

THE EFFECTS OF INTERLINGUAL AND INTRALINGUAL SUBTITLES ON  
VOCABULARY LEARNING BY BRAZILIAN EFL LEARNERS:  
AN EXPLORATORY STUDY

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**RESUMO:** Este artigo reporta os resultados de uma pesquisa realizada com alunos de inglês como língua estrangeira (ELE) dos Cursos Extracurriculares da Universidade Federal de Santa Catarina (UFSC) visando investigar os efeitos de programas de TV com legendas interlinguais e intralinguais na aquisição de vocabulário. A pesquisa foi realizada com 27 alunos de nível intermediário, divididos em três grupos: legendas interlinguais, intralinguais e sem legendas (grupo controle) e apontou para ganhos imediatos de vocabulário dos alunos que assistiram com legendas intralinguais. Contudo, possivelmente devido ao número restrito de participantes, os resultados da comparação entre os grupos não atingiram significância estatística.

**PALAVRAS-CHAVE:** legendagem; ensino de Língua Estrangeira; aquisição de vocabulário

**ABSTRACT:** This paper reports on a study with students of English as a Foreign Language (EFL) enrolled in the non-credit Extracurricular Courses at Universidade Federal de Santa Catarina (UFSC). The study aimed at investigating the effects of interlingual and intralingual subtitled video on vocabulary acquisition. The research was carried out with 27 intermediate students who were divided into three groups: interlingual subtitles, intralingual subtitles, and control. Results showed more immediate gains in the group with intralingual subtitles. Nonetheless, the results obtained were not statistically significant, possibly due to the small sample herein investigated.

**KEY-WORDS:** subtitles; foreign language teaching; vocabulary acquisition

## 0. Introductory Remarks

The field of Second Language Acquisition (SLA) has benefitted considerably from scholar attention concerning investigation of the use of subtitled videos in the classroom. Such increasing attention might be linked to the fact that "subtitled television programs seem to provide a rich context for foreign language acquisition" (KOOLSTRA; BEENTJES, 1999: 51). Furthermore, some scholars have advocated for the use of the First Language (L1) as a valuable resource in the classroom (ATKISON, 1987; AUERBACH, 1993; BALBONI, 2010; LUCINDO, 2006; ROMANELLI, 2006, 2009; SCHWEERS, 1999; SOUZA, 1999), which might help explain the use of interlingual subtitled materials for language teaching and learning purposes.

Videos tend to use subtitles to be more accessible to populations that are not fully acquainted with the language spoken in video dialogues or to facilitate students' overall comprehension. With regard to this translational aid, an important distinction is worth noting: while interlingual subtitles<sup>1</sup> specifically refer to target-language texts typically displayed at the bottom of the screen, intralingual subtitles refer to same-language subtitles (captions), which originally had the function to serve the hearing-impaired (NEUMAN; KOSKINEN, 1992).

The driving force behind the instructional use of subtitled video materials seems to have been pushed forward by some other specific reasons. According to Neuman and Koskinen (1992), it is noteworthy to mention that: (i) video combinations of sounds and pictures might enhance the relationship between words and meanings; (ii) videos have entertainment qualities that feature potential advantage over texts; and (iii) viewing could be perceived as a cognitively active experience – when suitable materials are used (ANDERSON; COLLINS, 1988; NEUMAN, 1989).

Studies on the instructional and non-instructional use of interlingual and intralingual subtitled videos have addressed a number of topics that include, but are not limited to: the improvement of Second language (L2) reading (MARKHAM; PETER, 2003), L2 listening comprehension and L2 word recognition (GARZA, 1991; HUANG; ESKEY, 1999; KOOLSTRA; BEENTJES, 1999; MARKHAM, 1999; MARKHAM; PETER, 2003; MARKHAM; PETER; MCCARTHY, 2001; STEWART;

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<sup>1</sup> Interlingual subtitles are also commonly referred to as subtitles, that is, the type that deals with a linguistic pair (when soundtrack and subtitles feature two different languages). Intralingual subtitles, on the other hand, are also frequently referred to as captions, since they deal with the same language on both soundtrack and subtitles. However, the terms interlingual subtitles and intralingual subtitles will be hereby used in this paper.

