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Television series inside the EFL classroom: Bridging the gap between teaching and learning informal language through subtitles



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ABSTRACT

This experimental study seeks to explore informal and conversational speech, such as slang, phrasal verbs and colloquial expressions through the use of subtitled TV series (interlingual and intralingual) amongst learners in higher education. Thus, 40 Spanish/Catalan, Dutch, German, Russian, Romanian and Moldavian second year university undergraduates, studying a BA in English in the province of Catalonia (Spain) with an A2 to C1 proficiency level of CEFR, were randomly assigned either to interlingual mode (English sound + Spanish subtitles) or to intralingual mode (English sound + English subtitles). They were exposed to a total of 13 subtitled episodes from the American series 'Friends' over a period of 7 weeks. A multiple choice and open questions pre-test and a post-test were administered in order to analyse the effect of the two types of subtitles upon informal vocabulary learning and film comprehension. Results indicated that learners performed better under the EE (intralingual) than under the ES (interlingual) mode. No significant interaction has been found between the intervention and the post-test scores, therefore, the difference in scores between the two conditions of subtitles is not dependent on students' prior proficiency level. The obtained results support the use of subtitled audiovisual aids in foreign language classroom teaching, being in line with the principles outlined by the Cognitive Theory of Multimedia Learning and Theory of Cognitive Load.

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Introduction

The interest among researchers investigating the field of subtitles as language learning tools and subtitling as a task¹ in classroom settings led to numerous studies that accounted for their benefits upon several language skills. The aim of the study is to compare the effects of the two types of subtitles (interlingual and intralingual) upon film comprehension and informal and colloquial language learning. Due to the omnipresence of media in nowadays lives together with the increasing access to TV, cinema, DVD, and the Internet, audiovisual translation (AVT) has reached a well-deserved importance as a sub-discipline

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¹ The difference between subtitles as a learning tool support and subtitling as a task is further detailed in Talaván (2010).

in the field of Translation Studies (TS) (Anderman & Díaz-Cintas, 2009). In recent years, there has been an increasing research interest in the field of AVT in connection to English language acquisition and teaching/learning foreign languages. AVT is also considered 'a valuable asset addressing the need for multilingual and multicultural communication' (Gambier, 2006, p. 5), which reinforces *European Commission's approach* (2005) to developing multilingualism, promoting language learning, linguistic diversity and multilingual economy.

The undeniable value of video lies in its combination of image, sound and sometimes text (in the form of subtitles) together with the socio-cultural information about habits, traditions, culture (Talaván, 2007). By bringing audiovisual aids in language teaching situations and also by putting forward ways people communicate visually as well as verbally, we bring 'slices of language' into the classroom (Allan, 1985, p. 48). Authentic videos, as opposed to ready L2 materials aimed at foreign/second language learners (FLL/SLL), are created for native speakers and they are considered beneficial for foreign/second language (FL/SL) students, given their real (not manipulated or adapted) input in communicative situations, that is what students need in real life (Talaván, 2007, p. 5). They also present colloquial English in real life contexts rather than artificial situations, and therefore students are exposed to a wide range of native speakers, each with their own slang, reduced speech, stress, accents, and dialects (Mitterer & McQueen, 2009). Feature films are also believed to be more intrinsically motivating than videos made for English as a Foreign Language (EFL) or English as a Second Language (ESL) teaching situations because they provide students with a film to be enjoyed rather than a lesson that needs to be tested on (King, 2002, p. 510). Moreover, information processing and cognitive psychology studies contributed to the field of film and language comprehension and shed light on learners' processing of film language in numerous studies carried out in Belgium and Netherlands (D'Ydewalle & Pavakanun, 1989, 1996; D'Ydewalle & Van Rensbergen, 1989; Koolstra & Beentjes, 1999; Pavakanun & D'Ydewalle, 1992).

Subtitles, on the other hand are considered to play an important role both inside and outside the classroom (Anderman & Díaz-Cintas, 2009, p. 7). Reading the dialogue in context while listening to the original language stimulates learners to consolidate what they are learning, enriching their vocabulary and making them familiar with the culture of the foreign language in an authentic setting. Bravo (2008, p. 89) claims that 'subtitles offer a written transfer of authentic contextualized language and not fabricated FL material', thus, students are exposed to authentic language and cultural information through several channels: visual, oral and written in an authentic setting.

Theoretical framework

Several researchers have carried out empirical studies in the field of AVT and Second Language Acquisition (SLA) in order to test the effect of different types of subtitles (for deaf and hard of hearing, intralingual, interlingual, reversed) upon vocabulary retention, listening comprehension, written production, oral skills, syntax and pronunciation. However, previous empirical studies have scarcely investigated the issue of informality and conversational speech in connection to subtitles and audiovisual aids.

Danan (2004) proposed an overview of the effects of both captioning (intralingual subtitles, L2 → L2) and subtitling (standard/interlingual subtitles, L2 → L1) on language learning skills. She highlights on the one hand, the facilitating effect of captioning as learners visualize what they hear and on the other hand, the additional cognitive benefits brought by standard subtitles, which lead to deeper processing and usually result in better recognition and recall. However, based on the studies carried out by Bairstow and Lavour (2012), the interlingual condition appeared to lead to better comprehension than the intralingual subtitles for different proficiency levels, whereas the intralingual condition seemed to foster lexical learning more than comprehension.

