The Effectiveness of Audio and Video Documents in Developing Listening Comprehension Skill in a Foreign Language

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Abstract

This study aimed to compare the effects of audio documents and video documents on the listening comprehension of a foreign language. Two groups of adult students were compared in terms of their understanding of a particular document. One group watched the document while the participants in the other group only listened to it. Results indicate that video documents contribute to a better understanding of audio elements in some cases. However, audio documents occasionally help students concentrate on audio elements. Results also show that a video document increases the accuracy of listening comprehension when the video channel visualizes or justifies what is being said and facilitates the act of guessing and anticipating what is going to be said, while an audio document could be misleading or equivocal at times. On the other hand, a video document may include some disconcerting elements which draw the students' attention away from the audio elements.

Keywords: Documents, Video documents, Listening comprehension skill, Foreign language

Introduction

Today, a great number of documents, authentic or educational, are available to language teachers. Concerning the listening comprehension, both audio and video documents have been practiced in language classes. It is widely accepted that using audio or video documents could lead to a more natural ambiance, accelerating the learning process. Language learning manuals are nowadays teeming with listening exercises, using more audio documents than video ones, without specifying which type is more effective. Nevertheless, it goes without saying that a video document, aside from enhancing the listening comprehension skill, lets the teacher encourage learners to speak and at the same time learn about the culture of the target language. But the choice between these two types of document is not as easy as it looks. Especially when it comes to developing the listening comprehension skill, there are two dominant ideas: the first favors video documents because they bring more information, although this information is partially transmitted through the visual channel. The second idea endorses audio documents by insisting on the fact that learners would have a hard time concentrating on what is being said when they watch and listen simultaneously. The purpose of this study is, therefore, to determine which type of documents would be of more benefit to students trying to improve their listening comprehension skill. The prerequisite for discussing this matter in depth, of course, is some basic knowledge of how we perceive the sounds around us and how we make sense out of them.

1. Human auditory perception

We perceive the sounds in our surrounding in three stages which take place successively in a very short period of time: reception, perception and sensation.

Reception: At this stage, the auditory organ receives a new acoustic signal. This signal travels through the ear and reaches the midbrain.

Perception: At this stage, the auditor makes an attempt to identify, process, and interpret the signal. He asks himself: "What is this?", "What does it mean?", "Is it important?" This is the moment when the signal (stimulus) becomes the information.

"The elementary phases of processing [...] by the perceptual system are necessary to elaborate a coherent representation of the sound world. [...] The sensory information must be interpreted in order to give rise to a coherent perception. Interpretation is necessary since the information contained in the stimuli that reach the sensory organs is not always sufficient to form a coherent image of the surrounding sound environment. In these cases, the perceptual system must represent and then compare auditory information that is not directly present at the sensory level". (Bigand and McAdams, 1993: online)

Sensation: At this stage, the auditor reacts to the signal after interpreting it. This reaction could be affective or representative.

However, it is important to take into consideration the three main elements of perception: "[...] environment, the object of perception, and the subject which perceives. It will be necessary to examine the three aspects successively, but it must be made clear from the outset that there are various fundamental interactions between them". (Mialaret, 1966: 23)

In reality, we do not always receive whatever that is produced. The presenting noise in our surrounding (i.e. other sound stimuli), our preoccupations at the moment, incoming non-sound stimuli, and many other factors may affect the amount of the received sensory data. "When the sensory data that are immediately available are found to be insufficient, the perceptual system analyzes the situation by taking into consideration knowledge that it has acquired of the surrounding sound world. Information from the environment does not, with the exception of newborns, stimulate a completely naïve organism. Acquired knowledge interacts with the current sensory data to interpret the auditory stimulation". (Bigand and McAdams, 1993: online)

The process of comprehending an oral message in a foreign language is not basically different from that in the mother tongue. According to Man-De Vriendt (2000: 29), the auditor endeavors to construct a sense by making hypotheses based on his general (or specific) knowledge.