PERTUSA, 2004; TAYLOR, 2005; WINKE; GASS; SYDORENKO, 2010), L2 vocabulary learning/acquisition (BIANCHI; CIABATTONI, 2008; BIRD; WILLIAMS, 2002; D'YDEWALLE; VAN DE POEL, 1999; GARZA, 1991; KOOLSTRA; BEENTJES, 1999; NEUMAN; KOSKINEN, 1992; STEWART; PERTUSA, 2004), the effects on implicit and explicit memory and cognitive processing (BIRD; WILLIAMS, 2002), and the acquisition of L2 grammar (BIANCHI; CIABATTONI, 2008; VAN LOMMEL; LAENEN; D'YDEWALLE, 2006).

Given the importance of subtitled videos in language learning and their wide dissemination and availability in L2 classrooms, this paper reports on a small-scale study that aimed to examine the effects of subtitles on vocabulary learning by intermediate Brazilian EFL (English as a Foreign Language) learners. It also aims to unveil whether the type of subtitles used – interlingual or intralingual – plays a role in facilitating students' vocabulary learning, as measured by pre-tests, tests, and post-tests. The aforementioned objectives could be translated into the following research questions (RQs):

RQ1: How do interlingual and intralingual subtitles affect vocabulary gains by Brazilian EFL learners as measured by pre-tests, tests, and post-tests?

RQ2: Do vocabulary gains, if any, for each different experimental condition differ across time?

Following this introduction, this paper briefly reviews some of the relevant literature on the use of interlingual and intralingual subtitles and L2 language learning. After that, the method section provides information on the participants, materials, and instrumentation of the present study. Then, results and consequent key findings are discussed. Finally, some considerations are made with regard to the limitations of this study and on the use of interlingual and intralingual subtitles for L2 teaching and learning. Possible avenues for future research are also outlined at the end.

1. On the use of interlingual and intralingual subtitles in language learning: puzzling findings?

Until the 1990s, most studies addressing the instructional use of subtitled video materials in learning primarily centered on the investigation of the use of intralingual subtitles. Those studies revealed, to a great extent, positive effects for the instructional and experimental use of intralingual subtitles, in that their availability was suggestive of improved performance on L2 learning (GARZA, 1991; HUANG; ESKEY,

1999; MARKHAM, 1999; NEUMAN; KOSKINEN, 1992). These types of subtitles were then suggested to be seen as an aiding tool, since they facilitated overall comprehension.

It was not until the beginning of the 2000s that comparative studies started to deserve scholar attention, more specifically with the emergence of studies that were aimed at comparing the effects of interlingual versus intralingual subtitles on L2 language learning. To date, subtitles have been found to aid comprehension regardless of being interlingual or intralingual. However, studies have yielded somewhat multifaceted, inconclusive results, favoring interlingual subtitles in some cases (MARKHAM; PETER, 2003; MARKHAM; PETER; MCCARTHY, 2001), and intralingual subtitles in others (BIRD; WILLIAMS, 2002; STEWART; PERTUSA, 2004; WINKE; GASS; SYDORENKO, 2010). When different proficiency groups and instructions are inserted in the equation, the picture becomes even blurrier (BIANCHI; CIABATTONI, 2008; TAYLOR, 2005; VAN LOMMEL; LAENEN; D'YDEWALLE, 2006).

As far as interlingual and intralingual subtitles are concerned, one should be careful not to generalize the results derived from these studies, due to a number of reasons. Firstly because of the different populations in each of them, often times do not involve learners of less commonly taught languages. Secondly, results per se are multifaceted, especially when different proficiency levels are factored in. Finally because these studies typically use different film excerpts – known or unknown to the participants – and different types of tasks designed to focus on different language domains and specific learning goals. In light of the aforementioned issues, there is still plenty of room for further scrutiny concerning the role of interlingual and intralingual subtitles as regards L2 learning and the possible implications that each aiding tool might have, especially when it comes to a completely under-investigated population in the literature, that is, Brazilian EFL learners.