The use of subtitles as teaching and learning support in the foreign language classroom is upheld by principles of Mayer's (2009) *Multimedia Learning Theory*. The dual-channel assumption developed by Mayer implies that learners learn better from words and pictures than from words alone. The limited capacity assumption is linked to the idea that people can pay attention for a limited span of time if the information they receive comes via only one channel (e.g. auditory) (Mayer, 2003). Multimedia is defined as the combination of text and pictures that leads to the idea that learning takes place when people build mental representations from words and pictures (Mayer, 2009). This theory is based on Paivio's (1986) bilingual dual coding theory, that alleges that the verbal and the imagery system, composed of nonverbal objects and events, are functionally independent but linked by referential connections.

Sweller's (2005) *Theory of Cognitive Load* also supports the overall theory of multimedia learning by suggesting that learning happens best under conditions that are in line with human cognitive architecture and that by combining structures and elements together, we ease the load of long term memory and we permit to treat multiple elements as a single element. Therefore, by exposing learners to several channels and modes simultaneously (audio, visual and textual in the form of subtitles) we ease the load of working memory, as we distribute the information among the three systems, which instead of being a burden to comprehension, they complement each other and reinforce language meaning that may only come from spoken or visual mode. Subtitles and captions do not act as a redundant tool, first because they are not a word-by-word transcription of the spoken dialogues and second, because they offer a support in understanding the linguistic items in a meaningful, implicit and authentic context. In this way, learners are prone to internalize the linguistic concept and transform it into automated forms, whose difficulty will diminish over time, hence reducing the cognitive load of the working memory (Mayer, Lee, & Peebles, 2014; Sweller, 2005).

Furthermore, the effects of intralingual and interlingual subtitles upon foreign/second language learning will be considered. Although intralingual subtitles had been initially aimed at deaf and hearing-impaired viewers, it cannot be ignored its use as a didactic tool for second and foreign language learners. Vanderplank (1988) is among one of the first scholars that carried out a study in which 15 European learners of English, between high-intermediate and post-proficiency level, watched nine hour-long sessions of BBC general output television programmes with CEEFAX English language subtitles/captions. Subjects reported that they found the subtitles useful and beneficial to their language development and that they were able to develop strategies and techniques for using subtitles flexibly and according to need. The findings suggested that subtitled programmes may be of limited value for low-level learners, but may provide large amounts of comprehensible input for post-intermediate-level learners. The findings also indicated that subtitles promote a low 'affective filter', which is in concordance with Krashen's (1985) theory of the significant role of affective factors in language learning. Thus due to learners' low-level of anxiety environment, they are more prone to allow the input in instead of blocking it (Krashen, 1985, pp. 3–4).

Another study undertaken by Borrás and Lafayette (1994) investigated the effects of intralingual subtitles during a transactional task (narration and description) with multimedia courseware on oral communicative performance. Data revealed that students in the intralingual subtitled condition had a much more positive attitude towards the use of subtitles and therefore the results were significantly higher. In terms of comprehension and different proficiency levels, Markham (1989) carried out a study with 76 advanced, intermediate, and beginning ESL students in an American university who watched two 2- and 4-minute-long educational television programmes with intralingual subtitles. The results of the multiple-choice comprehension tests based on the vocabulary and syntax of the captions showed that within each level, responses were more accurate when captions had been available. Thus, captions helped students perform beyond their proficiency level. Several other researchers (Baltova, 1999; Bird & Williams, 2002; Bravo, 2008, 2010; Caimi, 2006; Garza, 1991; Lambert & Holobow, 1984; Neuman & Koskinen, 1992; Winke, Gass, & Sydorenko, 2010) wanted to investigate to what extent the captioned (intralingual) video is more beneficial than the non-captioned one and the general conclusion led to a superior performance on comprehension and vocabulary tests under the captioned condition.

Similarly, other scholars (Bravo, 2008; D'Ydewalle & Pavakanun, 1989, 1997; D'Ydewalle & Van de Poel, 1999; Danan, 1992, 2004; Koolstra & Beentjes, 1999; Lertola, 2012; Talaván, 2007, 2013) brought to light the added value of interlingual subtitles (standard) upon second and foreign language acquisition. D'Ydewalle and Van de Poel (1999) investigated whether viewing subtitled programmes increased comprehension and knowledge of a second language among young children and adults. They claimed that pictorial information may also help in the understanding of the two available languages, stating that advanced acquisition of a second language takes place and retention is high when the input and process of learning are implicit. It has also been shown that incidental learning through the use of pictures is very effective. Their findings disclosed that children acquired more vocabulary when the foreign language was in the audio whereas adults learnt best from reverse subtitling (foreign language in the subtitles and native language in the audio). They also mention that for adults, more new words are acquired when presented visually rather than auditorially. The results of their study support and make reference to Mayer's (2009) multimedia learning theory. In the case of bilingual situations students rely on two separate verbal systems related by associative connections. However, in the case of subtitled visual input, there are three independent systems interconnected through triple associations between image, sound in one language, and text in another. Hence, this may lead to better processing and recall because of the additive effects of both image and translation.

However, the underlying question is how learners process the subtitled programmes. Is processing a subtitled programme an effortless procedure? Are learners achieving good levels of performance when engaged into subtitle processing without causing concession between image and text reception? Perego, Del Missier, Porta, and Mosconi (2010) conducted an experimental study in which they analysed the cognitive processing of a subtitled film excerpt by adopting a methodological approach based on the integration of a variety of measures: eye-movement data, word recognition, and visual scene recognition. Results indicated that participants had a good understanding of the film content, regardless of the line segmentation, reached good levels of performance both in subtitle recognition and scene recognition and there was no trade-off between subtitle recognition and scene recognition (pp. 262–263). The results of the study are in line with previous research (D'Ydewalle & Gielen, 1992; Pavakanun & D'Ydewalle, 1992), which highlighted individuals' ability to process, integrate and remember information coming from various sources. A possible conclusion is therefore that individuals will not usually encounter serious difficulties in multiple-source information processing.

