

TOLERANCE OF AMBIGUITY
AND
L2 LISTENING COMPREHENSION

by

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ABSTRACT

In-class listening activities are generally one of the most stressful tasks for L2 learners. Many L2 learners feel discouraged if they do not understand every single word in oral discourse. For this reason, learners can disengage from listening activities very easily. The present study investigates the relationship between the concept of tolerance of ambiguity (TA)—which refers to the degree of acceptance of uncertainty—and listening comprehension in a second language. This study involved 32 participants enrolled in two elementary Spanish courses at the University of Delaware in the fall semester of 2016, and it was carried out following an explanatory mixed-method research design. While the control group (n=16) was exposed to regular listening instruction based on comprehension checks, the experimental group (n=16) was trained to develop listening comprehension strategies aimed at increasing the students' level of TA (i.e., attention to supra-segmental and extra-linguistic features of language, promoting the deployment of cognitive strategies for the identification of global themes, stimulating social strategies for the processing of the second language content through partner discussions, and promoting metacognitive awareness of the listening process). Descriptive statistics were used to determine the initial TA level of participants, a dependent-samples t-test was conducted to analyze the change in TA of the experimental group throughout the semester, and finally, a multiple regression analysis was performed to estimate the relationship between TA and listening comprehension.

Chapter 1

LITERATURE REVIEW

1.1 Tolerance of Ambiguity in Second Language Acquisition

The term “ambiguity” has been of great interest to psychologists since the early decades of the 20th century (Norton, 1975). Indeed, the 125 users of the term “ambiguous” in psychological abstracts from 1933 to 1970 were grouped by Norton (1975) into the following eight categories: (1) multiple meanings (when the stimulus involved at least two meanings); (2) vagueness, incompleteness, fragmented (when parts of the stimulus were missing); (3) as a probability (when the stimulus entailed distinct possibilities); (4) unstructured (when the stimulus appeared disorganized in any way); (5) lack of information (when the stimulus did not provide enough information); (6) uncertainty (when the stimulus was not clearly known or stable); (7) inconsistencies, contradictions, contraries (when the stimulus presented unreliable information); and finally, (8) unclear (the term “ambiguous” was frequently used as a synonym of “unclear”). ‘Ambiguity’ was also explained by Norton, in a more simplified way, as having “too little, too much or seemingly contradictory information” (p. 607).

Situations involving ambiguity were defined by Budner (1962) as those “which cannot be adequately structured or categorized by the individual because of the lack of sufficient cues” (p. 30). In Budner’s (1962) study, ambiguous situations were divided into three different types: (1) new situations, in which the cues are not known to the perceiver; (2) complex situations, in which there are too many cues to process; and (3)

contradictory situations, in which the cues may lead to multiple structures. Later, Norton (1975) added a fourth type: unstructured situations, in which the cues cannot be interpreted due to their lack of organization (Kazamia, 1999).

As a concept, the notion of the intolerance of ambiguity (IA), developed by Frenkel-Brunswik in 1949, finds its origins in the psychology of the so-called authoritarian syndrome. This condition defines IA as the “tendency to resort to black-white resolutions, to arrive at premature closure as to evaluative aspects, often at the neglect of reality, and to seek for unqualified and unambiguous overall acceptance and rejection of other people” (p.115). From its inception, the concept of IA has been associated with mental rigidity and prejudice. The belief was that in order to reach this narrow perspective, one needs to eliminate of any potential threat by denying the ambiguity of reality. It was concluded that IA meant being unwilling to accept the numerous possibilities of reality and to instead resort to whatever could be perceived as the only alternative (Frenkel-Brunswik, 1949). Consequently, IA was positively associated with ethnocentric or authoritarian individuals (Frenkel-Brunswik, 1949). IA was later defined as the “tendency to perceive or interpret information marked by vague, incomplete, fragmented, multiple, probable, unstructured, uncertain, inconsistent, contrary, contradictory, or unclear meanings as actual or potential sources of psychological discomfort or threat” (Norton, 1975, p. 608).

In contrast to IA, tolerance of ambiguity (TA) is a personality variable with a strong association to how open individuals are to new ideas and possibilities (Dörnyei & Ryan, 2015). The term ‘personality’ refers to “the configuration of characteristics and behavior that comprises an individual’s unique adjustment to life, including major traits, interests, drives, values, self-concept, abilities and emotional patterns”

(Personality, 2009, p.299). Individuals have various ways of adapting to internal and external stimuli; therefore, the nature of their values and their goals (as well as how they interact with the environment), greatly differ from one individual to another (Budner, 1962). From this point of view, TA is “part of the hierarchy of values, and ... ambiguity is a goal which individuals seek to gain or to avoid, or to which they are indifferent” (Budner, 1962, p. 48). In addition, it is important to note that TA or IA as personality variables are not stable; that is, they vary depending on the nature of the situation (Ely, 1989). From this perspective, there is “a range, from rejection to attraction, of reactions to stimuli perceived as unfamiliar, complex, dynamically uncertain, or subject to multiple conflicting interpretations” (McLain, 1993). In other words, individuals who are intolerant of ambiguity view ambiguous situations as threatening events, as opposed to those who are tolerant of ambiguity, who see these situations as enjoyable experiences (Budner, 1962).

The concept of TA is directly connected to the cognitive process, or how individuals perceive reality (Ehrman, 1999). According to the definition published by the American Psychological Association, TA is described as “the degree to which one is able to accept, and to function without distress, or disorientation, in situations having conflicting or multiple interpretations or outcomes” (Ambiguity tolerance, 2009, p.16). It has been theorized that one can be tolerant or intolerant of ambiguity at three different levels during the linguistic cognitive process: “intake,” which is absorbing information; “tolerance of ambiguity proper,” in which conflicting and incomplete information is processed; and “accommodation,” where the individual rearranges pre-existing knowledge to allow for the inclusion of the new information through the restructuring of cognitive schemata (Ehrman, 1999).

There are several scales designed to measure TA. Budner's Scale (1962), which was the first widely used questionnaire of its kind, includes 16 different items that stand as ambiguous situations. Participants must agree or disagree with the situations on a scale from 1 to 7. For instance, item #1 reads as follows: "*An expert who doesn't come up with a definite answer probably doesn't know too much.*" Answers to these items portray a possible cause of psychological distress, such as repression and denial, anxiety and discomfort, destructive or reconstructive behavior, or avoidance behavior (Budner, 1962). Individuals were intolerant of ambiguity if their answers were related to either an afflicted emotional state or a negative reaction in the external world. Unfortunately, this scale was soon found to be flawed by low internal reliability and the absence of adequate validity evidence (Norton, 1975). Other examples of widely used instruments for the measurement of TA are the following: the AT-20 (McDonald, 1970), a 20-item scale with "true" or "false" as the response format for each item; the MAT-50 (Norton, 1975), a 50-item scale with 7 possible options ranging from "always true" to "always false"; the MSTAT-I (McLain, 1993), a 22-item scale with 7 possible answers ranging from "strongly disagree" to "strongly agree;" and the MSTAT-II, which is a 13-item version of the MSTAT-I (McLain 2009).

The only scale designed to measure TA in the field of foreign language learning is the Second Language Tolerance of Ambiguity Scale (SLTAS) (Ely, 1989, 1995). This scale has 12 items and measures the level of TA in the 4 different skills (writing, reading, listening and speaking). Regarding the response method, participants are given 4 possible answers that range from "strongly agree" to "strongly disagree". This scale has been widely used in studies that analyzed the relationship between TA

and other areas within the field of second language acquisition, such as cloze test performance (Atef-Vahid et al., 2011), vocabulary knowledge (Basoz, 2015), and language learning strategies (Chu et al., 2015). SLTAS (Ely, 1995) was the instrument employed in this research. For that reason, this instrument will be thoroughly explained in the methodology section.

The importance of TA in the foreign language classroom is related to Krashen's (2009) hypothesis about the affective filter. The Monitor Model (Krashen, 2009), a language acquisition theory, is comprised of five hypotheses: the input hypothesis, the acquisition-learning hypothesis, the monitor hypothesis, the natural order hypothesis and the affective filter hypothesis. At first glance, it seems that the input hypothesis is an essential factor for teachers to take into account in order to have students become successful language learners (Krashen, 2009). This is because the hypothesis stresses the need to expose learners to a good amount of comprehensible input that goes slightly beyond the learner's current proficiency level. This way, the student will continue to be motivated to keep improving. However, students do not always retain new input even though they are exposed to it and understand it, and this is due to the affective filter hypothesis.

The affective filter hypothesis connects affective factors to the second-language acquisition process (Krashen, 2009). The affective filter hypothesis states that for linguistic input to reach the language-acquisition device, that is, for input to have any chance of being acquired by the student, the affective filter needs to be low. The affective filter is the combination of negative emotional and motivational factors that may reduce the amount of comprehensible input that a student is able to process. The higher the filter is, the more distressed the learner is. If the learners' affective

filter is high, they will not be able to process the input because the filter works as a barrier against input. The language student needs to feel comfortable and willing to learn in order to actually be able to acquire new knowledge: “the acquirer must not only understand the input but must also, in a sense, be ‘open’ to it” (Krashen, 2009, p. 21).

The affective variables that can negatively influence the affective filter include motivational factors (lack of interest towards the target language’s culture or the practicality of learning the language in question) and personality factors (fear, anxiety, self-esteem, self-confidence, empathy, etc.) (Krashen, 2009). It is evident that IA is one of the personality factors that may considerably reduce the amount of input the learner acquires. If a student experiences emotional reactions stemming from their rejection of possibilities or challenging information, they are less likely to easily acquire a language. Thus, it can be inferred that the more intolerant of ambiguity students are, the higher their affective filters would be, and therefore, the harder it would be for language acquisition to take place. The opposite could be said for students who are tolerant of ambiguity. This makes the affective filter hypothesis a priority for foreign language teachers. For successful language learning to happen, not only do teachers need to provide input for the students, but they also need to create a low-anxiety learning atmosphere in which tolerance of ambiguity towards the target language is promoted. As Rubin (1975) stated, the “good language learner is... comfortable with uncertainty... and willing to try out his guesses” (p. 45).

TA can be related to other individual characteristics that influence the successful acquisition of a foreign language, such as field independence (FI) (Chapelle & Roberts, 1986) and ego boundaries (Erhman, 1999). On the one hand, a field-

independent person solves problems analytically by examining elements separately and identifying patterns, whereas a field-dependent person handles problem-solving globally by looking at the big picture (Chapelle & Roberts, 1986). Field-independent people should be good at learning a foreign language, while field-dependent learners should be good at acquiring it. Ideally, good language learners are cognitively flexible so that they can benefit from both the FI and the FD ways of problem solving (Chapelle & Roberts, 1986).

TA has been found to be a predictor of the learner's language achievement, especially in the areas of structure and listening, whereas the learner's level of FI had a more general correlation with all the skills that are tested by TOEFL (Chapelle & Roberts's, 1986). In their study, Chapelle and Roberts collected data from 61 international students learning English in a university setting. They showed evidence of the importance of TA with respect to the end-of-semester English proficiency scores in multiple choice tests of grammar, dictation, and parts of speech, which correlated with early research findings (Chapelle, 1983). FI was also found to be a relevant factor in successfully acquiring a second language since there was a positive association between the English proficiency scores and the levels of FI.

On the other hand, the thickness or thinness of language learners' ego boundaries is another personality difference that influences all areas of learning, and is strongly related to TA (Ehrman, 1999). The term "ego boundary" was defined as "the degree to which individuals tend to compartmentalize their experience," and its meaning was explained as follows:

The need to compartmentalize experience can affect internal conceptual categories, such as thought vs. feeling or receptivity to intuitive insights. It also affects

receptivity to outside influences, such as new languages and cultures. Thickness of ego boundaries has effects on students' ability to learn by osmosis, to make use of teachers or other native speakers as models with which to identify, to permit development of a target language persona, and above all to tolerate ambiguity. (Erhman, 1999, p. 68)

The successful language learner is one who skillfully combines flexible ego boundaries and a certain degree of TA (Erhman, 1999). Students who have thicker ego boundaries tend to have difficulty adapting to new situations and are generally resistant to learning new information that contradicts their current belief system. On the contrary, students who have thinner ego boundaries are less meticulous with the cognitive and affective categorization of their internal and external worlds; that is, distinctions are blurry and thus are generally more intuitive (Erhman, 1999). Thin ego-boundary learners not only tolerate but embrace ambiguity, whereas thick ego-boundary learners have difficulty tolerating ambiguity (Erhman, 1999). It is important to note that the extreme end of both learning styles could be detrimental to learning since those with thick ego boundaries tend to only think in black and white, while those with thin ego boundaries only perceive the shades of grey in between the categories (Erhman, 1999).

Contrary to what might be expected, being highly tolerant of ambiguity does not always help in the language learning process (Ely, 1995). Having high TA might hinder one's learning process because it could potentially lead to accepting everything without questioning, and ultimately to disregarding the positive effect that ambiguity should have on students; that is, feeling curiosity to find out the meaning of that linguistic element with which they are unfamiliar (Ely, 1995). Learners will not be interested in understanding the specifics of the oral or written text with which they are

working if they are not inquisitive. Students need to feel curious enough to be willing to make guesses and take risks, and this curiosity is usually characteristic of having a moderate level of TA (Ely, 1995). With respect to the potential consequences of having high TA, Ely (1995) highlighted the following:

The unfortunate result is likely to be relatively early and permanent pidginization or fossilization of incorrect pronunciation, grammar, vocabulary, and pragmatic use. If this is a student who desires to learn the language well, the lack of linguistic accuracy is likely to cause her or him a great deal of frustration. (p. 93)

An illustrative example would be Baran-Lucarz's (2009) pilot study on the relationship between TA and pronunciation, which showed that being intolerant of ambiguity aided students in improving their pronunciation. Students who tended to be more intolerant of ambiguity detected new ambiguous stimuli very easily, and therefore, they would exert more effort on pronouncing the new linguistic element correctly. As Baran-Lucarz (2009) puts it, "such a style might in fact help learners to notice the gap ... between L1 and TL sounds, and make the perception, processing and storage of the new TL features more successful" (p. 101). Nevertheless, the ideal language learner is one who "is neither inhibited by low tolerance of ambiguity nor oblivious to linguistic subtleties" (Ely, 1995, p. 93). The student who recognizes—but does not feel threatened by—linguistic dissonance and uses it as a learning opportunity is one who will benefit from TA (Ely, 1995).

In addition, the level of TA differs depending on the proficiency level of the language learner (Naiman, Frohlich, Stern & Todesco, 1978; Atef-Vahid, Kashani & Haddadi, 2011). The number of years of formal language instruction has been documented as having an impact on students' ability to learn French: "tolerance of ambiguity was a significant predictor of success ... only in grade 8, while ... grade 10

and grade 12 students were both significantly more tolerant of ambiguity than grade 8 students” (Naiman et al., 1978, p. 67). Beneficial TA also has been documented as changing between school grades depending on the linguistic situation. In the case of the TA related to the teacher’s use of French in the classroom, it was found that it predicted success in grades 8 and 10, but not in grade 12 (Naiman et al., 1978). Finally, it has been concluded that distinct personality traits influenced the different stages of the students’ language learning process:

At later stages of second language learning in a formal situation, it appears that other cognitive style factors, for example, field independence, are more important. In fact, FI was the single most significant predictor of success ... for grade 12, while it was not significant in any of the other grades (except as a minor predictor of success on imitation in grade 8). (Naiman et al., 1978, p. 67)

Atef-Vahid et al.’s (2011) study, which researched TA relative to cloze test performance, confirmed the positive correlation between level of TA and learners’ language proficiency level. In other words, the higher the proficiency level, the more tolerant of ambiguity learners are. This demonstrates that as learners acquire more of the foreign language, their need to control every aspect of the language learning process decreases, resulting in higher TA (Atef-Vahid et al., 2011).

The level of TA considerably varies depending on which of the four language skills is being used (Kazamia, 1999). Kazamia’s (1999) research on the degree of TA of 323 Greek civil servants when learning English as a foreign language is an exemplary study on the relationship between TA and language learning achievement focusing on all four skills (reading, listening, writing and speaking). In this study, learners did not exhibit an extremely high level either of intolerance or of tolerance of ambiguity. However, when the results of the different skills were closely analyzed, it

was noticed that learners were more intolerant of ambiguity when engaging in the two production skills; that is, writing and speaking. This finding was also confirmed in Liu's (2006) later research (Basoz, 2015). The biggest fear of language learners when facing writing and speaking tasks was failing to use grammar correctly to express their thoughts and ideas (Kazamia, 1999). This finding is consistent with earlier research: "AT was a significant predictor of end-of-semester performance on the multiple choice grammar portion, the dictation and the total English Placement Test" (Chapelle, 1983, p. 78). In addition, Kazamia's (1999) study also agrees with recent research (Ezzati & Farahian, 2016) on the strong correlation between TA and grammar achievement. Regarding the receptive skills, these researchers have found that students tend to show a moderate level of tolerance of ambiguity when reading and a considerably higher level of tolerance of ambiguity when listening to the teacher talking in English (Kazamia, 1999).