## 2. Method

### 2.1 Participants

The study was carried out with 17 female and 10 male Brazilian intermediate EFL learners between 16-48 years old (mean age of 22 years old), who were chosen based on their proficiency level<sup>2</sup>. The

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<sup>2</sup>Studies addressing the effects of subtitled video materials on any language learning aspect have tended to tackle intermediate learners of the language because they are usually at a proficiency level in which reading a foreign language on screen is already possible for them. This does not tend to occur with beginning learners.

participants are Portuguese native speakers and were enrolled in the Extracurricular (non-credit) Language Courses at Universidade Federal de Santa Catarina (UFSC), Florianópolis-SC, Brazil. The study comprised two treatment groups and one control group, namely: Intralingual Subtitles Group, with 07 participants; Interlingual Subtitles Group, with 10 participants; and the Control Group (no subtitles), with 10 participants. The original sample had a larger number of participants, but many of them had to be discarded because they did not take part of all the research steps.

## 2.2 Materials

### 2.2.1 Questionnaires

A questionnaire in Portuguese was administered so as to gather relevant information on the learners' language learning experiences. Also, the questionnaire aimed to collect data on the participants' favorite TV series and how often they watched subtitled TV series/films. They were also asked whether they preferred interlingual or intralingual subtitles (or none) when watching videos and whether they were used to engaging in video activities in their language classes. The teachers were also given a questionnaire in Portuguese in order to provide more information about their education and experience in English language teaching. They were also inquired about their pedagogical use of videos in the classroom.

### 2.2.2 On the selection of the video

The participants watched a 20-minute episode of the North-American TV sitcom called *The Big Bang Theory*, which premiered in 2007. In Brazil, the show is broadcast with Portuguese subtitles on Warner channel. The sitcom depicts Leonard Hofstadter and Sheldon Cooper, two brilliant physicists who are best friends and roommates. They are also friends with their co-workers Howard Wolowitz, a mechanical engineer, and Rajesh Koothrappali, an astrophysicist. The gang spends their time working on their individual work projects, playing video games, watching science-fiction movies, or reading comic books. As they are self-professed nerds, they have little or no luck with women. When Penny, a pretty woman and an aspiring actress that works as a waitress, moves into the apartment next to Sheldon and Leonard's, the latter has another aspiration in life, that is, to try and get Penny to be his girlfriend<sup>3</sup>.

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<sup>3</sup>Information retrieved from <http://www.imdb.com/title/tt0898266>.

The episode used in the study was "The Grasshopper Experiment", the eighth episode of the first season. In this episode, Raj's parents back in New Delhi have set him up with a childhood acquaintance of his named Lalita Gupta, who has just moved to California, hoping to get them married. Raj, who cannot speak to or address any woman, does not want to meet with Lalita. Meanwhile, Penny, wanting to practice her bartending skills, uses the guys as guinea pigs, which opens up a whole new world for Raj: he now realizes he can speak to Lalita (or any other woman for that matter) when under the influence of alcohol. Lalita, however, ends up having a connection on the date, but with Sheldon, instead<sup>4</sup>.

*The Big Bang Theory* was selected to be used in the present investigation on the basis of its genre, since comedy was thought to be appealing and suitable to the target audience. Also, 21 out of the 27 participants reported watching sitcoms often. When asked about their television viewing habits, 24 out of the 27 participants reported being familiar with TV series. As for the episode selected as input for the testing sessions, a random selection was employed given that asking students whether or not they had already seen a specific episode could prompt them to watch it beforehand, which would bias the results from the upcoming testing sessions.

### 2.2.3 Tests

The participants were given three tests, namely: a pre-test, a test, and a post-test. The pre-test was aimed at assessing the participants' previous knowledge of the target vocabulary. They received a 45 word list in English in which 25 were distractors. They were asked to either explain or translate them into Portuguese. The distractors contained words that were likely to be familiar (hug, hall, mint) and unfamiliar (to hop, moisturizer) to the participants, taking into account their proficiency level.