Furthermore, hypotheses on structures are based on the knowledge of structures of signifiers. These different hypotheses are verified by any present clues. If the hypotheses are confirmed, the pre-constructed meaning is integrated into the sense construction in progress. If the hypotheses are invalidated, the procedure starts from the beginning, to formulate new hypotheses or to give up; if hypotheses are neither confirmed nor invalidated, the sense construction is suspended and all the information is stocked in memory, waiting for other clues. (Man-De Vriendt, 2000, translated from French)

2. Listening purposes

One should also take into account the fact that every individual has their own listening strategies and that they may have different purposes while listening. Lhote (1995 : 70-72) lists them as follows:

Listening for hearing

Listening for detecting

Listening for selecting

Listening for identifying

Listening for recognizing

Listening for disambiguating

Listening for reformulating

Listening for synthesizing

Listening for doing

Listening for judging

She also recognizes other listening objectives such as listening for reconstructing, guessing, anticipating, transposing, deducting, revising a judgment, classifying, etc.

Billière (1997) suggests that in an oral exchange, listening is usually for the purpose of understanding a message. He formulates the process of listening by considering factors which affect the quality of listening: "SOMEONE listens to SOMEONE on a GIVEN SUBJECT in a SPECIFIED FRAMEWORK" where SOMEONE represents the individual with his cultural, social, psychological and linguistic properties. GIVEN SUBJECT represents the

theme of the exchange. Finally, SPECIFIED FRAMEWORK is the place and the moment of interaction and influences the attitude of the interactants.

3. Listening comprehension and influential teaching methods

In this section, we will introduce dominant approaches that have been inspirational to the language teaching manuals and pinpoint their relation to the listening comprehension skill.

3.1 Listening comprehension and the Grammar-Translation Method

Traditionally, listening comprehension was not meant to be taught in language classes, mainly because the languages taught were dead languages (Latin and Greek). "The purpose of learning these languages was primarily to learn their grammars. The grammar-translation approach viewed language as a descriptive set of finite rules that, once learned, gave access to the language." (Flowerdew and Miller, 2005: 4)

The French Education Department gave a very precise explanation of this methodology and its application in foreign language classes at high schools at the time (September 1840):

The first year [...] is wholly devoted to the grammar and pronunciation. As for grammar, students will memorize every day the lesson that will have been taught by the teacher in the previous class. Exercises consist of translation to and from the target language, where students will apply their knowledge based on previous lessons. [...] As for pronunciation, after having learned the rules explicitly, students will accustom their ears by frequent dictations, and they memorize and recite appropriately the dictated parts. [...] In the second year, [...] students will translate Greek and Latin excerpts to English and German and vice versa. [...] In the third year, the teacher will even have a more literary character. (Puren, 1988: 50, translated from French)

In this description, listening comprehension is not mentioned at all. The sole practice of listening comprehension is limited to dictation. As a result, if/when the L2 was used, the focus of any listening would have been on translation of lexical items or grammar structures. One reason for the lack of any real listening in the grammar-translation approach was that students were learning "dead" languages, languages that they would not have the opportunity to listen to, so the purpose in learning those languages was to be able to translate and read literature. Another reason was that the teachers of Latin and Greek had no training in how to teach listening. And in the early days of language teaching, there were no electronic means of recording. (Flowerdew and Miller, 2005)

3.2 Listening comprehension and the Direct Method

Based on the idea that learners learn best if what is taught is "natural" to them, the direct method advocates the application of an aural/oral system of teaching. "This aural/oral method relied for its effectiveness on the use of monolingual teaching, that is, the L2 was the only language used in the class by the teacher and students." (Flowerdew and Miller, 2005: 4-5)

The direct method appears to be the first approach that has truly focused on teaching listening skills before other language skills. However, despite the absolute use of the target language for all purposes in the classroom, no attempt was systematically made to develop listening strategies in the learners. "The teacher assumed that the students could hear what was being said and that comprehension would follow later." (Flowerdew and Miller, 2005: 6)

3.3 Listening comprehension and the Audio-Lingual Method

To give a description of the audio-lingual method, Richards and Rodgers (2001: 58) say: "the teaching of listening comprehension, pronunciation, grammar and vocabulary are all related to development of aural fluency."