The level of TA could predict the language learner's reading (El-Koumy, 2000; Erten and Topkaya, 2009; Kamran and Maftoon, 2012) and listening achievement levels (Chapelle & Roberts, 1986). In El-Koumy's (2000) study, which involved 150 freshmen enrolled in English as a Foreign Language classes at four different Egyptian universities, it was noted that the students' TA had a strong positive correlation with the language learners' reading proficiency since there was "a significant difference in reading comprehension scores among the high-, middle-, and low-ambiguity tolerance groups," and "the middle ambiguity tolerance group scored prominently higher than the low and high ambiguity tolerance groups" (El-Koumy, 2000, p. 9). The findings also correlated with the claim that a moderate degree of TA is the appropriate (Ely, 1995).

Regarding the skill of listening, there are conflicting findings as to what level of TA is most helpful. On the one hand, some researchers argue that having a higher level of TA is more beneficial than a moderate level of TA (Kazamia, 1999). However, Soleimani's (2009) study, which examined the listening scores of EFL learners with different levels of TA, reported that learners with a moderate level of TA tended to do better in listening comprehension tasks (Basoz, 2015). It was also found that high TA, as opposed to low TA, positively influenced the sub-skills of listening for retrospective tasks, inference and main ideas (Liu, 2015). Moreover, Yu (2007) reported that high TA predicted a better selection of the listening strategies that students required in order to successfully complete listening tasks (Liu, 2015). In addition, it was found that language learners were willing to tolerate not understanding the meaning of some words the teacher used, only if that missed information did not prevent them from comprehending the main idea of what the teacher was saying (Kazamia, 1999).

As far as the skill of writing is concerned, it was found that TA has an influence on writing performance, and that this varies depending on the learners' proficiency level (Lee, 1999). Lee's study, which focused on the effects of TA on EFL task-based writing, found that low proficiency language learners benefited less from TA than intermediate- or high-proficiency level students. In other words, from the perspective of the holistic scoring system—that is, considering the total score of the writing task—there were statistically significant differences between the high TA and low TA scores at the low proficiency level, but this did not apply for the intermediate and high proficiency levels (Lee, 1999). By contrast, from the point of view of the analytic scoring system—that is, taking into account the score of different

aspects of the writing task—it was found that there were no significant differences between the high and low TA groups in scores for content, structure and mechanics, but there was a relevant difference between the two with regard to scores for organization and vocabulary (Lee, 1999).

With regard to lexicon acquisition, no significant relationship was found between the students' level of TA and their vocabulary knowledge (Basoz, 2015). Basoz's (2015) study, which researched the relationship between TA and vocabulary knowledge of 60 freshmen who were enrolled in a Turkish university, discovered that TA was not related to language achievement as far as vocabulary knowledge was concerned. Still, a relevant relationship between TA and self-perceived achievement in foreign-language vocabulary learning was established. This was due to the fact that the students who had "a moderate level of TA perceived themselves to be more successful in foreign language vocabulary" than those students who had a high or low level of TA (Basoz, 2015, p. 61).

In addition to discovering a positive correlation between TA and successful language learning, several other intriguing implications were found. For example, it was noted that the students who had significantly higher TA had more previous language experience than students who had lower TA (Chapelle, 1983). In addition, TA not only influences language learning but also plays an important role in test performance (Atef-Vahid et al., 2011). Finally, it was found that the student's culture might influence TA since Japanese-speaking students were found to be more tolerant of ambiguity than their Arabic- and Spanish- speaking EFL classmates (Chapelle, 1983).

Ely (1989) designed the Second Language Tolerance of Ambiguity Scale (SLTAS) and used it to examine whether TA was related to the use of second language learning strategies. Since personality variables were already considered to vary across situations, Ely's (1989) study focused on situation-specific TA as a possible cause of strategy use. In this research, the relationship between TA and language strategy use was theorized in the following manner: (1) students with lower TA would be more dependent on their knowledge of L1, and (2) they would rely more on strategies which focus on specific details; whereas students with higher TA would tend to use strategies which help them understand general meaning. The study was conducted in a university setting, with 84 students enrolled in Spanish classes. Apart from proving the reliability of SLTAS, the results also indicated that the hypotheses were not far from the facts. The results of this study were as follows:

Tolerance of ambiguity, as hypothesized, was found to be a negative predictor of various strategies which involve focusing on individual language elements: planning out exactly what to say ahead of time, thinking carefully about grammar when writing, looking up words in English right away when reading, and asking the teacher for the right words when speaking. Also, students high in tolerance of ambiguity did not mind speaking even when they were unsure of possessing the correct language tools. Level of tolerance of ambiguity was not, however, a predictor of focusing on grammar or vocabulary when listening, focusing on individual words when reading, or trying to understand every word when listening. (p. 442)

Regarding the strategies that involved looking for overall meaning, it was found that TA was a significant positive predictor in looking for overall meaning in reading, but not in listening or guessing the meanings of words from context (Ely, 1995). With respect to the learning of new vocabulary, it was found that students with high TA tended to construct mental images to help them remember the words learned rather than memorize the words through rote repetition (Ely, 1995). Based on the

results, it was concluded that teaching a language entailed not only making the students aware of the benefits of language learning strategies and how to use them, but also being aware of the students' personality and other affective variables which might hinder or enhance their language learning experience (Ely, 1995).

More recent studies have confirmed a positive relationship between the level of TA and the use of language-learning strategies (Yea-Fen, 1995; Jun-Yong, 1998; Khajeh, 2002; Nosratinia, Niknam & Sarabchian, 2013). In fact, Nosratinia et al.'s (2013) research, which used the information of 130 EFL students majoring in English translation and literature at a university in Iran, revealed that both emotional intelligence and TA slightly influenced the students' approach to language learning: emotional intelligence predicted 6.8% whereas TA predicted 3.2% of the students' language learning strategies. In addition, Khajeh's (2002) study claimed that there was a positive correlation between TA and both proficiency level and frequency of language learning strategy use (Basoz, 2015).

In contrast to Nosratinia's (2013) findings, other studies have failed to find any statistically significant relationship between learners' TA and the frequency of language learning strategy use (Kamran & Maftoon, 2012; Chu et al., 2015). Chu et al. (2015), who investigated the topic with 60 international students who were taking Chinese language classes at a university in Taiwan, suggested that the failure in finding a significant relationship between TA and language learning strategies could be due to three possible factors: (1) the difficulty involved in categorizing learning strategies; (2) this study's low reliability of each dimension in the Strategy Inventory for Language Learning (SILL), which could be the result of classifying strategies incorrectly; and (3) the possibility that TA did not influence the frequency but the

quality of strategy use. Consequently, qualitative research was conducted to examine the potential factors that might have hindered the discovery of fruitful findings between TA and strategy use (Chu et al., 2015). In Chu et al.'s qualitative study (which consisted of interviews with six students at three different levels of TA), it was found that the degree of TA was a determining factor in the quality, rather than in the frequency, of the learners' cognitive, metacognitive and social strategies. Students with different levels of TA used learning strategies with a similar frequency, but not with the same degree of dedication or involvement. In addition, it was discovered that students across different levels of TA actively engaged in cognitive strategies—such as reading in the foreign language in question—but learners who were highly tolerant of ambiguity challenged themselves by choosing articles that went beyond their proficiency level, whereas learners who had a lower degree of TA preferred easy readings or simply quit reading if the text seemed to be too hard for them. At the metacognitive level, learners whose TA was high had a clear idea of how to periodically assess their own learning, whereas less tolerant students had a vague idea of how to handle their study and monitor their language learning. With respect to social strategies, differences were found in the length of time that learners dedicated to interacting with native speakers—high TA predicted extensive conversations with natives whereas lower TA was associated with minimal interactions—as well as in their level of involvement in cultural events, where having a high TA predicted student engagement in cultural activities, and lower TA was correlated with the observation of cultural practices only (Chu et al., 2015).

Several studies incorporated the variable of gender in the analysis of TA in the field of second language learning. The gender factor is believed to be associated with

several emotional aspects of the language learning process (Marzban, Barati & Moinzadeh, 2012). Thus, analyzing gender differences in TA tolerance levels is considered essential to ascertain the impact of this personality trait on language learners' ability (Marzban et al., 2012). Unfortunately, studies focusing on this gender divide have been inconclusive in their findings.

Female language learners have been found to exhibit lower TA levels than their male counterparts (Erten & Topkaya, 2009; Marzban, Barati & Moinzadeh, 2012). In Erten & Topkaya's (2009) study, which was carried out with 188 students of tertiary-level EFL learners at a state university in Turkey, it was noted that males and females had TA levels above the mid-point, with the female participants being a little more intolerant (mean: 3.79) than their male counterparts (mean: 3.54). This gender difference was more dramatic if the distribution of males and females in different tolerance groups was examined. By dividing the participants into three TA groups (low, moderate and high), it was found that the number of female students was larger in the low tolerance group (53%) and the moderate tolerance group (42%) than the number of male students in these groups (low: 40% and moderate: 37%). Moreover, the number of female students who fell into the high tolerance group (3.96%) was considerably lower than the number of male students in this same group (22.03%) (Erten & Topkaya, 2009). Similarly, Marzban, Barati & Moinzadeh's (2012) research (which collected the data of 194 teacher trainees at an Iranian university), found that that average level of TA that participants reported was slightly above mid-point, and female students exhibited a lower TA (mean: 3.38) than their male peers (mean: 3.14). When students were divided into three different TA levels (low, moderate and high), it

was discovered that fewer female students fell into the high tolerance group (11.9%) than their male counterparts (14.7%) (Marzban et al., 2012).

By contrast, Basoz's (2015) research, which involved 60 freshmen enrolled in the English language teaching (ELT) department of a state university in Turkey, revealed that female participants had lower levels of TA in language learning, but the difference between the tolerance level of males and females was not statistically significant. In other words, "gender did not have any significant impact on the EFL learners' ambiguity tolerance levels" (Basoz, 2015, p. 60). Due to the conflicting results of these three studies, there is no consensus in the field of second language acquisition on the impact of gender on an individual's level of TA.

1.2 Tolerance of Ambiguity on Listening Processing

The present research focused on the impact of TA in the listening processing. Learning a foreign language is a process that is full of ambiguity—especially at the beginner's level—since everything is new for the learner (i.e. the spelling, pronunciation and meaning of words, how to form sentences and so on). Therefore, the learner needs to develop ways to successfully deal with ambiguity to make the language-learning journey less overwhelming and more enjoyable. Listening was the skill chosen to study TA among Spanish beginner learners because it is the most used skill in real communication. As Rivers (1981) observes, "listening is used nearly twice as much as speaking and four to five times as much as reading and writing [through the normal course of a day]" (Van Duzer, 1997). Therefore, it seems that enhancing TA while listening to L2 should be the most practical way for students to start understanding that developing TA is crucial to succeed in mastering a second

language. In the following section, both the listening challenges as well as the language-learning strategies used to develop the skill of listening will be discussed.

Reading and listening are the essential skills used for the presentation of linguistic input to language learners (Lee & VanPatten, 2003). One of Lee and VanPatten's (2003) guidelines for the creation of structured input activities is to "use both written and oral input". Song's (2008) study, which investigated the subskills of listening and reading, found that both receptive skills are made up of the same subskills, which are topic, details and inference (Brown, 2011, p. 9). In other words, both top-down and bottom-up decoding processing are employed while trying to comprehend written or aural input. In addition, Song (2008) stated that both reading and listening entail "comprehension plus decoding," that is, students are involved in an active process of selecting and interpreting information to make sense of it (Brown, 2011, p.10).

Even though reading and listening share comprehension processes, their input decoding processes differ (Brown, 2011). Readers and listeners take different cognitive paths to comprehend the input they are receiving. This is due to the dissimilarities between the two means of input delivery; that is, between written and oral language. Written text is fixed and students can go back to it as many times as they wish, which helps them remember not only the general idea but also the details. However, in the case of oral language, due to its transient nature, students cannot review it but instead, need to remember what they listened to. In other words, "listeners create a mental representation of what they heard" (Vandergrift, 2004, p. 4). Consequently, it was reported (Lund, 1991) that listeners tend to remember main ideas of what they hear better than specific information, and the contrary applies to readers

(Brown, 2011, p. 7). In addition, cognates may help the reader understand the text because they are easy to spot in their written form. However, when students listen to cognates, they might not be able to detect them since they may sound very different. Similarly, having learned a word or expression in writing does not automatically lead the student to detect and understand it in connected speech (Brown, 2011). Moreover, listening requires understanding reductions of sounds, blending of words, false starts and hesitations on the part of the speaker:

Spoken language in general is “looser” than written language; we use a lot of pronouns (it, that), string together clauses with conjunctions (and, but, so) rather than use subordinate clauses (while, because), and rely partly on gestures and body language to get our points across. (Brown, 2011, p. 6)

Further contributing to the challenge of listening are the three cognitive phases of processing aural input. According to Anderson’s (2015) model for aural decoding processing, these three phases are perceptual processing, parsing and utilization. Perceptual processing refers to the stage where the listener perceives the sounds, the parsing stage occurs when the sounds are transformed into a mental representation of the combined meaning of the words, and lastly, listeners utilize the information they have just processed orally when they respond to it according to its function (i.e., if it is a question, they may answer; if it is an assertion, they may try to remember the information; if it is an order; they may obey it, etc.) (Anderson, 2015, p. 313). Similarly, it was theorized that the listening process has four distinct phases: the neurological phase (when the listener receives the oral input), the linguistic phase (when the input is decoded), the semantic phase (getting the meaning) and finally, the pragmatic phase (interpreting the meaning considering its social, situational and cultural context) (Rost, 2011).

Of these decoding processing phases, perception and parsing are especially demanding for low-proficiency listeners (Goh, 2000). Goh (2000) studied listening complications that students have and found ten different common problems, half of which were related to the perceptual processing phase and stemmed from failure in word recognition and ineffective attention. These five problems were: “neglect the next part when thinking about meaning,” “cannot chunk streams of speech,” “miss the beginning of texts,” “concentrate too hard or unable to concentrate,” and “not recognize words they know” (Goh, 2000, p. 59). Three of the listening problems were issues with parsing: “quickly forget what is heard,” “[being] unable to form a mental representation from words heard,” and “not understand[ing] subsequent part of input because of earlier problems” (Goh, 2000, p. 59). Although the majority of problems stem from perception and parsing phases, two out of the ten listening problems were related to the utilization phase: “understand words but not the intended message,” and “[being] confused about the key ideas in the message” (Goh, 2000, p. 59).

Language learning strategies presented by Oxford (1990) can be used for coping with these listening challenges. The language learning strategies apply to all four skills and can be divided into two groups: direct and indirect (Oxford, 1990). On one hand, direct strategies are those that involve the target language directly and can be divided into three subgroups: (1) memory strategies—such as creating mental linkages and applying images and sounds—help students remember and store new information; (2) cognitive strategies—such as taking notes and getting the idea quickly—provide students with the means to understand and manipulate new input; and (3) compensation strategies—such as adjusting or approximating the message and using mime or gesture—enable students to comprehend new input despite being

unfamiliar with it (Oxford, 1990, p. 37). On the other hand, indirect strategies provide indirect assistance for language learning; that is, without having to deal with the target language directly. There are three subgroups of these strategies: (1) metacognitive strategies—such as planning and evaluating one’s own learning, enable learners to manage their own cognition; (2) affective strategies—such as lowering anxiety and self-encouragement—helps control feelings, motivation and attitude; and (3) social strategies—such as asking for correction and developing cultural understanding—make students learn through interaction with others (Oxford, 1990, p. 135).