However, it contradicts an experiment carried out by Lavour and Bairstow (2011), who investigated the correlation between the different types of subtitles (intralingual, interlingual or without subtitles) and English language fluency of beginner, intermediate and advanced French native speakers. The results indicated that for beginners the visual information is best processed in the film version without subtitles, however dialogue comprehension was best processed with interlingual and intralingual subtitles. Intermediate learners were not affected by any version of the film, however they did score higher in the dialogue score questions, which may lead to the assumption that they relied on the subtitled versions of the films and hence they performed better at the comprehension level. The advanced learners on the other hand achieved higher comprehension for both visual and dialogue information with the version without subtitles and dialogue information processing was better than visual information processing. Overall, the authors claim that subtitles appear to be detrimental for visual information processing but have a facilitating effect for linguistic information processing (Lavour & Bairstow, 2011, p. 457).

Criticism may still arise concerning the use of interlingual subtitles, as one might believe learners stop listening to the original soundtrack while reading their native language. The reading of the subtitles tends to be an automatic behaviour

as mentioned in previous eye movement studies (D'Ydewalle & Gielen, 1992; Pavakanun & D'Ydewalle, 1992). Reading the subtitles and visual processing are considered highly efficient and partly automatized cognitive activities by other researchers too (LaBerge & Samuels, 1974; Lang, 1995, 2000; Lang, Potter, & Bolls, 1999; Logan, 1997; Zhou, 2004). However, this does not imply that viewers stop processing the soundtrack. To demonstrate this point, a series of cognitive experiments relied on a double task technique measuring reaction times to a flashing light during a television programme. The slower reactions in the presence of both sound and subtitles suggested that more complex, simultaneous processing of the soundtrack and the subtitles was occurring (D'Ydewalle & Pavakanun, 1997, pp. 146–147).

Another experiment confirmed that subjects processed the sound when available since slightly more time was devoted to the subtitles in the absence of sound (D'Ydewalle & Gielen, 1992, pp. 417–418). Other studies however, reported that using interlingual subtitles led to a global deterioration in visual information processing, compared to both a soundless film and a version dubbed in the viewer's own language (Lavaur & Nava, 2008). Nevertheless, it should be specified that their study was designed for native speakers, which implies that the dialogues and the subtitles were presented in the dominant language and consequently, the subtitles were unnecessary and due to strongly interfere with the visual processing.

Another group of researchers (De Bot, Jagt, Janssen, Kessels, & Schils, 1986) set up a news programme with subtitles occasionally deviating from speech on the phonological, grammatical, lexical, or informational levels. Two groups of subjects, 50 secondary school pupils learning English at school, and 20 advanced university students who were no longer studying English, watched this programme in English with subtitles in their native Dutch language. The subjects responded to a multiple-choice test about each news item, with questions equally divided between deviations and non-deviations. The results disproved the notion of exclusive subtitle orientation and showed that all viewers made use of the audio input, although this particular experiment was unable to quantify the extent of learning directly resulting from the spoken text (De Bot et al., 1986, pp. 78–80).

Background of this study

There are two major theoretical premises at the core of this study: first, that authentic input and audiovisual materials facilitate the improvement of foreign language skills (Baltova, 1999; Danan, 2004; Ghia, 2012; Vanderplank, 2010); and second, that interlingual and intralingual subtitles foster incidental² vocabulary acquisition and further proficiency in a foreign/second language (D'Ydewalle & Pavakanun, 1997; D'Ydewalle & Van de Poel, 1999; Danan, 1992, 2004; Koolstra & Beentjes, 1999; Kuppens, 2010; Neuman & Koskinen, 1992; Perez & Desmet, 2012). A distinction between incidental and intentional language acquisition should be made at this stage. One approach to distinguish them is by looking at the circumstances in which they occur. Intentional learning is associated with formal, classroom based environment as opposed to intentional learning which takes place outside the formal institution of learning and people are believed to unconsciously acquire it (Pemberton, Fallahkhair, & Masthoff, 2004). Thus incidental learning is stated to be a by-product of the classroom focus, however without learning being the specific focus of attention in a classroom context (Gass, 1999). Incidental and intentional language acquisition are believed to be very different processes if we consider the object of focus of the learner's attention (meaning vs. form), the amount of exposure needed (more vs. less) or the degree of teacher's supervision and feedback (Gass, 1999; Restrepo Ramos, 2015). However, teachers could bridge the gap between the two practices by using excerpts of media, films, sitcoms and TV programmes inside the classroom, hence constructing a meaningful platform for pupils' contact with English inside and outside the classroom (Kuppens, 2010, p. 80).

Given the distinction between incidental and intentional learning, it can be stated the current investigation seeks to ease the void between the two types of learning by integrating subtitled TV sitcoms in the classroom. The practice of watching TV programmes and films is associated with non-intentional and unconscious pedagogical tasks that foster learners' motivation and promote incidental learning. Hence by making use of these types of tasks and materials, learners can benefit from the assets of incidental learning in formal institutions and classroom based environments.

