Computer Assisted Language Instruction Consortium

CALICO JOURNAL (ONLINE) ISSN 2056–9017

Article

Effects of Audiovisual Media on L2 Listening Comprehension: A Preliminary Study in French

Shannon R. Becker[1] *and Jessica L. Sturm*[2]

Abstract

The purpose of the present study was to determine whether integrating online audiovisual materials into the listening instruction of L2 French learners would have a measurable impact on their listening comprehension development. Students from two intact sections of second-semester French were tested on their listening comprehension before and after a four-week learning phase during which the treatment group received listening instruction via audiovisual materials while the control group completed a different listening task that did not involve audiovisual materials. Results from the pretest indicated that the two groups began the study at a nearly identical level of listening ability. The experimental group subsequently increased its listening proficiency in the immediate and delayed posttests, achieving considerably higher scores when compared to the control group. While the difference in scores on the posttests was not significant, effect sizes suggested a positive outcome for the experimental group. This study represents a preliminary indication that activities using online audiovisual materials may have a positive impact on the acquisition of listening comprehension skills.

KEYWORDS: LISTENING; TECHNOLOGY; INSTRUCTED SLA; AUDIOVISUAL; FRENCH

While the ultimate goal of language instruction is the development of speaking, listening, reading, and writing skills in the target language, considerable emphasis has been placed in recent years on learners' ability to communicate effectively in the oral mode in a target language environment. In evaluations of this communicative ability, oral production has often been the sole criterion for analysis despite the fact that successful communication in the oral mode

Affiliations

[1]Northern Illinois University, DeKalb, IL.
email: sbecker@niu.edu

[2]Purdue University, Lafayette, IN.
email: jsturm@purdue.edu

CALICO JOURNAL VOL 34.2 2017 147–177
https://doi.org/10.1558/cj.26754

is contingent upon correct perception of the aural input. This can frequently lead to an imbalance in the amount of speaking and listening practice in the L2 classroom. As a means of exploring ways to increase and improve listening practice, the aim of the present study was to investigate the potential effects of audiovisual media on second language learners' listening comprehension skills in French.

Listening research is necessary for the development of a more complete understanding of learners' oral communicative abilities in a foreign language. This can take the form of studies that seek to explain the cognitive processes of listening as well as studies designed to test a proposed method for improving listening skills in an instructed second language acquisition context. The present investigation belongs to the latter group, and was designed to implement and evaluate a technique for improving listening skills in the FL classroom using audiovisual resources. Audiovisual media were systematically incorporated into the listening instruction of an experimental group to determine whether the dual modality of this resource would lead to improved listening performance.

Previous Research

Listening Comprehension

Listening involves the ability to break speech into its component parts, to understand these as they relate to one another, and to infer meaning based on context and background knowledge (Brown, 2011; Mecartty, 2001; O'Malley, Chamot, & Küpper, 1989; Vogely, 1995). Research indicates that top-down listening strategies are more effective in comprehending aural input than are bottom-up strategies, which tend to cause listeners to get caught up in trouble spots, thereby missing important input that follows immediately thereafter (Goh, 2000; Hasan, 2000). In the context of language instruction, then, it is beneficial to teach students strategies for listening more effectively, such as encouraging them to accept ambiguity by concentrating on the overall meaning using top-down processing (Goh, 2000) and developing metacognitive strategies to regulate listening (Goh, 2008; Vandergrift, 2002, 2003, 2004). These strategies help L2 listeners gain control over the perceptual and cognitive processes necessary for effective listening. As a medium for delivering this listening instruction, audiovisual materials provide both verbal and nonverbal cues to the meaning of the input, giving learners the contextual support necessary to engage in top-down processing as they work on developing their bottom-up processing skills.

Contextual Support in Listening

Visual and Audiovisual Support

Contextual support is given in the form of pictures or video aids in listening comprehension by providing listeners with additional modes of mental

representation of the input. This results in more mental connections to the input and facilitates the retrieval of information, a phenomenon that is described in Mayer's (1997) Generative Theory of Multimedia Learning (GTML). The potential effects of visual contextual support such as text, pictures, and audiovisual materials on L2 acquisition have also been supported through a number of empirical studies on both listening and reading (Abraham, 2007; Jones & Plass, 2002; Kost, Foss, & Lenzini, 1999; Li, 2006). Results suggest that learners with access to visual support for the aural input they hear fare better than their counterparts without access to this contextual support. The combination of pictorial and verbal glosses contributes to superior performance on subsequent vocabulary, listening, and reading evaluations (Abraham, 2007; Kost et al., 1999). In addition, learners who are exposed first to a visual-only version of a video followed by the full audiovisual version outperform those in other presentation modes (Li, 2006).

In their study on the effects of visual contextual support on the acquisition of listening comprehension and vocabulary acquisition, Jones and Plass (2002) divided 171 students of second-semester postsecondary French into four groups: no annotations, written annotations only, pictorial annotations only, and both written and pictorial annotations. Students were subsequently tested on their written recall and vocabulary recognition. The results demonstrated that those participants who received both written and pictorial support performed better than those whose support was only written, only pictorial, or absent. The participants who performed best on the delayed posttest were those who had received pictorial support only as well as those who had pictorial and written support together. Jones and Plass posited that the pictorial representations developed a strong mental bond for the participants, leading those in the pictorial only group to retain the information for a longer period of time. These results can also be understood through Paivio's dual coding theory of cognition, which posits that the auditory and visual modalities, while interconnected, can also be activated independently (Paivio, 2010, p. 208). In either case, Jones and Plass's study lends support to the hypothesis that an added visual component can aid in the recall of information from a listening text.

Textual Support

Textual support, such as partial and full transcripts and L1 and L2 captions, can also aid L2 listening comprehension by providing learners with additional clues to the meaning of the input (Chai & Erlam, 2008; Diao, Chandler, & Sweller, 2007; Markham, Peter, & McCarthy, 2001; Winke, Gass, & Sydorenko, 2010). Markham et al. (2001) found that the use of both native language and target language captions is more beneficial to listening comprehension than the absence

of captions and that L1 captions can be more effective than L2 captions. Studies in vocabulary acquisition have also found a positive correlation between the presence of captions and the acquisition of novel phrases in the L2 (Chai & Erlam, 2008), indicating that it is possible not only to improve overall comprehension but also to acquire new linguistic forms through the use of textual support. This finding was echoed by Winke et al. (2010), who found that target-language captioning aids both in novel vocabulary recognition and in comprehension of the passage. These studies on textual support provide a basis for the use of captioning and other text-based exercises that are frequently employed with audiovisual media to help improve learners' listening comprehension.

Constructing Pedagogically Sound Exercises

Audiovisual materials on their own cannot be effective unless they are incorporated into well-structured, pedagogically sound activities. These activities can be divided into prelistening, listening, and postlistening categories, and are designed to help students derive maximum benefit from the audiovisual materials being used. The goal of these interactive audiovisual activities is that students learn to listen effectively rather than to simply recall chunks of information. In this way, they will build the mental strategies necessary to decode and parse the target language, thereby increasing listening proficiency.