A successful listener is someone who actively uses a wide array of listening strategies (direct and indirect) to have as much control over the listening process as possible (Rost, 2002). In order to become a skilled listener, the language learner needs to manage the use of several strategies simultaneously (Vandergrift, 2004). Listening strategies are interconnected and need to be taught in an integrated manner (Vandergrift, 2004). In particular, Vandergrift found that “the successful listener used an effective combination of metacognitive and cognitive strategies” (p. 9). When faced with uncertainty, successful listeners resort to five techniques:

- Predicting— using real world expectations to generate predictions about what the speakers will say and what might happen;
- Guessing— making inferences about what the speakers might have said or might have meant, even when “bottom up” information about the language may be incomplete;
- Selecting— focusing on key words, trying to select targeted information that is adequate to complete a given task;
- Clarifying— monitoring one’s level of understanding and identifying questions that can be asked to supplement partial understanding or correct misunderstanding, and revising one’s representation of meaning;

- Responding— reflecting or attempting to formulate an opinion, to interact with the speaker, to personalize the content, focus on what was understood, attempt to talk about the input or conversation in a comfortable way. (Rost, 2002, p. 21)

Listening problems can be treated or avoided if language learners get adequate training in the use of listening strategies (Graham & Santos, 2015). Learners need to be taught how to listen in order to ultimately “listen to learn” (Vandergrift, 2004, p. 3). “Learning to listen,” which should be the main goal of listening instruction, means focusing on the process of listening, instead of on the product; that is, checking comprehension (Vandergrift, 2004). According to Rubin et al. (2007), strategy instruction should follow a set of stages:

1. raising awareness of the strategies learners are already using,
2. teacher presentation and modelling of strategies so that students become increasingly aware of their own thinking and learning processes,
3. multiple practice opportunities to help students move towards autonomous use of the strategies through gradual withdrawal of the scaffolding, and
4. self-evaluation of the effectiveness of the strategies used and transfer of strategies to fresh tasks. (Graham & Santos, 2015, p. 43)

By selecting good listening passages and carrying out listening practice that involves the students’ development of strategies, “we empower students to become better learners” (Rost, 2002, p. 18).

One of the most beneficial approaches to teaching listening strategies includes promoting metacognitive awareness while using cognitive and social strategies (Vandergrift, 2004). This approach has five pedagogical stages. First, there is a planning/predicting stage in which the students think about what they may encounter in the listening passage. This phase is followed by the first verification stage, which

happens after listening to the listening passage for the first time. In this stage, students have the opportunity to confirm or change their initial hypotheses not only through the information they understood from listening, but also through sharing this information with other students. After this phase, students listen to the passage two more times, and after each of these instances there is a verification stage. The second verification stage would involve a class discussion and the last one would be done by students on their own. During this final verification stage, language learners determine their definite answers. Finally, there is a reflection stage, in which students are required to think of the strategies they used to solve any listening comprehension issues and write goals for the next listening activity (Vandergrift, 2004)

The challenges of listening entail handling a great deal of ambiguity on many levels. Listening is the mode in which language learners have the least control, and for this reason, it was found (e.g., Hasan, 2000; Kim, 2002; Graham, 2003) that learners often consider it to be not only the most difficult skill to learn, but also the one that tends to be the most frustrating and anxiety-provoking for learners (Elkhafaifi, 2005; Vandergrift, 2007). The lack of control over the listening process by students, together with its complex decoding processing, the speed of the speech, the use of unfamiliar vocabulary, grammatical structures and unknown cultural representations, makes listening activities highly ambiguous for language learners. The high level of ambiguity that listening brings to the learner contributes to it being rendered difficult and nerve-racking. The use of listening strategies not only allow learners to cope with listening challenges but also can help them to handle the ambiguity inherent of listening.

In this section, each of the stages of Phillips's pedagogical sequence, originally designed for reading comprehension practices, will be closely examined because they are usually adapted to teach listening since "reading and listening comprehension share, at least partly, the same underlying mental processes" (Lehto & Anttila, 2003, p.142). Phillip's model is a "five-step plan [that] represents an instructional framework providing the student with opportunities to develop essential reading skills" (Phillips, 1985, p.2). The five stages are the following: (1) Pre-reading or preparation stage; (2) Skimming and/or scanning stage; (3) Intense reading/decoding stage; (4) Comprehension check/evaluation stage; and (5) Transferable or integrating skill stage (Phillips, 1985). Similarly, listening practices are usually divided into three stages: (1) Pre-listening stage in which the activation of prior knowledge takes place; (2) While-listening stage in which activities are both top-down and bottom-up; and (3) Post-listening stage in which activities integrate different skills or transfer knowledge to other skills (Rost, 2002).

The preparation stage in Phillips's model takes place before reading the text and it is designed to get language learners ready to face the text by enhancing "their powers of prediction and anticipation" (Phillips, 1985, p. 5). The goal of this stage is "either to bring language that will be pertinent to the students' attention or to alert students to information already in their heads" (p. 5-6). This first stage involves building expectations about the reading (Phillips, 1984). Some activities that fall under this stage are brainstorming, using visuals to establish content, predicting and language preparation (Phillips, 1984).

The skimming and/or scanning stage involves reading the text at a superficial level, not looking for details but rather understanding the main ideas and where to

locate them in the text: “Skimming refers to getting the gist, and scanning involves locating specific information” (Phillips, 1985, p. 9). The purpose of this stage is to allow language learners to get a general idea of the text by answering top-down questions. Some of the activities that fall under this category are matching subheadings with paragraphs, filling in charts or forms with key concepts and making a judgment or reacting to a passage (Phillips, 1984, p. 290). Moreover, if language learners speak the same first language, the language instructor should consider carrying out these activities in their first language to avoid other linguistic problems (such as expressing themselves in the target language or interpreting what the language instructor says) that may keep language learners away from the activities’ focus: the development of their reading abilities (Phillips, 1985, p. 13).

In the intense reading/decoding stage, not only are language learners “reading to learn” but they are also “learning to read” (Phillips, 1985, p. 15). In this phase, the learners’ attention is brought, through bottom-up questions, to different linguistic elements with the aim of understanding the meaning of the text in a comprehensive way (Phillips, 1984). Decoding involves guessing the meaning of unknown words, phrases and discourse structure from context (Phillips, 1984). It is important to note that the goal for language learners is to become fluent readers who rapidly understand a passage, and that decoding is the means through which they reach that advanced stage. In other words, during this reading phase, language learners are expected to learn how to skillfully decode so that they become good independent readers; that is, “good guessers and good problem-solvers” (p. 292).

The following reading step is called the comprehension check/evaluation stage, which involves assessing, through various techniques, whether language learners

accomplished their reading goals. The comprehension checks can be formal or informal, open- or closed-book, presented in a spoken or written way and as complete as possible, that is, testing “a range of linguistic and process strategies” (Phillips, 1985, p. 19). Moreover, the most important part of this phase “is the provision of certain types of feedback” (Phillips, 1984, p. 293). For this reason, it is advisable to carry out the comprehension checks in the learners’ first language (p. 294). Examples of possible formats for these types of activities go from forced choice such as True/False, multiple choice and matching exercises to fill-in charts, cloze-type tests and summaries (Phillips, 1985, p. 19-20).

The final step is the transferable or integrating skill stage which refers to those activities that transcend the specific reading strategies and characteristics of a given passage to either move on to other reading (transferable skills) or take “language and ideas from the reading and using them to speak, listen, to write or to read more” (integrating skills) (Phillips, 1985, p. 23). For this reason, this phase is thought to be “the key to the reader’s future” (p. 23). Some of the activities that can be carried out in this phase involve many of the reading techniques that language learners practiced during the previous reading activity such as contextual guessing of unfamiliar words, recognizing cognates and identifying the cohesive features of discourse (Phillips, 1984, p. 295).

In the present study, Phillip’s pedagogical model was used as the point of departure to create a listening pedagogy that would favor the increase of the level of TA of beginner Spanish learners. While the sequence of pre-, while- and post-listening activities was kept in the listening practices implemented in the intervention, some modifications—inspired by Vandergrift’s listening model and recent research in

TA—were made such as adding discussion with a partner after the while-listening activities or using the post-listening activity as a way to reflect on the listening practice. Detailed information on the pedagogical method used in the present research will be provided in the intervention section.

Chapter 2

METHODOLOGY

2.1 Research Questions

The present study investigated the following three research questions:

- What is the level of TA of beginner Spanish learners?
- What impact does strategy training have on the TA level of beginner Spanish learners?
- What is the relationship between the level of TA and listening comprehension, with emphasis on the learner's perception?

2.2 Data Collection

This study was carried out following an explanatory mixed-method research design. Quantitative research involved a modified version of SLTAS (Ely, 1995) (see Appendix A) and a listening test (see Appendices B and B1), whereas the qualitative study consisted of a set of multiple-choice and open-ended questions (see Appendices C and C1). SLTAS (Ely, 1995) was administered to the participants both at the beginning and at the end of the semester, while the listening test and the qualitative study were carried out at the end of the semester only. These procedures allowed the researcher to determine (a) the initial TA level of beginner Spanish learners; (b) the change in the level of TA after the intervention; and (c) the effect of TA on L2 listening comprehension with emphasis on students' perception. This research was experimental, because a group comparison analysis was used to identify the effectiveness of a listening model specifically designed to enhance the students' level of TA. The experimental group was trained to develop listening comprehension

strategies aimed at increasing the students' level of TA, whereas the control group was exposed to regular listening instruction based on comprehension checks.

2.2.1 Participants

Students enrolled in two sections of SPAN 105 at the University of Delaware in the fall semester of 2016 were invited to participate in the study. SPAN 105 is an introductory course to the Spanish language. It is offered to students who have never studied Spanish, or those have taken Spanish in high school for 2 years or less. Instruction took place four times per week, and class sessions were 50-minutes long. The materials required for this course were the 6th edition of the textbook *Mosaicos* (Olivella Castells, Guzmán, Lapuerta & Liskin-Gasparro, 2015) and the online resource *MySpanishLab*. Of the 43 students who were invited to participate, 32 completed all research instruments. Even though the participants in this study were not chosen randomly, the composition of the experimental and control groups was very similar as can be seen in Table 1.

Table 1: Characteristics of Participants per Group

| | Experimental Group | Control Group |
|--|----------------------------|-----------------------------|
| Total number of students | 16 | 16 |
| Number of female students | 8 | 9 |
| Number of male students | 8 | 7 |
| Previous background in Spanish (high school) | 10 | 9 |
| Spanish heritage | 2 | 2 |
| Class schedule | M W F 3.30 PM T 3.35 PM | M W F 2.30 PM T 2. 00 PM |

2.2.2 Procedure

During the 5th week of class (after some exposure to the target language), students were invited to fill out SLTAS (Ely, 1995). Students identified their responses by entering their names at the top of the form. Since the researcher was the instructor in charge of the experimental section, all questionnaires (pre-and post-SLTAS) were distributed and collected by the research advisor who re-coded all entries with random numbers and letters to eliminate any potential subject identifiers. The master list with the students' names and their randomly assigned numbers for this investigation remained in the possession of the research advisor and were not be shared with the instructors of the elementary Spanish classes in question.

After students completed SLTAS, the experimental class was trained to develop listening comprehension strategies aimed at increasing their tolerance of ambiguity whereas the other class received regular listening comprehension instruction (based on comprehension checks). Although there were some differences in the types of listening activities implemented, both the experimental and control classes were exposed to the same number of listening activities throughout the course. It is important to note that the experimental group did not receive explicit training in TA but it was done implicitly through the listening lessons.

At the end of the semester, all students were invited to complete a listening comprehension test, and to complete the same tolerance of ambiguity questionnaire used at the beginning of the semester. Again, students identified their responses by entering their names at the top of the questionnaire. The research advisor re-coded all entries with random numbers and letters to eliminate any potential subject identifiers.

After matching the pre- and post- responses, the list of names and randomly assigned numbers was destroyed by the research advisor.

The qualitative part of the study was carried out with the help of two anonymous surveys. One of the surveys (three multiple-choice and two open-ended questions) was designed for both groups, and the other survey (four open-ended questions) was created for the experimental group only. Both surveys were administered at the end of the semester.

2.2.3 Research Instruments

2.2.3.1 SLTAS

In order to determine the students' level of TA both at the beginning and at the end of the semester, students were invited to complete a questionnaire during the 5th and 13th weeks of class. The questionnaire used was the Second Language Tolerance of Ambiguity Scale (SLTAS), which Ely first developed in 1989 and later modified in 1995. SLTAS (Ely, 1995) is comprised of 12 items that display 12 situations that are specific to TA in the field of second language learning. Several areas of language learning such as pronunciation, writing, speaking, listening and reading comprehension, grammar use, and vocabulary learning are included in the scale. For example, the first item of SLTAS reads as follows: *"When I'm reading something in English, I feel impatient when I don't totally understand the meaning."* The original version of SLTAS (Ely, 1995) employs a 4-point Likert scale in which participants had 4 options with which to respond to each item: *"strongly disagree," "disagree," "agree"* and *"strongly agree."* In the current study, *"undecided"* was added, making SLTAS a 5-point Likert scale. This new version of SLTAS has been used in other

studies and has proven to have a high reliability rating (Cronbach alpha) of .75 (Erten & Topkaya, 2009). In addition, the scale was adjusted so that the higher Likert scale numbers represented greater tolerance of ambiguity while the lower numbers represented lower tolerance of ambiguity, in contrast to the original Likert scale developed by Ely in 1995 in which the numerical assignments were reversed (see Table 2).

Table 2: Codification of SLTAS

| | Strongly agree | Agree | Undecided | Disagree | Strongly disagree |
|-----------------|----------------|-------|-----------|----------|-------------------|
| Ely, 1995 | 4 | 3 | 0 | 2 | 1 |
| Present version | 1 | 2 | 3 | 4 | 5 |

Other modifications include changing the target language in question to Spanish—instead of English—and adding two more items, making SLTAS a 14-item survey. The added items were the following:

- 6. *When I am listening to a passage or a conversation in Spanish, it bothers me when I do not really understand the main idea of what is being said.*
- 12. *One thing I do not like about listening in Spanish is having to guess the meaning of words I do not know from context.*

These two items were incorporated because the original scale only had two items that measured listening comprehension, and these only addressed the teacher's use of the foreign language in class:

- 2. *It bothers me that I do not understand everything the teacher says in Spanish.*

- 10. *It bothers me when the teacher uses a Spanish word I do not know.*

Despite the fact that the version of SLTAS (Ely, 1995) used in this study twice (pre- and post-intervention) did not prove to be unidimensional, it had relatively high internal consistency with a reliability coefficient of .88 the first time it was used (pre-intervention) and of .80 the second time it was employed (post-intervention) (see Appendices D and D1 for details on validation).

2.2.3.2 Listening test

In order to determine the students' ability to identify the main idea and the details of a listening passage, a listening test was administered to all participants at the end of the semester, during the 13th week of the semester (see Appendix B for test and Appendix B1 for answer key).

The listening test that participants took at the end of the semester consisted of 4 questions in which students had to: (a) recognize the main idea of the video; (b) identify the details of the video by deciding whether a set of statements were true, false or if there was not enough information to decide (in case of a false statement, students were also asked to correct the item on the contents of the video); (c) guess the meaning of a word based on the context in which it was said; and (d) reflect on how the listening experience was for them by answering 5 questions using a scale of 1 (not really) to 4 (yes, completely).

The listening test was given to the students in a paper format and the video was projected on a screen so that it was clearly visible to all participants. The video that was used for the listening test was "*Un buen plan*" which was taken from YouTube and belongs to the *SGEL ELE español para extranjeros* series of videos. Along with

the listening test, there were two personal questions concerning their previous educational background in Spanish (if any) and their Hispanic heritage (if any).

2.2.3.3 Surveys

The qualitative part of the study consisted of survey made up of three multiple-choice and two open-ended questions (see Appendix F). The three multiple-choice questions were related to the student's opinion on: (a) their current listening comprehension ability in Spanish; (b) their level of anxiety when asked to complete a Spanish listening task in class; and (c) their progress in listening comprehension throughout the semester. The open-ended questions asked participants for their views on the aspects of the listening comprehension activities that they most enjoyed during the semester, as well as for their recommendations on how to make the listening aspects of the course more effective.

Participants in the experimental group responded to four additional open-ended questions (to which I refer further as the "intervention survey" in the research findings section) related to their improvement in listening comprehension, the aspects that they liked and disliked about the listening practices and whether they had improved their ability to deal with ambiguity (see Appendix F1).

2.2.4 Intervention

The control and experimental groups were exposed to 16 listening activities during an eight-week period. The listening activities were 10 videos taken from the YouTube channel *SGEL ELE español para extranjeros* (See Appendix E for an example) and 6 texts read by the instructor (See Appendix E1). The YouTube videos touched on familiar situations for young adults such as Skyping with one's friends

while being abroad or introducing new friends to one's family. The passages that were read by the instructor dealt with current issues that compared American culture to Hispanic culture. Both groups listened to the same listening passages and each group listened to them twice in order to ensure that neither of the groups had an advantage over the other. In addition, the listening methodology used in both groups followed the pedagogical stages of pre-listening, while-listening and post-listening.