Flowerdew and Miller note that, in the audio-lingual method in order to create good habits, "students are encouraged to listen carefully either to a taped recording of, or a teacher reading out, a dialogue or drill. They then record their own version or respond to cues from the teacher to repeat parts of the dialogue or drill. (Flowerdew and Miller, 2005)

According to the behaviorist theory of stimulus-response, the more a learner repeats a correct sentence, the deeper the structures will be carved into his memory. Therefore, students must listen to and repeat words and sentences several times in order to memorize them. If the student provides an incorrect answer, the teacher corrects him before continuing. This would make of the student a simple performer who is not aware of his goals and does not understand the meaning of his actions.

In fact, it is not the listening comprehension skill development that receives the priority in the audio-lingual

method, but manipulation of structures. This is what brings about harsh criticism by Chomsky (1959) who asserts that language acquisition is not a matter of conditioning. In spite of all that, the audio-lingual method is admittedly the first to have methodically concentrated on this skill.

3.4 Listening comprehension and the SGAV approach

The SGAV approach (structuro-global audio-visuel), of French origin, is apparently the first approach that introduced the video in language classes in a clear, modern and planned way. Before the 1960s, the technology absolutely did not allow the use of video documents for educational purposes in classrooms.

In fact, this approach is based on utilizing appropriate tools to present the foreign language, aurally and visually, in dialogical situations (Billière and Spanghero-Gaillard, 2004). From this point of view, it is no exaggeration to say that SGAV has revolutionized the way in which one learns a foreign language.

In the SGAV approach, like all audio-visual methods, the four skills are targeted, although oral comprehension and production take priority over written comprehension and production. This preoccupation could be clearly seen in the first part of the preface of Voix et Images de France (VIF) where the fundaments of the method are explained: Evidently, every language is spoken before being written. (Translated from French)

3.5 Listening comprehension and the Communicative approach

In the communicative approach, since everything depends on the learner's linguistic needs, all the four skills could be developed. The language is considered as a tool of communication or social interaction. The linguistic aspects (sounds, structures, vocabulary, etc.) constitute the grammatical competence which is, in fact, only one of the components of a more global competence: communication competence:

To learn a language, is to learn to act adequately in communication situations where the learner would have a chance to use the target language. (Puren, 1988: 372, translated from French)

So, in the communicative approach, knowing the grammatical rules of the foreign language alone is considered insufficient. Knowing where, when and how to use these rules is also needed. The goal is, there for, to attain an effective communication:

The upholders of the communicative approach believe that an effective communication involves an adaptation of linguistic forms to the communication situation [...] and to the purpose of the communication [...]. (Germain, 1993: 203, translated from French)

The communicative approach offers, at least to the listening comprehension skill, various linguistic forms to transmit the same message. The level of speech is taken into account and a distinction is drawn between cohesion (the existing relations between two utterances) and coherence (the relations between utterances and the extra-linguistic situation).

3.6 Listening comprehension and the Task-Based approach

The communicative approach gave birth to what is called the task-based approach. In this approach the teacher does not predetermine the exact content of the class. The lesson is based on the accomplishment of a central task and the linguistic items to be learned is determined by what happens while learners work on the task. Richards and Rodgers (2001: 238) explain the procedure as follows:

- a. Pretask activities: At this stage, the topic and the situation are introduced. The focus is on thinking about the topic, generating vocabulary and related language, and developing expectations about the topic.
- b. Task activity: Learners perform a role play. Students work in pairs with a task and cues needed to negotiate the task.
- c. Post-task activities: Learners listen to recordings of native speakers performing the same role-play task they have just practiced and compare differences between the way they expressed particular functions and meanings and the way native speakers performed.

Undoubtedly, the practice of listening comprehension skill is inseparably tied to the other skills in the task-based approach. Accomplishing the task requires all the language skills.

4. Case study

Our experiment is concerned with the degree of efficiency of audio and video documents and is aimed at determining which type of document could improve the listening comprehension skill more effectively.