The use of prelistening activities is supported by cognitive load theory (Sweller, 1994), which posits that learners attempting to develop listening skills are taxed by the need to store information in the short-term memory while manipulating information in the working memory as well. A common strategy for combating this cognitive load is the activation of schemata in order to organize prior knowledge and use it to understand the current input. Prelistening activities are a helpful way to engage these schemata, thereby reducing the cognitive load that would be imposed by new input. In order to determine whether listening comprehension performance varies as a function of such prelistening activities, Berne (1995) conducted an experiment wherein two experimental groups received different types of prelistening activities. One group previewed the questions that would be asked after the clip, while the other group performed a passive vocabulary preview. The results showed that participants who previewed the questions had higher scores on the test than the group that did a vocabulary review prior to listening. The implications of these results can be used to justify question preview in both the instruction and the testing of listening.

Once schemata are activated by means of a prelistening activity, it is crucial that students are provided with a strategy for listening during the viewing of audiovisual excerpts. This can best be accomplished through the application of metacognitive skills. In other words, rather than simply exposing students

to aural input in the target language and hoping comprehension occurs, the instructor actively guides them in the skill of listening and provides strategies on how to listen more effectively. After surveying the use of metacognitive strategies in L2 instruction Goh (2008) found that they improved listening comprehension, especially for less proficient learners. This was echoed in Vandergrift and Tafaghodtari's (2010) study, which demonstrated that a group instructed using a metacognitive, process-based approach outperformed the control group, and that less-skilled listeners in the experimental group made greater gains than more-skilled learners. Additionally, Jung (2003) found that Korean learners of English who listened to a lecture with signaling cues performed significantly better in the recall of both high- and low-level information than the group who received no cues. These and other studies demonstrate the potential of metacognition and listening strategies to improve comprehension.

Postlistening activities help learners to clarify what they have heard and to incorporate it into their communicative repertoire. These activities should not be limited to comprehension questions; rather, they should require an application of the newly acquired knowledge. As Brown asserts, "After listening as comprehension, we should work with the input in written form (vocabulary, grammar, pronunciation) and utilize spoken activities like role plays and dialogues to help students acquire the language they have heard" (2011, p. 37). This is essential in order to fully assimilate the information and skills that have been presented.

Situating audiovisual materials within the context of pre- and postlistening activities and metacognitive strategy use, as described above, allows for the maximum benefit to be extracted from the materials themselves. The dual modality of the input helps learners to comprehend and recall more information while the format of the exercises ensures that they are well incorporated into the overall classroom objectives for the day and the knowledge is assimilated as fully as possible. Additionally, the amount and variety of audiovisual media found online provides instructors with a convenient way to incorporate diverse communicative and cultural contexts into language instruction in a way that is motivating for students.

The Present Study

Based upon the existing support for audiovisual aids in listening comprehension, the present study was created to explore the ability of such methods to increase listening performance in an instructed L2 French context. The experimental design was based in part on two perceived limitations of previous studies. First, the data collection procedure used in certain previous studies has confounded the contexts of listening teaching and listening testing. While

they claim to investigate the way given instructional techniques can influence language acquisition, participants have not generally been given an adequate amount of contact and practice with the technique. Rather, they have participated in one brief exercise and undergone immediate testing without regard to what kind of instruction they received in their regular foreign language courses (Berne, 1995; Diao et al., 2007; Jones & Plass, 2002; Jung, 2003; Mecartty, 2001).

The second concern involves the way listening comprehension has been measured in the studies cited above. Participants have often been asked to perform recall tasks to demonstrate successful listening comprehension. Recall tasks pose a problem because they confound listening comprehension and working memory capacity. It is possible that although participants comprehend the text, they have a difficult time remembering everything they have heard. Even in cases where participants are allowed to take notes while they listen, they are taxed with the need to understand the oral input as they simultaneously translate and make notes. This imposes a high cognitive load (Sweller, 1994) and can obscure learners' actual listening comprehension ability.

In order to address these limitations in the design of the present study, the instructional technique was integrated into the actual learning context (i.e. the classroom) of the participants during a four-week treatment phase. Students were tested on listening performance at the end of the learning phase, and this testing was performed on separate days with materials that differed from those used during the instructional phase of the study in order to avoid confounding the contexts of listening teaching and testing. Additionally, rather than being asked to recall information, participants responded to a list of short-answer questions which they viewed before being exposed to the aural input. This enabled them to engage schemata prior to listening, thereby reducing the cognitive load of the exercise.

The present study addressed the following question: Do native English-speaking foreign language learners of French develop listening comprehension skills at a more advanced rate when exposed to audiovisual media-based activities when compared to a control group of learners who were exposed solely to communicative methods of foreign language teaching without audiovisual materials? Based on the demonstrated effects of audiovisual contextual support on listening comprehension, it was hypothesized that the experimental group would outperform the control group on listening comprehension tests following a four-week experimental instruction period.

Methodology

The study followed a pretest–treatment–posttest design and took place over a five-week period at the end of the fall semester (weeks 12–16) at a large

research university in the Midwestern United States. On the first day, participants were recruited and completed the pretest of listening comprehension. During the following four weeks (hereafter the learning, or treatment, phase), the experimental group completed daily listening activities using audiovisual media while the control group practiced listening skills in more traditional, instructor-centered ways, such as responding to questions and participating in class discussions. On the final day of the learning phase, both groups completed the immediate posttest of listening comprehension. A delayed listening posttest was conducted one week later.

Participants

The participants were 31 postsecondary students enrolled in the second semester of French instruction: 14 students in the control group and 17 in the experimental group, assigned according to class section. The two class sections comprised 53 students total; however, in order to control for language background, only those students whose native language was English were included in the analysis, which excluded 13 students. In addition, 9 students were left out of the analysis because they were absent for either the background questionnaire or the immediate posttest. The age of participants ranged from 18 to 24 and the median age was 19 years old.

Procedures

The treatment phase of the study was conducted as a part of the course, and students were unaware of the difference in instruction. The listening tests were conducted as part of the course as well, but students were aware that it would not affect their course grade. The first author was the instructor of record for both French classes involved in the study. This ensured a consistent teaching style across sections, removing teaching differences as a potential confounding variable, and guaranteed that the audiovisual activities were implemented in the intended fashion with appropriate introductions and transitions.

Classes met four days per week for 50 minutes at a time. Two days were lost for a university break and one day for a required oral evaluation, leaving 13 class periods in the learning phase of the study. The audiovisual listening activities (and their equivalent in the control group) took approximately 10 minutes each.

During the learning phase, both groups were taught according to standard departmental practices, including pair and group conversational work, teacher–student interaction, and in-class reading and writing tasks. The control and treatment groups received nearly identical instruction; however, the treatment group had daily listening activities using audiovisual media excerpts

(See Appendix A for a sample lesson that illustrates the difference between the two groups). Participants in the treatment group used pre- and postlistening activities to process the aural input provided to them through audiovisual excerpts. The total time for these activities each day was approximately 10 minutes. At this point in the lesson, students in the control group participated in exercises centered on the same topic and for the same amount of time as the treatment group. Instructional time and content were therefore equivalent; the only difference was task type. Listening was emphasized in the control group through guided instructor–student interaction as well as group exercises requiring oral comprehension.