The main pedagogical distinction between the experimental and control groups—apart from the fact that they were taught by different instructors—was the intervention that was carried out in the experimental group. The intervention consisted of shifting the focus of the listening pedagogy from the product of listening to the listening process. The control group was exposed to the traditional “comprehension approach” to listening which focused on the product of listening; that is, language learners were asked to “listen and respond” based on what they heard and were expected to answer comprehension questions correctly (Graham & Santos, 2015, p. 18). In contrast, the experimental group was exposed to a listening pedagogy that focused on the listening process; that is, a listening pedagogy that involved “an understanding of how learners engage in listening, what difficulties they have, how they deal with those difficulties, how they apply learning from previous listening experiences in novel ones, and so on” (Graham & Santos, 2015, p. 19). Focusing on the listening process entailed making students learn about the cognitive and metacognitive processes that constitute the act of listening (Graham & Santos, 2015).

In the experimental group, the instructor carried out process-oriented tasks specifically designed to lessen the potential for intolerance of ambiguity among students by exposing them to the following conditions:

- Attention to supra-segmental and extra-linguistic features of language (making students aware of the communicative effect of body language, stress and intonation).
- Note taking (promoting the deployment of cognitive strategies for the identification of global themes and key pieces of information in the video segments).
- Appealing for help (stimulating social strategies for the processing of the second language content through paired discussions).
- Self-reflection (promoting metacognitive awareness of the listening process, helping learners become aware of their listening comprehension capabilities, and encouraging them to develop those skills further).

The differences between the control and the experimental groups' listening pedagogies can be seen in Table 3:

Table 3: Listening Pedagogies per Group

| CONTROL GROUP | EXPERIMENTAL GROUP |
|---|--|
| <u>Pre-listening Stage</u> Activity #1 | |
| Students brainstorm about different expressions that the video could include given the topic of the lesson in question. | Students watch the video without sound and make predictions on the topic of the video based on contextual cues. Students are given a few questions to guide their predictions (e.g., what is the goal of the interaction? Who is involved? When does it happen?) |
| <u>While-listening Stage (Part 1)</u> (while listening for the first time) Activity #2 | |

Table 3 continued.

| | |
|--|---|
| Students are given a word bank and they circle the words they hear. | Students pay attention to intonation and speech markers and take note of 3 key words that they think are fundamental to identify global themes and key pieces of information. Students discuss their key words with another classmate and confirm or alter their original hypotheses. |
| <p style="text-align: center;"><u>While-listening Stage (Part 2)</u> (while listening for the second time) Activity#3</p> | |
| <p>Students decide whether a set of statements are true, false or there is not enough information to decide (T/F/N).</p> <p style="text-align: center;">OR</p> <p>Students guess the meaning of an unfamiliar word or expression from context.</p> | <p>Students decide whether a set of statements are true, false or if there is not enough information to decide (T/F/N). This activity is followed by a discussion with another classmate to share key words and confirm/reject initial hypotheses about the video.</p> <p style="text-align: center;">OR</p> <p>Students guess the meaning of an unfamiliar word or expression from context. This activity is followed by a discussion with another classmate to share key words and confirm/reject initial hypotheses about the video.</p> |
| <p style="text-align: center;"><u>Post-listening Stage</u> Activity #4</p> | |

Table 3 continued.

| | |
|--|---|
| <p>Students talk with another classmate about their opinion on a specific cultural aspect of the listening passage. In this phase, the instructor also shares his or her view on the matter in question with the students.</p> | <p>Students reflect on the listening process by writing about the aspects of the listening practice that were easy and those that were confusing to them (sometimes students will be asked to talk with a partner about it too). Additionally, they reflect on how the instructor can help them improve or what things they need to practice to improve on their own. The instructor collects the students' self-reflections and adds feedback.</p> |
|--|---|

In the pre-listening stage, language learners in the control group were asked to brainstorm about different expressions that the video could include given the topic of the lesson in question. This pre-listening activity helped students activate their prior knowledge to compensate for what they were unable to comprehend in the listening passage (Graham & Santos, 2015). Meanwhile, language learners in the experimental group were asked to watch the video without sound and make predictions about the topic of the video based on contextual cues. To complete this activity, students were given a few questions to guide their predictions (e.g., What is the goal of the interaction? Who is involved? When does it happen?). Stempleski & Tomalin (2001) noticed the importance of silent viewing (sound off) and stated that it was “useful for highlighting the visual content, for stimulating student language use about what they see on the screen, and for getting students to guess or predict the language used on the soundtrack” (Brandl, 2008, p. 255). Moreover, Mueller (1980) found that silent viewing was effective for the following three reasons:

- The visual serves as an advance organizer, which activates relevant elements of stored memory, and brings them to bear on the comprehension process;
- in seeing the overall context first, students were less likely to formulate wrong hypotheses and, consequently, better able to guess the meaning of unfamiliar words and phrases;
- seeing the visual before hearing the passage heightened the students' interest and caused them to pay closer attention to the passage. (Mueller, 1980, p. 340)

According to Oxford's (1990) categorization of strategies, silent viewing would function as a compensation strategy since students make hypotheses and infer the meaning of unfamiliar expressions from contextual cues. This strategy would enhance TA because it requires students to be open-minded, take risks and guess at what might be happening in the video despite feeling uncertain about what the audio will add to the image. It is important to add that when language learners in the experimental group were exposed to a text read out loud, instead of a video, their pre-listening activity was the same as that used in the control group.

In the while-listening stage, language learners performed two activities, one while they were listening to the text or watching the video for the first time, and the other while listening for a second time. The first activity entailed getting the main idea of the listening passage. Language learners in the control group were given a word bank and had to identify the words they heard. Meanwhile, language learners in the experimental group had to pay attention to stress and intonation as well as take note of 3 key words that they thought were fundamental in identifying global themes and key pieces of information. Afterwards, students shared their key words with another classmate, and confirmed or altered their original hypotheses about the video. Schraw and Moshman (1995) claimed that reflection and peer discussion could help learners

develop an understanding of how they process the listening passages (Graham & Santos, 2015, p. 46).

For the second activity in the while-listening stage there were two options: either (a) deciding whether a series of statements were true, false or there was not enough information to decide, or (b) guessing the meaning of an unfamiliar word or expression from context. The only difference between the control and experimental groups is that the experimental group had to discuss their answers with their classmates and arrive at a final answer together. Tsui and Fillilove (1998) found that “what distinguished proficient from less proficient listeners was the ability to cope with in-text information that did not match with schemata that were activated at the start of a listening passage” (Graham & Santos, 2015, p.34). Consequently, the use of monitoring strategies—such as discussion with peers—is decisive because they are useful to continuously check against the incoming information and to adjust one’s hypotheses accordingly (Graham & Santos, 2015).

According to Oxford’s (1990) categorization of strategies, language learners in the experimental group practiced cognitive strategies (recognizing intonation patterns, taking notes and get an approximation to the truth), metacognitive strategies (hypothesis confirmation/rejection – on their own and with peers), and social strategies (cooperating with their peers) in the while-listening stage. The use of these strategies promotes TA for L2 listening because they require students to learn that uncertainty is a fundamental part of the L2 listening process; that is, uncertainty should not be ignored, but instead it needs to be made the central focus of practice. Uncertainty for language learners in the while-listening stage comes in the form of a new intonation system in which they have to identify familiar words and complete a

series of activities (T/F/N or guessing meaning) first on their own, and then with a partner. In addition, students learn to modify incorrect initial hypotheses based on what they hear. Through these strategies students learn that getting an approximation to the truth—as long as it can be justified—is what matters.

In the post-listening stage, language learners in the control group talked with another classmate about their opinion on a specific cultural aspect of the listening passage. This activity integrated the skill of speaking into the post-listening stage. Meanwhile, language learners in the experimental group reflected on the listening process by writing about the aspects of the listening practice that they found easy and those that were more challenging. Additionally, they reflected on how the instructor could help them improve and noted any areas of improvement that they felt required more practice on their own. This activity was completed once the instructor collected the students' self-reflections and handed them back to the group with feedback. There are several studies such as Goh & Taib's (2006) and Cross's (2010) that "support the idea that involving learners in reflecting on and discussing strategy use led not just to improved listening and strategic knowledge, but also to greater reported confidence in listening, especially for those initially at lower levels of proficiency" (Graham & Santos, 2015, p.46). Teacher feedback has been found to help language learners overcome any barriers they may encounter when listening because it allows students to recognize their stage of proficiency as second language listeners and to identify any strategies that they should work to improve (Graham & Santos, 2015). According to Oxford's (1990) categorization of strategies, language learners in the experimental group were exposed to metacognitive strategies (final self-reflection) and affective strategies (positive encouragement through teacher feedback, learning how to control

anxiety through strategy use) in the post-listening stage. These strategies help language learners become more tolerant of ambiguity while listening because they make them aware that improving in L2 listening takes time and discipline to learn how to deal with uncertainty while employing a series of strategies.

All of these techniques were encouraged in the experimental group to transmit the idea that learning how to listen and becoming a successful L2 listener was directly connected to how well they managed ambiguity as they progressed through the listening stages practicing compensation, cognitive, metacognitive, affective and social strategies. It is important to add that the students in the experimental group were never explicitly told that the activities that they were doing were aimed at helping them to better deal with ambiguity (i.e. the term of “tolerance of ambiguity” was never used in class). This determination was made in order to ensure that their responses to the post-intervention SLTAS would not be unduly influenced (Ely, 1995).

Chapter 3

RESEARCH FINDINGS

Research findings will be explained in this section. The first research question—*What is the level of TA of beginner Spanish learners*—was analyzed with the help of descriptive statistics to find out the level of TA of all participants (n=32). In addition, a cluster analysis was performed to determine the level of TA in each of the control and experimental groups. The second research question—*What impact does strategy training have on the TA level of beginner Spanish learners?*—was examined by means of a dependent-samples t-test. Furthermore, cluster analysis, descriptive statistics, and an independent-samples t-test were used to analyze the differences between the control and experimental groups. Finally, the third research question—*What is the relationship between TA and listening comprehension with emphasis on the learner's perception?*—was explored by means of a multiple regression analysis to determine the relationship between TA and the final listening scores, and through a nominal logistical analysis to establish the relationship between TA and the top-down listening activity. Additionally, the main patterns examined in the surveys (i.e. the qualitative research findings) were discussed.

3.1 RQ 1: What Is the Level of TA of Beginner Spanish Learners?

Results of the SLTAS (Ely, 1995) administered at the beginning of the semester were analyzed to measure the level of TA of the subjects in the study. Descriptive statistics were used to explain the results of the total sample size (n=32), and inferential statistics, involving cluster analysis and an independent-samples t-test, were performed to examine the differences and similarities between the control (n=16) and experimental group (n=16).

At the beginning of the study, subjects exhibited low to moderate levels of TA across the board (see Figure 1). The median (38.5) being somewhat smaller than the mean (39.25) indicates that the distribution of scores in the entire data set was slightly denser on the left of the histogram (the low TA side). This somewhat uneven distribution of scores is also reflected in the positive skewness obtained for this population (0.3888), which confirms that the bulk of the subjects in this study had low to moderate levels of TA at the beginning of the course. In spite of this slightly higher concentration of scores below the mean, the dispersion of the data was low (the range was 36, and the standard deviation was 9.23), which indicates that the research subjects were fairly homogeneous in their moderate levels of TA at the beginning of the course.

| Quantiles | | | Summary Statistics | |
|-----------|----------|-------|--------------------|-----------|
| 100.0% | Maximum | 60 | Mean | 39.25 |
| 99.5% | | 60 | Std. Dev | 9.2282875 |
| 97.5% | | 60 | Std. Err Mean | 1.6313462 |
| 90.0% | | 53.4 | Upper 95% Mean | 42.577152 |
| 75.0% | Quartile | 46.75 | Lower 95% Mean | 35.922848 |
| 50.0% | Median | 38.5 | N | 32 |
| 25.0% | Quartile | 32.25 | Skewness | 0.3888571 |
| 10.0% | | 27.3 | Range | 36 |
| 2.5% | | 24 | All Modes | |
| 0.5% | | 24 | Modes | Count |
| 0.0% | Minimum | 24 | 33 | 3 |
| | | | 48 | |

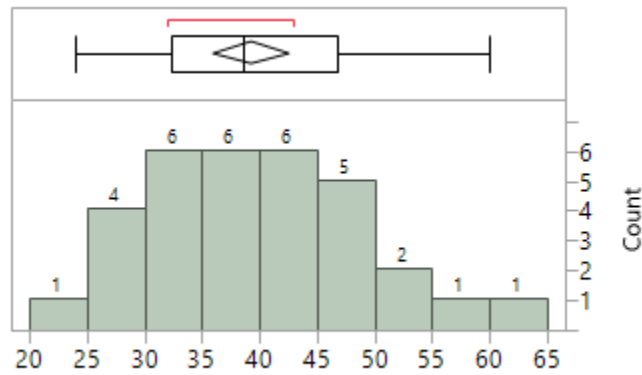


Figure 1: Descriptive Statistics of pre-SLTAS (All Participants)

An independent-samples t-test was conducted to compare the initial level of TA in the control and experimental group conditions (see Table 4). This analysis was performed to observe how similar the level of TA was between groups. Results of this analysis indicate that there was no statistically significant difference between the TA scores for the control group ($M=40.38$, $SD=9.78$) and the experimental group ($M=38.13$, $SD=8.82$), conditions; $t(30)=0.68$, $p=0.4994$ (see Table 5).

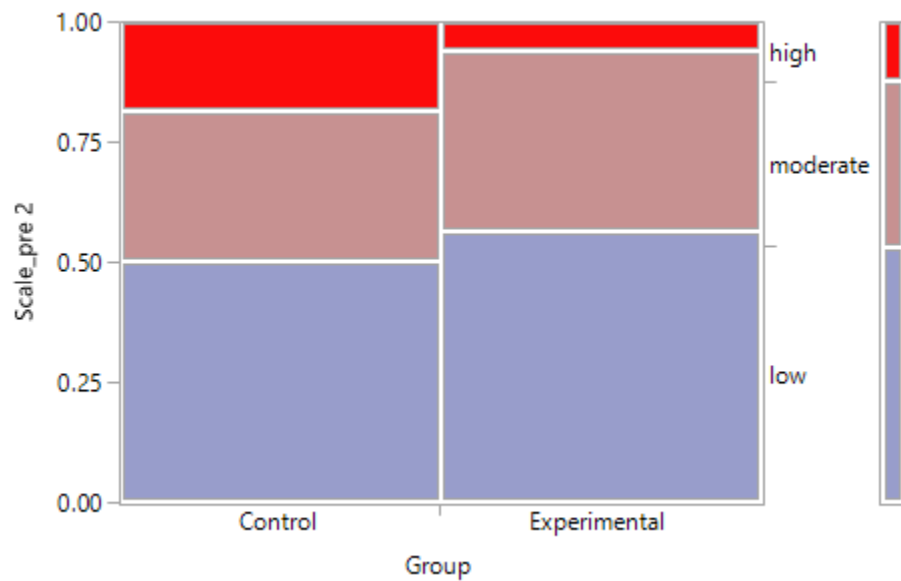
Table 4: Descriptive Statistics of pre-SLTAS (per Group)

| | N | Mean | Median | Mode | SD |
|--------------------|----|-------|--------|----------------|------|
| Control group | 16 | 40.38 | 39 | 28, 33, 36 (2) | 9.78 |
| Experimental group | 16 | 38.13 | 38 | 48 (3) | 8.82 |

Table 5: T-Test Results (Independent Samples)

| t | df | p-value (2 tailed) | Mean difference | Std. Error diff | 95% confidence interval of the diff. |
|--------|----|-----------------------|--------------------|--------------------|---|
| 0.6837 | 30 | 0.4994 | -2.25 | 3.291 | From -8.97 to 4.47 |

The results of SLTAS were also examined using cluster analysis in order to observe how many students had low, moderate and high TA at the beginning of the semester in the control and experimental groups. As shown in Figure 2, both groups presented a similar composition at the beginning of the semester: a large number of participants who had low TA (50% of the students in the control group and 56.25% of the students in the experimental group), a smaller—but still significant—number of participants who had moderate TA (31.25% of the students in the control group and 37.5% of the students in the experimental group), and a small group of participants who had high TA (18.75% of the students in the control group and 6.25% of students in the experimental group).