The abovementioned studies have indicated the value of the use of intralingual and interlingual subtitles as language learning tools, but they also show deficits with regard to research on informal and colloquial language teaching and learning. Colloquial speech seems to be one of the most difficult areas for achieving native-like language competence in the acquisition of a foreign language, so very few studies have been conducted on this topic. In fact, acquiring colloquial speech of a discourse community is crucial for foreign language learners who wish to achieve native-like proficiency in the target language of such community and failing 'to acquire colloquialisms, or even slang, could result in the failure of mastering the language' (Bradford, 2010).

Bravo (2008) shed some light on the issue of idiomaticity in the language learning undergoing three experiments. The first two tested the understanding of content through exposure to subtitles: one was short-term and analysed the impact of intralingual subtitled material (FL audio + FL subtitles) of Portuguese audiovisual materials on foreign students learning Portuguese; the other was over a longer-term and sought to evaluate the benefits of interlingual and intralingual subtitled material on Portuguese teenage students, as learners of English as a foreign language. These students were exposed to English audio materials and subtitles in English or Portuguese. The third experiment was designed to evaluate the written

² Further reading about incidental language acquisition and its characteristics can be found in Restrepo Ramos' literature review (2015) and Gass' discussion (1999).

production skills in EFL, via the use of the mother-tongue, of students with prior exposure to subtitled material. This last group of informants also had to produce their own intralingual subtitles, using a non-professional subtitling tool for language-learning purposes. The findings from the three experiments indicated that both interlingual or intralingual subtitles enhanced viewers' comprehension of the content, even in culture-specific areas such as idioms. In addition, like Bravo (2008) in her third experiment, Lertola (2012) investigates the effects of the subtitling task (i.e. active subtitling performed by language learners) on incidental vocabulary. The results showed that the subtitling condition led to a more significant L2 incidental vocabulary learning than the non-subtitling condition at the post-delayed point.

These abovementioned research projects raised interest in designing the first study of the current doctoral thesis as the issue of informality has been partially developed in Bravo's studies. Moreover, her research study took place in the Portuguese context, which is a subtitling country, as opposed to our experimental location, Spain, a traditional dubbing country and therefore the findings could reveal different outcomes. Nonetheless, nowadays, the difference between subtitling countries, such as Netherlands, Portugal, Belgium and dubbing countries, such as Spain, Italy, France can be attenuated by the increase number of young people who watch TV streaming networks and TV series in original version with subtitles, which also led to the growth of fansubbing industry (Orrego-Carmona, 2015).

However, no definite conclusions in relation to the best subtitling condition (either interlingual or intralingual) have been drawn from Bravo's (2008) second experiment either, thus on behalf of her recommendation in further investigation of the topic, we decided to expand the lexical items investigated (i.e. idioms) to other types of informal and colloquial expressions, such as slang, phrasal verbs, spoken and informal nouns/expressions and investigate the effect of interlingual and intralingual subtitles upon learner's acquisition of these informal vocabulary items.

The poor evidence in the literature tackling this issue in instructional settings makes the aim of this investigation even more feasible in the current context. Bravo (2008) states that in Portugal the approach to teaching and learning idioms should undergo a revision and focus on the communicative competence. She claims that the assessment and testing methods need to be upgraded, too as there is a discrepancy between the testing of idioms and phrasal verbs in the national exams and what it is taught in the classroom. We strongly believe that the Spanish educational system should undergo similar revisions, as idioms and phrasal verbs are tested in national exams, but barely taught in the classroom or if that is the case, the approach does not seem to be beneficial for learners' acquisition. Liontas (2002) analysed students' self-awareness in relation to their knowledge of idioms both from a teaching and learning perspective. The majority reported that they have not been taught idioms in the classroom, but emphasized a high importance in doing it, as they perceived idiom use as a significant part of natural communication and a tool to increase conversational fluency. Moreover, the participants mentioned that idioms should be presented with authentic language use and in a real-life context, thus learners' level of confidence is prone to increase when exposed to a variety of communicative settings.

On the grounds of the theories and research conducted in the previous empirical studies, the present investigation seeks to approach the issue of informality in the classroom by making use of subtitled authentic audiovisual materials. The current study intends to bridge the gap between teaching and learning procedures of colloquialism through the use of subtitles and authentic audiovisuals. It also makes reference to possible pedagogical implications for teachers' community and classroom instruction by investigating students' competence with colloquial language. Therefore, the following research question is central in this study: Will exposure to intralingual (G2-English subtitles) subtitled TV episodes have greater effect upon learners' colloquial language acquisition than exposure to interlingual (G1-Spanish subtitles) subtitled episodes?

In the current situational context the *intralingual condition* is considered to lead to a more significant effect upon colloquial lexical items acquisition than the *interlingual condition* after exposure to subtitled authentic TV episodes. This assumption is supported by several empirical studies in the field of AVT and SLA (Araújo, 2008; Bird & Williams, 2002; Borrás & Lafayette, 1994; Caimi, 2006; D'Ydewalle & Pavakanun, 1997; De Bot et al., 1986; Garza, 1991; Koolstra & Beentjes, 1999; Lambert & Holobow, 1984; Vanderplank, 1988) that have been carried out in order to test the effect of intralingual, interlingual and non subtitling conditions upon vocabulary retention, listening comprehension, written and oral production. Given the abovementioned findings in relation to the benefits of intralingual subtitles upon vocabulary acquisition and recall, it is believed similar effects will occur upon learning of colloquial lexical and phrasal items.