To illustrate the difference between the activities for each course, consider the following example: students in both conditions were shown a photograph of people dressed in clothing in varying states of disarray. After viewing this image, they participated in a conversation so as to learn the meaning of the relevant vocabulary. The experimental group then watched two short clips from an online video series about helpful laundry tips. Before viewing, they were asked to briefly brainstorm some things that might cause *taches*, or stains. They listened for information to prove or disprove their ideas while they watched the video, followed by a brief discussion of comprehension questions and a partner activity related to the video content (see Appendix B). The control group performed an oral sentence-completion task based on the introductory activities followed by a discussion in pairs of what they would do if their clothing were in each of the states pictured. The instructor asked questions, provided contextual cues, and modeled relevant vocabulary to facilitate the discussion and provide aural input during the exercise.

Listening tests took place at three points in the study: the pretest on the first day of the study, the posttest on the last day of the four-week learning phase, and the delayed posttest one week later. These tests were created by the researcher for the purpose of the study and were designed carefully to ensure the construct validity of the measure. For example, the instructions and test questions were given in English and the students were instructed to provide their answers in English. This procedure ensured that students were indeed being tested on their L2 listening skills rather than on their ability to read or write in the target language. In addition, only information directly from the passage was included in the test items, eliminating the potential need for inference or other higher order skills. Neither the content nor the format of the listening tests favored one group over the other.

The listening tests were conducted with auditory input only in order to evaluate listening comprehension without interference from visual input. This

was done to maintain the distinction between language teaching and language testing. The purpose of the pretest and the posttests was to evaluate the product of listening comprehension, i.e. the correct answers to comprehension questions, whereas listening instruction should focus on the process of listening. Because of this distinction between teaching and testing, it was decided that the assessments should focus exclusively on the aural input. Additionally, while research studies support the use of audiovisual media in L2 instruction, there is less consensus regarding its use in language testing (Ginther, 2002; Gruba, 1997).

The auditory clips used in the listening comprehension tests were taken from three different free websites. The first website offers audio clips for the purpose of learning French (http://goo.gl/hSrhV2), the next is from an About.com article about the French language (http://goo.gl/LSjfWM), and the last provides online listening comprehension quizzes (http://goo.gl/NCcDle). Each clip was around one minute in length, featured native speakers discussing various topics, and was played twice. In choosing these excerpts, the rate of speech was taken into account, and slower excerpts were chosen in consideration of the level of the learners involved. The learners in the present study were enrolled in second semester French. Asking them to listen to rapid, spontaneous speech in French would have put them under undue stress and may not have provided a reliable indication of their actual listening skills. Since they were created for educational websites, the passages for the pretest and the delayed posttest had been recorded at a rate slower than normal speech. The listening passage for the immediate posttest appeared on a web site that allowed the researcher to choose the slower of two versions of the text.

Both groups received identical instructions before beginning the tests. The instructions and test questions were given in English, and the students were instructed to provide their answers in English. The reason for this is twofold: (1) it would be impossible to evaluate the comprehension of learners if they were unable to effectively communicate their answers to the questions, and (2) the ability to simply copy down what one hears in an L2 does not count as proof of comprehension of that text.

The listening tests consisted of short-answer comprehension questions. Because research suggests that previewing questions before exposure to aural input leads to higher scores on this type of evaluation when compared to the use of different types of prelistening activities (Berne, 1995; Brown, 2011; Chiquito, 1994/1995; Chang & Read, 2006; Elkhafaifi, 2005), the participants in the present study were given the opportunity to see and read through the questions before receiving the aural input (see Appendices B, C, and D for a

transcript of each listening passage and its comprehension questions). While the syntax of the passages was of an appropriate level for the participants, some technical vocabulary from the second excerpt was unfamiliar, and the subject matter was more abstract. For this reason, the researcher gave all participants a vocabulary sheet prior to playing the clip, and went through each item with them to verify comprehension. This acted as a leveling variable to ensure that all students had the same degree of preparation vis-à-vis the content of the audio excerpt.

Analyses

The test items were scored as correct or incorrect, each answer was valued at one point, and, in the case of multi-part questions, students were given one point for each part. Total points possible on the three tests were 13, 12, and 12, respectively. The percentage score was calculated for each participant on each test and these data were submitted to a one-way analysis of variance (ANOVA) in order to compare group means before and after the experimental treatment phase. The alpha level for the test was set at $p = .05$.

Because three different listening passages and sets of questions were used for the listening tests, both groups demonstrated fluctuations in scores across the three tests. This was to be expected, and the decision to use three separate passages was made to avoid a situation in which scores were inflated due to familiarity with the testing material. Because the tests were not the same, a repeated-measures ANOVA was not appropriate for the statistical analysis. Rather, group scores were compared via a one-way ANOVA. Given the small sample size, and following the suggestion of Plonsky (2015), effect sizes were also reported so as to aid in the interpretation of the significance testing.

Results

A review of mean scores by group revealed that the performance of the control and experimental groups on the pretest of listening comprehension was highly similar (see Table 1), differing by less than 1%. This result indicates that, before entering into the pedagogical portion of the study, participants in the two groups were of approximately equal listening ability. A visual representation of the data (Figure 1) also shows identical median scores and dispersion of scores. Additionally, using Cohen's *d*, it was determined that the effect size of this small mean difference was −0.04, indicating little to no effect. This supports the conclusion that the listening skills of the two groups were very similar at the time of the pretest.

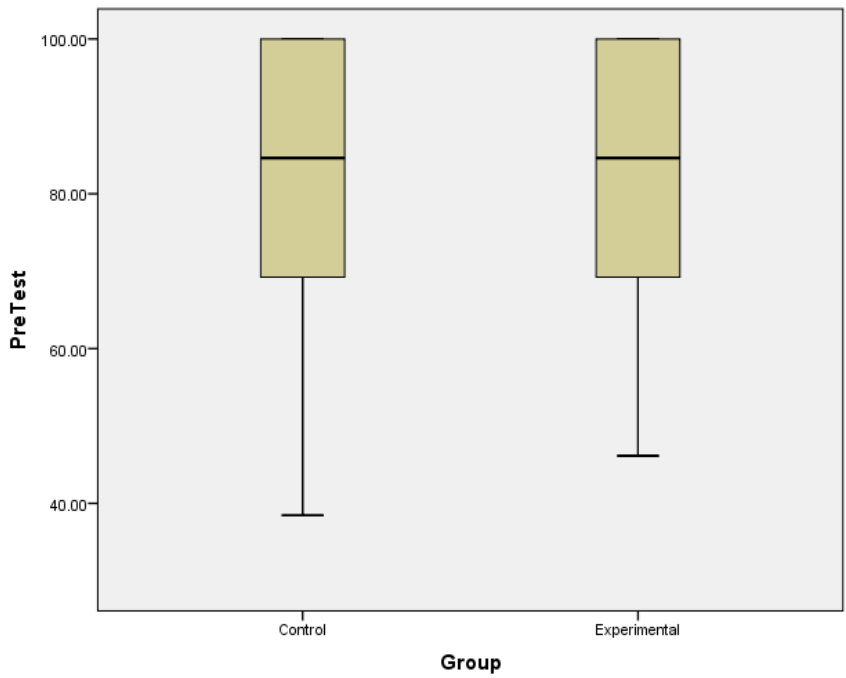


Figure 1: Pretest scores.