We have conducted this experiment on 44 adult learners who are M.A. students of French language at Tarbiat Modares and Azad universities (Tehran, Iran), aged 22 to 35 and having a fairly well knowledge of French

language. The participants were randomly divided into two groups ("Audio" group and "Video" group), assuming that they have, more or less, the same auditory ability. The participants in the "Audio" group listened to the chosen document (Note 1), while the participants in the "Video" group watched (and listened to) the same document.

This experiment was carried out by using the experimental method. In our research, the manipulated (or the independent) variable is the presence or absence of the video. Therefore, the expected change caused by this presence or absence – the dependent variable – is a gap between the results of the two groups.

What follows is to clarify the procedure and conditions of our experiment:

- a. Atmosphere: The experiment was carried out in a language laboratory with a minimum of audible background noise. The participants had no control over what they watched or listened to. They were informed that they were going to watch / listen to the document once only and that they were going to answer ten questions (question sheets were distributed later). Confidentiality was guaranteed to all participants.
- b. Test: The test contained ten questions about the document. Every question demanded a short answer (a few words or a phrase at most).
- c. Time: The experiment was conducted with no time limitation. The participants had enough time to answer all the questions.
- d. Marking: The points were given to the keywords. Thus, a question with three keywords as the answer had three times more points as a question that needed only one word as the answer. Each participant's mark was then figured in percentage and the average of each group was calculated. Orthographic and syntactic inaccuracies were ignored as long as they did not substantially alter the meaning of keywords.

5. The document characteristics

Type of the document: This is an authentic document (as opposed to educational document) because it is an excerpt of a TV series targeting young adults and adults. It is needless to say that an educational document would not be an ideal choice.

Number and gender of characters: This is an important parameter in choosing the document because the participants in the "Audio" group didn't have the chance to see the characters and it is only thanks to the auditory information that they were able to distinguish characters. In our excerpt, there are two men and two women and there is a minimal vocal overlap between the characters of the same sex.

Duration: Another important parameter would be the duration of the document. The duration of our document is 3 minutes and 7 seconds, which is neither too long nor too short. A long document would tire the participants and a short one would not differentiate well between the two groups. There are, in total, 475 words in about 100 utterances. This shows that there are enough intervals and pauses so that the participants would not get tired.

Language register: The language used in the document is mostly everyday language with few slang words and expressions.

Level of difficulty: Finally, it is the difficulty level of the document that we took into consideration. This is a document of medium difficulty not only because of its register but also because the words used in the document are among the most frequent words of the French language. Diagram 1 shows that only 3% of the words are not in the list of The Fundamental French (Note 2). Diagram 2 illustrates the distribution of the words by their frequency in the list. The words with a frequency of 20 and more – the words that have appeared in the book "Elaboration of the Fundamental French" (Note 3) – make up 90% of all the words, whereas the words with a lower frequency, that have not appeared in the book constitute only 10% of the whole.

6. Transcription of the document

Since we cannot present the video document here on paper, we have to make do with its transcription. In the following transcription W1 represents the first woman, W2 stands for the second woman, T for the thief and D for the detector.

Sequence 1

W1: Excuse me, I know this sounds ridiculous. Can you tell me which way is West Broadway?

T: Give me your bag.

W1: What?

T: Your bag.

W2: It's a baguette.

T: Let me have it.

W1: [to herself] I couldn't believe it. 15 years in New York, and when the city was getting safe, I got mugged. Is this for real?

T: Your watch and your ring. Jesus!

W1: This won't...

T: Come on. And your Manolo Blahniks.

W1: What? No.

T: Give me your Blahniks.

W1: [to herself] *They weren't just after money. They were after fashion*. Please, sir, they're my favorite pair. I got them half price at a sample sale.

T: Thanks.

W1: Somebody stop him, he took my strappy sandals. Somebody...Gross!

Sequence 2

W1: I've been robbed! I've been robbed.

W1: He said, "Give me your Blahniks", which I thought was a joke. Then I'm barefoot on a sidewalk in the middle of summer.

D: Anything other than the watch, the bag, the ring, and the shoes?

W1: My dignity.

W2: God, are you all right?

W1: I'm fine. Thanks for coming.

W2: I can't believe he took your shoes.