Considering participants profile (BA in English studies) and their proficiency level heterogeneity (A2 to C1 according to CEFR) a second research question was formulated in order to investigate the relationship between the two subtitling conditions and students' different proficiency levels. Thus the question of an interaction effect between the two subtitling conditions and participants' prior proficiency level was posed. If so, does one subtitling condition have greater effect than the other on students' proficiency level? The literature reports several empirical studies that investigated the effect of different types of subtitles in relation to learners' proficiency levels (Baltova, 1999; Bianchi & Ciabattoni, 2008; Garza, 1991; Guillory, 1998; Markham, 1989; Neuman & Koskinen, 1992; Price, 1983; Vanderplank, 1988). However, no definite conclusions have been drawn concerning the most beneficial subtitle condition (either L1 or L2) for low and high proficiency FL students, as some claim interlingual subtitles are more appropriate for beginners and intralingual subtitles for advanced learners (Bianchi & Ciabattoni, 2008; Borrás & Lafayette, 1994; Garza, 1991) and other sustain that captions have proven to be favourable for a range of proficiency levels (Bird & Williams, 2002; Price, 1983; Winke et al., 2010).

Accounting the abovementioned studies it is hypothesized that the *intralingual condition* will have a greater effect on students' post-test scores than the *interlingual condition* after exposure to subtitled TV episodes. Students are believed to perform beyond their proficiency level under the intralingual condition, mainly because they can relate the spoken words and expressions present in the video to their written form, which is unaffected by variation in accents and/or audio quality

(King, 2002). Thus, both low and high level proficiency students will be able to facilitate their own oral comprehension by actively checking the L2/FL language forms through three channels: visual, oral and written, hence having access to large amounts of ‘comprehensible input’ (Krashen, 1985). The interlingual condition is more likely to boost learners’ confidence, due to the reinforcement of the oral term in the written form on the screen, therefore lowering their level of anxiety and increasing their motivation and interest.

Method

Material

A set of authentic audio visual materials (13 episodes from the Northern American television series ‘Friends’-Season 1) were selected and exploited by the teacher/researcher in the classroom.

The language that appears in series like ‘Friends’ is believed to be very similar to authentic conversations, given that it contains a high percentage of lexical and grammatical features present in spontaneous face-to-face conversations: 1st and 2nd person pronouns, demonstrative pronouns, present simple tenses, contractions, etc., according to the results found by Quaglio (2009) in his study.

Although a well-known TV series among young learners, *Friends* was not mentioned by the participants in this study when asked about their regular list of watching series. Sitcoms such as *Gossip Girl*, *Glee*, *How I Met your Mother*, *Big Bang Theory*, *The Simpsons*, *American Dad*, *Futurama* and *Family Guy* were chosen as the most frequent TV series watched by our participants, which seems reasonable given their age and the fact that ‘Friends’ (1994) is an old TV sitcom, that was first released twenty years before the current study was carried out.

Thus the sitcom ‘Friends’ was chosen as a didactic material due to its rich informal and lexical content and because it discloses authentic cultural aspects of an English speaking country. It also presents communicative, real-life situations, which are highly relevant for the age of our participants. Due to its entertainment and motivational context, a relaxing and enjoyable atmosphere is created, promoting a low ‘affective filter’, which is greatly profitable for language learning acquisition (Krashen, 1985, p. 3). The importance of considering different audiovisual genres when applied as didactic tools in the classroom is stated by Chia (2012), too, as different audiovisual genres, such as films, documentaries, TV series, news broadcasts and television shows ‘are characterized by a different use of language and by different degrees of interaction between dialogue and images’ (p. 21). Therefore linguistic usage is considered to be closer to spontaneous conversation in the dialogues heard in films and television series, as opposed to news broadcasts, documentaries or television shows, which are perceived as having lower compliance to real orality (Forchini, 2009; Quaglio, 2009).

A 30-item pre- and post-test (15 open questions and 15 multiple-choice) was designed in order to exploit the colloquial and informal expressions and words from the episodes. The 15 multiple-choice questions exploited the informal and colloquial words and expressions that appeared in the viewing sessions, containing one correct option and two distracters. The multiple-choice questions were meant to make students recognize and identify the correct item present in a specific scene and context in the episode. A fourth option ‘I don’t know’ was not considered to be included in the test, because students were told explicitly not to choose any option available if they did not know the answer. An example of a multiple-choice question is the following: *The expression ‘to have a blast’ means: a. to be busy; b. to have a great time; c. to have memories about someone.*

Similarly, the 15 open questions contained informal words and expressions, such as slang, idioms, and phrasal verbs present in the episodes that were aimed at developing students’ ability to express in their own words the meaning of the item in question. No restrictions were imposed on the strategy they should use when answering the open questions, thus they made use of their previously acquired knowledge of the language through the use of synonyms, descriptions or by exemplifying the context from the episode or a situation they were familiar with. An example of an open question is: *Explain the meaning ‘pick on’ in this context ‘You’re picking on every detail’:.....*

The reasons why combination of the two type of questions is more feasible in the current situation are: first, to avoid learners relying entirely on guessing in the case of multiple-choice and second, to activate their prior knowledge, by giving them the chance to use freely any strategy to convey the meaning of words in the case of open questions. The use of synonyms, description of the target vocabulary, reference to the situational context or even the use of mediation, in the form of translation were some of the strategies used by the participants to answer the open questions. The main focus was on identifying meaning rather than form, thus no penalization on their correctness, in terms of grammar or spelling, was taken into consideration. Moreover, the recommendation to try to include a variety of item formats in a test (Brindley, 1998, p. 179) reinforced the assumption of mixing two items of test formats in order to increase its reliability and validity.