Table 1: Descriptive Statistics with Confidence Intervals

	Control Group		**Treatment Group**	
Variable	*M (SD)*	*95% CI*	*M (SD)*	*95% CI*
Pretest	80.22 (20.84)	[68.19, 92.25]	81.00 (17.86)	[71.81, 90.18]
Immediate	52.98 (26.47)	[37.69, 68.26]	67.16 (16.53)	[58.66, 75.65]
Delayed	45.24 (25.89)	[30.29, 60.18]	53.43 (15.88)	[45.27, 61.60]

At the end of the four-week learning period, the average score of the experimental group on the posttest exceeded that of the control group by 14.18% (see Table 1). The superior performance of the experimental group can also be seen in the box plot, which shows that the experimental group's scores are more closely clustered around the median, and that the median is higher than that of the control group (see Figure 2). Again, this result was supported by the effect size measurement ($d = -0.68$), which demonstrated a medium-to-large effect.

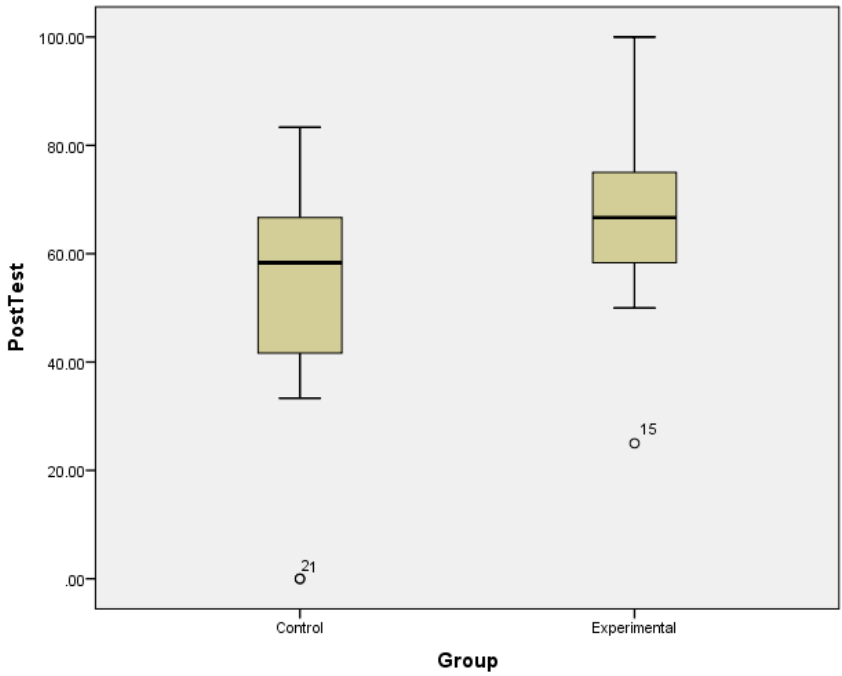


Figure 2: Posttest scores.

On the delayed posttest one week after the initial posttest, the experimental group continued to outperform the control group, albeit by a smaller margin, at 8.19% (see Table 1). Although the means were closer together at this stage, the range of scores in the experimental group was visibly smaller than that of the control group (see Figure 3). Effect size measurement indicated a small-to-medium effect ($d = -0.40$).

A one-way ANOVA was conducted to compare mean scores between groups on the three listening tests. The assumption of normality was tested through an analysis of the Q-Q plots for each test; these confirmed the normal distribution of the data, because the values were approximately linear and did not stray from the trend line. Levene's test indicated equal variances on the pretest ($F = .38$, $p = .54$) and the immediate posttest ($F = 2.48$, $p = .126$). Variances in the delayed posttest were unequal ($F = 4.38$, $p = .045$), so degrees of freedom were adjusted from 29 to 21 and significance was adjusted accordingly. Given these data, ANOVA was determined to be an appropriate parametric test for the study.

Results of the ANOVA showed that the difference between the control and experimental groups on the listening pretest was not significant, $F(1, 29) = .01$, $p = .91$. The difference in scores on the immediate posttest did not attain

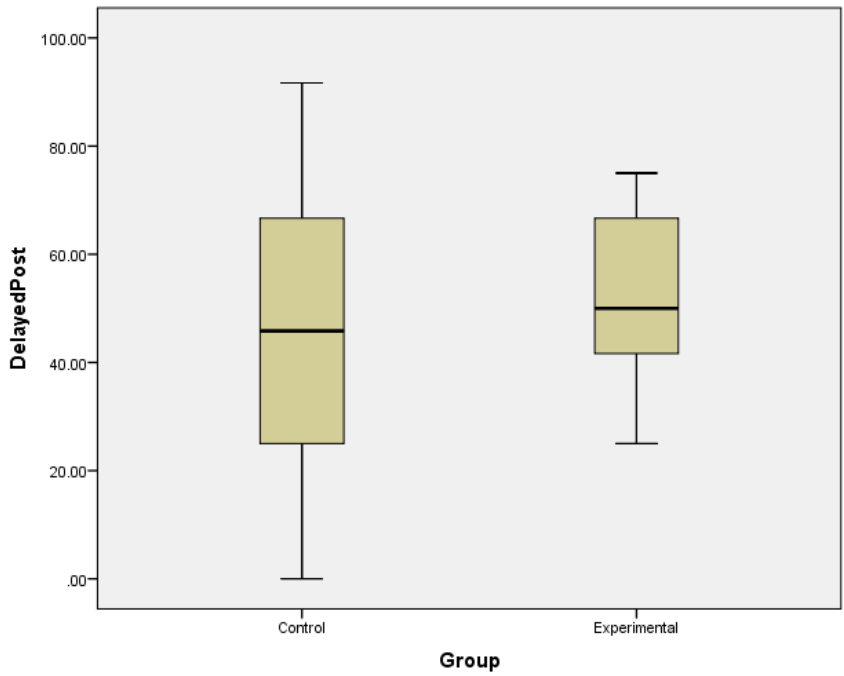


Figure 3: Delayed posttest scores.

significance $F(1, 29) = 3.32$, $p = .08$. Mean difference on the delayed posttest was not significant, $F(1, 21) = 1.17$, $p = .31$.

To summarize, results of the one-way ANOVA confirmed that the two groups began the study at the same level of listening ability, with almost no difference between them. This was demonstrated by the nonsignificant difference in mean scores between groups on the pretest ($p = .91$) as well as by the lack of discernible effect size ($d = -0.04$). While a visual comparison of the posttest scores subsequently indicated that the experimental group went on to outperform the control group on the immediate posttest as well as the delayed posttest, these differences were not statistically significant ($p = .08$ and $p = .31$, respectively). Effect sizes as measured using Cohen's d, however, provided additional context for these results, indicating a medium-to-large effect ($d = -0.68$) on the immediate posttest and a small-to-medium effect ($d = -0.40$) on the delayed posttest.