Contingency Table

| Count Total % Col % Row % | low | moderate | high | Total |
|------------------------------------|------------------------------|------------------------------|-----------------------------|-------------|
| Control | 8 25.00 47.06 50.00 | 5 15.63 45.45 31.25 | 3 9.38 75.00 18.75 | 16 50.00 |
| Experimental | 9 28.13 52.94 56.25 | 6 18.75 54.55 37.50 | 1 3.13 25.00 6.25 | 16 50.00 |
| Total | 17 53.13 | 11 34.38 | 4 12.50 | 32 |

Figure 2: Cluster Analysis of TA level (Beginning-of-semester)

3.2 RQ 2: What Impact Does Strategy Training Have on the TA Level of Beginner Spanish Learners?

A dependent-samples t-test was conducted to compare the level of TA in the experimental group at the beginning and at the end of the semester (see Tables 6 and 7). Results of this analysis indicate that there was a statistically significant difference in SLTAS scores at the beginning of the semester ($M=38.13$, $SD=8.82$) and the end-of-semester ($M=41.81$, $SD=6.92$), conditions; $t(15)=2.5928$, $p=0.0204$. Increase in TA between the beginning and the end of the semester for the experimental group was found to be significant, which suggests that the training in language learning strategies had a beneficial impact on student TA levels.

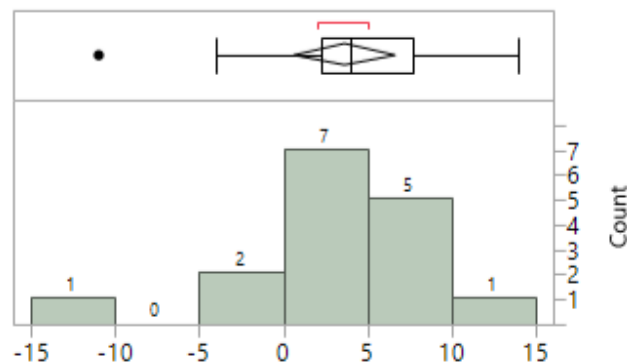
Table 6: Descriptive Statistics of pre- and post-SLTAS

| | | N | Mean | Std. Deviation |
|--------------------|------------|----|-------|----------------|
| Experimental group | Pre-SLTAS | 16 | 38.13 | 8.82 |
| | Post-SLTAS | 16 | 41.81 | 6.92 |

Table 7: T-Test Results (Dependent Samples)

| t | df | p-value (2 tailed) | Mean difference | Std. Error diff | 95% confidence interval of the diff. |
|--------|----|-----------------------|--------------------|--------------------|---|
| 2.5928 | 15 | 0.0204 | -3.69 | 1.422 | From -6.72 to -0.66 |

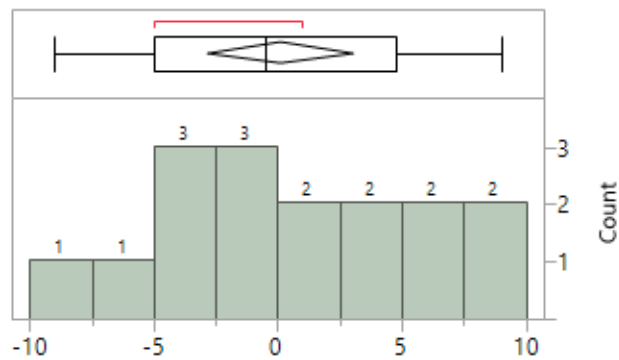
Histograms and descriptive statistics were provided to compare the increase in TA levels between the experimental and control groups (see Figures 3 and 4). TA changes in the experimental group were mostly positive, indicating that most participants increased in TA throughout the semester. As seen in Table 10, 13 students in the experimental group—81.25% of the participants—improved their level of TA throughout the semester. In contrast, TA changes in the control group were more uniform across the negative and positive ranges, indicating a balance between the decrease and increase in TA (see Table 11). As seen in Table 11, only 50% of the participants in the control group improved their level of TA.



Summary Statistics

| | |
|----------------|-----------|
| Mean | 3.6875 |
| Std. Dev | 5.6888048 |
| Std. Err Mean | 1.4222012 |
| Upper 95% Mean | 6.7188501 |
| Lower 95% Mean | 0.6561499 |
| N | 16 |
| Skewness | -0.945807 |

Figure 3: Histogram of Difference in TA (Experimental Group)

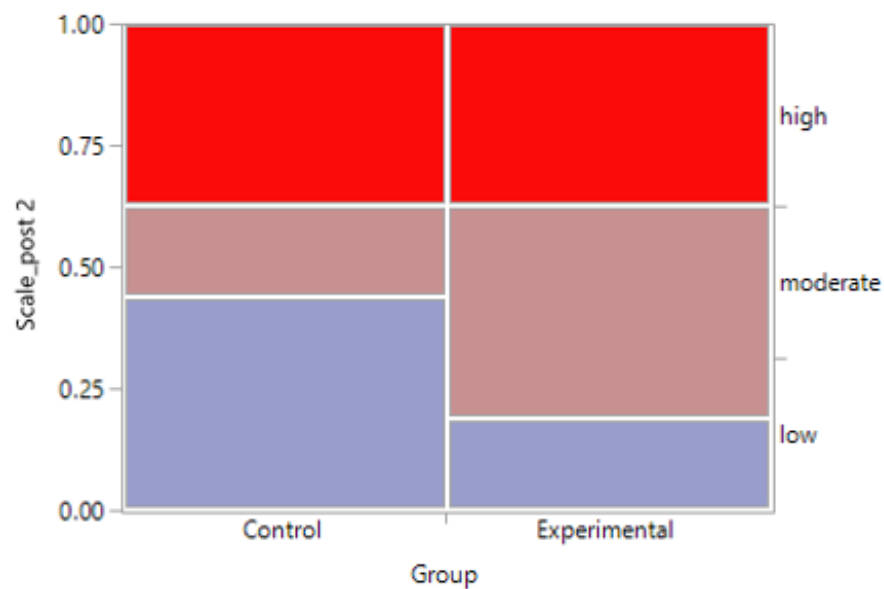


Summary Statistics

| | |
|----------------|-----------|
| Mean | 0.125 |
| Std. Dev | 5.5121079 |
| Std. Err Mean | 1.378027 |
| Upper 95% Mean | 3.062195 |
| Lower 95% Mean | -2.812195 |
| N | 16 |
| Skewness | 0.0787319 |

Figure 4: Histogram of Difference in TA (Control Group)

As shown in Figure 5, the cluster analysis indicates that by the end of the semester 81.25% of participants in the experimental group had high (37.5%) or moderate (43.75%) TA levels. In contrast, in the control group, 81.25% of participants had high (37.5%) or low (43.75%) TA levels. That is, most students in the experimental group exhibited high or moderate TA levels whereas, in the control group, most students manifested either high or low TA levels.



Contingency Table

| Count Total % Col % Row % | low | moderate | high | Total |
|------------------------------------|------------------------------|------------------------------|------------------------------|-------------|
| Control | 7 21.88 70.00 43.75 | 3 9.38 30.00 18.75 | 6 18.75 50.00 37.50 | 16 50.00 |
| Experimental | 3 9.38 30.00 18.75 | 7 21.88 70.00 43.75 | 6 18.75 50.00 37.50 | 16 50.00 |
| Total | 10 31.25 | 10 31.25 | 12 37.50 | 32 |

Figure 5: Cluster Analysis of TA Level (End-of-semester)

In order to observe the different TA levels across the SLTAS items in the control and experimental groups, the descriptive statistics of each item were provided (see Table 8). Results of the mean of each item indicate that, by the end of the semester, the experimental group had higher TA levels in all language learning skills of the SLTAS aside from in the use of grammar while speaking and writing (i.e. item number 8), in the skill of listening when the teacher uses an unfamiliar word (i.e. item number 10) as well as in guessing meaning while reading (i.e. item number 14).

Table 8: SLTAS Results (End-of-semester)

| | Control group | | | Experimental group | | |
|---|---------------|----------|------|--------------------|----------|------|
| | Mean | Mode | SD | Mean | Mode | SD |
| 1. When I am reading something in Spanish, I feel impatient when I do not really understand the meaning. | 3.06 | 4 (7) | 1.18 | 3.18 | 4 (8) | 0.91 |
| 2.It bothers me that I do not understand everything the teacher says in Spanish. | 3.06 | 4 (7) | 0.92 | 3.31 | 4 (9) | 1.13 |
| 3.When I write Spanish compositions, I do not like it when I cannot express my ideas exactly. | 2.25 | 2 (12) | 0.77 | 2.37 | 2 (11) | 0.88 |
| 4.It is frustrating that sometimes I do not understand completely some Spanish grammar. | 2.56 | 2 (10) | 1.03 | 2.87 | 2 (9) | 1.08 |
| 5.I do not like the feeling that my Spanish pronunciation is not quite correct. | 2.5 | 2 (7) | 0.96 | 2.68 | 2 (8) | 1.01 |
| 6.When I am listening to a passage or a conversation in Spanish, it bothers me when I do not really understand the main idea of what is being said. | 2.81 | 2 (9) | 0.98 | 3.06 | 2 (6) | 0.99 |
| 7.I do not enjoy reading something in Spanish that takes a while to figure out completely. | 2.75 | 2, 4 (5) | 1.06 | 3.15 | 2, 4 (5) | 1.20 |
| 8.It bothers me that even though I study Spanish grammar, some of it is hard to use in speaking and writing. | 2.81 | 4 (6) | 1.10 | 2.68 | 2 (10) | 0.94 |

Table 8 continued.

| | | | | | | |
|--|------|----------|------|------|--------|------|
| 9. When I am writing in Spanish, I do not like the fact that I cannot say exactly what I want. | 2.37 | 2 (9) | 1.02 | 2.43 | 2 (9) | 1.03 |
| 10. It bothers me when the teacher uses a Spanish word I do not know. | 3.56 | 4 (9) | 1.03 | 3.5 | 4 (11) | 1.15 |
| 11. When I am speaking in Spanish, I feel uncomfortable if I cannot communicate my ideas clearly. | 2.62 | 2 (8) | 0.95 | 2.62 | 2 (6) | 1.02 |
| 12. One thing I do not like about listening in Spanish is having to guess the meaning of words I do not know from context. | 3.37 | 4 (9) | 1.02 | 3.43 | 4 (7) | 1.09 |
| 13. I do not like the fact that sometimes I cannot find Spanish words that mean the same as some words in my own language. | 3.37 | 3 (5) | 1.08 | 3.37 | 4 (8) | 0.95 |
| 14. One thing I do not like about reading in Spanish is having to guess what the meaning is. | 3.37 | 2, 4 (6) | 1.20 | 3.12 | 4 (6) | 1.08 |

3.3 RQ 3: What Is the Relationship Between TA and Listening Comprehension, with Emphasis on the Learner's Perception?

An independent-samples t-test was conducted to compare the listening test results in the control and experimental group conditions (see Tables 9 and 10). The results of this analysis indicate that there was a significant difference between the scores for the control group ($M=9.81$, $SD=2.61$) and the experimental group ($M=11.94$, $SD=2.82$); conditions $t(30)=2.2126$ $p=0.0347$. The statistical significance of these results also show that the experimental group significantly outperformed the control group in the listening test.

Table 9: Descriptive Statistics of Listening Test Scores

| | N | Mean (out of 20) | SD |
|--------------------|----|------------------|------|
| Control group | 16 | 9.81 | 2.61 |
| Experimental group | 16 | 11.94 | 2.82 |

Table 10: T-Test Results (Independent Samples)

| t | Df | p-value (2 tailed) | Mean difference | Std. Error diff | 95% confidence interval of the diff. |
|--------|----|-----------------------|--------------------|--------------------|---|
| 2.2126 | 30 | 0.0347 | -2.13 | 0.960 | From -4.09 to -0.16 |

The experimental group significantly surpassed the control group across all the listening test activities. Just 25% of the students in the control group correctly identified the main idea of the listening passage in the test, while the number doubled to 56.25% in the experimental group. This difference is even greater when examining the results of the activity in which students had to guess the meaning of an unfamiliar word: 18.75% of students in the control group correctly guessed the meaning of the word as opposed to 50% of students in the experimental group. Finally, the results of the activity in which students had to understand specific information by deciding whether a set of statements were true, false or if there was not enough information to decide show that 62.5% of the students in the experimental group and 50% of the students in the control group got most of the specifics (5 or more) correct (see Figure 6).

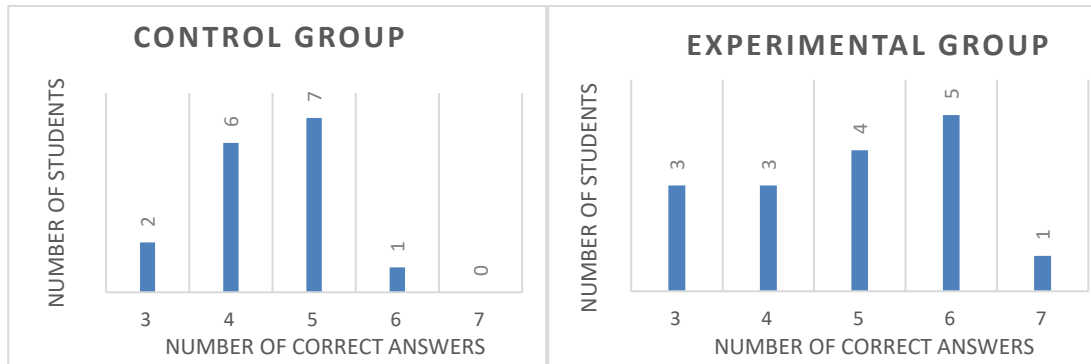


Figure 6: Test Results (Activity 3)

In order to estimate the relationship between the dependent variable of “listening results” and the three independent variables: “group” (i.e., control and experimental), “difference in TA” (i.e., the difference between the results of post- and pre- SLTAS) and “initial TA level” (i.e., the results of the pre- SLTAS), a regression analysis was performed (see Table 11). This analysis comprised three different models, as can be seen in Table 3. Model 1 relates the listening results only to the variable of “group”; model 2 relates the “listening results” to the variables of “group” and “initial TA level”; and model 3 relates the “listening results” to the variables of “group”, “initial TA level” and “difference in TA level”. Model 1 shows a statistically significant difference between the two groups and the listening result since, on average, the control group scored 2.125 points below the experimental group on the listening test. According to model 2, the initial TA level did not affect the listening score since the p-value is over 0.05. Finally, model 3 indicates that there is a negative relationship between the listening score and the difference in TA level since, on average, when difference in TA went up by 1—that is, when final TA increased in relation to the initial TA level—the listening score diminished by 0.21. In addition, the

listening score was positively influenced by the variable of group; that is, the difference between groups—the experimental group outperforming the control group—is statistically significant across models. In sum, it was found that the listening score was positively influenced by the variable of “group”, but was negatively influenced by the variable of “difference in TA level”, and no correlation was found between the listening score and the initial TA level.

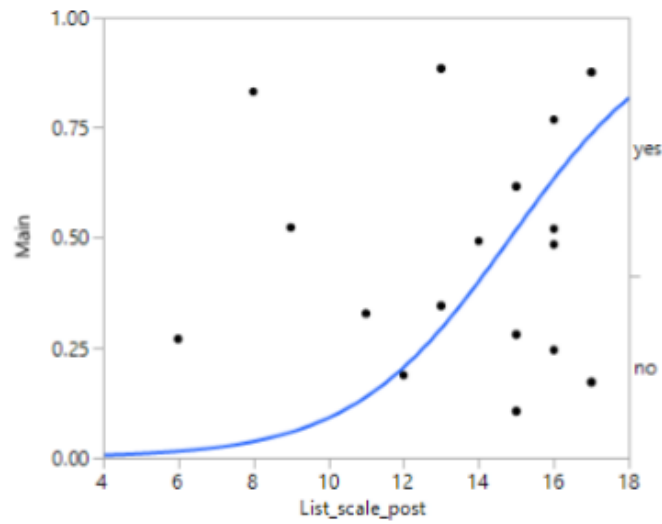
Table 11: Regression Analysis

| | Model 1 Listen = Group | Model 2 Listen = Group + Initial TA | Model 3 Listen = Group + Initial TA + Diff |
|---|-------------------------------------|---|--|
| Intercept [mean of the treatment group] | 11.937 | 9.557 | 14.112 |
| Group [control] | -2.125* | -1.100* | -2.791* |
| Initial TA level | | 0.033 | -0.036 |
| Difference in TA level (Diff = post - pre) | | | -0.210* |
| R ² | 0.1402 | 0.1516 | 0.2633 |

* p < .05

A nominal logistic regression was performed to establish the relationship between TA and the top-down listening activity (see Figure 7). The curve shows with the increase in the final level of TA, probability of getting the main idea right increases. The p value (0.028) indicates that the model is a good fit for the data assuming (alpha=0.05). In other words, findings show that the end-of-semester level of TA was positively correlated with the top-down listening activity; that is, with the

activity in which participants had to identify the main idea of the listening passage. The higher the final level of TA, the more probable it was for the student to get the main idea right (yes) instead of wrong (no).