Participants

The total number of participants ($N = 49$) were second year university students (A2 to C1 of CEFR), males (24%) and females (76%), between 19 and 25 years old ($M = 20.2$, $SD = 1.82$). However, data was collected from only forty participants ($N = 40$), due to their missingness in either the pre- or the post-test. The subjects were randomly assigned to one of the two groups formed, either to G1 (English sound + Spanish subtitles) or to G2 (English sound + English subtitles). Both groups contained students from A2 to C1 level according to CEFR as follows: 1 student = A2, 8 students = B1, 7 students = B2, 2 students = C1

in Group 1; and 2 students = A2, 8 students = B1, 8 students = B2, 4 students = C1, in Group 2. Subjects ($N = 18$) in both G1 (Spanish subtitles) and ($N = 22$) in G2 (English subtitles) watched episodes from the TV series 'Friends' over a period of 7 weeks.

A questionnaire was distributed before starting the collection of data in order to have an insight into subjects' background and watching habits and eliminate the ones who were not suitable for the study. The questionnaire contained several sections related to participants' background, in terms of nationality, mother tongue, contact with the target language and English speaking people and their watching habits. According to the questionnaire, none of the students' mother tongue is English, which made possible to integrate them in the present study. As far as the contact with the language is concerned, 71% stated that they had contact with native speakers, such as friends, girlfriends/boyfriends or pen friends abroad to whom they speak in English. The majority 90% were Catalan and Spanish speakers and the other 10% mentioned they had other mother tongues such as German, Russian, Romanian, Dutch, Moldavian but they moved in the area long before the experiment took place, so they were fully integrated into the Catalan/Spanish educational system and fluent speakers of both Catalan and Spanish.

The participants were studying a Bachelor Degree in English Studies at Universitat Rovira i Virgili (Spain), Department of English and German Studies and the Oral Skills (Listening and Speaking) Course is one of the compulsory courses of the English Degree Curriculum. The course is divided into two parts, one theoretical and one practical. As part of the theoretical part of the course, students were introduced to theories and concepts related to speaking and listening skills that made up for 1/3 of the course. As this was aimed at being a primary practical course, the rest of the time (2/3) was allocated to practical tasks and activities through which students should be having the opportunity to practice and develop their speaking and listening skills. In order to maximize the efficiency of the course activities and to be able to closely monitor learner's outcome and progress, the department set the condition of working in smaller groups ($N = 25$ in group 1 and $N = 24$ in group 2) and therefore, the entire second year English degree undergraduates was split up into two groups with two different instructors. Out of the 3 h a week dedicated to listening and speaking activities, one and a half hour was assigned to watching subtitled episodes from the American sitcom 'Friends' and to the exploitation of the informal language present in the episodes. The rest of the class time was dedicated to speaking tasks and activities that were not related to the language or the plot of the videos.

Procedure

Every week the participants ($N = 40$) watched two episodes (except the first week when they watched only one episode due to time limitations) of approximately 25 min each, so they were exposed to 13 subtitled episodes, which stands for approximately 325 min in total. All viewing sessions were held in the classroom at the university, using a computer, speakers and an overhead projector. The testing procedure and the materials employed in the current study combined two types of assessment items (multiple-choice and open questions) and they were used to investigate learners' colloquial and informal language learning, comprehension and recall.

The 30-item pre- and post-test were administered at the beginning and at the end of the study (immediately after the 7th week) in order to trace any differences between achievement scores before and after the treatment had taken place. The scoring scale of the tests was from 1 to 30, 1 point being given for each correct answer in the case of multiple-choice and for a correct explanation of the meaning for the open question.

Results

In order to answer the research questions posed for this study, participants' pre- and post-tests results were analysed using the statistical program R (car package). The following statistical tests and models (Levene's test, Welch Two sample t -test, the effect size and ANCOVA) were carried out following [Field, Miles, and Field \(2012\)](#) data analysis procedures and instructions in order to get an insight into the results of the outcome.

The dependent variable for this study is the amount post-test scores and the independent variables are the subtitles conditions the participants have been assigned to (Group 1 – Interlingual mode = English sound + Spanish subtitles; Group 2 – Intralingual mode = English sound + English subtitles).

In order to test homogeneity of variances (i.e. the variance of the dependent variable should be the same in each of the groups or in other words the spread of the scores should be the same at each level, packed around the mean), Levene's test has been carried out both with the mean and the median. For our sample, the results of the test $F(1,40) = 1.39$ with the mean and $F(1,40) = 1.16$, with the median show that the variances are roughly equal. Thus there is no significant difference between the variances of the sample as $p > 0.05$ ($p = 0.24$ with the mean and $p = 0.28$ with the median), which means that the homogeneity of variance assumption has been met and therefore the null hypothesis can be considered feasible. In the current context the variances of the two groups are considered equal and hence the test confirms the assumption that the scores in the tested population are relatively equal.

Furthermore, the Welch Two sample t -test and the effect size was carried out in order to spot the magnitude of the observed effect in our sample and to identify the differences in students' performance between the two subtitle conditions. Hence, the t -test shows significant results in relation to the boundary point set at .05 alpha value and the difference between the two groups scores reveals statistical significance ($t = -2.70, p = 0.01$). The average for Group 2 (English subtitles) post-test ($M = 14.68, SD = 4.97$) is higher than the average for Group 1 (Spanish subtitles) post-test ($M = 10.95, SD = 3.94$), therefore it

Table 1

T-test of post-test by group, mean scores (SD) in each condition, the level of significance and the effect size (Cohen's *d*).