Discussion

An analysis of the descriptive statistics between groups revealed a trend in the expected direction, favoring the experimental group in both posttests.

Although the *p*-values were not significant, effect sizes lend support to the hypotheses of the study.

The pretest demonstrated that the two groups of participants started from an even footing ($p = .912$) in their listening comprehension ability, a lack of mean difference that was supported by the effect size measure ($d = -0.04$). Given this initial equivalence, the experimental group seemed to experience an advantage during the learning phase that enabled them to outperform the control group on the immediate posttest. Not only were both the mean and median scores higher in the experimental group, the spread of scores was smaller and the maximum score was higher (see Figure 2). Additionally, Cohen's *d* indicated a medium-to-large effect size for the immediate posttest ($d = .68$). Despite the fact that the difference in means on the immediate posttest did not reach statistical significance, there was an observable trend in improved listening ability for the experimental group following the instructional period, suggesting that the treatment helped the experimental group to improve their listening comprehension skills over the course of the instructional phase.

The delayed posttest did not yield significant results ($p = .288$); however, the mean score of the experimental group remained more than 8% higher than that of the control group. In addition, there was considerably less variation in the scores of the experimental group (see Figure 3) on the delayed posttest, indicating a greater degree of consistency within the experimental group. This consistently higher performance suggests that the experimental group maintained an advantage over the control group; this is supported by effect size data, which showed that there was a small-to-medium sized effect ($d = -0.40$) for the delayed posttest. Due to the lack of significance, further research must be done to adequately assess the long-term effectiveness of this teaching method.

The main strength of the present study lies in its ecological validity. This term, borrowed from psychology (Brunswik, 1956), is commonly used in second-language acquisition to refer to the extent to which the method and setting of the experiment replicate the real-life situation one is attempting to study. When second-language acquisition studies are conducted in the same environment where the learning takes place they are said to be higher in ecological validity, a main reason why researchers support interventional classroom studies (Omaggio Hadley, 2001; Spada, 2005). While studies that are conducted in the laboratory give the researcher more control to limit confounding variables and to isolate the desired skills, it is for this same reason that they are nearly impossible to generalize to classroom situations where the context is much more complex. Because the present study was conducted in the classroom over an extended time period with the experimental treatment

applied to the participants' actual French instruction, it was high in ecological validity, and any conclusions drawn from it are more readily generalizable to other language classrooms. Although results should always be applied with caution, it is reasonable to make pedagogical suggestions based on classroom studies, since they most closely resemble language-learning situations.

The results of this study act as cautious support for the notion that audiovisual resources are useful tools for the improvement of L2 listening comprehension. Facilitated by the use of pre- and postlistening activities, the dual modality of audiovisual passages can help students to develop the cognitive processes necessary to improve their L2 listening skills. Additionally, one can find audiovisual materials that correspond to all levels of language proficiency, making this technique easily applicable across instructional levels.

The accessibility and diversity of online audiovisual materials also make this instructional resource applicable to skills beyond listening comprehension, such as speaking and vocabulary development. For example, audiovisual excerpts can be used to introduce new vocabulary items in an authentic target-language context. Students can be provided with a partial or full transcript of the dialogue and asked to identify unfamiliar vocabulary items and decipher their meaning based on the context of the conversation. A follow-up activity can then be assigned, requiring students to implement the new vocabulary items in a communicative exercise.

Limitations

This study sought to explore the instructional potential of an audiovisual media-based technique for improving listening comprehension. It did so by demonstrating the superior performance of the experimental group in two listening posttests. Because this was a small preliminary study, however, there are some limitations that must be addressed. These include the small sample size and the short time frame. Additionally, it is important to note that the first author was the instructor of record for both classes involved in the study, a factor that may have influenced the study.

The present study involved a total of thirty-one participants. Small sample sizes can affect the power of statistical tests, thereby obscuring the effects of the treatment. The effect sizes obtained in the present study allude to the effectiveness of the method, but significance was not found in the mean comparisons. In future research, this study should be replicated with a larger number of participants in order to increase the statistical power of the tests, a procedure that may afford more conclusive results and help to expand upon the preliminary results presented in the current study.

As mentioned previously, the series of audio clips for the listening tests came from different sources, which may have affected the difficulty level across

the three performance tests. This was not considered problematic in the context of the present study. As listening skills improve, they should also become more robust, meaning that learners should be able to understand the same phonetic input from different speakers and on different topics. Since language learners will encounter various speakers and topics not only in the classroom, but also in their interpersonal encounters with native speakers of the target language, testing them with different input is more ecologically valid in this regard.

The short time frame of the study is a limitation insofar as it limited the amount of contact learners had with the experimental instruction. Typical university courses last approximately 16 weeks; although the instruction of the present study was limited to only four of those weeks, or one quarter of the semester, the scores of the experimental group nevertheless demonstrated a positive trend in comparison to the control group. An initial analysis of these results indicated a possible effect that could not be confirmed by the present data. Further work should be done with a longer instructional period so as to examine whether the effect is strengthened, and if it can be maintained.

As mentioned, the first author of the article was also the instructor of record for both classes involved in the study. This can be a potential problem if students feel pressured to participate in the study or if the instructor introduces bias through her interactions with the participants. The first of these possible limitations was addressed, with the approval of the Institutional Review Board, by means of an information sheet that was given to participants on the first day of the study. All risks and benefits of the study were explained, and students were assured that participation was entirely voluntary and would not impact their grade in any way. A consent form was not required, and all students chose to participate. The second limitation was addressed through rigorous preparation of the instructional materials. One lesson plan was created for each day and was used for both groups, with the sole exception being the use of a different listening task for the experimental group and the control group.

Further Research

Although the elevated scores of the treatment group on the immediate posttest were visibly higher with medium effect sizes, suggesting an effect for audiovisual media-based instruction on listening comprehension skills, because this difference did not achieve statistical significance further research is warranted to obtain more conclusive results.

In future work it will be necessary to replicate this study in a situation where the experimental teaching method is implemented for a longer period and

with a larger sample of students in order to increase the power of the statistical analysis. While the between-group differences in means on the posttests were not significant, the scores of the experimental group did in fact remain higher than those of the control group, indicating a potential positive effect. Significant results from a larger, more prolonged study would provide stronger support for the use of audiovisual interactive activities in the foreign language classroom.

Finally, it would be of interest to replicate this study with the added component of a motivational and/or anxiety assessment to determine if audiovisual media increases motivation or lowers anxiety in the foreign-language classroom.