The test consisted of three parts: the first containing comprehension questions about the episode in order to check the participants' overall understanding of the story; the second containing five statements to be judged as being true or false as regards specific information from the episode<sup>5</sup>; and finally, a vocabulary activity, in which the participants were given a 20 target vocabulary word list in English and asked to either explain or translate them into Portuguese. The words were chosen on the likelihood of being unfamiliar to the

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<sup>4</sup>Information retrieved from <http://www.imdb.com/title/tt1127389>.

<sup>5</sup> For the purposes of the present paper, the results obtained from the first and second parts of the test will not be discussed.

participants considering that one of the authors has been working at the Extracurricular Language Courses at Universidade Federal de Santa Catarina for several years, with beginning, intermediate, and advanced learners. Thus, the words selected were assumed to be unfamiliar to the participants based on their proficiency level and textbooks and materials used in the beginning and intermediate classes. However, two aspects were not entirely taken into account for vocabulary selection: the audio/video correlation, that is, whether the target vocabulary was actually supported by image from the video, and whether the words were repeated more than once throughout the episode. Nonetheless, all of the target words were properly translated/transcribed into both types of subtitles.

In the post-test, participants were provided with a 20 vocabulary word list in English, containing the very same words from the pre-test and test, in order to check whether or not they were able to recall the words they presumably learned when watching the video by the time the test was administered. The participants were asked to either explain or translate them into Portuguese as in the pre-test and test. Furthermore, four questions were asked with a view to investigating if the participants had ever watched the episode before, if they looked up the meaning of the words after the test, to gather their perception of the activity, and finally to find out whether they believed that the activity may have had any kind of impact upon their English language learning.

### 2.3 Procedures for data collection and analysis

Data collection took place during the regularly scheduled class periods in the regular classrooms in order to minimize disruption of the cooperating teachers' classroom schedules. The researchers collected the data over three sessions: in the first session, the questionnaire, the term of consent, and the pre-test were administered. In the second session, prior to video watching, participants were provided some background information regarding the TV series, such as the plot summary and a quick introduction to the characters for story contextualization purposes. In this very same session, the test was administered. The test itself was only handed out after the viewing was over to avoid influencing the students' responses. In the third and last session, the post-test was administered. Viewing occurred with the use of a standard DVD player with a digital image display projector and external speakers, in a relatively small classroom and a large screen, with appropriate viewing/listening conditions. No timeframe was given in

any treatment conditions or data collection sessions in order to ensure that the participants felt at easy to answer the questions. It is important to highlight that the students were informed in advance that their participation in the research project was voluntary and that their performance on the tests was unrelated to their course grades.

In order to investigate the effects of interlingual and intralingual subtitles on vocabulary learning by the participants engaged in the present study, Kruskal-Wallis one-way ANOVA tests were run to compare the three groups in each of the three tests. Gain scores will also be discussed for each of the groups across all tests, as measured by Friedman's Two-Way Analysis of Variance.

### 3. Results and Discussion

#### 3.1 Answering the Research Questions

Pre-test, test, and post-test scores allowed for a minimum of 0 and a maximum of 20 points each. A quick look at the participants' scores showed that the tests administered were found to be somewhat difficult, considering that the highest score obtained was 9 points. When comparing the three groups, the availability of intralingual subtitles seems to have somewhat affected vocabulary gains by Brazilian EFL learners of English, as shown in table 1. The intralingual subtitles group outperformed both the interlingual subtitles and control groups. However, Kruskal-Wallis one-way ANOVA tests showed that the differences between the groups did not reach statistical significance ( $p > .05$ ), which might be related to the sample size herein investigated.

<b>Group</b>	<b>Test</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
Interlingual Subtitles Group (N=10)	Pre-Test	1.80	.467	0	4
	Test	1.80	.533	0	5
	Post-Test	2.30	.423	0	5
Intralingual Subtitles Group (N=7)	Pre-Test	2.71	.714	0	6
	Test	3.71	1.209	0	9
	Post-Test	3.71	1.040	0	8
Control Group (N=10)	Pre-Test	1.80	.467	0	4
	Test	1.80	.533	0	5
	Post-Test	2.30	.423	0	5

