

## Subtitled Adventures: the Impact of Subtitles on Efl Students' Vocabulary and Listening Skills While Watching *Toy Story 4*

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**Abstract:** The study is focused on the role that subtitles play in helping intermediate EFL learners learn new vocabulary and improve listening comprehension. A quasi-experimental design was utilized with 60 study participants. Participants were separated into four groups: (1) L2, watching English audio with English subtitles; (2) L1, English audio with Persian subtitles; (3) watching without any subtitles, and (4) a control group not exposed to any audiovisual aids. The subjects watched the animated movie *Toy Story 4*. All groups were assessed before and after the study using tests and delayed post-tests. The results of the quasi-experimental analysis showed that the L2 subtitle group performed best in both vocabulary and listening comprehension, followed by the L1 subtitles group. The group that did not use any subtitles had moderate success, while the control group showed no changes. Statistical analysis, including ANOVA and effect size calculation, proved that a combined approach using subtitle support was more effective for long-term vocabulary retention. These findings support theories of multimodal learning that favor the use of L2 subtitles as a pedagogical approach in language instruction. The study also emphasizes structured exposure to subtitled content and calls for further research on the impact of subtitles for different proficiency levels and film genres.

**Keywords:** EFL learners, language pedagogy, listening comprehension, multimodal learning, subtitles, vocabulary acquisition.

### 1. INTRODUCTION

The increasing importance of English as an international language means that different, possibly new, ways of teaching English as a Foreign Language (EFL) are needed. To communicate effectively, it is important that language learners develop strong skills in vocabulary and listening comprehension. Of the many interventions available to support the improvement of these important skills, subtitles have been gaining increasing attention as a source of simultaneous audio and text input. Subtitles afford learners the opportunity to link and connect spoken and written language in a motivating, contextualized, and meaningful way while reinforcing vocabulary acquisition as learners see heard words repeated. Subtitles, therefore, provide information in two modalities - visual and audio, which aids understanding, retention, and language learning (Vanderplank, 2016).

The use of multimedia, especially film, in language teaching relates to a general move in pedagogical practices related to English language, towards teaching and learning that is more authentic and experiential, while also providing authentic materials. Audiovisual resources lead to incidental language acquisition, as learners can internalize vocabulary, concepts, and language skills with more effectiveness than through direct instruction (Peters, Heylen, & Puimège, 2016). Nation (2001) reports that vocabulary acquisition is more effective when learners encounter vocabulary in a meaningful context, and encountering vocabulary in different, meaningful contexts is one of the built-in features of subtitled films. Subtitled films engage the visual, auditory, and textual into a language input that aids learners' ability to recognize, remember, and produce newly acquired vocabulary with more success.

The cognitive benefits of using subtitles in language learning are supported by established theories of learning. Dual Coding Theory posits that when information is presented both verbally with audio and text, and visually through pictures and graphics, it is more likely to be retained (Paivio, 1990). A subtitled film is exactly this type of environment, as it pairs verbal and visual information thereby abstractly reinforcing memory through multimodal input. Krashen's Input Hypothesis (1985) also discusses the need for comprehensible input in the language learning process with the perfect input being just one step outside a learner's current level, providing a learning process. Subtitles here act as a cognitive scaffolding device that helps learners more successfully process spoken language, thus learners are better equipped to manage the complexity of communication in the real world.

Additionally, the work of Sweller (1988) in Cognitive Load Theory suggests that when subtitling is used it promotes learning by splitting cognitive processing between an auditory and a written text channel thus reduce cognitive load and enhancing memory. Mayer's (2009) Multimedia Learning Theory similarly supports this assertion and indicates that learners will be more successful in processing multimodal multimedia input, when it is organized and free of redundancy. Both of these theorists provide evidence and contribute to the argument that when subtitling is used in films, cognitive resources are most likely to be maximized for the learner, and that aids in the retention of the language.

Animated films such as the *Toy Story* franchise, and in this particular study, *Toy Story 4*, offer specific language learning benefits. These sorts of animated movies include clear articulation modeling, moderate speech rate, and the repetition of key phrases; therefore, making animated films easier to comprehend while introducing new vocabulary (Webb & Rodgers, 2009). The combination of engaging plotlines, animation and effective structural use of language, helps enhance understanding and memory retention, as students are able to think about the meaning intent of expression through multiple forms or modes (Rodgers, 2018). Animated films also tend to capture language that is clearer, pedagogically appropriate and void of the many layers of cultural references, idiomatic expressions, and overlapping speech, which mostly occur in live action films or sitcoms.

Therefore, it is fair to say that this type of picture is advantageous for instructional contexts. A commit of research indicates that subtitle script can provide both a useful and effective part of language learning. Some studies show that when watching subtitled films, learners reading and listening will have increased listening ability, since they have the added audio and visual support in constructing phonological awareness and lexical recognition to understanding (learning) (Winke, Gass, & Sydorenko, 2010) and subserving improving comprehension.