Conclusion

The present study evaluated the use of audiovisual media resources in second-language listening instruction through an interventional study that included a pretest, a four-week learning phase, an immediate posttest, and a one-week delayed posttest. Through the interactive, audiovisual media-based activities that were performed during the learning phase of the study, participants developed strategies for preparing themselves to hear authentic language, activating schemata to understand the language they hear, and applying that newfound knowledge to spontaneous production of the L2. The results of the immediate and delayed posttests demonstrated a positive trend with meaningful effect sizes, but did not reach significance. An assessment of the mean scores of the control and experimental groups nevertheless revealed a potential effect of audiovisual media-based activities on subsequent listening performance. The advantage of this study lies in its ecological validity and in its positive, if inconclusive, results supporting the use of audiovisual media in the L2 classroom.

About the Authors

Shannon R. Becker (Ph.D., 2015, Purdue University) is Assistant Professor of French Linguistics at Northern Illinois University. Her research interests include classroom second language acquisition, acquisition of L2 listening skills, and complex systems theory as it applies to second language development.

Jessica L. Sturm (Ph.D., 2008, University of Illinois at Urbana-Champaign) is Assistant Professor of French and Applied Linguistics at Purdue University where she supervises the French Language Program. Her research interests include classroom second language acquisition, acquisition of L2 French pronunciation, and technology in the L2 classroom.

References

Abraham, L. B. (2007). Second-language reading comprehension and vocabulary learning with multimedia. *Hispania, 90*, 98–108.

Berne, J. E. (1995). How does varying pre-listening activities affect second language listening comprehension? *Hispania, 78,* 316–329. https://doi.org/10.2307/345428

Brown, S. (2011). *Listening myths: Applying second language research to classroom teaching.* Ann Arbor, MI: University of Michigan Press. https://doi.org/10.3998/mpub.2132445

Brunswik, E. (1956). *Perception and the representative design of psychological experiments*. Berkeley, CA: University of California Press.

Chai, J., & Erlam, R. (2008). The effect and the influence of the use of video and captions on second language learning. *New Zealand Studies in Applied Linguistics, 14*, 25–44.

Chang, A. C., & Read, J. (2006). The effects of listening support on the listening performance of EFL learners. *TESOL Quarterly, 40*, 375–397. https://doi.org/10.2307/40264527

Chiquito, A. B. (1994/1995). Metacognitive learning techniques in the user interface: Advance organizers and captioning. *Computers and the Humanities, 28,* 211–223. https://doi.org/10.1007/BF01830268

Diao, Y., Chandler, P., & Sweller, J. (2007). The effect of written text on comprehension of spoken English as a foreign language. *The American Journal of Psychology, 120,* 237–261.

Elkhafaifi, H. (2005). The effect of prelistening activities on listening comprehension in Arabic learners. *Foreign Language Annals, 38*, 505–513. https://doi.org/10.1111/j.1944-9720.2005.tb02517.x

Ginther, A. (2002). Context and content visuals and performance on listening comprehension stimuli. *Language Testing, 19*, 133–167. https://doi.org/10.1191/0265532202lt225oa

Goh, C. (2000). A cognitive perspective on language learners' listening comprehension problems. *System, 28*, 55–75. https://doi.org/10.1016/S0346-251X(99)00060-3

Goh, C. (2008). Metacognitive instruction for second language listening development: Theory, practice and research implications. *RELC Journal, 39*, 188–213. https://doi.org/10.1177/0033688208092184

Gruba, P. (1997). The role of video media in listening assessment. *System, 25*, 335–345. https://doi.org/10.1016/S0346-251X(97)00026-2

Hasan, A. S. (2000). Learners' perceptions of listening comprehension problems. *Language, Culture and Curriculum, 13*, 137–153. https://doi.org/10.1080/07908310008666595

Jones, L. C., & Plass, J. L. (2002). Supporting listening comprehension and vocabulary acquisition in French with multimedia annotations. *The Modern Language Journal, 86,* 546–561. https://doi.org/10.1111/1540-4781.00160

Jung, E. H. (2003). The role of discourse signaling cues in second language listening comprehension. *The Modern Language Journal, 87,* 562–577. https://doi.org/10.1111/1540-4781.00208

Kost, C. R., Foss, P., & Lenzini, J. J. (1999). Textual and pictorial glosses: Effectiveness on incidental vocabulary growth when reading in a foreign language. *Foreign Language Annals*, *32*, 89–113. https://doi.org/10.1111/j.1944-9720.1999.tb02378.x

Li, C.-H. (2006). *What you know and see can help you: An examination of the effects of advance organizers, visual images, and gender differences on the video-based listening comprehension of EFL college students* (Doctoral dissertation). Retrieved from UMI Microform. (3240172).

Listening passage #1 [audio file]. Retrieved from http://french.about.com/gi/o.htm?zi=1/XJ&zTi=1&sdn=french&cdn=education&tm=16&f=11&tt=0&bt=0&bts=0&st=33&zu=http%3A//www.elearnfrenchlanguage.com/sounds/dialogue-restaurant2.mp3

Listening passage #2 [audio file]. Retrieved from http://www.laguinguette.com/snd/about/accents/index.html

Listening passage #3 [audio file]. Retrieved from http://www.maret.at/frz/uebungen/evaluation/A2_comp_orale_hotel01.htm

Markham, P. L., Peter, L. A., & McCarthy, T. J. (2001). The effects of native language vs. target language captions on foreign language students' DVD video comprehension. *Foreign Language Annals, 34*, 439–445. https://doi.org/10.1111/j.1944-9720.2001.tb02083.x

Mayer, R. E. (1997). Multimedia learning: Are we asking the right questions? *Educational Psychologist, 32*, 1–19. https://doi.org/10.1207/s15326985ep3201_1

Mecartty, F. H. (2001). The effects of modality, information type and language experience on recall by foreign language learners of Spanish. *Hispania, 84,* 265–278. https://doi.org/10.2307/3657755

Omaggio Hadley, A. (2001). *Teaching language in context: Proficiency-oriented instruction* (3rd ed.). Boston, MA: Heinle & Heinle Publishers.

O'Malley, J. M., Chamot, A., & Küpper, L. (1989). Discourse analysis and spoken language instruction. *International Review of Applied Linguistics in Language Teaching, 27*, 41–52.

Paivio, A. (2010). Dual coding theory and the mental lexicon. *The Mental Lexicon, 5*(2), 205–230.

Plonsky, L. (2015). Quantitative considerations for improving replicability in CALL and applied linguistics. *CALICO, 32*(2), 232-244.

Spada, N. (2005). Conditions and challenges in developing school-based SLA research programs. *The Modern Language Journal, 89*, 328–338. https://doi.org/10.1111/j.1540-4781.2005.00308.x

Sweller, J. (1994). Cognitive load theory, learning difficulty, and instructional design. *Learning and Instruction, 4*(4), 295–312.

