors must first take into consideration the individual learning needs of their students. Factors such as language level, content and learning goals must be well thought out in order to determine an appropriate balance of top-down and bottom-up processing that benefits listening.

Once this has been identified, it is then crucial for students to be exposed to various listening activities that utilize one or both approaches in order to give them full exposure to the kinds of listening tasks that exist, as was suggested by Vandergrift (2004). The use of any activity should be based upon the curriculum goals set out by the school and by each second language classroom according to their own specific contexts. By keeping the learning goals of individual students in mind, second language instructors are

more apt to correctly assess the specific kinds of input that are required to achieve optimal listening outcomes.

Keeping in mind a balanced approach to listening instruction, it is deemed imperative that teachers utilize a mix of cognitive, metacognitive, and socioaffective listening strategies to give meaning to any listening activity being conducted. By instructing students in multiple strategies, as advocated by Vandergrift (2004), students become more involved and responsible for their own listening outcomes. The result of such instruction would further enhance their listening abilities by being more exposed to input and utilizing it in different ways. However, if any listening strategy is to be utilized in a successful manner, it must be done through a scaffolded pedagogical cycle that includes pre, during, and post listening activities so that students are exposed to listening content multiple times and are required to do different tasks associated with it. By implementing such an approach to strategy use, teachers will not only enhance listening exposure to various strategies, but will also be able to better monitor the listening level of students through the successful completion of given tasks.

Technological Addition to Listening Instruction

The listening approach described above is what has been found to be the most ideal way to teach listening based on the reviewed literature and research conducted for this paper. Since listening is a quirky skill to teach, due to the necessity of recreating authentic language conversations, the addition of teaching materials that aid in the exposure of real life listening scenarios is highly encouraged.

With the advent of the internet, such materials are now available to second language instructors around the world. With the availability of these materials, comes a new responsibility among language instructors to become proficient in their use inside the classroom. All language instructors should be trained in the operation of various technological resources that have been identified as enhancing aural skills. Of primary importance is the need to be trained in the use of audiovisual materials due to the visual aspect of listening that they present to learners.

Audiovisual materials, especially those which utilize captions or subtitles, have been shown to increase listening ability in second language students because of the visual stimuli that they offer (Baltova, 1999; Chung, 1994) that is not available in other technologies such as tape recordings or podcasts. However, it should be noted that the use of audio-only materials, especially podcasts, have been identified as offering greater access to materials to students for practice in their own time. Increased access to materials, audiovisual or not, does appear to increase the motivational output of students, allowing them to practice listening in their own time and at their preferred pace.

Implementation of any technological resources should be done through a carefully scaffolded process that resembles the model presented by Cross (2009). This model takes into account why and how certain materials may benefit second language students with respect to language instruction. Such a process can go along well with the strategy-based approach outlined in this paper.

If the above process is followed, technology will greatly add to the value that listening strategy instruction has for students. With the enhancement of visual and aural

stimuli, teachers fundamentally transform listening instruction from a passive skill that has traditionally been neglected, to a skill that is dynamic and interactive in nature that contains a new allure with regards to how it is taught with the help of technology.

Listening Application in an Authentic Setting

An important part of this paper was the observations that were done with the cooperation of both Professors Jane and Eve. While this was an informal investigation looking at how two professors of Spanish taught listening, valuable insight was gained through witnessing listening instruction in real life scenarios. It is acknowledged that both classes were not focused on listening as a primary goal; however, many of the observations connected to the reviewed literature and research completed for this paper. To further validate the effect of technology use in listening instruction, more classes that pertained to the explicit teaching of listening as a skill should have been conducted on an expanded basis outside of the two classes observed for this paper. Due to these limitations, the following comments should be interpreted according to the contexts to which they pertained.

Both classes used various examples of video clips from sources like *YouTube* in ways that closely resembled the listening strategies described by Ellis (1994) and Vandergrift (2004). In addition to this, pre-listening activities that connected to the main listening activity were seen as being a primary example of how listening activities were conducted in both classes and identified well with the first steps of Cross' (2009) Strategy Instruction using Technology. While no class completely adhered to what research has

suggested is an optimal way to integrate technology with regards to listening, both classes were observed as clearly taking into consideration the learning needs of the students.

Based upon this analysis, scaffolded activities that included giving students a transcript of a video clip and the utilization of group work were implemented in a way that seemed to enhance student understanding of listening tasks. Among other things, many videos were also identified as being shown more than once in order to expose learners to the aural input on a continual basis.

All of the above observations lead the author to conclude that listening instruction in these scenarios was performed in a methodical way that took into consideration not only the needs of the students, but also the way that specific tasks would affect their learning outcomes. When this finding is considered in conjunction with the reviewed literature and research completed for this paper, listening was taught in a proficient and effective manner for the benefit of students in both classes.

REFERENCES

Baltova, I. (1999). Multisensory language teaching in a multidimensional curriculum: the use of authentic bimodal video in core French. *Canadian Modern Language Review, 56,* 31-48.

Brett, P. (1997). A comparative study on the effects of the use of multimedia on listening comprehension. *System, 25,* 39-53.

Brown, H.D. (2007). *Teaching by principles.* White Plains, NY: Pearson Longman.

Chapelle, C. (1990). The discourse of computer-assisted language learning: toward a context for descriptive research. *TESOL Quarterly, 24,* 199-225.

Chung. U.K. (1994). *The effect of audio, a single picture, multiple pictures, or video on second-language listening comprehension* (Unpublished doctoral dissertation). University of Illinois at Urbana-Champaign, Illinois.

Cross, J., (2009). Effects of listening strategy instruction on news videotext comprehension. *Language Teaching Research, 13,* 151-176.