Welch two sample <i>t</i> -test					
Group/condition	<i>N</i>	Mean	<i>SD</i>	<i>p</i> -Value	<i>d</i>
G1 (Sp.S)	18	10.95	3.94	0.01	.39
G2 (En.S)	22	14.68	4.97		

Table 2

ANCOVA test-analysis of covariance.

Parameter	Estimate	SE	<i>T</i> values	<i>p</i> -Value
(Intercept)	6.74	1.37	4.90	<0.001
Group2	2.53	1.27	1.99	0.05
Pre.test	0.73	0.17	4.08	0.001

Table 3

ANCOVA – covariate and interaction analysis of the numerical and categorical variables.

Parameter	Estimate	SE	<i>T</i> values	<i>p</i> -Value
(Intercept)	7.16	2.06	3.47	0.001
Group2	1.85	2.75	0.67	0.504
Pre.test	0.65	0.32	2.04	0.047
Group2:Pre.Test	0.10	0.39	0.27	0.783

was spotted a mean difference of 3.73 points between the two conditions, revealing higher scores under the intralingual condition (see Table 1).

The effect size was calculated, too in order to quantify the difference between the two groups and to measure the effectiveness of the treatment (Coe, 2000). Cohen's rule of thumb suggests 0.1 or less representing a 'small' effect size, 0.3 a 'medium' effect size and 0.5 a 'large' effect size (Field et al., 2012). Reporting the effect size has been considered essential to reinforce the significant value and to support the assumption that if the results do not show at least a small effect size, no meaningful difference can be noticed, even if the alpha value is statistically significant (Cohen, Manion, & Morrison, 2011, p. 617). In our sample, the results showed that it did represent a medium-sized effect ($d = .39$), which means that the effect accounts for 9% of the total variance and the difference in means between the two groups and subtitling conditions showed a medium effect among the sampled population.

Additionally, an analysis of covariance with ANCOVA was carried out in order to identify any effect of the pre-test on the post-test. In other words, it was aimed at establishing the relationship between the participants' pre-test and their post-test scores and whether high or low results in the pre-test would trigger similar results in the post-test. The ANCOVA test shows statistically significant results ($p = 0.05$), which can be considered significant given the quite small size of the sample ($N = 22$). It is considered that results in a small sample size have lower chances of being statistically significant compared to larger sample sizes (Royall, 1986). The reason why larger samples increase the chances of significance is mainly because they are more likely to reflect the population mean, thus the larger the sample sizes, the more accurately the sample will reflect the population was drawn from, so the distribution is more likely to be closely around the population mean. Thus the current results show significant test results $F(2,37) = 12.92$, $p = <0.001$ and it can be stated that for every unit a student in group 2 scored higher on the pre-test, he/she will score 2.53 points higher on the post-test. Moreover the effect of the pre-test on the post-test is significant in the case of both groups ($p = 0.001$), which means that for every unit a student scored higher on the pre-test, he/she will score 0.73 points higher on the post-test (see Table 2).

In order to answer the second research question, the relationship between the dependent and independent variables was investigated, by taking into consideration the interaction between the two conditions (Spanish and English subtitles) and participants' prior proficiency level. Therefore, analysis of covariance using ANCOVA with interaction effect was performed. The results of ANCOVA test $F(3,36) = 8.42$, $p < 0.001$ show no significant interaction effect between the two groups and their prior proficiency level ($p > 0.05$). Therefore, there is no significant effect of the two subtitle conditions (intralingual and interlingual) on students' proficiency level in the two groups. In other words, the difference in scores between both subtitle conditions is not dependent on students' prior proficiency level. The results support the assumption that learners' prior proficiency level did not influence the post-test scores after being exposed to subtitled episodes in any of the two subtitle treatments (see Table 3).

Discussion

The aim of the current study was to evaluate the effect of subtitled authentic audiovisual materials on informal and colloquial language learning in higher education. Thus, the results support and reinforce previous literature in relation to the use of subtitles as language didactic tools (Araújo, 2008; Bird & Williams, 2002; Bravo, 2008, 2010; Caimi, 2006;

Danan, 2004; Talaván, 2010). Indeed, the significant effect of the intralingual condition (Group2-English subtitles) over the interlingual one (Group1-Spanish subtitles) enlarges the current spectrum on the issue and adds a justified value to the potential of intralingual subtitles in higher education as teaching and learning tool for both instructors and foreign language learners.

Overall, the results disclose a significant effect of the intralingual condition (Group2-English subtitles) on participants' post-test scores when exposed to authentic episodes from the American sitcom 'Friends'. Students were able to rely on the visual, audio and written elements from the videos in order to identify the correct meaning of the informal expressions and words in the provided context. We can conclude that based on the findings of the study, the first research question can be answered and the first hypothesis can be confirmed. Thus, students who were exposed to authentic audiovisual materials for a period of 7 weeks with intralingual (English) subtitles benefited more, as regarding their lexical learning, than those who watched the episodes under the interlingual (Spanish) condition. The current hypothesis contradicts previous research studies which revealed that interlingual subtitles are more beneficial for language learning than intralingual subtitles (Bianchi & Ciabattoni, 2008; Bravo, 2008, 2010; Ghia, 2007; Pavesi & Perego, 2008), but supports several investigations that accounted for the benefits of same language subtitles (Araújo, 2008; Bird & Williams, 2002; Borrás & Lafayette, 1994; Caimi, 2006; Chai & Erlam, 2008; Garza, 1991; Vanderplank, 1988; Zarei, 2009).