Whole Model Test

| Model | -LogLikelihood | DF | ChiSquare | Prob>ChiSq |
|----------------------------|----------------|----|-----------|------------|
| Difference | 2.409919 | 1 | 4.819837 | 0.0281* |
| Full | 9.107486 | | | |
| Reduced | 11.517405 | | | |
| RSquare (U) | | | | 0.2092 |
| AICc | | | | 23.0721 |
| BIC | | | | 23.8814 |
| Observations (or Sum Wgts) | | | | 17 |

Figure 7: Nominal Logistic Regression (Activity 1)

In order to further explain the relationship between TA and listening comprehension, we turn now to the results of the multiple-choice questions of the opinion survey distributed at the end of the semester. Responses indicate that subjects in the experimental group perceived themselves to be better at listening comprehension than the control group perceived themselves (see Figure 8). Fully 70.58% of the students in the experimental group and 47.06% of the students in the control group considered themselves to be excellent or good at listening comprehension in Spanish. In addition, by the end of the semester, participants in the experimental group felt more comfortable while listening to the target language than participants in the control group (see Figure 9). Results indicate that 37.5% of the students in the experimental group and 18.75% of the students in the control group felt “very comfortable” while taking part in listening activities in class. Even though differences between groups in the survey results are not statistically significant due to the small sample size, the findings hold promise as it seems that students in the experimental group had a better self-perception as listeners of the Spanish language and a better level of comfort with listening activities in general.

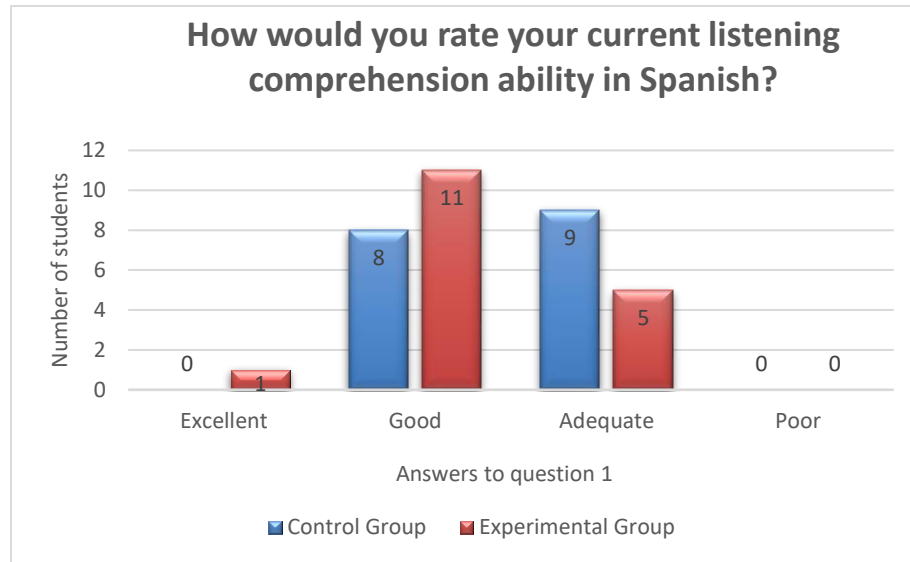


Figure 8: Survey Results (Question 1)

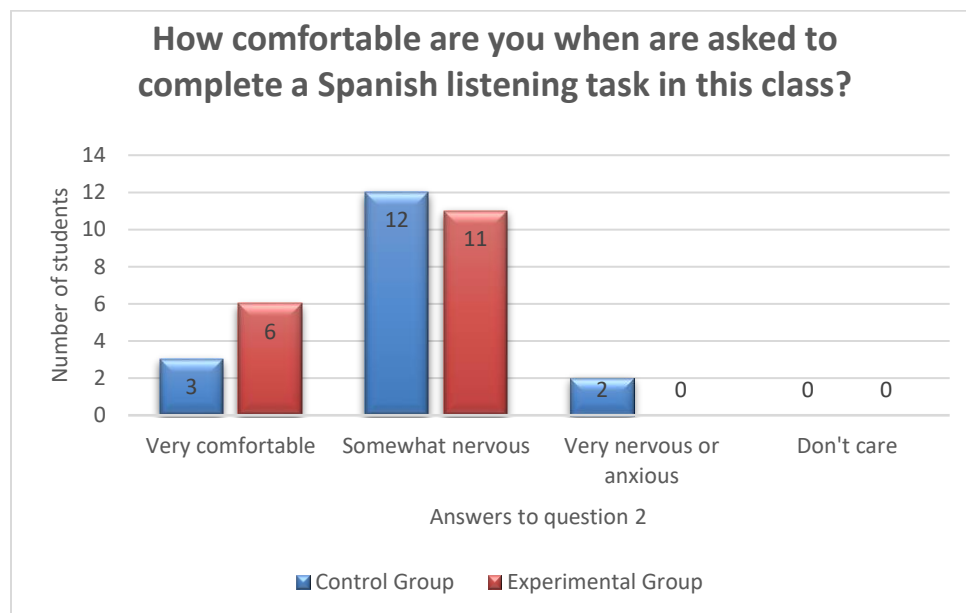


Figure 9: Survey Results (Question 2)

The results of the open-ended questions of the survey (see Appendices F and F1) also shed some light on those aspects of the listening lessons implemented by the researcher which positively influenced students in the experimental group (see Tables 12 and 13). Almost all stages of the listening pedagogy implemented in the experimental group (apart from the activity where they had to guess the meaning of an unfamiliar word and the final reflection) were considered enjoyable by students. A key factor that made students enjoy the listening practice activities more was the use of videos because they were funny and they included varied topics as well as different speakers with distinct accents and cultural backgrounds. Other well-liked aspects that were mentioned by the students were the pre-listening activities, in which the students had to predict what the video was about by watching the video without sound, and the while-listening activity in which students had to concentrate on the details of the video (i.e. true/false/not enough information activity).

Table 12: Survey Results (Control Group) – Question 1

| Question 1: What aspects of the listening comprehension activities used by your instructor did you enjoy the most? | | | |
|--|--------------------|--|--------------------|
| CONTROL GROUP | | EXPERIMENTAL GROUP | |
| Key ideas | Number of students | Key ideas | Number of students |
| The videos | 7 | The pre-listening activity | 3 |
| No valid answers (no related to listening) | 5 | The videos | 3 |
| The warm-up activity | 1 | The true/false questions | 3 |
| The true/false questions | 1 | The number of times they listened to the video (2) | 2 |
| Using context clues to figure out meaning | 1 | Playing the video 3 times | 2 |

Table 12 continued.

| | | | |
|-----------------------------|---|--|---|
| Understanding words | 1 | Having time to process what was going on | 2 |
| Asking questions in English | 1 | The transition of activities | 2 |
| | | Comparing information with a partner | 1 |
| | | The variety of Spanish accents | 1 |
| | | Fully understanding the videos sometimes | 1 |

Table 13: Survey Results (Experimental Group) – Question 2

| Question 2: What did you like the most about these activities? Justify the answer. | |
|--|--------------------|
| Key ideas | Number of students |
| The videos (topics, speakers, listening to different accents...) | 6 |
| Better comprehend Spanish when being spoken to | 2 |
| Related to the lesson in question (it helps understand the material better) | 2 |
| Predicting what the video is about | 2 |
| Actively listening / analyzing what the people in the video said | 2 |
| Understand what is being said (writing down the key words) | 1 |
| Listening to the videos multiple times | 1 |
| Looking for context clues for unfamiliar words | 1 |
| Seeing what I predicted | 1 |
| The activities | 1 |

The major concern of students in the experimental group was to try to make the speed of videos less of a problem since they suggested that watching them with subtitles as well as watching them with sound three times instead of two could be a good improvement (see Table 14). In addition, some students did not like the pre-listening activity much (i.e. watching the video without sound) because in their opinion it brought more confusion than clarification to the understanding of the video (see Table 15). Other disliked features that appeared more than once were the rate of

speech of the speakers, the number of times the video was watched and the T/F/N questions.

Table 14: Survey Results (Second Open-ended Question)

| Question 2: What recommendations would you make to make the listening aspects of this course more effective? | | | |
|--|--------------------|--|--------------------|
| CONTROL GROUP | | EXPERIMENTAL GROUP | |
| Key ideas | Number of students | Key ideas | Number of students |
| Too fast | 5 | The speed of videos (slow it down) | 5 |
| No recommendations | 3 | Watching the video without sound was not helpful | 3 |
| No valid answers | 3 | Playing the video with sound 3 times instead of 2 | 3 |
| More involvement of students | 1 | Playing videos with subtitles would help | 2 |
| Listening more than twice | 1 | Doing listening activities more often | 2 |
| More emphasis on unfamiliar words | 1 | Eliminate the body language aspect | 1 |
| More culture, variety of videos | 1 | Seeing a larger variation of Spanish-speaking people | 1 |
| More help from the professor to guess the meaning of words | 1 | Multiple-choice questions | 1 |
| Having handouts | 1 | No recommendations | 1 |

Table 15: Intervention Survey Results – Question 3

| Question 3: What did you like the least about these activities? Justify your answer. | |
|--|--------------------|
| Key ideas | Number of students |
| The pre-listening (watching the video mute) | 7 |
| The talking speed of the speakers | 3 |
| The number of times the video was watched (too many) | 2 |
| The T/F/N questions | 2 |
| Not understanding everything | 1 |
| When the speaker became complicated | 1 |
| Understanding body language | 1 |
| No complaints | 1 |

As a result of the listening lessons implemented by the researcher, some students in the experimental group notably improved their perceived ability to understand native speakers, whereas other students noticed that they got used to different talking speeds, increased their vocabulary knowledge or made progress in guessing meaning of unfamiliar words (see Table 16). It is interesting to note that even though many students did not like listening to videos at their original speed, it helped them start developing the ability to understand native speakers as well as getting used to different talking speeds. By the end of the semester, most students in the experimental group thought that their ability to deal with ambiguity improved throughout the semester (see Table 17). Plenty of listening practice and the subsequent development of skills such as reading body language and identifying contextual clues seemed to be aspects that helped students feel less frustrated while listening.

Table 16: Intervention Survey Results – Question 1

| Question 1: What aspects of your listening comprehension in Spanish improved (even if it is a little) through these listening exercises? Justify your answer. | |
|---|--------------------|
| Key ideas | Number of students |
| Understanding native speakers is easier now | 5 |
| Exercises became easier and easier to understand and do | 2 |
| Getting used to different talking speeds | 2 |
| Learn new vocabulary | 2 |
| Better at guessing meaning | 2 |
| Practice with different topics through different levels of difficulty | 1 |
| Getting lost with certain words happens less often | 1 |
| Being able to understand words that they know faster and more easily | 1 |
| Looking for specific information was very helpful | 1 |

Table 17: Intervention Survey Results – Question 4

| Question 4: Do you feel that you can deal with the ambiguity of listening to videos in Spanish better or worse now? | |
|---|--------------------|
| Key ideas | Number of students |
| “Better” | 7 |
| Much better – now I can figure the information out myself | 2 |
| Better – through context clues and body language | 1 |
| Better – understand more now | 1 |
| Better – learned vocabulary and pronunciation | 1 |
| Better – but still frustrated at times | 1 |
| “Slightly improved” | 1 |
| “A little better thanks to practice” | 1 |
| “Much better” | 1 |
| “Definitely better” | 1 |

Chapter 4

CONCLUSIONS AND RECOMMENDATIONS

The present study sought to identify the initial TA level of beginner Spanish learners and to determine whether training in language learning strategies may result in increased levels of TA among these language learners. Also, the investigation explored the relationship between TA and listening comprehension. In order to achieve these goals, the results of pre- and post- SLTAS (Ely, 1995) were examined using descriptive statistics and a dependent-samples t-test and a multiple regression analysis was conducted to determine the correlation between TA and listening comprehension.

As shown in the analysis of the pre-SLTAS, beginner Spanish learners in the current study exhibited a low to moderate TA level at the beginning of the semester. The moderate TA level of participants at the beginning of the semester may reflect a combination of feeling very intimidated by learning a whole new linguistic system but still feeling curious about the challenges this process may entail. At this initial stage in the language learning process, it seems that students were sufficiently attracted to the Spanish language, despite their unfamiliarity with it.

If a low to moderate TA level is the average TA level among beginner Spanish learners who take the course as a required college class, rather than for pleasure or personal desire, then language professors teaching these courses should incorporate strategies in their pedagogy to increase the level of TA of students. In other words, language professors in beginner language courses should focus on making students feel comfortable when dealing with any kind of linguistic ambiguity (i.e. phonological, syntactical, semantic and so on). Otherwise, if moderate TA decreases

to low TA among beginners throughout their first semester of taking Spanish—which was the situation for many students in the control group—chances are that these students will eventually give up the journey of learning a foreign language because they feel powerless, and without the necessary resources, to control the learning process. By definition, students with low TA levels are in a more vulnerable state throughout the language learning process, which increases their propensity to exhibit low levels of self-perception, reducing their ability to learn the language. Language professors should be clear in informing students that they must accept ambiguity in the early stages of learning the language; in fact, it is an essential aspect of the learning process. This advice could serve to increase the likelihood of beginners choosing to continue their study of the language because they will have fully acknowledged that ambiguity is to be expected, thereby decreasing the tendency for students to interpret ambiguity as an overwhelming and off-putting feature of language learning.

As the results of the dependent-samples t-test suggest, the training in language learning strategies that took place in the experimental group had a significant effect on increasing TA since 81.25% of students in the experimental group, as opposed to 50% of students in the control group, increased their TA levels over the course of the semester. This indicates that the personality feature of TA appears to be modifiable by providing students with an open learning environment in which linguistic ambiguity is embraced instead of avoided. The listening lessons for the experimental group were especially designed to make students rely on compensatory, social and metacognitive strategies when trying to understand both the main idea and details of a listening passage. Consequently, as the increase in TA in the experimental group reveals, it seems that students became aware that dealing with ambiguity is commonplace in the

process of language learning and that they should not be fear it, but rather solve it strategically to turn ambiguity into a learning opportunity.

The results of a regression analysis show that there was a negative correlation between increased TA and total listening scores, suggesting that increasing the TA level throughout the semester did not positively influence low proficiency language learners in reaching a higher listening score. This finding suggests that high TA may not be beneficial for all proficiency levels, as Ely (1995) and Atif-Vahed (2011) have pointed out, or even for all listening tasks. It may be too early in the students' language learning process for high or moderate TA to help in comprehension both at top-down and bottom-up levels. In fact, when the scores of each of the listening activities were examined separately, it was found that the higher the TA level of students in the experimental group, the greater the probability that they would correctly identify the main idea of a listening passage. That is, it seems that high TA especially helped low proficiency learners develop top-down processing skills or the so-called macroskills. This would explain why students with low TA levels got higher total scores in a listening test whose main focus was the bottom-up activity of deciding whether a set of statements were true, false or there was not enough information. It also confirms Ely's (1995) findings, which indicate that students with a low TA level tend to focus more on specifics.

Students in the experimental group perceived themselves to feel more comfortable than students in the control group while doing listening activities, which suggests that having high or moderate TA could be related to further enjoying the listening experience rather than understanding it to a greater degree, at least at the low proficiency level. It seems that having high TA levels may indeed help to lower the

affective filter, which eventually leads to acquiring the foreign language with greater ease. Moreover, high or moderate TA could positively influence the language learner's self-image and self-esteem since students in the experimental group perceived themselves to be better at listening comprehension than those in the control group, as was the case with Basoz's (2015) research findings on the relationship between TA and knowledge of vocabulary.

There is a need for further research about the relationship between TA and both the top-down listening activities and the language learner's self-perception due to the small sample size of the present study, which reduce the statistical validity of its findings. To clarify the discoveries made in the present study, further research should take into account the following recommendations: (1) students should be explicitly taught about the concept of tolerance of ambiguity so that they truly understand what they are doing and why (however, students should be told to be unbiased when responding to the post-intervention SLTAS—the fact that they were trained to show higher levels of TA does not necessarily mean that they will); (2) a pre-listening test should be administered to be able to compare the students' initial level of listening comprehension with their initial and final levels of TA as well as with the results of the post-listening test; (3) different proficiency levels should be examined to see whether the impact of TA on the skill of listening varies depending on the proficiency level; (4) TA should be analyzed in relation to other language learning variables such as the students' level of motivation to explore the connections between personality and motivational factors; (5) the same instructor should teach both the experimental and control groups to remove an unmeasured variable; and (6) a larger sample of participants should be surveyed to guarantee statistically well-supported findings.