Vandergrift, L. (2002). 'It was nice to see that our predictions were right': Developing metacognition in L2 listening comprehension. *The Canadian Modern Language Review/La Revue canadienne des langues vivantes*, *58*, 555–575. https://doi.org/10.3138/cmlr.58.4.555

Vandergrift, L. (2003). From prediction through reflection: Guiding students through the process of L2 listening. *The Canadian Modern Language Review/La Revue canadienne des langues vivantes, 59*, 425–440. https://doi.org/10.3138/cmlr.59.3.425

Vandergrift, L. (2004). Listening to learn or learning to listen? *Annual Review of Applied Linguistics, 24*, 3–25. https://doi.org/10.1017/S0267190504000017

Vandergrift, L., & Tafaghodtari, M. H. (2010). Teaching L2 learners how to listen does make a difference: An empirical study. *Language Learning, 60*, 470–497. https://doi.org/10.1111/j.1467-9922.2009.00559.x

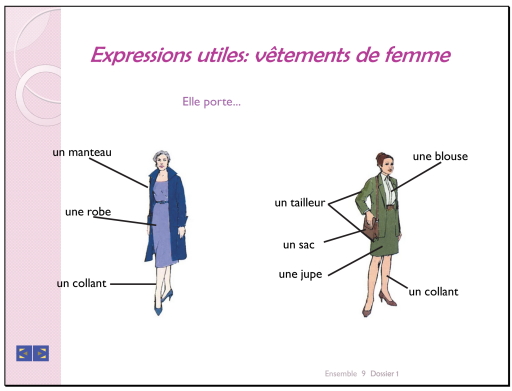
Vogely, A. (1995). Perceived strategy use during performance on three authentic listening comprehension tasks. *The Modern Language Journal, 79*, 41–56. https://doi.org/10.1111/j.1540-4781.1995.tb05414.x

Winke, P., Gass, S., & Sydorenko, T. (2010). The effects of captioning videos used for foreign language listening activities. *Language Learning & Technology, 14*, 65–86.

Appendix A: Sample Lesson

The following lesson plan was adapted from the PowerPoint lesson plans supplied by the publisher of the textbook, *Paroles* (Magnan, Martin-Berg, Berg, & Rochette Ozzello, 2006).

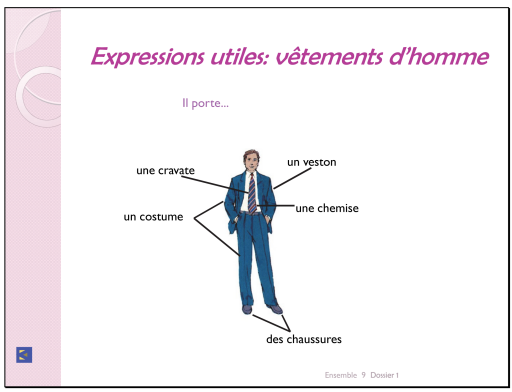
Control Group Lesson Plan:



Useful expressions: women's clothing

She is wearing

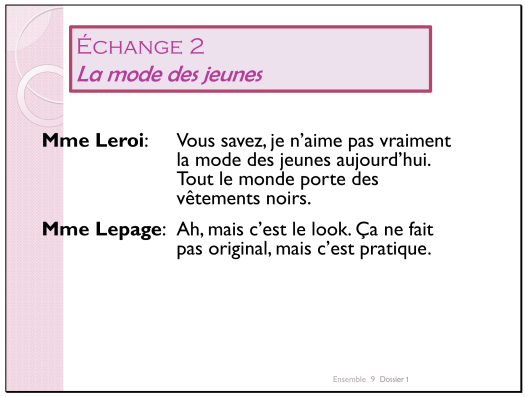
a coat — a blouse
a dress — a jacket
a bag
pantyhose — a skirt — pantyhose



Useful expressions: men's clothing

He is wearing

a tie — a jacket
a suit — a shirt
shoes



Exchange 2
Young people's style

Mrs. Leroi: You know, I don't really like young people's style today. Everyone wears black clothes.

Mrs. Lepage: Ah, but it's the look. It's not original, but it's practical.

Useful expressions: the look

That's…
neat/messy
classic/trendy (slang)
original/ordinary
in style/old-fashioned

It's…
comfortable/annoying
practical/not practical

Activité *Le look*

Regardez les images des personnes et décrivez ce que chaque personne porte. Après, décrivez leur look.

Modèle: Elle porte un maillot de bain et des lunettes de soleil.

C'est pratique et confortable.




Ensemble 9 Dossier 1

ÉCHANGE 3
Qui emprunte doit rendre

Olivier: À qui est cette chemise ?

Julien: À moi.

Olivier: Tu ne voudrais pas me prêter ta chemise ?

Julien: Si, mais... il faudrait la rendre vite et... propre !

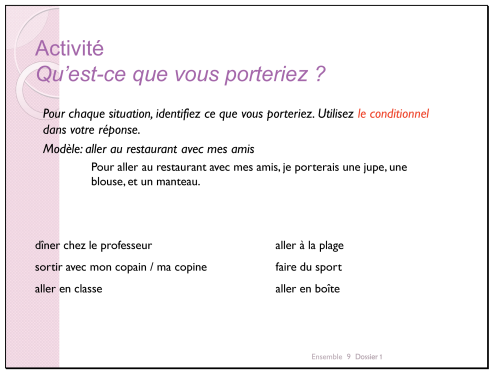
Olivier: Je te rends toujours les vêtements que je t'emprunte.

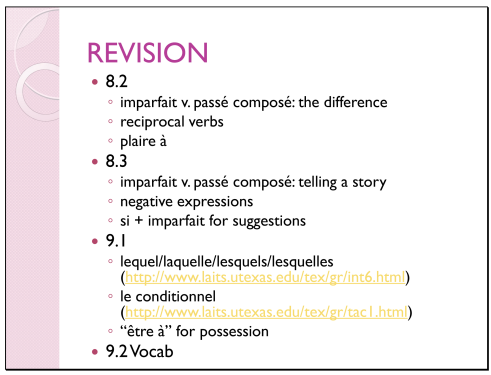
Julien: Pas toujours. Et puis, tu devrais avoir au moins une chemise à toi.

Observez

1. What preposition is used here to ask about or indicate possession?

2. The verb in the expression Tu ne voudrais pas... *(Wouldn't you like)* is in the conditional. Which other verbs appear to be in the conditional?





Activity
What would you wear?

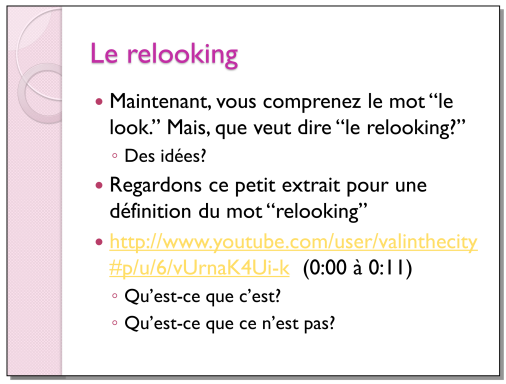
For each situation, identify what you would wear. Use the conditional in your answer.
Example: going to a restaurant with friends

To go to a restaurant with friends, I would wear a skirt, a blouse, and a coat.

have dinner at the professor's house	go to the beach
go out with boyfriend/girlfriend	do sports
go to class	go to the nightclub

Slides for Experimental Group:

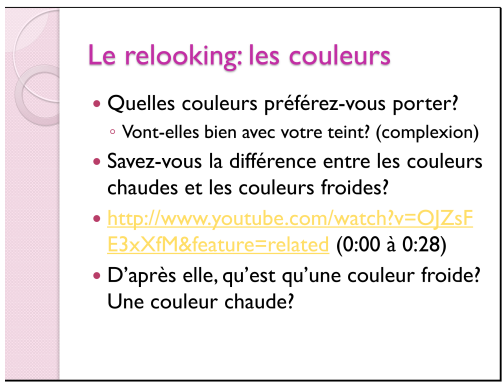
Slides for Experimental Group:



Makeovers

Now you understand the word "style."
But what does "makeover" mean?
Ideas?
Let's watch a little excerpt for a definition of the word "makeover"

What is it?
What isn't it?