Ellis, R. (1994). The study of second language acquisition. Oxford: Oxford University Press.

Frane, Beltrán, Petit, Tweddle, & Barge. (2009). *Teaching techniques for multimedia language labs*. London, UK: University of London

Guichon, N. & McLornan, S. (2008). The effects of multimodality on L2 learners: implications for CALL resource design. *System, 36,* 85-93. doi: 10.1016/j.system.2007.11.005

Hegelheimer, V., & Tower, D. (2004). Using CALL in the classroom: Analyzing student interactions in an authentic classroom. *System, 32,* 185-205. doi: 10.1016/j.system.2003.11.007

Hughes, J., Thomas, R., & Scharber, C. (2006). Assessing technology integration: The RAT -replacement, amplification, and transformation - framework. *Technology and Teacher Education Annual, 3*, 1616-1620.

Hulstijn, J. (2003). Connectionist models of language processing and the training of listening skill with the aid of multimedia software. *Computer Assisted Language Learning, 16,* 413-425.

Jin, K.A. (2002). The effect of teaching listening strategies in the EFL classroom. *Language Research, 38,* 987-999.

Jones, L,. & Plass, J. (2002). Supporting listening comprehension and vocabulary acquisition in French with multimedia annotations. *The Modern Language Journal, 86,* 545-561.

Jones, L. (2008). Listening comprehension technology: Building the bridge from analog to digital. *CALICO Journal, 25,* 400-419.

Joshi, C. (2009). A paradigmatic shift of traditional language learning to computer-assisted language learning (CALL). *International Research Journal, 1,* 73-76.

Levy, M., & Stockwell, G. (2006). *CALL dimensions.* New York, NY: Lawrence
    Erlbaum Associates, Inc.

Levy, M. (1997) *CALL: context and conceptualisation*, Oxford, UK: Oxford University
    Press.

Mayer, R.E. (1997). Multimedia learning: are we asking the right questions?. *Educational
    Psychologist, 32*, 1-19.

Mayer, R.E. (2001). *Multimedia learning.* Cambridge, UK: Cambridge University Press.

Morley, J. (2001). Aural comprehension instruction: principles and practices. In M.
    Celce-Murcia (Ed.), *Teaching English as a Second or Foreign Language* (pp.
    69-85). Boston, MA: Heinle, Cengage Learning.

O'Bryan, A., & Hegelheimer, V. (2007). Integrating CALL into the classroom: the role
    of podcasting in an ESL listening strategies course. *ReCALL, 19,* 162-180.
    doi: 10.1017/s0958344007000523

O'Malley, J.M., & Chamot, A.U. (1990). *Learning strategies in second language
    acquisition.* Cambridge, UK: Cambridge University Press.

Osada, N. (2001). What strategy do less proficient learners employ in listening
    comprehension?: A reappraisal of bottom-up and top-down processing.
    Journal of the Pan-Pacific Association of Applied Linguistics, 5, 73–90.

Oxford, R.L. (2001). Language learning styles and strategies. In M. Celce-Murcia (Ed.),
     Teaching English as a Second or Foreign Language (pp. 359-383). Boston,
     MA: Heinle, Cengage Learning.

Peterson, P.W. (2001). Skills and strategies for proficient listening. In M.Celce-Murcia
     (Ed.), *Teaching English as a Second or Foreign Language* (pp. 87-100).
     Boston, MA: Heinle, Cengage Learning.

Richards, J. (1990). *The language teaching matrix.* Cambridge, UK: Cambridge
     University Press.

Salaberry, R. (2001). The use of technology for second language learning and teaching: a
     retrospective. *The Modern Language Journal, 85,* 39-56.

Smidt, E., & Hegelheimer, V. (2004). Effects of online academic lectures on ESL
     listening comprehension, incidental vocabulary acquisition, and strategy use.
     Computer Assisted Language Learning, 17, 517-556.

Stockwell, G. (2007). A review of technology choice for teaching language skills and
     areas in the CALL literature. *ReCALL, 19,* 105-120. doi:
     10.1017/s0958344007000225

Tsinghong, M. (2010). Communicative listening training in English – features, strategies
     and methods. *Journal of Language Teaching and Research, 1,* 464-472. doi:
     10.4304/jltr.1.4.464-472

Tsui, A., & Fullilove, J. (1998). Bottom-up or top-down processing as a discriminator of
     L2 listening performance. *Applied Linguistics, 19,* 433-451.

Vanasco, L. (1994, March). *Listening: the agent for positive change in ESL*. Paper

    presented at the Annual Convention of the International Listening

    Association, Boston, Massachusetts.

Vandergrift, L., & Tafaghodtari, M. (2010). Teaching L2 learners how to listen does

    make a difference: an empirical study. *Language Learning*, *60,* 470-497. doi:

    10.1111/j.1467-9922.2009.00559.x

Vandergrift, L. (2003). From prediction through reflection: Guiding students through the

    process of L2 listening. *The Canadian Modern Language Review, 59,* 425-

    440.

Vandergrift, L. (2004). Listening to learners or learning to listen?. *Annual Review of*

    Applied Linguistics, 24, 3-25. doi: 10.1017/s0267190504000017

Verdugo, D.R., & Belmonte, I.A. (2007). Using digital stories to improve listening

    comprehension with Spanish young learners of English. *Language Learning*

    & Technology, 11, 87-101.

Winke, P., Gass, S., & Sydorenko, T. (2010). The effects of captioning videos used for

    foreign language listening activities. *Language Learning & Technology, 14,*

    65-86.

Zheng, H., Han, L., & Guo, J. (2009). Evaluation of factors affecting the efficacy of

    English listening comprehension based on CALL. *Computational Intelligence*

    and Software Engineering, 1-4. doi:10.1109/cise.2009.5364806