W1: I know. Probably got trichinosis.

W2: You only get that from pork.

W1: I'm sure I stepped on a piece of it somewhere. Detective Stevens, this is my friend, my lawyer, Miranda Hobbes.

D: Nice to meet you.

W2: Any chance of catching this guy?

D: We hope so. Maybe you can come with me and read him his Miranda rights. Sorry, that was lame.

W2: It was funny. A little cop humor.

D: Are you Irish?

W2: No. Why?

D: You have beautiful red hair.

W2: Anybody can be Irish with the right colorist.

D: Very funny. A sense of humor, I like that in a lawyer. It's very rare. I'll get back to you as soon as I have something. Can I have your card?

W2: Sure.

D: Just in case...

W2: Sure.

D: Thanks.

W1: I can't wear these.

D: I'll call you.

W1: I don't understand. I get mugged, and you get him? I guess that's my karma.

W2: He said he'll call. It doesn't mean he will.

W1: What are you talking about? The man was smitten with you.

W2: He probably wants free legal advice. That's generally my karma.

7. The results

Diagram 3 summarizes the final results by comparing the average obtained by the two groups. The "Video" group attained a better result by 6%; a gap that is not, at first sight, very meaningful.

However, we may look at the results from another point of view. Both groups have answered half of the questions more or less similarly. But there is a meaningful gap between the results of the two groups in the other half of the questions. As diagram 4 shows, the "Video" group took the lead with 4 questions to 1.

Here, we are going to present the analysis of four questions the results of which are more meaningful. Again it is to mention that the experiment was carried out using the French-dubbed version of this document and the original questions were of course in French. We have translated the questions back into English and this explains the occasional differences between the expected keywords and the transcription.

1). The first woman wanted to ask for when she was assaulted.

The desired keyword would be "direction" which was heard once. The words "address" and "way" are also accepted.

As the first question, there is a chance that the participant may not catch the answer as he/she needs more time to adapt the ears to the way characters talk. This is the only question that the "Audio" group answered better with a meaningful gap (Diagram 5). One explanation for the 12-percent difference would be the distracting function of the video. The participants of the "Video" group were probably still busy gaining information through the visual channel when they missed the answer.

2). The first woman lives in since......

The desired keywords are "New York" – which was heard twice – and "15 years", heard once only.

The "Video" group could answer this question better by 17% (Diagram 6). The reason for this gap is probably the inner monologue of the first woman where the answer is given. This is the type of relation between the audio channel and the video channel where the video channel justifies what is being said and explains why. Therefore, what was evident for the "Video" group was, in fact, a source of misunderstanding for the "Audio" group. The participants in the "Audio" group wondered who the woman was talking to.

It is also interesting to mention that among all the given answers, and in both groups similarly, the keyword "New York" was seen almost twice more than the keyword "15 years". This could be explained by the frequency of these words in the document.

3). What are the stolen items from the first woman?

The expected keywords are "shoes" – which was repeated four times in the document – "bag" – heard three times – "watch" and "ring" – repeated two times each. We have also accepted the keyword "baguette" – heard once – instead of bag.

A four-percentage gap is not really meaningful. What is meaningful is the high percentages of both groups (Diagram 7). The high percentage of the "Video" group is explained by the type of relation between the audio channel and the video channel. The video channel visualizes what is being said in the audio channel. The participants see the items when the woman hands them over to the thief.

And the high percentage of the "Audio" group is because of repetition of the keywords in the document.

It seemed interesting to us that nobody could successfully recall all the four stolen items. Most participants have written three keywords and some have only mentioned two. The least mentioned keywords were "watch", reported by only 30% of participants and "ring", reported by 45% of them. On the other hand, the keywords "bag" and "shoes" were mentioned by 70% and 95% of the participants. This would be predictable if we took the frequency of the keywords in the document into account.

4). The second man is

The expected keyword is "detector" which was heard once.

The "Video" group has answered better by 13% (Diagram 8). Most of incorrect answers by the "Audio" group include the word "policeman". The reason for this could be what Oller calls "Expectancy Grammar", that is to

say the ability of making adequate hypotheses (or the ability to anticipate what is going to be said or written) based on the knowledge of situation, context, and previous experiences.