Makeovers: colors

What colors do you prefer to wear?
Do they go well with your complexion?
Do you know the difference between warm colors and cool colors?

According to her, what's a cool color?
A warm color?

Appendix B: Listening Test 1

A: Bonsoir, monsieur.
B: Bonsoir, madame. Je voudrais une table pour trois personnes pour dîner s'il vous plaît.
A: Vous avez une réservation?
B: Non, je n'ai pas de réservation.
A: Pas de problème. Voici une table pour trois personnes et voici la carte.
B: Merci, madame. S'il vous plaît?
A: Oui, monsieur?
B: Je voudrais de l'eau.
A: Oui, monsieur. Et pour dîner? Vous avez choisi?
B: Je voudrais le menu à quinze euros.
A: Oui. A l'entrée?
B: Je voudrais le pâté.
A: Et en plat principal?
B: Je voudrais le steak frites.
A: Bien. Quelle cuisson?
B: Bien cuit, s'il vous plaît. Non, à point s'il vous plaît.
A: En dessert?
B: Une glace à la vanille. Excusez-moi, madame, où sont les toilettes?
A: Au sous-sol.
B: Je ne comprends pas. Vous pouvez répéter, s'il vous plaît.
A: Au sous-sol. Vous descendez l'escalier.
B: Oh, je comprends maintenant. Merci.
A: Comment vous trouvez votre steak-frites?
B: C'est délicieux, c'est parfait. L'addition s'il vous plaît.
A: Bien, monsieur. Vous pouvez payer à la caisse?

Ecoute 1

Listen to the dialogue and answer the following questions:

1. What is the relationship between the man and the woman in the conversation?
2. How many people are eating?
3. What meal are they eating?
4. Is the restaurant expecting this group of people? How do you know?
5. What does the man order to drink?
6. How much does his meal cost?
7. Which main course does he choose?

8. Which dessert does he choose? Which flavor?
9. What does he ask after ordering dessert?
10. Does he enjoy his meal? Please give one adjective he uses to describe it.

Appendix C: Listening Test 2

A: Pour toutes ces femmes et ces hommes, pour tous ces Français de métropole, l'accent de leur langue maternelle fait partie intégrante de leur personnalité: des intonations, des prononciations bien particulières. Mais au fond, c'est quoi, un accent? Jacques Durand, professeur de linguistique à l'Université Toulouse-le Mirail.

B: Un accent, au sens ordinaire du terme, c'est quelque chose qui vous différencie de la norme, qui est censé être totalement neutre. En fait, pour les linguistes, très souvent ils considèrent que tout le monde a un accent, parce qu'un accent c'est le système de prononciation qui renseigne l'auditeur sur votre providence géographique, social, du genre, du sexe et ainsi de suite.

Ecoute 2
Listen to the dialogue and answer the following questions:

1. Does the woman speaking refer to men, women, or both?

2. Accent is an integral part of one's …

3. What 2 parts of an accent does the woman refer to?

4. What is the question the woman asks next?

5. What is Jacques Durand's profession?

6. Where does he work?

7. What is an accent, according to M. Durand?

8. Who has an accent, according to linguists?

9. Finish this sentence: An accent is a sytem of …

10. Name 2 things that an accent tells the listener.

Appendix D: Listening Test 3

A: Bienvenue à l'Hôtel des Trois Pommiers. Notre hôtel est situé au centre-ville à dix minutes à pied de la gare. Il y comprend vingt-trois chambres. Une nuit coûte entre soixante et quatre-vingt-dix euros, petit déjeuner compris. Les chambres sont équipées d'une salle de bain avec WC et de la télévision par satellite. Nous servons le petit déjeuner de sept heures et demie à dix heures. Si vous venez en voiture, vous pouvez garer votre véhicule sur notre parking privé. Nos clients peuvent profiter gratuitement de notre espace thalasso. Bon séjour!

Ecoute 3
Listen to the dialogue and answer the following questions:
1. What is the name of the hotel?

2. Is the hotel in the city or in the country?

3. How long does it take to get to the train station from the hotel? By what mode of transportation?

4. How many rooms do they have?

5. How much does a room cost for a night?

6. Is anything included in the price? If so, what?

7. What two amenities come with a room?

8. What time is breakfast served?

9.Is there a place to park your car?

10. How much does it cost to use the terrace?

Appendix E: English Translations of Listening Test Passages

Listening Test 1

A: Hello, sir.
B: Hello, ma'am. I would like a table for three people for dinner, please.
A: Do you have a reservation?
B: No, I don't have a reservation.
A: No problem. Here is a table for three people and here is the menu.
B: Thank you, ma'am. Please?
A: Yes, sir?
B: I would like some water.
A: Yes, sir. And for dinner? Have you chosen?
B: I would like the 15 euro meal.
A: Yes. For the appetizer?
B: I would like the pâté.
A: And the main dish?
B: I would like the steak and French fries.
A: Good. How would you like that cooked?
B: Well done, please. No, medium rare please.
A: For dessert?
B: Vanilla ice cream. Excuse me, ma'am, where is the restroom?
A: In the basement.
B: I don't understand. Can you repeat that, please?
A: In the basement. You go down the stairs.
B: Oh, I understand now. Thank you.
A: How do you like the steak and fries?
B: It's delicious; it's perfect. Check, please.
A: Very good, sir. You can pay at the register.

Listening Test 2

A: For all women and men, for all metropolitan French people, the accent of their native language is an integral part of their personality: intonation, specific pronunciations. But deep down, what is an accent? Jacques Durand, professor of linguistics at Université Toulouse-le Mirail.

B: An accent, in the ordinary sense of the term, is something that differentiates you from the norm, which is supposed to be totally neutral. In fact, for linguists, very often they consider that everyone has an accent, because an accent is the system of pronunciation that tells the listener about your geographical and social origins, your gender, your sex, and so forth.

Listening Test 3

Welcome to the Hôtel des Trois Pommiers. Our hotel is situated downtown, a 10-minute walk from the train station. There are twenty-three rooms. One night costs between sixty and ninety euros, breakfast included. The rooms are equipped with a bathroom with toilet and a satellite television. We serve breakfast from 7:30 to 10:00. If you come by car, you can park your vehicle in our private parking lot. Our clients can use our spa area for free. Have a great stay!