The data analysis shows that there is no significant interaction effect between participants' post-test scores and the interlingual and intralingual subtitling conditions, which means that the difference in scores between both subtitling conditions is not dependent on students' previous proficiency level. The medium-sized effect ($d = .39$) also reinforces the belief that independently of students' low, intermediate or high proficiency level, they can benefit from exposure to authentic audiovisual materials subtitled in English, and therefore acquire informal vocabulary and colloquial expressions in the provided context. However, further investigation into the relationship between learners' proficiency level and vocabulary learning after being exposed to subtitled audiovisuals is needed. As such, the second research question can be answered and the second hypothesis can be considered partially feasible. The intralingual condition is considered to have greater effect, concerning lexical learning, on students' post-test scores than the interlingual condition after exposure to authentic video materials. Even though no definite conclusion concerning learners' proficiency level and their post-test performances can be drawn only from the lack of interaction between the variables, both low and intermediate proficiency level students proved to benefit from exposure to subtitled audiovisual over a prolonged period of time.

The results of this study are in line with other research studies that claim that 'viewers regardless of educational level or language background benefited significantly from captioning, even with only one viewing' (Price, 1983, p. 8). We believe that the educational context that our participants came from could partially explain the results of the study. Students are more likely to be interested in the intralingual subtitles, as their main purpose when studying an English Degree is to maximize their interaction with the foreign language as much as possible. Accordingly, by being able to see the written form of the spoken language, especially the informal and colloquial expressions that are so challenging to acquire and to remember, they felt confident and reassured that the item they were listening to was the correct one and in this way they could easily identify its meaning by connecting the visual, the oral and the written form, thus 'linking pronunciation to the written form and the mental division of sounds into single words' (Caimi, 2006, p. 87).

However, there are limitations concerning this study. Firstly, due to the profile of the participants (higher education students studying a BA in English Studies) it is not possible to draw definite conclusions. Learners of different ages and areas of interest could respond differently to the treatment, therefore further research with distinctive participants from the ones used in this study could reveal different tendencies and findings. Secondly, no delayed tests have been carried out after the treatment, which could have strengthened our findings and offer a broader perspective on the topic. A non subtitle group was not possible to be formed due to the limited number of participants and the design of the course. Having a control group (a non subtitle condition) would have brought further relevance to the use of intralingual subtitles as learning tools in the classroom. Nevertheless, previous research investigating the effects of all three subtitle conditions (intralingual, interlingual and no subtitle) reached the conclusion that content comprehension, language learning and listening comprehension was more beneficial under one of the subtitled condition, either inter or intra, while under the no subtitle condition learners showed the poorest results (Bianchi & Ciabattoni, 2008; Bravo, 2008, 2010; Hayati & Mohmedi, 2011).

This study investigated only vocabulary acquisition, so expanding the experiment to testing other language skills, such as spoken production, would be recommendable for future research. Other issues in relation to informality and subtitles should be explored, too for instance the effect of intralingual subtitles over a longer period of time and its effects on oral production, which is an approach that has not been investigated so far and it would be of interest and relevance for the field of teaching and learning second/foreign language acquisition and audiovisual translation.

Conclusion

The statistically significant differences found in this study between the two groups and the missing effect of the interaction between the two conditions and learners' prior proficiency level enhances even further the belief that intralingual subtitles are more beneficial than interlingual subtitles for higher education students, even in the case of students with low language level at the outset of the intervention. However, the implication of the language level upon learners' post-test performance should be further on analysed, as no conclusive procedures have tested the effect of learners' proficiency and their response to the treatment in the current study.

Both groups contained students from A2 to C1 CEFR level, and the post-test scores, as well as the lack of interaction, showed promising results in relation to learners' overall performance. Therefore, this implies a degree of questioning previous empirical studies that state that intralingual subtitles are not favourable for beginner students, but rather for intermediate and advanced learners (Borrás & Lafayette, 1994). Nevertheless, the findings of the study cannot claim categorical disagreement with the previous statement, given the lack of conclusive results, the context of the study and the profile of our participants.

Our current sample may have responded differently to the two subtitle conditions, given their acquaintance with the system of the second/foreign language while studying a BA in English Studies. Thus, the beneficial effect of the English subtitles upon learners' outcome could also be due to the fact that they have already mastered certain skills and aptitudes in the foreign language and therefore they are prone to develop their previously acquired knowledge and make use of intralingual subtitles as a support and reinforcing method (Araújo, 2008; Borrás & Lafayette, 1994; Garza, 1991; Vanderplank, 1988). The beneficial effect of the intralingual condition correlates with learners' own perception when asked in the questionnaire about the most beneficial subtitle language. 84% of the respondents considered English subtitles as being the most favourable for vocabulary learning and improving oral comprehension, followed by 12% being in favour of Spanish/Catalan subtitles, whereas only 4% claimed no subtitled films help language learning. Additionally, 74% of the respondents supported the use of subtitles as a means of enhancing film content comprehension, whereas only 17% considered them distracting and 5% regarded subtitles as impeding them following the film plot.

The beneficial results of the intralingual condition makes the study even more relevant in the Spanish context, a traditionally dubbing country, where people perceive subtitles of 'bothering nature' (Talaván, 2007, p. 42) and where there is a general belief in the quality of the dubbing industry. This makes the researcher/instructor confident of the powerful mark the experiment had left on the participants' learning process, motivating them to expand the watching habits outside the classroom context and make use of the potential power that resides in subtitled television series, films and other audiovisual materials.

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