The second sequence begins, for the "Audio" group, with the voice of the first woman who asks for help. A peaceful atmosphere replaces the street's insecurity in the first sequence. Then we hear a man who asks the first woman some questions about the theft. Therefore, logically, the first possible place that occurs to the participant is the police station, and not a New York barbershop! In other words, the participants of the "Audio" group, based on their previous experiences and knowledge of the world, expect the first woman to go to the police station to report the theft. This may explain why the word "policeman" cropped up in the answer sheets of the "Audio" group. On the other hand, the "Video" group knows well that the woman has gone to a beauty salon, probably the nearest place she could walk to barefoot.

8. Conclusion

According to the analyses presented we may conclude that:

- a. There is a direct relationship between the frequency of keywords in the document and the accuracy of given answers. This accuracy is boosted if the keywords are among everyday words of the language. This is the case of questions 2 and 3.
- b. A video document facilitates listening comprehension if it visualizes the information in the audio channel. This is the case of question 3.
- c. A video document is more effective when it justifies the audio channel (when it shows what it is about and why). This is the case of question 2.
- d. A video document could help learners to create adequate hypotheses and to anticipate what is going to be said or happen. On the other hand, an audio document, having sometimes this same advantage, could be misleading or equivocal at times. This is the case of question 4.
- e. An audio document is supposed to be more effective when visual elements in a document play a disconcerting role and attract the learner's attention away from sound to picture. This is the case of question 1.

In short, video documents are a better choice for practicing listening comprehension in language classes but an occasional use of audio documents should not be rejected. It is also necessary to mention that a video document, by nature, is less tiring and could be tolerated by learners for a longer time compared to an audio document. A video document could also contain more characters without confusing the learners. Moreover, regarding the question of concentration, it should be said that a video document is not often distracting and results confirm that the use of an audio document – even though it forces the learner to listen more attentively – does not necessarily lead to better understanding.

What's more, a teacher should also take into account the other advantages of using video documents when it comes to choosing the type of the document: presenting cultural elements and encouraging learners to speak.

Finally, we tend to mention once more that this experiment was conducted under laboratory conditions and that the participants were not in normal conditions of a routine and continuous learning. We assume that in the long run it is very likely that the results show an even stronger effect of video documents on the learner's listening comprehension skill due to its more attracting nature. This matter, however, remains open to further studies.

References

Bigand, E., & McAdams, S. (1993). Thinking in Sound: The Cognitive Psychology of Human Audition, Oxford University Press. [Online] Available: http://mediatheque.ircam.fr/articles/textes/McAdams93b/index-e.html.

Billières, M. (1997). Mémoire auditive, processus de compréhension et phonétique corrective en langue étrangère. *Cahiers du Centre Interdisciplinaire des Sciences du Langage*, (12), 5-33.

Billières, M. & Spanghero-Gaillard, N. (2004, mars). La prise en compte des faits cognitifs dans l'enseignement des langues vivantes (avec application au système verbo-tonal). Journées d'étude de l'association des praticiens de la méthode verbo-tonale et le centre d'étude, de recherche et de formation verbo-tonal. Méthodologie verbo-tonale et apprentissages, Nantes.

Chomsky, N. (1959). A review of B. F. Skinner's verbal behavior, Language, 35, No.1, 26-58.

De Man-de Vriendt, M. J. (2000). Apprentissage d'une langue étrangère / seconde: vol. 1. Parcours et procédures de construction du sens, Bruxelles: De Boeck & Larcier s.a.

Flowerdew, J. and Miller, L. (2005). Second Language Listening: Theory and Practice. New York: Cambridge

University Press.

Germain, C. (1993). Evolution de l'enseignement des langues: 5000 ans d'histoire. Paris: Clé International, col. DLE.

Gougenheim, G., Michéa, R., Rivenc, P., & Sauvageot, A. (1963). L'élaboration du Français Fondamental. (2nd ed.). Paris: Didier.

Howatt, A. P. R. (1984). A History of English Language Teaching. Oxford University Press.