**Table 1 - Mean scores of the groups in the three tests**

Note: Maximum score possible: 20

Despite the statistically non-significant differences between the groups, a tendency for a positive effect of intralingual subtitles on vocabulary learning was observed. This finding is in accordance with a number of previous studies (e.g. GARZA, 1991; BALTOVA, 1999; KOOLSTRA; BEENTJES, 1999; JONES, 2002; ZAREI; RASHVAND, 2011), which support the effects of intralingual subtitles upon vocabulary learning. Conversely, the results of the present study differ from a number of other studies (e.g. BIANCHI; CIABATTONI, 2008), which emphasize the more prominent role of interlingual subtitles in vocabulary learning. A possible reason for such discrepancies may be the different proficiency level of the participants in this study in comparison to other studies. Moreover, it is worth to mention that the intralingual subtitles group presented higher mean scores right from the pre-test, which might be related to differences in language proficiency. Another possible speculation regards the fact that intralingual subtitles provide the opportunity for language learners to visualize the written forms of target-words, which may help them later on vocabulary test or even when looking up a word in the dictionary. Such exposure to both written and oral input modalities can be conducive to better performance on the vocabulary test (ZAREI; RASHVAND, 2011).

As for the means of vocabulary gains for each different experimental condition, a pattern emerges: both interlingual subtitles and control groups behaved similarly, that is, their mean scores did not vary after watching the TV series episode. This means that vocabulary gains do not appear to have been affected by the input they received while/after engaged in the video watching activity. Interestingly, these two groups performed better on the post-test, which was administered a week later, possibly indicating that the participants from these two groups may have looked up the words in a dictionary or consulted a classmate after the first or second experimental sessions, something that was not possible to control for. Nonetheless, the low scores in all groups strongly suggest that the materials used in the present study may have been too difficult for the students. Further scrutiny could reveal whether the students did not perform very well as a result of the task difficulty in general or as a result of lack of high audio/video correlation as regards the test items.

A different pattern seems to emerge considering the intralingual subtitles group. To some extent, this group appears to have benefitted from the treatment condition and maintained vocabulary gains over the course of a week. Despite these patterns, the differences in the mean scores in the three different tests across groups did not achieve statistical significance, as measured by Friedman's Two-Way Analysis of Variance ( $p > .05$ ).

Table 2 presents the gain scores of the three groups considering the gains of the test in relation to the pre-test.

		<b>Gain scores</b>	<b>Frequency</b>
Interlingual Subtitles Group	Valid	-3.00	1
		-1.00	1
		.00	4
		1.00	4
		Total	10
Intralingual Subtitles Group	Valid	-1.00	1
		.00	2
		1.00	2
		3.00	2
		Total	7
Control	Valid	-3.00	1
		-1.00	1
		.00	4
		1.00	4
		Total	10

**Table 2 - Groups' Test and Pre-Test Gain Scores**

Table 2 shows that participants belonging to the interlingual subtitle and control groups performed identically, and that the input for vocabulary gains affected 4 out of the 10 participants from each of these two groups, given that 4 participants in each group improved one score point in the test. A closer look at these participants' questionnaires revealed that they were somewhat used to watching TV series with interlingual and intralingual subtitles<sup>6</sup>. On the other hand, Table 2 also shows that two participants of the control and the interlingual subtitles groups actually obtained lower scores in the test (gain scores = -3 and -1), which might mean that these participants were not completely sure of the answers, while 4 participants in each group remained with the same score across these tests (gain score = 0). As for the intralingual subtitles group, the scenario is somewhat different, given that only one participant obtained a lower score in the test in relation to the pre-test.

Table 3 presents the gain scores of the participants of the three groups in relation to their post-test and test:

<sup>6</sup> When asked about their video watching habits, 26 out of 27 students answered being more used to watching them with subtitles (24 students reported watching videos with interlingual subtitles more frequently, while only 2 students reported watching videos with intralingual subtitles and one student did not answer the question).