In order to improve the characteristics of a listening test for adequate research in TA, it should be taken into consideration that the most important aspect is a listening test that promotes the positive impact of TA. Activities in such a test should reflect the value of understanding the general idea of the listening passage, to which students can add details at a later time. The present study found that a good listening test for beginner language learners should revolve around open-ended activities in which students have as much flexibility as possible in terms of their answer. This is due to the fact that bottom-up activities—i.e. the T/F/N activity and guessing meaning—or even multiple-choice top-down activities emphasize the idea that low TA—i.e. wanting to know the meaning of every single word and getting stuck if that is not achieved—is required for competent listening comprehension in a foreign language. Instead, the listening test should promote the idea that moderate/high TA—i.e. accepting that a lack of comprehension of the entire test is expected and needed to succeed at the beginner level—is essential for its completion. Perhaps having the students write a paragraph in their first language in which they summarize the main idea and any details they could identify from the listening would suffice. In addition, it would be a good idea to incorporate the result of the discussion with a partner into the test, so that the evaluator could determine how much it helps the student better understand the listening passage. (See Appendix G for suggested listening test and rubric).

The findings of this research are likely to expand Spanish teachers' understanding of the important role that tolerance of ambiguity plays in the second language acquisition process experienced by beginner Spanish learners. In addition, this research can help textbook authors and language teachers alike to create new

pedagogical materials that teach language with an awareness of personality features such as tolerance of ambiguity. Even though much has been explored here about the impact that TA has on listening comprehension, further research about the influence of TA on different language skills as well as across distinct proficiency levels is still very much needed. This research can be used as a point of reference for this analysis, and that it stimulates further examination of the power that TA has on second-language acquisition.

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Appendix A

SLTAS

This following questionnaire is the modified version of the original SLTAS (Ely, 1995):

Read each statement on the following pages. Please respond to the statements as they apply to your study of Spanish. Decide whether you agree or disagree with each statement. For example, if you strongly agree (SA), mark:

| Strongly agree (SA) | Agree (A) | Undecided (U) | Disagree (D) | Strongly disagree (SD) |
|------------------------|--------------|------------------|-----------------|---------------------------|
| X | | | | |

Please respond to each statement quickly, without too much thought. Try not to change your responses after you choose them. Please answer all the questions.

| | SA | A | U | D | SD |
|--|----|---|---|---|----|
| 1. When I am reading something in Spanish, I feel impatient when I do not really understand the meaning. | | | | | |
| 2. It bothers me that I do not understand everything the teacher says in Spanish. | | | | | |
| 3. When I write Spanish compositions, I do not like it when I cannot express my ideas exactly. | | | | | |
| 4. It is frustrating that sometimes I do not understand completely some Spanish grammar. | | | | | |
| 5. I do not like the feeling that my Spanish pronunciation is not quite correct. | | | | | |
| 6. When I am listening to a passage or a conversation in Spanish, it bothers me when I do not really understand the main idea of what is being said. | | | | | |

| | | | | | |
|--|--|--|--|--|--|
| 7. I do not enjoy reading something in Spanish that takes a while to figure out completely. | | | | | |
| 8. It bothers me that even though I study Spanish grammar, some of it is hard to use in speaking and writing. | | | | | |
| 9. When I am writing in Spanish, I do not like the fact that I cannot say exactly what I want. | | | | | |
| 10. It bothers me when the teacher uses a Spanish word I do not know. | | | | | |
| 11. When I am speaking in Spanish, I feel uncomfortable if I cannot communicate my ideas clearly. | | | | | |
| 12. One thing I do not like about listening in Spanish is having to guess the meaning of words I do not know from context. | | | | | |
| 13. I do not like the fact that sometimes I cannot find Spanish words that mean the same as some words in my own language. | | | | | |
| 14. One thing I do not like about reading in Spanish is having to guess what the meaning is. | | | | | |

Appendix B

LISTENING TEST

1. What are the people in the video doing? Choose the option that best summarizes the main idea.

- Catching up with friends over the phone and Skype ____
- Agreeing on which movie and play they should watch together over the weekend ____
- Deciding on what to do over the weekend together ____
- Talking about the movies and plays that are currently available in their town ____

2. Before watching the video one more time, please read the instructions for the two following questions:

a) According to the video, are the following statements true (T), false (F) or there is not enough information to decide (N)? Correct the statements that are false.

- A Luis Alberto le gusta el teatro pero no le gusta el teatro experimental ____

- Sara quiere ir al cine a ver una película romántica ____

- Jaime llama a Martina por Skype para invitarla a ver una película con sus amigos ____

- Martina vive muy lejos de Jaime y sus amigos ____

- A Sara y Martina les gusta el teatro experimental ____

- Finalmente, los cuatro amigos (Jaime, Luis Alberto, Sara y Martina) salen juntos _____
-

- Finalmente, Jaime y sus amigos tienen un plan _____
-

b) What do you think the word “quedar” means when Martina says “el plan es quedar con los amigos, ¿no?”?

Please, take a few minutes to reflect on your listening experience:

1: not really 2: a little 3: as much as I needed to 4: completely

I was able to....

...get the main idea of the video

1 2 3 4

...understand the details of the video

1 2 3 4

...recognize words that I know

1 2 3 4

...understand the meaning of unfamiliar words through body language

1 2 3 4

...get the meaning of unfamiliar words or expressions through intonation and stress

1 2 3 4

Have you ever taken Spanish before this class?

___ NO.

___ YES. If so, please, specify for how long and when it was (Elementary school, Middle school or High School)

Do you have any Spanish-speaking relatives? Do you ever interact with them in Spanish?

B.1 Listening Test Answer Key

Activity 1:

1 point if students choose option b

2 points if students choose option c

Activity 2:

Each question is worth 2 points. All false statements have to be justified (corrected by the student). NOTE: If the student marked a statement as False but added no explanation, that question will be worth 1 point.

Question 1: T

Question 2: F / N

Question 3: F / N

Question 4: T

Question 5: N

Question 6: N / F

Question 7: N / F / T

Activity 3:

Correct guess: 2 points

Approximate guess: 1 point

Totally unrelated guess: 0

Appendix C

SURVEY

Please, answer the following questions as candidly as possible (your responses will be anonymous and will not affect your grade in this course):

1. How would you rate your current listening comprehension ability in Spanish?
 - a) Excellent (I understand just about everything I hear)
 - b) Good (I understand most of what I hear)
 - c) Adequate (I miss a lot, but at least I get a gist of what I hear)
 - d) Poor (I really don't understand much Spanish)
2. How comfortable are you when are asked to complete a Spanish listening task in this class?
 - a) I get very nervous or anxious. I don't enjoy it at all.
 - b) I feel somewhat nervous, but I don't mind giving it a try.
 - c) I am very comfortable. I enjoy listening tasks.
 - d) I really don't care for listening comprehension tasks at all. They should be eliminated.
3. Have you noticed any progress in your Spanish listening comprehension throughout this course?
 - a) Definitely, yes. I feel that I can understand much more Spanish now than before.
 - b) Somewhat. I understand more Spanish now than before, but there are still important things that I miss.
 - c) Not sure. I think I understand Spanish about the same as before this course.
 - d) Not at all. I feel like I understand less Spanish than ever before.
4. What aspects of the listening comprehension activities used by your instructor did you enjoy the most?
5. What recommendations would you make to make the listening aspects of this course more effective?

C.1 Intervention Survey

Please, take some time to reflect on the listening activities that you have been doing in this course (watching the video mute, sharing ideas with a partner, paying attention to intonation, body language, T/F/N exercise, self-reflecting, etc.). I am interested in your opinion to keep improving the way I teach! Thank you!















1. What aspects of your listening comprehension in Spanish improved (even if it is a little) through these listening exercises? Justify your answer.
2. What did you like the most about these exercises? Justify your answer.
3. What did you like the least about these exercises? Justify your answer.
4. Do you feel that you can deal with the ambiguity of listening to Spanish videos better or worse now?

Appendix D

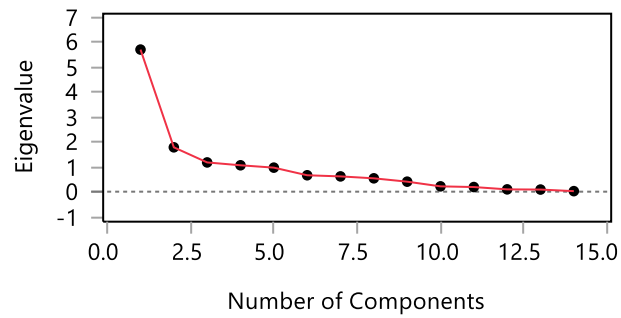
VALIDATION OF PRE-SLTAS

Principal Components / Factor Analysis

Principal Components: on Correlations

| Number | Eigenvalue | Percent | | Cum Percent | ChiSquare | DF | Prob>ChiSq |
|--------|------------|---------|---|----------------|-----------|--------|------------|
| 1 | 5.7238 | 40.884 |  | 40.884 | 246.980 | 86.393 | <.0001* |
| 2 | 1.8139 | 12.956 |  | 53.841 | 134.186 | 82.869 | 0.0003* |
| 3 | 1.2097 | 8.641 |  | 62.482 | 106.533 | 72.767 | 0.0061* |
| 4 | 1.0955 | 7.825 |  | 70.306 | 91.130 | 62.232 | 0.0099* |
| 5 | 1.0013 | 7.152 |  | 77.458 | 75.411 | 52.416 | 0.0204* |
| 6 | 0.6961 | 4.972 |  | 82.430 | 58.178 | 43.323 | 0.0651 |
| 7 | 0.6507 | 4.648 |  | 87.078 | 48.279 | 34.623 | 0.0615 |
| 8 | 0.5739 | 4.099 |  | 91.177 | 36.668 | 26.862 | 0.0983 |
| 9 | 0.4401 | 3.144 |  | 94.321 | 23.550 | 19.947 | 0.2599 |
| 10 | 0.2526 | 1.805 |  | 96.125 | 11.916 | 13.954 | 0.6095 |
| 11 | 0.2251 | 1.608 |  | 97.733 | 8.079 | 8.877 | 0.5140 |
| 12 | 0.1320 | 0.943 |  | 98.676 | 3.240 | 4.833 | 0.6408 |
| 13 | 0.1246 | 0.890 |  | 99.566 | 2.331 | 1.783 | 0.2692 |
| 14 | 0.0608 | 0.434 |  | 100.000 | 0.000 | . | . |

Scree Plot



Cronbach's α

| α | |
|------------|--------|
| Entire set | 0.8843 |

| Excluded Col | α |
|--------------|----------|
| Q1_pre | 0.8757 |
| Q2L_pre | 0.8742 |

| Excluded Col | α | | | | | | |
|--------------|----------|--|--|--|--|--|--|
| Q3_pre | 0.8761 | | | | | | |
| Q4_pre | 0.8800 | | | | | | |
| Q5_pre | 0.8881 | | | | | | |
| Q6L_pre | 0.8733 | | | | | | |
| Q7_pre | 0.8758 | | | | | | |
| Q8_pre | 0.8742 | | | | | | |
| Q9_pre | 0.8798 | | | | | | |
| Q10L_pre | 0.8687 | | | | | | |
| Q11_pre | 0.8784 | | | | | | |
| Q12L_pre | 0.8803 | | | | | | |
| Q13_pre | 0.8763 | | | | | | |
| Q14_pre | 0.8678 | | | | | | |

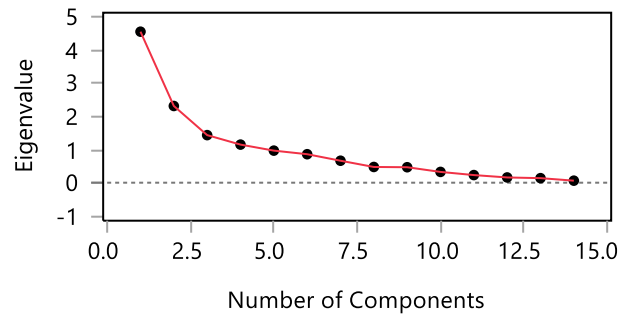
D.1 Validation of post-SLTAS

Principal Components / Factor Analysis


Principal Components: on Correlations

| Number | Eigenvalue | Percent | | Cum Percent | ChiSquare | DF | Prob>ChiSq |
|--------|------------|---------|--|-------------|-----------|--------|------------|
| 1 | 4.5503 | 32.502 | | 32.502 | 202.896 | 88.029 | <.0001* |
| 2 | 2.3214 | 16.582 | | 49.084 | 129.813 | 82.406 | 0.0007* |
| 3 | 1.4470 | 10.336 | | 59.420 | 94.721 | 73.051 | 0.0450* |
| 4 | 1.1627 | 8.305 | | 67.725 | 76.325 | 62.684 | 0.1154 |
| 5 | 0.9823 | 7.016 | | 74.742 | 61.729 | 52.898 | 0.1897 |
| 6 | 0.8745 | 6.246 | | 80.988 | 48.850 | 43.680 | 0.2731 |
| 7 | 0.6792 | 4.851 | | 85.839 | 35.512 | 35.067 | 0.4473 |
| 8 | 0.4918 | 3.513 | | 89.352 | 25.423 | 27.107 | 0.5566 |
| 9 | 0.4839 | 3.457 | | 92.809 | 19.696 | 20.171 | 0.4881 |
| 10 | 0.3435 | 2.453 | | 95.262 | 11.200 | 14.160 | 0.6818 |
| 11 | 0.2487 | 1.777 | | 97.039 | 6.026 | 8.949 | 0.7329 |
| 12 | 0.1773 | 1.266 | | 98.305 | 3.112 | 4.907 | 0.6706 |
| 13 | 0.1564 | 1.117 | | 99.422 | 1.971 | 1.911 | 0.3539 |
| 14 | 0.0809 | 0.578 | | 100.000 | - | - | - |

Scree Plot



Cronbach's α

| | α | |
|------------|----------|---|
| Entire set | 0.8068 |  |

| Excluded Col | α | | | | | |
|--------------|----------|--|--|--|--|--|
| Q1_post | 0.7981 | | | | | |
| Q2L_post | 0.7834 | | | | | |
| Q3_post | 0.7962 | | | | | |
| Q4_post | 0.7953 | | | | | |
| Q5_post | 0.8331 | | | | | |
| Q6L_post | 0.7754 | | | | | |
| Q7_post | 0.8069 | | | | | |
| Q8_post | 0.7790 | | | | | |
| Q9_post | 0.8009 | | | | | |
| Q10L_post | 0.7888 | | | | | |
| Q11_post | 0.8086 | | | | | |
| Q12L_post | 0.7830 | | | | | |
| Q13_post | 0.7913 | | | | | |
| Q14_post | 0.7776 | | | | | |

Appendix E

EXAMPLE OF LISTENING LESSON WITH VIDEO

The video that was used for this listening lesson was “COMPAÑEROS 1 Nueva Edición - Unidades 2-3 La familia de María” which was taken from YouTube and belongs to the *SGEL ELE español para extranjeros* series of videos.

| | |
|---|--|
| Pre-listening: make <u>predictions</u> about the video while watching it mute. | |
| Who do you think these people are? What is the relationship between them? | What was the purpose of meeting that day? Why? |
| How do you think people feel throughout the video based on their face expressions? Is there any change at any point? | Where do you think these people are? Why? |
| First listening: <u>Intonation</u> (the rise and fall of the voice when speaking) and <u>stress</u> (the emphasis given to certain syllables or to certain words) can help us detect important words and ideas in what we hear. | |
| Write down at least three key words that are emphasized through stress and intonation by the speakers during their conversation. Do these words help you <u>modify or develop</u> the ideas that you already have? Discuss with your partner. | |
| Second listening: while you listen to the video, decide whether the following statements are <u>True, False or if there is not enough information</u> to tell whether it is true or false (T/F/N). Please, provide the correction for the statements that are false. After completing the exercise, share your answers and thoughts with your partner. | |

| | |
|---|--|
| <p>María está enojada porque Sonia llega tarde. ____</p> <p>El padre de María es farmacéutico. ____</p> <p>Sonia vive muy lejos de la farmacia. ____</p> <p>Los padres de Sonia son españoles pero ella es venezolana. ____</p> <p>La madre de María es escritora y escribe libros. ____</p> <p>Los padres de Sonia trabajan en una cafetería. ____</p> <p>Sonia tiene tres hermanos. ____</p> <p>A las 4:30 María y su hermana pequeña van a ver una película al cine con sus abuelos. ____</p> <p>Sonia no va al cine con María y su familia. ____</p> | |
| <p>Reflection on listening process (in English):</p> <p>1: not really 2: yes, a little 3: As much as I needed to 4: A lot, more than I usually do</p> | |
| <p>Now, I would like you to reflect about your listening experience:</p> <p>Were you able to...</p> <p>...identify important meaning through body language?</p> <p>1 2 3 4</p> <p>...understand the main ideas?</p> <p>1 2 3 4</p> <p>... recognize words that you know?</p> <p>1 2 3 4</p> <p>...guess the meaning of words based on contextual cues?</p> <p>1 2 3 4</p> | <p>Discuss the following questions with a classmate:</p> <p>Did you experience any (anxiety?) confusion while watching the video?</p> <p>What aspects of the video were the most challenging to you? (Why do you think that was the case?)</p> <p>What did you do when you didn't understand a particular word or sentence in the video?</p> |
| <p>Write a brief summary of the information/reflection that you shared with your classmate. Did you learn anything by talking with him/her?</p> | |
| <p>Instructor's feedback:</p> | |