Lhothe, E. (1995). Enseigner l'Oral En Interaction. Vanves: Hachette F.L.E.

Mialaret, G. (1966). *The Psychology of the Use of Audio-Visual Aids in Primary Education*. London: George G. Harrap & Co. Ltd.

Oller, J. W. (1979). Language Tests at School: A Pragmatic Approach. London: Longman.

Puren, C. (1988). *Histoire des méthodologies de l'enseignement des langues*. Paris: Nathan-Clé International, col. DLE.

Richards, J. C., and Rodgers, T. S. (2001). *Approaches and methods in language teaching*. (2nd ed.). Cambridge: Cambridge University Press.

Rivenc, P., & Boudot, J. (1962). Préface de Voix et Images de France, 1er Degré. CREDIF. Paris: Didier.

Skinner, B. F. (1957). Verbal Behavior. New Jersey: Prentice-Hall.

Notes

Note 1. A French-dubbed excerpt of SEX AND THE CITY, Episode 17 (What Goes Around Comes Around), 2002 Home Box Office.

Note 2. Le Français Fondamental

Note 3. "L'élaboration du français fondamental" written by G. Gougenheim, R. Michéa, P. Rivenc, and A. Sauvageot (1952).

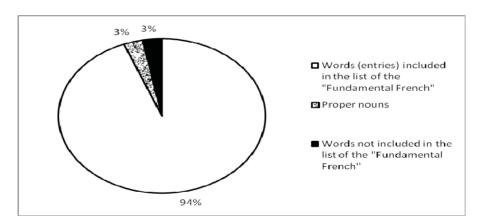


Diagram 1. Distribution of words used in the document

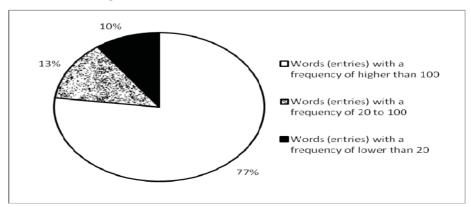


Diagram 2. Distribution of words included in the list of the "Fundamental French"

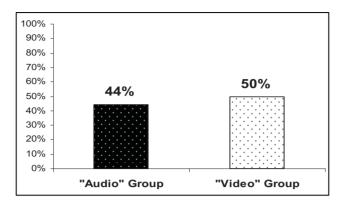


Diagram 3. The final result

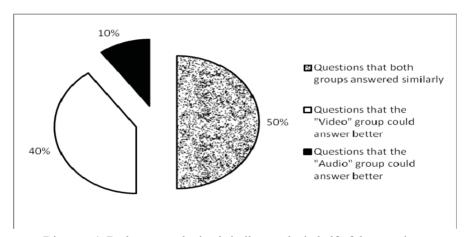


Diagram 4. Both groups obtained similar results in half of the questions

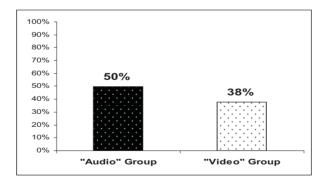


Diagram 5. The average percentage of the two groups' answer to question 1

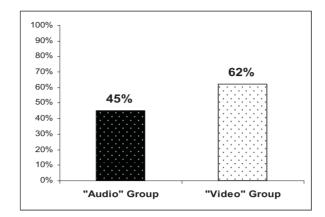


Diagram 6. The average percentage of the two groups' answer to question 2

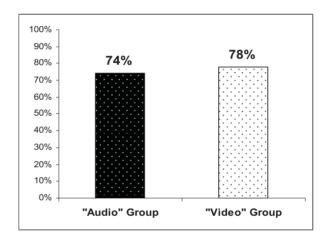


Diagram 7. The average percentage of the two groups' answer to question 3

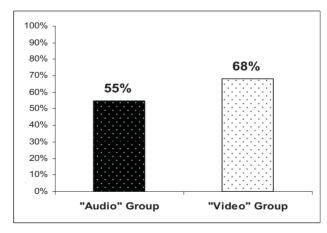


Diagram 8. The average percentage of the two groups' answer to question 4