Groups		Gain scores	Frequency
Interlingual Subtitles Group	Valid	-1.00	2
		.00	4
		1.00	2
		2.00	1
		3.00	1
		Total	10
Intralingual Subtitles Group	Valid	-2.00	1
		-1.00	2
		.00	2
		2.00	2
		Total	7
Control	Valid	-1.00	2
		.00	4
		1.00	2
		2.00	1
		3.00	1
		Total	10

**Table 3 - Groups' Post-Test and Test Gain Scores**

The results reported in Table 3 suggest a multifaceted nature. While almost half of the participants of the control and interlingual subtitles groups either performed better in the post-test (04 out of 10 participants) or maintained their gain scores from the test (04 out of 10 participants), some participants that belonged to the intralingual subtitles group did not maintain their vocabulary gains from the immediate test (03 out of 07 participants), kept the same scores (02 out of 07 participants) or improved their score a week after treatment (02 out 07 participants).

The results of gain scores comparisons in the present paper pave the way for the discussion of at least two crucial issues: firstly, the fact that most of the participants of the control and interlingual subtitles groups and some of the intralingual subtitles group performed better in the post-test highlights speculation that they might have looked up the words after one of the two previous testing sessions. Nonetheless, when asked about that, only three of the participants of the control group, two of the participants of the interlingual subtitles group, and one of the participants of the intralingual subtitles group reported having looked up the words after one of the two sessions, though it is not possible to know at which point specifically they looked up words in the dictionary. This piece of information, thus, would not suffice to explain the results hereby found when looking closely at the participants' post-test and test gain scores. Secondly, the fact that some of the participants of the intralingual subtitles group who outperformed the other two groups did not maintain vocabulary gains a week after the treatment suggests immediate effects of intralingual subtitles on vocabulary learning, that

is, right after input was given, but not necessarily long-term effects for most participants.

Taken together, the results obtained are somewhat in line with the ones reported in the literature, in which interlingual subtitles have been found to trigger long-term effects for vocabulary acquisition by beginners, while intralingual subtitles have been found to cause better long-term effects on vocabulary acquisition by intermediate and advanced students (BIANCHI; CIABATTONI, 2008). Hence, the variance of vocabulary gains for each different experimental condition across time is partially confirmed, since mean comparisons between pre-test, test, and post-test showed discrepancies in terms of the vocabulary gains across time in some conditions.

In relation to the teaching practices involving subtitled videos, the teachers of these intermediate classes reported using TV series from time to time in order to diversify the dynamics in the classes or to address specific cultural and linguistic issues. Also, the teachers reported using intralingual subtitles more often in video listening tasks, which may have had an impact upon the students' performance in this study, since this would mean a condition with which some or most students would be more familiar. Conversely, as regards the students' viewing habits, the questionnaires revealed that most of the students tend to use interlingual subtitles rather than intralingual subtitles at home when watching TV series or movies.

#### 4. Final Remarks

Given the prominence of subtitled video materials in L2 classrooms and their wide dissemination and availability, this paper set out to draw on the findings of a small-scale investigation of the effects of interlingual and intralingual subtitles on vocabulary learning by intermediate Brazilian EFL learners. Despite the lack of statistical significance between the groups found here, the differences observed between them point out to trends of immediate effects of intralingual subtitles on students' vocabulary gains as compared to interlingual subtitles and control conditions, which, however, do not seem to remain in the long run. Moreover, the results epitomize how complex and multifaceted the nature of subtitling can be when equated with vocabulary learning, which is in tune with previous findings reported in the literature (TAYLOR, 2005; VAN LOMMEL; LAENEN; D'YDEWALLE, 2006; BIANCHI; CIABATTONI, 2008).

As with any limited study, this research has raised a plethora of limitations worthy of further investigation. These limitations can be roughly summarized as follows:

- i. Methodological procedures should be reconsidered, especially concerning the task designed for testing vocabulary learning. More specifically, the target words were chosen on the likelihood of unfamiliar to the participants, but a different set of criteria might have yielded different results, such as word frequency, for instance;
- ii. The present study did not check for the relationship between target-words and audio/video correlation concerning the input given to the participants;
- iii. This study did not control for task effects, which might have yielded different results, considering that the participants took the very same task three times across the testing sessions;
- iv. The small sample investigated might account for the lack of statistical significance found;

In light of the results and limitations of this study, this piece of research opens up a large avenue for further investigation, which can be put as follows:

- i. The examination of the effects of subtitled materials on non-instructional setting;
- ii. The investigation of the impact of subtitled materials on foreign language beginning learners, which has received little attention among scholars in comparison to intermediate and advanced populations;
- iii. More comparative analyses of the impact on the use of authentic and non-authentic subtitled materials so as to understand whether or not there are significant differences in terms of language acquisition when using these materials for instructional, non-instructional, and experimental purposes;
- iv. Systematic investigations of the extent to which bimodal input (audio, video) indeed gets processed, apart from the subtitles per se. To date, very little research has been carried out to investigate if viewers do process the soundtrack in its entirety along with the subtitles (BIRD; WILLIAMS, 2002), since reading subtitles has been suggested to be automatic, at least by adults (D'YDEWALLE; VAN RENSBERGEN, 1989; D'YDEWALLE et al, 1991);
- v. Studies that take into consideration the students' accounts concerning their experiences, strategies, and reactions while watching subtitled video materials, with a view to furthering

- understanding of their beliefs and perceptions of the impact that such materials can have on their learning process;
- vi. A more comprehensive investigation by means of longitudinal studies to check for long-term effects as a result of the exposure to captioned and subtitled materials.

To conclude, the current experiment partially supports the findings described in the literature. A few discrepancies with some previous studies were observed, but they can probably be explained by the different types of material and testing procedures adopted or differences in proficiency level. Considering the greater emphasis on technology in language classrooms we have been witnessing lately, the use of subtitling may continue to intensify in importance and frequency. Hence, further research will need to increase in the years to come for practitioners to make more informed decisions as regards these extremely useful teaching tools.

## REFERENCES

ANDERSON, D. R.; COLLINS, P. A. The influence on children's education: The effects of television on cognitive development. Washington, D.C.: U. S. Department of Education, 1998.

ATKINSON, D. The mother tongue in the classroom: a neglected resource? *ELT Journal*. Oxford University Press, 41(4), 241-247, 1987.

AUERBACH, E. R. Reexamining English only in the ESL classroom. *TESOL Quarterly*, 27(1), 9-32, 1993.

BALBONI, P. La traduzione nell'insegnamento delle lingue: dall'ostracismo alla riscoperta. In: GIOVANNI, F.; DI SABATO, B. *Tradurre in pratica* – Riflessioni, esperienze, testimonianze. Napoli: Edizione Scientifiche Italiane, 169-190, 2010.

BALTOVA I. Multisensory language teaching in a multidimensional curriculum: The use of authentic bimodal video in core French. *Canadian Modern Language Review*, 56, 32-48, 1999.

BIANCHI, F.; CIABATTONI, T. Captions and subtitles in EFL learning: an investigative study in a comprehensive computer environment. In:

Matielo, Rafael; Collet, Thais; D'Ely, Raquel Carolina Souza Ferraz. The effects of interlingual and intralingual subtitles on vocabulary learning by Brazilian EFL learners: An exploratory study. *Revista Intercâmbio*, v. XXVII: 83-99, 2013. São Paulo: LAEL/PUCSP. ISSN 2237-759x

BALDRY A. et al. (Eds.) *From Didactas to Ecolingua: an Ongoing Research Project on Translation and Corpus Linguistics*. Trieste: Edizioni Università di Trieste, 2008. pp. 69-90.

BIRD, S. A.; WILLIAMS, J. N. The effect of bimodal input on implicit and explicit memory: an investigation into the benefits of within-language subtitling. *Applied Psycholinguistics*, 23(4), 509-533, 2002.

D'YDEWALLE, G. et al. Watching subtitled television: Automatic reading behavior. *Communication Research*, 18, 650-666, 1991.

D'YDEWALLE, G.; VAN DE POEL, M. Incidental foreign language acquisition by children watching subtitled television programs. *Journal of Psycholinguistic Research*, 28, 227-244, 1999.

D'YDEWALLE, G.; VAN RENSBERGEN, J. Developmental studies of text-picture interactions in the perception of animated cartoons with text. In: MANDL, H.; LEVIN, J. R. (Eds.) *Knowledge acquisition from text and pictures*. Amsterdam: Elsevier Science Publishers B.V. (North-Holland), 1989. pp. 233-248.

GARZA, T. J. Evaluating the use of captioned video materials in advanced foreign language learning. *Foreign Language Annals*, 24(3): 239-258, 1991.

HAYATI, A.; MOHMEDI, F. The effects of films with and without subtitles on listening comprehension of EFL learners. *British Journal of Educational Technology*, 42(1): 181-192, 2011.

HUANG, H.; ESKEY, D. E. The effects of closed-captioned television on the listening comprehension of intermediate English as a second language (ESL) students. *Journal of Educational Technology Systems*, 28: 75-96, 1999.

JONES, L. Testing L2 vocabulary recognition and recall using pictorial and written test items. *Language learning and technology*, 8(3): 122-143, 2004.

KOOSLTRA, C. M.; BEENTJES, J. W. J. Children vocabulary acquisition in a foreign language through watching subtitled television programs at home. *ETR&D*, 47(1): 51-60, 1999.

LUCINDO, E. S. Tradução e ensino de línguas estrangeiras. *Scientia Traductionis*, 3: 1-10, 2006.

Matielo, Rafael; Collet, Thais; D'Ely, Raquel Carolina Souza Ferraz. The effects of interlingual and intralingual subtitles on vocabulary learning by Brazilian EFL learners: An exploratory study. *Revista Intercâmbio*, v. XXVII: 83-99, 2013. São Paulo: LAEL/PUCSP. ISSN 2237-759x

MARKHAM, P. L. Captioned videotapes and second-language listening word recognition. *Foreign Language Annals*, 32(3): 321-328, 1999.

MARKHAM, P. L.; PETER, L. The influence of English language and Spanish language captions on foreign language listening/reading comprehension. *Journal of Educational Technology Systems*, 31(3): 331-341, 2003.

MARKHAM, P. L.; PETER, L.; MCCARTHY, T. The effects of native language vs. target language captions on foreign language students' DVD video comprehension. *Foreign Language Annals*, 34(5): 439-445, 2001.

NEUMAN, S.B. The impact of different media on children's story comprehension. *Reading Research and Instruction*, 28: 38-47, 1989.

NEUMAN, S. B.; KOSKINEN, P. Captioned television as comprehensible input: Effects of incidental word learning from context for language minority students. *Reading Research Quarterly*, 27: 94-106, 1992.

ROMANELLI, S. Traduzir ou não traduzir em sala de aula? Eis a questão. *Inventário*, 05, 2006.

\_\_\_\_\_. L'uso della traduzione in una classe di LS: Una questione ancora aperta o da riaprire? *Mutatis Mutandis*, 2: 50-66, 2009.

SCHWEERS, C. W. Using L1 in the classroom. *English teaching forum*, 37(2), US Department of State, 1999.

SOUZA, J. P. (1999). Tradução e ensino de línguas. *Revista do GELNE*, 1(1): 141 – 151, 1999.

STEWART, M.A.; PERTUSA, I. Gains to language learners from viewing target language closed-captioned films. *Foreign Language Annals*, 37(3): 438-447, 2004.

TAYLOR, G. Perceived processing strategies of students watching captioned video. *Foreign Language Annals*, 38(3): 422-427, 2005.

VAN LOMMEL, S.; LAENEN A.; D'YDEWALLE G. Foreign grammar acquisition while watching subtitled television programs. *British Journal of Educational Psychology* 76: 243-258, 2006.

ZAREI, A. A.; RASHVAND, Z. The effect of Interlingual and Intralingual, Verbatim and Nonverbatim Subtitles on L2 Vocabulary Comprehension

Matielo, Rafael; Collet, Thais; D'Ely, Raquel Carolina Souza Ferraz. The effects of interlingual and intralingual subtitles on vocabulary learning by Brazilian EFL learners: An exploratory study. *Revista Intercâmbio*, v. XXVII: 83-99, 2013. São Paulo: LAEL/PUCSP. ISSN 2237-759x

and Production. *Journal of Language Teaching and Research* 2(3): 618-625, 2011.

WINKE, P.; GASS, S.; SYDORENKO, T. The effects of captioning videos used for foreign language listening activities. *Language Learning and Technology*, 14(1): 65-86, 2010.