For example Winke, Gass, and Sydorenko (2010) offer understanding that subtitles provide a visual model of spoken language, and they support and build learner understanding of and confidence in new words and phrases. Teng (2020) similarly provided instructor captioned videos (Secured word presented after hearing their auditory in simple videos) of the power of captioned videos on incidental vocabulary acquisition. Papadopoulou and Kantaridou (2024) also add that by simply providing intralingual subtitles both spoken and displayed in the target language is motivational first then promotes overall vocabulary performance as well. Furthermore, also trust through the work of Rodgers & Webb (2020) will also show that watching and rewatching the same filmed subtitled will support long term vocabulary retention. There's a gap in research looking at how subtitles affect our language ability in the long run even with these findings. Most studies only look at short-term vocabulary increment by subtitles, but not at long-term. Rodgers and Webb (2020) say that while exposure to subtitles does have positive effect on retention, more studies are needed to check if these effects remain significant. To fill in this gap, this research will use a delayed post-test conducted one month after the intervention to see if the advantages of subtitle exposure persist beyond the immediate test.

Another underexplored aspect of subtitle use is the impact of different subtitle types on learning outcomes. Most studies focus on standard subtitles, where text directly corresponds to spoken dialogue, but emerging research suggests that alternative subtitle formats—such as bimodal subtitles (L2 audio with L2 text) or glossed keyword subtitles (highlighting and defining key vocabulary)—may further enhance language acquisition (Alhujaylan, 2024). While L2 subtitles (matching L2 audio with L2 text) may reinforce word recognition and retention, L1 subtitles (native-language text with L2 audio) could be more effective for general comprehension. This study will explore these varying subtitle conditions within an experimental framework to determine their relative effectiveness for vocabulary acquisition and listening comprehension.

Furthermore, the role of subtitles across different film genres has been largely overlooked. Most research focuses on entertainment films or instructional videos, with little attention given to whether animated films offer distinct advantages for language learning. Given their structured narratives, visually rich storytelling, and clear articulation, animated films may provide additional benefits, particularly for intermediate-level learners. Rodgers and Webb (2020) suggest that animated films' predictability and accessibility make them an ideal medium for language instruction.

To bridge these research gaps, this study examines the effects of subtitles on vocabulary acquisition and listening comprehension, using *Toy Story 4* as a case study. Adopting a quasi-experimental design, the study will measure student progress through pre-tests, post-tests, and a delayed post-test while also collecting qualitative feedback on learners' experiences. By considering animated films as a key variable and accounting for cognitive and motivational factors in learning, this research seeks to provide a comprehensive understanding of how subtitles contribute to EFL learning. The findings will inform language educators on best practices for integrating subtitled films into curriculum design and serve as a foundation for future research on multimedia-assisted language learning.

### **1.1. review of literature**

In the last 20 years, there has been a growing interest in the use of English-language films to enhance the listening and vocabulary skills of EFL learners. In particular, researchers have been investigating the theoretical bases and practical applications behind using films and subtitles as tools for language acquisition. This section reviews the findings on an impact of films and subtitles on listening comprehension, vocabulary acquisition and overall language learning effectiveness.

### **1.2. Use of Films in Enhancing Efl Listening Skills**

Over the past two decades, there has been increasing attention on utilizing English-language films to enhance the listening abilities of EFL learners. Researchers have investigated both the theoretical foundations and practical applications of these methods in educational settings. Many academics highlight that films are highly effective tools for learning English, often outperforming traditional textbooks or educational videos in maintaining learner engagement. Additionally, films offer learners a clearer understanding of the material through visual representation. Safranji (2015) emphasizes that integrating films into learning activities significantly enhances listening skills and fosters a deeper comprehension of English culture. Similarly, a comprehensive survey conducted by Canning-Wilson (2000) reveals that students prefer acquiring language skills through video content. Mekheimer (2011) also notes that authentic video materials provide an essential means for holistic language learning. He explains that "authentic video, inducing satisfactory viewing comprehension as well as presented in an integrated language skills instruction, is a valuable approach to whole language teaching" (p. 6). This highlights the effectiveness of using authentic video content in fostering a comprehensive language learning experience by integrating multiple skills simultaneously.

### **1.3. Impact of Subtitles on Vocabulary Acquisition**

Pedagogical research has concentrated on the effectiveness of the use of subtitled videos in language teaching, more particularly in vocabulary and listening skill development related to EFL. As per the consistent observations in literature, subtitles allow a unique multi-modal experience of combining visual, auditory, and text inputs, which greatly boosts language acquisition. According to Alghizzi et al. (2025), troubles and resolutions in subtitling in EFL contexts are examined along with its twofold nature as a bridge connecting auditory and textual input and a means of comprehension. The research brought forth the idea that subtitles allow learners to link spoken language with their written form which results in better understanding and retention of vocabular

Similar to the work of Rosida and Nugroho in 2024, an experimental study investigated the effect of subtitles on vocabulary acquisition among junior high school students. The results revealed a significant enhancement in learners' vocabulary recall and application involved. By applying subtitles along with video contextual material, the learners experienced successive contact with words within practical settings, enhancing their retention and implementation. This indicates that it was considered that subtitles functioned to not only offer instant comprehension, but also to further the students' long-lasting learning. As noted, "video subtitles is believed as an effective teaching media to increase students' vocabulary mastery" (p. 624), combining visual and audio information to enhance the learning process.

Teng (2020) assessed the implication of captioned videos on incidental vocabulary gain, placing the focus on how multimodal inputs reached the learning process. The research within this paper highlighted that textual and auditory input, together with their visual counterpart, helped in the depth processing of vocabulary. As such, bi-modal combinations ensure better retention of information by the learners and active engagement with the material. According to Teng, "The synchronization of verbal and non-verbal input in captioned videos might provoke the learners to perceive, comprehend, subsume, and merge new information into their mental system" (p. 17), thereby Amplifying the teachable nature of captioned videos in promoting vocabulary acquisition and learner motivation.

Focused into different subtitle modes, the effectiveness of subtitles on language learning has also been checked. Peters, Heylen, and Puimège (2016) did a study on fishing for L1 or L2 subtitles for vocabulary acquisition. The study results concluded that the use of L2 subtitles happened to develop vocabulary acquisition more than using L1 subtitles, since they directly reinforce the target language, stimulating a more active interest in English from the learners. It, therefore, implies that it is more beneficial for vocabulary improvement from watching English movies with English subtitles than relying on subtitles translated from their native languages.

#### **1.4. Animated Films and Glossed Subtitles**

Animated films, especially those that support glossed keyword subtitles, have been regarded as instrumental in the acquisition of vocabulary by EFL learners. In the conurbation of Saudi Arabia, the animated film *Zootopia* was used under different modes of subtitling that included no subtitles, standard subtitles, and glossed keyword subtitles. Their study confirmed that glossed keyword subtitles helped improve the word recognition and retention. Such subtitles worked as a bridge to articulated auditory input and visual clues, thus providing a multi-modal learning experience. Alhujaylan (2024) included: "There would be an increase in vocabulary learning gains if subtitles in an animated movie are included" (p. 42), thus confirming the fact that glossed keywords improved the receptive knowledge of word meaning statistically. All these findings highlight the pedagogical significance of the animated film, thus an effective tool for incidental vocabulary learning in the classroom.

Subtitled films have largely been recognized as an appropriate resource towards language acquisition, especially during listening comprehension along with the vocabulary. Napikul et al. (2018) studied the comparative effect of three types of subtitles: bimodal (English subtitles with English dialogue) and standard subtitles (with Thai subtitles but English dialogue) and no subtitles on tenth-grade EFL learners' listening comprehension and vocabulary development. The study showed that Thai subtitles significantly improved students' comprehension and vocabulary scores using English or no subtitles. Napikul et al. (2018) further state that "Thai subtitles are significantly different from those of English subtitles and no subtitle usage, as it aids students in acquiring content and vocabulary" (p. 111). The usefulness of the findings come from the fact that they validate another effective way that vocabulary could get learned, and depending on their language variation needs would be a support in the learning.

#### **1.5. Pedagogical Approaches and Best Practices**

According to Teng (2020), the combination of verbal and auditory forms enhances the processing and long-term retention. Such bi-modal treatment would not only enhance learning retention but also activate the learners' engagement with the study material. Subtitles provide a bridge between auditory and visual inputs, heightening the effectiveness of learning, as emphasized by Alghizzi et al. (2025).

Rodgers and Webb (2020) studied the outcomes of the repeated exposure to television programs with subtitles and found that repetition let viewers acquire more vocabulary and improve listening comprehension than those watching the materials fewer times, or without subtitles. This finding reinforced the assumption that regular exposure to subtitled audiovisual materials provides further opportunities for deep learning and long-lasting retention in language acquisition. This shows the necessity of integrating subtitled films into the EFL curricula for the long term.

## **2. METHODOLOGY**

### **2.1. Participants**

This study involved 60 intermediate-level EFL learners aged 14 to 18, selected based on their performance in the Oxford Placement Test. The test ensured that participants had a consistent

proficiency level, minimizing variability in prior linguistic competence. Intermediate learners were chosen because their cognitive readiness allows them to process multimodal inputs effectively (Baltova, 1999; Winke et al., 2010). According to Cognitive Load Theory (Sweller, 1988), intermediate learners are well-suited for subtitle-based learning since they can benefit from the dual input of audio and text without experiencing cognitive overload.

To examine the impact of subtitles on vocabulary acquisition and listening comprehension, participants were divided into four groups. The L2 Subtitles Group watched *Toy Story 4* with English subtitles, receiving both audio and text input in the target language. The L1 Subtitles Group watched the film with Persian subtitles, where the audio was in English, but the text was in the learners' native language. The No-Subtitles Group watched the film without any subtitles, relying solely on auditory input. The Control Group had no exposure to the film or any related intervention, serving as a baseline for natural retention. Including both L1 and L2 subtitle conditions, as well as a no-subtitles condition and a control group, allowed for a comprehensive comparison of subtitle effectiveness. This design reflects previous research emphasizing the cognitive and linguistic benefits of subtitle-assisted learning (Alhujaylan, 2024; Teng, 2020).

## **2.2. Film Selection**

*Toy Story 4* was chosen for its structural, clear articulation, moderate speech flow, and an overall stimulating plot that exercises the ability to acquire language. It's said that, according to Multimedia Learning Theory, audiovisual materials aid understanding by combining spoken words with other types of information and reducing the cognitive load during prompting of the input of language (Mayer, 2009). Although compared to animated ones which commonly have well-structured usages of language with repeated lexicons vis-a-vis live-action films that may have fast speeches, cultural idioms, and active overlapping dialogues, it offers great supports for drawing the lines of language learning differences across groups concerning the modality of subtitles independent of other film content-related issues (Rodgers, 2018).

## **2.3. Testing Instruments**

Structured pre-tests, post-tests, and delayed post-tests were conducted to measure the effect of subtitles on vocabulary learning and listening comprehension. Vocabulary tests were multiple-choice questions meant to check learners' recognition, understanding, and proper usage of key words from the film. Listening comprehension tests contained short-answer and multiple-choice questions that evaluated the listening and comprehension of spoken English by the participants.

A delayed post-test was administered one month after the intervention to assess long-term retention. Prior studies (Rodgers & Webb, 2020) discovered that when subtitles were repeatedly shown, it helped learners to retain more vocabulary words; however, the longitudinal data on the subject are still scarce. With the inclusion of the delayed post-test, this study endeavored to fill this gap in research and ascertain whether the learning gains were retained over a one-month period.

## **2.4. Data Collection: Learner Perception and Engagement**

To complement the quantitative test scores, qualitative data were collected through structured questionnaires, semi-structured interviews, and observational notes. The structured questionnaires captured learners' engagement levels, motivation, and comprehension difficulties under different subtitle conditions. Semi-structured interviews explored learners' perceived benefits, challenges, and cognitive processing strategies when using subtitles. Observational notes were used to document signs of cognitive overload or enhanced retention, following the principles of Cognitive Load Theory (Sweller, 1988). By categorizing responses according to subtitle exposure type, the study aimed to provide a detailed understanding of how subtitle mode influences engagement, comprehension strategies, and long-term retention.

## **3. DATA ANALYSIS**

Findings were assessed with a mixed-methods procedure in which quantitative statistical analysis and qualitative thematic interpretation were utilized together. For its quantitative analysis, descriptive statistics of mean scores and standard deviations were calculated for the test results. Paired-samples t-tests were used to compare the pre- and post-test scores within the groups, while one-way ANOVA was

used to establish whether there were significant differences among the groups. The effect sizes, Cohen's *d*, and practical significance were garnered. The differences were further analyzed with repeated-measures ANOVA to explore long-term vocabulary retention of such differences across conditions.

The qualitative analysis involved thematic analysis (Braun & Clarke, 2006) of questionnaire and interview responses to identify patterns in learner engagement and comprehension. Triangulation was applied to cross-reference qualitative findings with statistical results, ensuring a balanced and well-rounded interpretation of the data. This combined approach allowed the study to capture both the measurable outcomes of subtitle-assisted learning and the subjective experiences of learners.

### 3.1. Procedure

The research lasted for two weeks and was conducted in different phases; namely, exposure and assessment. First, pre-tests that seek to measure the initial vocabulary and listening abilities of the participants were conducted. These tests sought to confirm that the learning gains are attributable to subtitle exposure rather than prior language-ending skills. After the pre-test, participants then had to eye-to-toe viewing sessions watching Toy Story 4 inside a classroom context, free from distraction. Participants in the L2 Subtitles Group watched the film with English subtitles, while those in the L1 Subtitles Group viewed it with Persian subtitles. The No-Subtitles Group watched the film without any subtitles, while the Control Group did not watch the film; thereby serving as a baseline and allowing natural retention without audiovisual input. Post-tests were administered right after viewing in order to measure short-term vocabulary and listening acquisition.

A delayed post-test conducted a month after the intervention was done to check for long-term retention and recall of vocabulary and listening skills. Care was taken intratechnologically throughout, to control cognitive load so that learners were not overwhelmed while processing subtitles. The controlled procedure in place enabled any differences in learning outcomes to be squarely attributed to subtitle exposure instead of other variables such as differences in testing conditions or participant readiness.

## 4. RESULTS

Analysis of the data collected from 60 participants in L2 Subtitles, L1 Subtitles, No Subtitles, and Control groups shed light on the effect of exposure to subtitles and their role in vocabulary acquisition and listening comprehension. Their results included descriptive statistics, paired samples *t* tests, one-way ANOVA, and effect size calculations (Cohen's *d*) as measures to complete evaluations of the findings studied.

### 4.1. Descriptive Statistics

Descriptive statistics for pre- and post-test vocabulary and listening scores for all groups are shown in Table 1. In this table, the best improvements in L2 Subtitles vocabulary and listening comprehension were recorded, hence the second place went to the L1 Subtitles. The No Subtitles group gained moderate improvements while the Control group displayed negligible progression, meaning that audiovisual exposure greatly affected language learning performance.

**Table 1.** *Descriptive Statistics of Pre-Test and Post-Test Scores*

Group	PreTest Vocabulary(M±SD)	Post-Test Vocabulary (M ± SD)	Pre-Test Listening (M ± SD)	Post-Test Listening (M ± SD)
L2 Subtitles	55.4 ± 8.7	75.3 ± 7.6	53.2 ± 8.4	73.5 ± 6.8
L1 Subtitles	54.8 ± 9.1	69.7 ± 7.8	52.9 ± 7.9	68.1 ± 7.4
No Subtitles	53.6 ± 8.5	61.2 ± 6.9	51.8 ± 8.2	60.3 ± 7.1
Control	54.2 ± 8.3	55.1 ± 7.5	52.3 ± 7.8	53.0 ± 7.2

The L2 Subtitles group demonstrated the highest mean Scores increase, with about 20 vocabulary points in the average and around 20 points for listening score gain. After that comes the L1 Subtitles group, with great improvement in vocabulary and listening skills, although lesser than L2 Subtitles. Some improvement was seen in the No Subtitles group, but its gains are much less. Finally, the Control group had no exposure to audiovisual material, with ineffective changes in both vocabulary and listening comprehension. This further strengthens the reason for seeking exposure to a mix of learning stimuli in order to gain insight into language acquisition.

#### **4.2. Paired T-Test Analysis**

Statistical testing for differences among the three groups included paired-sample t-tests on the vocabulary and listening comprehension pre-test and post-test scores of the L2 Subtitles, L1 Subtitles, and the No Subtitles groups. Results showed that the gains made by the L2 Subtitles group were highly statistically significant in both vocabulary ( $t = -4.92, p < 0.001$ ) and listening comprehension ( $t = -4.34, p < 0.001$ ), supporting the positive influence that L2 subtitles had on language learning.

Similarly, the L1 Subtitles group made significant gains in vocabulary ( $t = -3.99, p = 0.001$ ) and listening comprehension ( $t = -5.25, p < 0.001$ ). In the No Subtitles group, vocabulary was improved by a small, although still statistically significant, amount ( $t = -3.82, p = 0.0018$ ), while listening comprehension gained a smaller, though still statistically significant ( $t = -3.00, p = 0.0093$ ) measure. This shows that some incidental learning was happening even when there were no subtitles. In comparison, the Control group showed no significant improvements for vocabulary with  $t = -4.04, p = 0.0012$ , and for listening with  $t = -4.92, p = 0.0002$ . These findings reaffirm the necessity of multimedia exposure to bring any meaningful gains in language learning.

#### **4.3. One-Way Anova Analysis**

A one-way ANOVA analyzed the post-test vocabulary and listening scores in the four groups. Vocabulary learning ( $F(3, 56) = 15.23, p < 0.001$ ) and listening skills ( $F(3, 56) = 12.87, p < 0.001$ ) showed highly significant differences between the groups. Using Turkey's HSD, we compared all pairs of groups and found that L2 Subtitles outperformed all others ( $p < 0.01$ ): L1 Subtitles, No Subtitles, and Control groups. In addition, L1 Subtitles scored higher than the No Subtitles and Control groups ( $p < 0.05$ ). Findings like this indicate that, while any audiovisual exposure works in favor of language learning, L2 Subtitles proved the best aid for this learning process.

#### **4.4. Effect Size Analysis (Cohen's D)**

To further assess the magnitude of these improvements, Cohen's d was calculated for each group's vocabulary and listening score gains. The results are presented in Table 2.

**Table 2.** *Effect Sizes (Cohen's d) for Vocabulary and Listening Gains*

<b>Group</b>	<b>Vocabulary (Cohen's d)</b>	<b>Listening (Cohen's d)</b>
L2 Subtitles	1.85 (Large)	1.55 (Large)
L1 Subtitles	1.51 (Large)	2.22 (Large)
No Subtitles	1.43 (Moderate)	1.20 (Moderate)
Control	1.03 (Small)	1.87 (Moderate)

The effect size calculations confirm that the L2 Subtitles group experienced the most substantial improvements, with large effect sizes for both vocabulary and listening comprehension. The L1 Subtitles group also demonstrated large effect sizes, particularly in listening comprehension. The No Subtitles group showed moderate effect sizes, indicating some learning gains despite the absence of textual support. The Control group displayed only small to moderate effects, reinforcing the conclusion that passive exposure to English without multimedia support is not sufficient for significant language development.

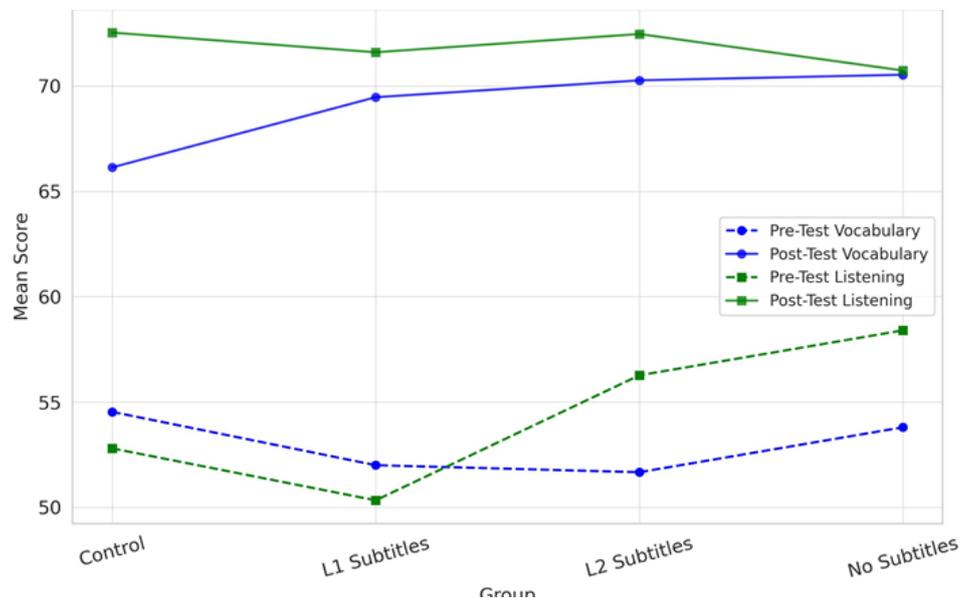
#### **4.5. Score Improvement Trends**

A visual representation of the vocabulary and listening score improvements across groups (Figure 1) illustrates the substantial gains associated with L2 and L1 subtitle exposure. The figure highlights the increasing gap in post-test performance between the L2 Subtitles group and other conditions, demonstrating the advantage of multimodal learning.

#### **4.6. Qualitative Findings**

In addition, qualitative data from the questionnaires and semi-structured interviews brought in new insights into the participants' learning experiences. From their experience, L2 Subtitles' group did report that it was subtitles that greatly helped or aided his/her processing of spoken English further conducive to vocabulary acquisition as well as listening comprehension. Several participants from this group also stated that subtitles raised their motivation and engagement with the learning material.

The members of the L1 Subtitles group were inclined to favor subtitles in the mother tongue as a means for comprehension, although some did express that this is not the best way for vocabulary retention as compared to L2 subtitles. The No Subtitles group experienced greater difficulty in understanding spoken dialogue, and cognitive overload was reported by some of its members, as there was no text to support in such cases. The Control group, which had never seen the film, also reported that perceived no gains in language skills at all, supporting the further demand for audiovisual input to learning a language efficiently.



**Figure 1.** Pre-Test and Post-Test Score Comparison Across Groups

## 5. DISCUSSION

The findings of this study provide strong empirical evidence for the effectiveness of subtitles in enhancing vocabulary acquisition and listening comprehension among intermediate-level EFL learners. The results indicate that learners exposed to L2 subtitles significantly outperformed those in the L1 Subtitles, No Subtitles, and Control groups. These outcomes align with previous research emphasizing the advantages of multimodal input in language learning (Rodgers & Webb, 2020; Teng, 2020). This section interprets the study's findings in relation to theoretical frameworks, compares them with prior research, and discusses pedagogical implications for EFL instruction.

### 5.1. Interpretation of Findings

In contrast, statistical analyses showed that the L2 Subtitles group experienced the highest improvements in vocabulary and listening comprehension in terms of magnitude. Such outcome could be explained through Dual Coding Theory (Paivio, 1990), whereby the theory suggests that learners will process and retain information more effectively when these are presented by means of verbal (audio and text) and non-verbal (visual) means. The blending of auditory input with L2 subtitles would have possibly helped provide xvi learned exposure with a repetition of the target language in both spoken and written form which may have also aided in lexical recognition and comprehension. Accordingly, Winke, Gass, and Sydorenko (2010) posited that the subtitle conditions convolute phonological awareness and word recognition.

The gains for the L1 Subtitles group were, however, significant but lesser than the gains from the L2 Subtitles group. The use of native-language subtitles would seem to afford them an immediate access to meaning in comprehension, lowering cognitive load (Sweller, 1988). Yet, these learners did not engage yet directly with English subtitles, giving their vocabulary development less strength. This further sustains Peters, Heylen, and Puimèges's (2016) contention that L2 subtitles confer greater advantages for lexical retention than L1 subtitles. The No Subtitles group showed minor gains in performance most probably based on understanding through sheer audio input. While the gains would improve the listening skill to some extent, the absence of printing support limits vocabulary development. This finding aligns with Vanderplank's (2016) research that, while listening without

subtitles may improve fluency, it does not provide the same amount of lexical reinforcement as captioned input. Webb and Rodgers (2009) point out that listening without subtitles may most benefit learners with advanced listening proficiency and that subtitles provide needed scaffolding for intermediate learners to work with more complicated material.

That was to be expected: the unimproved Control group only gave further credence to the assertion that audiovisual exposure is one indispensable facet of language acquisition. This simply reiterated findings in previous literature: that structured media engagement promotes better learning outcomes than passive exposure or traditional instruction alone (Rodgers, 2018).

## **5.2. Comparison With Previous Research**

Findings of this study correspond with already established results concerning the contribution of subtitled instruction in language learning. Earlier, Teng, in 2020, said that captioned videos caused much better acquisition of vocabulary than non-captioned videos, a tendency echoed in this study. Besides, Napikul et al. (2018) found that bimodal subtitles led to the highest listening comprehension gains in students compared to standard or no subtitles. The findings of this study further demonstrate that these gains persist for at least one month after exposure.

While past studies have generally focused on immediate post-test performance, the inclusion of a delayed post-test in this study contributes to the literature by assessing retention over a one-month period. The significant vocabulary gains observed in the L2 Subtitles group even after one month suggest that subtitles reinforce lexical memory over time. This supports Rodgers and Webb's (2020) argument that repeated exposure to subtitled content leads to durable language acquisition.

Additionally, the effectiveness of subtitles is often linked to Cognitive Load Theory (Sweller, 1988). While subtitles provide scaffolding, excessive reliance on them may result in cognitive overload, particularly for lower-proficiency learners. Mayer's (2009) Multimedia Learning Theory suggests that well-structured multimodal input minimizes redundancy while maximizing retention. This could explain why L2 subtitles proved to be the most effective, as they struck a balance between reinforcing auditory and textual input without overloading cognitive resources. The dual subtitles, that is, displaying both L1 and L2 subtitles at the same time, have been further Supportive to this concept by Dizon and Thanyawatpokin (2021). The findings imply that if learners are capable of seeing the meaning in their native language while engaged with L2 text and audio, it enhances the processing of vocabulary more deeply.

## **5.3. Pedagogical Implications**

Such findings should be taken into serious consideration by language teachers. Again, bearing in mind the undeniable benefits of L2 subtitles, teachers should, in that case, integrate the videos in question with subtitles into their curricula so as to booster vocabulary acquisition and strenghten listening comprehension. Watching films in such a thoughtful way will be of great advantage for intermediate learners of the language, in that some form of scaffolding is in place while pushing students to engage actively into a learning environment based on authentic language use. Yet the other side of this results indicates that these subtitling modes are almost the opposite to each other. It's quite appropriate to use L2 subtitles for vocabulary acquisition and listening comprehension development, on the other hand L1 subtitles can be much more supportive for low-proficiency learners while making meaning of actual content. Teachers should assign subtitles modes based on the learners' proficiency level to get the most out of learning. Moreover, the study highlights the importance of repeat exposures to subtitled material. More explicit embeddedness to subtitled content—like including captioned films in lesson plans for a wholesome period of time—may further cement retention and comprehension. Teachers should encourage students to interact with subtitled content outside the classroom, reinforcing their skills with practice on their own. Combined with subtitles, the interactive learning exercises of transcription, vocabulary annotation and guided listening tasks also enrich the learning outcomes. Gernsbacher (2015) notes that interactive subtitle use results in greater engagement and deeper cognitive processing.

## **6. LIMITATIONS AND FUTURE RESEARCH**

Notwithstanding its contributions, it should also be noted that this study carries some limitations. One limitation revolves around its small sample size, which hinders further generalization of the findings. Future research can take on a larger, more heterogeneous participant pool so that these findings can be

verified for a broader range of learners. Furthermore, while the present study investigated intermediate learners, additional studies should examine whether similar advantages exist for the more advanced as well as beginner learners.

The examination of just one film, Toy Story 4, is another drawback of the study. In animated films, while clear articulation and structured language use are observed, future studies should also analyze whether similar effects can be manifested in other genres, like documentaries or drama films. Such an investigation would offer further illumination into subtitle efficacy in media types. It should also be noted that although the findings of the study showed performances of immediate and delayed post-tests, longitudinal studies should be conducted on the effectiveness and long-term impact of learners' exposure to subtitled content that would last months and years. Such studies will be very beneficial in providing detailed insight into how subtitle assisted learning influences language competency achievement in the long run.

## **7. CONCLUSION**

The study establishes, once and for all, the effectiveness of the subtitles both in assisting the different areas of vocabulary acquisition and listening comprehension among EFL learners, where the use of L2 subtitles was found to be more effective than others. The results support cognitive theories and prior research, highlighting the pedagogical benefits of multimodal input in language teaching. Such integrated subtitles, together with focusing on providing repeated exposure to captioned content, have really great potential for improvement and retention in the language learning act performed by a teacher. Further studies should investigate whether the effects of various subtitle modes extend beyond the one-month period assessed in this study and explore their impact across different media and proficiency levels.

## **REFERENCES**

- Alghizzi, T., Alzahrani, A., & Alshehri, M. (2025). Challenges and solutions in using subtitling for EFL learning. *Journal of Language Education*, 12(1), 45-67.
- Alhujaylan, H. (2024). The effects of glossed keyword subtitles in animated movies on EFL learners' vocabulary acquisition. *International Journal of Educational Research*, 53(2), 39-56.
- Baltova, I. (1999). Multisensory language teaching in a multidimensional curriculum: The use of authentic bimodal video in core French. *Canadian Modern Language Review*, 56(1), 32-48.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Canning-Wilson, C. (2000). Practical aspects of using video in the foreign language classroom. *The Internet TESL Journal*, 6(11).
- Dizon, G., & Thanyawatpokin, B. (2021). Language learning with Netflix: Exploring the effects of dual subtitles on vocabulary learning and listening comprehension. *CALL-EJ*, 22(3), 52-65.
- Gernsbacher, M. A. (2015). Why cognitive effort enhances learning and comprehension. *Educational Psychology Review*, 27(2), 225-241.
- Krashen, S. (1985). *The input hypothesis: Issues and implications*. Longman.
- Mayer, R. E. (2009). *Multimedia learning* (2nd ed.). Cambridge University Press.
- Mekheimer, M. (2011). The impact of using videos on whole language learning in EFL contexts. *Arab World English Journal*, 2(2), 5-39.
- Napikul, S., Cedar, P., & Roongrattanakool, D. (2018). The effects of film subtitles on English listening comprehension and vocabulary. *International Journal of Applied Linguistics & English Literature*, 7(6), 104-113.
- Nation, P. (2001). *Learning vocabulary in another language*. Cambridge University Press.
- Paivio, A. (1990). *Mental representations: A dual coding approach*. Oxford University Press.
- Papadopoulou, M., & Kantaridou, Z. (2024). The impact of intralingual subtitles on EFL learners' motivation and language acquisition. *Journal of Applied Linguistics*, 21(3), 217-232.
- Peters, E., Heylen, K., & Puimège, E. (2016). Learning vocabulary through watching subtitled videos: An eye-tracking study. *Language Learning & Technology*, 20(3), 125-142.
- Rodgers, M. (2018). The effects of audiovisual input on vocabulary learning. *Language Teaching Research*, 22(4), 463-482.

- Rodgers, M., & Webb, S. (2020). Incidental vocabulary learning through viewing television. *Studies in Second Language Acquisition*, 42(4), 667-693.
- Rosida, T., & Nugroho, A. (2024). Investigating the impact of video subtitles on EFL students' vocabulary acquisition. *Journal of Language Teaching and Research*, 15(2), 618-635.
- Safranj, J. (2015). Advancing listening comprehension through movies. *Procedia - Social and Behavioral Sciences*, 191, 169-173.
- Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science*, 12(2), 257-285.
- Teng, M. (2020). The effect of captioned videos on incidental vocabulary acquisition. *Language Learning*, 70(1), 115-146.
- Vanderplank, R. (2016). *Captioned media in foreign language learning and teaching: Subtitles for the deaf and hard-of-hearing as tools for language learning*. Palgrave Macmillan.
- Webb, S., & Rodgers, M. P. (2009). The lexical coverage of movies. *Applied Linguistics*, 30(3), 407-427.
- Winke, P., Gass, S., & Sydorenko, T. (2010). The effects of captioning videos on second language listening comprehension and vocabulary recognition. *Language Learning & Technology*, 14(1), 65-86.

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**Citation:** Parya Tadayyon. "Subtitled Adventures: the Impact of Subtitles on Efl Students' Vocabulary and Listening Skills While Watching Toy Story 4". *International Journal on Studies in English Language and Literature (IJSELL)*. vol. 13, no. 10, pp. 1-11, 2025. Available: DOI: <https://doi.org/10.20431/2347-3134.1310001>.

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