E.1 Example of Listening Lesson with Oral Text

This was one of the passages that was read:

¡Hoy es viernes y estoy muy contenta porque es casi fin de semana y también es la fiesta de Halloween! Me gusta mucho ser vuestra profesora. Sois un buen grupo y me gusta conocerlos, saber cómo sois y qué cosas os gusta hacer. Por ejemplo, yo sé que a Catherine le gustan los gatos y que Xiao es de China. Pero... ¡¡vosotros no sabéis mucho de mí, no me conocéis muy bien!! ¿verdad? Bueno, pues os voy a contar qué hago cuando estoy aburrida y qué hago cuando tengo tiempo libre. Cuando estoy aburrida, usualmente estoy en España porque siempre que estoy en España es verano y en verano no tengo mucho trabajo así que yo voy a la playa con mis amigos porque yo vivo al lado de la playa. Allí tomo el sol y nado en el mar. ¡Es muy divertido! En cambio, ¡en Estados Unidos, casi nunca estoy aburrida porque aquí tengo mucho trabajo y estoy casi siempre ocupada! pero tengo tiempo libre a veces. En mi tiempo libre en Newark no puedo ir a la playa porque no tengo carro. ¡Es frustrante! Usualmente yo salgo con mis amigos, tomo el tren a la ciudad de Filadelfia y voy de compras... y si me quedo en casa, siempre pongo mi programa favorito en la televisión.

Pre-listening: Given the topic of the lesson we are studying in class, what do you think the listening is going to be about?

Which topic could it be?
What words or expressions could include?

First listening: Intonation (the rise and fall of the voice when speaking) and stress (the emphasis given to certain syllables or to certain words) can help us detect important words and ideas in what we hear.

Write down at least three key words that are emphasized through stress and intonation by the speakers during their conversation.

Do these words help you modify or develop the ideas that you already have?
Discuss with your partner.

Second listening: while you listen to the video, decide whether the following statements are True, False or if there is not enough information to tell whether it is true or false (T/F/N). Please, provide the correction for the statements that are false. After completing the exercise, share your answers and thoughts with your partner.

| | |
|---|--|
| <p>Alba sabe muchas cosas sobre sus estudiantes (por ejemplo, sobre sus actividades favoritas, su origen, etc.) ____</p> <p>Cuando Alba está aburrida en Estados Unidos, ella va a la playa. Le gusta mucho. ____</p> <p>Alba tiene mucho trabajo ahora. ____</p> <p>En Estados Unidos a Alba le gusta salir con sus amigos y poner su programa favorito en la tele. ____</p> <p>Alba no tiene carro pero cuando está en España, ella toma el tren para ir de compras. ____</p> <p>Alba no tiene tiempo libre en Newark. ____</p> | |
| <p>Reflection on listening process (in English):</p> <p>1: not really 2: yes, a little 3: As much as I needed to 4: A lot, more than I usually do</p> | |
| <p>Now, I would like you to reflect about your listening experience:</p> <p>Were you able to...</p> <p>...identify important meaning through body language?</p> <p>1 2 3 4</p> <p>...understand the main ideas?</p> <p>1 2 3 4</p> <p>... recognize words that you know?</p> <p>1 2 3 4</p> <p>...guess the meaning of words based on contextual cues?</p> <p>1 2 3 4</p> | <p>Discuss the following questions with a classmate:</p> <p>Did you experience any (anxiety?) confusion while watching the video?</p> <p>What aspects of the video were the most challenging to you? (Why do you think that was the case?)</p> <p>What did you do when you didn't understand a particular word or sentence in the video?</p> |
| <p>Write a brief summary of the information/reflection that you shared with your classmate. Did you learn anything by talking with him/her?</p> | |
| <p>Instructor's feedback:</p> | |

Appendix F

OPEN-ENDED RESPONSES (SURVEY)

| Control group | |
|--|--|
| What aspects of the listening comprehension activities used by your instructor did you enjoy the most? | What recommendations would you make to make the listening aspects of this course more effective? |
| <p>“When I understood the words being said”</p> <p>“Physical demonstrations help with comprehension”</p> <p>“Video was enjoyable”</p> <p>“It helps for when he speaks in Spanish”</p> <p>“Just talking in Spanish”</p> <p>“The videos – they were silly but entertaining and actually helped a lot”</p> <p>“The videos”</p> <p>“If we don’t know a word, he doesn’t tell us it, he uses example sentences in Spanish. It helps”</p> <p>“The true-false questions”</p> <p>“I liked the videos we watched of Jamie”</p> <p>“Asking questions before the class begins, I think it is really helpful to warm up”</p> | <p>“To talk slower and to annunciate”</p> <p>“The listening activities go very fast and then I become lost”</p> <p>“Video was somewhat fast”</p> <p>“They should use videos that they are able to slow down”</p> <p>“Get students more involved”</p> <p>“No recommendations, I liked how they were done”</p> <p>“More help with the speed of Spanish speakers”</p> <p>“None”</p> <p>“Do more so students are prepared for exams”</p> <p>“I think to watch them more than twice, listening to Spanish multiple times makes me understand it much better”</p> <p>No answer</p> |

| | |
|---|---|
| “The videos that involve Jamie. They help create examples” | “More music videos! Biographies, things like that involving more of the culture. More culture might make learning more natural” |
| “Using context clues to figure out basis” | “Emphasis on words that most non-Spanish speakers don’t know” |
| “The videos and readings from classmates” | “Slow down and enunciate the words more clearly. Speaking too quickly makes your accent thicker” |
| “How funny and nice he makes it” | “slower” |
| “The YouTube videos and comprehension questions afterwards” | “Having copies of questions we can reference instead of squinting at the board and watching the video simultaneously” |
| “Ones we do on our own and can ask questions in English” | “Telling us what it means so we don’t have to guess a million times” |

| Experimental group | |
|---|---|
| What aspects of the listening comprehension activities used by your instructor did you enjoy the most? | What recommendations would you make to make the listening aspects of this course more effective? |
| <p>“I enjoy trying to understand what’s happening in the video based off body language and other clues before actually listening”</p> <p>“The use of hand gestures and body language to understand what is being said”</p> <p>“The true/False question helped a lot. I also like that we heard the video at least 2 -3 times”</p> | <p>“I feel like maybe listening to the videos with subtitles would be effective”</p> <p>“Slow down the speech a bit”</p> <p>“The watching the video silent at first thing doesn’t help much. I rather use the time to talk about the video”</p> |

| | |
|---|---|
| <p>“We were given time to process what we heard in order to get a better understanding of what was happening in the video”</p> | <p>“Start off with videos that have a slower speaking speed”</p> |
| <p>“The videos”</p> | <p>“After thinking what they are saying, play the videos with subtitles”</p> |
| <p>“When I was confused by what was said, breaking down what they said helped me to pick up on words”</p> | <p>“Some words are said rapidly by native speakers, so learning words we don’t know beforehand would help comprehension”</p> |
| <p>“The part where we answered true/False questions”</p> | <p>“Try to have videos that talk slower”</p> |
| <p>“I enjoyed hearing people with different accents speak Spanish”</p> | <p>“Eliminate the body language aspect, it confuses me”</p> |
| <p>“I liked looking over the true/False questions first and listening for the real answers”</p> | <p>“I would recommend that you listen to the activities twice instead of watching it mute”</p> |
| <p>“Fully understanding them occasionally”</p> | <p>“We should have more than two chances to hear the questions, as it adds a lot of pressure and hearing it more can only help improve our knowledge and ability to answer listening questions”</p> |
| <p>“The true or false or not enough information sentences made me listen more so that I could figure it out”</p> | <p>“The watching the video with no sound does not really affect me with the listening comprehension”</p> |
| <p>“I think listening the first time to understand the main idea, and looking for details/specifcs on the second listen is effective”</p> | <p>“I would like to listen to a larger variation of Spanish speaking people (age, accents, etc.)”</p> |
| <p>“I really enjoy the videos we watch”</p> | <p>“Maybe to slow down and repeat it 3 times instead of 2”</p> |

| | |
|--|--|
| <p>“I liked the videos, usually they were engaging”</p> <p>“When we compared information with partners/groups”</p> <p>“My instructor will play it first silently. And by that, I can find out how much I got from gestures and moments. She also plays it more than once, which gives me more time and opportunities to try”</p> <p>“Different types of listening activities such as plot, characters, and the format of the questions we are asked. It wasn’t repetitive at all and never boring”</p> | <p>“I honestly cannot think of any”</p> <p>“Have it more often in smaller increments rather than rarely in long increments”</p> <p>“Maybe do that more often? Listening and speaking are very important in real conversation/communication, but they are always overlooked”</p> <p>“Multiple-choice questions”</p> |
|--|--|

F.1 Open-ended Responses (Intervention Survey)

| |
|---|
| <p>Question 1: Do you feel that your Spanish listening comprehension improved (even if it is a little) through these listening activities? Justify your answer.</p> <p>“Yes. I follow what the speakers are saying better”</p> <p>“Yes. In the beginning, I couldn’t understand anything spoken quickly and I always used tons of context, how I can base it more off of listening”</p> <p>“Yes, it gave me a lot of practice through different topics through different levels of difficulty. I learned a lot of new vocab”</p> <p>“Yes, because before I would be lost with certain words, now it is easier”</p> <p>“Yes, I am better at guessing the meaning now. And I got half of the meaning, better than nothing!”</p> <p>“Yes, I can understand native speakers better than I could before”</p> <p>“I do believe so, as each exercise has become easier and easier to understand and do”</p> <p>“I don’t think my Spanish listening comprehension improved that drastically. I think doing listening activities more just made me become used to the activity”</p> <p>“Yes, because these activities force us to figure out what is being said by using what we know”</p> <p>“Yes, they made it so we had to listen and understand native speakers”</p> |
|---|

“Yes, it helped me adjust to different talking speeds”
 “Yes, because I am getting exposure to the actual speed of the Spanish language”
 “Yes, because I’m better understanding native speakers vs. foreign speakers.
 Understanding the accents better”
 “It improved, but because it was practice with people who sound different, so that I
 could hear a word that was said differently”
 “Yes, I was able to pick up on words that I actually knew faster and more easily”
 “The silent listening I don’t understand all that much, but looking for specific
 true/false statements is very helpful”
 “Yes, because now I know a few more vocabulary words”

Question 2: What did you like the most about these exercises? Justify the answer.

“I liked filling out these sheets and answering the questions to help with
 comprehension”
 “It helps me practice listening”
 “Different interesting subjects and multiple listenings of the videos”
 “It helped to comprehend Spanish when being spoken to”
 “Clearly shows main idea just by images, and it is quite related to the concepts of
 the book”
 “Predicting what the video is about. It definitely helps when watching it the second
 time”
 “I enjoyed analyzing what people in the video said within the context of what was
 happening, as it made it easier to derive the meaning from what they were saying”
 “The funny videos”
 “The part we were able to actively listen to because it enables us to understand
 better”
 “I like how the topics relate to what we are learning which helps us better
 understand the material”
 “The videos themselves”
 “I don’t really like them because I find them challenging, however I feel relieved
 when I actually understand something that is said. I would say I like understanding
 them so I guess writing down the words I understand, catch aka the first listening”
 “I liked being able to understand Spanish with the different accent (Spanish accent
 vs. Brazilian)”
 “The videos themselves. Much easier to watch and follow along than
 pictures/listening to Alba talk”
 “I liked how natural the speakers were and how all the words flowed. It also helped
 with my pronunciation”
 “I liked looking for context clues for words I didn’t understand. It helps a lot
 looking at the video”
 “I like seeing what I predicted”

Question 3: What did you like the least about these exercises? Justify your answer.

"The speakers talk fast and it's frustrating"

"How many times we watched the same video"

"Sometimes the actors in the videos talk too fast, can be hard to understand at times"

"The silent part in the beginning because it was hard to tell the situation sometimes"

"I still have the part I couldn't understand"

"The T/F questions. They speak quickly so usually I can only answer a few of them"

"Nothing to really complain about"

"Having to watch the videos so many times in a row. Especially having to watch the videos w/out sound"

"When we watched the video with no sound, it is frustrating to not know what is going on"

"The silent viewing does not teach me much normally"

"When the speaker becomes complicated"

"I don't like listening without audio because I usually have no clue what is happening and I feel as though the assumptions I make are wrong and mess up my understanding when we do listen"

"I least liked trying to understand body language in general b/c I personally don't read body language"

"The true/false/not enough info. The "not enough information" option always messed me up"

"At some points the speed was a bit of an issue but it helped me to look for context"

"The mute video seems like a waste because I would rather just listen to it twice"

"My least favorite is the pre-listening because, well obviously I cannot hear/understand"

Question 4: Do you feel that you can deal with the ambiguity of listening of Spanish videos better or worse now?

"Better, but I still get frustrated at times"

"Better"

"Better through context clues and body language"

"Better because I will understand more now than before"

"Better. Now I am more used to it. After all, I learned a lot of vocabulary, and the rules of pronunciation a little bit"

"Better"

"Definitely better"

"I think I have improved slightly listening to Spanish videos now"

"I can deal much better because of now I was taught to figure the info out myself"

"Much better, I can gain an understanding and figure out what's going on in the videos"

“Better”

“A little better because we’ve done it quite a few times now”

“I feel I can deal with it better now”

“Better”

“Better”

“I feel much better about listening to the videos”

“Better 😊”

Appendix G

SUGGESTED LISTENING TEST FORMAT AND RUBRIC

Listening test:

| | |
|---|--|
| Identify 3 key words | |
| Summary of the listening passage What happens in the video? (include main idea and some details) | |
| Talk to a classmate about the listening. Share your ideas! Can you add or change something from your previous ideas? | |

Rubric:

| Outstanding | Good | Acceptable | Inadequate |
|--|--|--|--|
| 5 or more key words | 3-4 key words | 1-2 key words | No key words |
| The student understands the main idea right and is able to add up to 3 details | The student understands the main idea right and is able to add up to 2 details | The student slightly understands the main idea and has none or one detail. | The student does not understand the main idea and there are no details |

| | | | |
|--|--|--|---|
| Interaction helped the student understand the passage better. The student was able to detect some mistakes or add new information (BOTH about the main idea AND details if they are wrong) | Interaction helped the student understand the passage better. The student was able to detect some mistakes and add new information (EITHER about the main idea OR details if they are wrong) | Interaction helped the student understand the passage slightly better. The student was able to detect ONE mistake or add at least one piece of new information (EITHER the main idea OR details if they are wrong) | Interaction did not help in improving the student's understanding of the listening passage. |
|--|--|--|---|

Appendix H

THE INSTITUTIONAL REVIEW BOARD LETTER



RESEARCH OFFICE

210 Hullihen Hall
University of Delaware
Newark, Delaware 19716-1551
Ph: 302/831-2136
Fax: 302/831-2828

DATE: September 28, 2016

TO: Alba Fano Trabanco, MA
FROM: University of Delaware IRB

STUDY TITLE: [952305-1] Exploring the relationship between tolerance of ambiguity of Spanish learners and their listening comprehension

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: September 28, 2016

REVIEW CATEGORY: Exemption category # (2)

Thank you for your submission of New Project materials for this research study. The University of Delaware IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will put a copy of this correspondence on file in our office. Please remember to notify us if you make any substantial changes to the project.

If you have any questions, please contact Nicole Farnese-McFarlane at (302) 831-1119 or nicolefm@udel.edu. Please include your study title and reference number in all correspondence with this office.

cc: