

English Subtitles and Listening Comprehension: A Quasi-Experimental Study

 <https://doi.org/10.31004/jele.v11i4.3101>

*Henri Nugroho, Pasca Kalisa^{ab} 

¹²Universitas Negeri Semarang, Semarang, Jawa Tengah, Indonesia

Corresponding Author: henrinugroho62@students.unnes.ac.id

ABSTRACT

Listening comprehension remains challenging for EFL learners, while the effectiveness of English subtitles in authentic movie-based instruction remains inconclusive. This study examined whether English subtitles improve students' listening comprehension when learning through *The Truman Show*. A quasi-experimental design with a pre-test and post-test non-equivalent control group was employed with two intact first-year EFL classes at SMK IPT KARANGPANAS. The experimental group watched the film with English subtitles, whereas the control group watched the same film without subtitles. Data were analysed using descriptive statistics and an independent-samples t-test. The results showed no statistically significant difference between the groups' gain scores ($p > .05$), indicating that English subtitles did not significantly improve listening comprehension. These findings suggest that subtitles alone may not be sufficient to enhance listening performance when authentic films are used. Their effectiveness may depend on learner characteristics, instructional design, and learning context. The study highlights the need for carefully designed subtitle-supported activities in authentic movie-based EFL instruction.

Keywords: *English Subtitles, Listening Comprehension, EFL Learners, Quasi-Experimental Design, Audiovisual Learning*

Article History:

Received 25th July 2026

Accepted 30th August 2026

Published 01st September 2026



INTRODUCTION

Listening comprehension is widely recognized as one of the most fundamental yet challenging skills in second and foreign language learning. Unlike reading or writing, listening requires learners to process spoken language in real time while simultaneously recognizing sounds, interpreting vocabulary, understanding grammatical structures, and constructing meaning from contextual information. This complex cognitive process demands the integration of linguistic knowledge and background knowledge within a limited amount of time, making listening particularly difficult for English as a Foreign Language (EFL) learners. Consequently, many students experience difficulties in comprehending authentic spoken English because of variations in speech rate, pronunciation, connected speech, unfamiliar vocabulary, and cultural references embedded in natural communication (Güneş, 2007; Safranji, 2015, as cited in Gulec & Durmus, 2015).

In recent years, listening instruction has received increasing attention in language education because successful communication depends heavily on learners' ability to understand spoken language. Nevertheless, listening has historically received less emphasis than other language skills such as reading and writing, despite its essential role in language acquisition. Chang et al. (2019) argued that although research on second-language listening has increased considerably during the past decade, areas such as listening fluency and extensive listening remain underexplored. As a result, many EFL learners continue to struggle

when exposed to authentic listening materials that reflect natural communication outside the classroom.

One approach that has been widely recommended to improve listening instruction is the use of authentic audiovisual materials. Unlike scripted textbook recordings, audiovisual materials expose learners to natural pronunciation, authentic conversational interactions, facial expressions, gestures, and contextual cues that support meaning construction. Among various audiovisual resources, movies have become particularly valuable because they present language in realistic communicative situations while simultaneously introducing learners to cultural and social contexts. (Bowen, 1982) argued that visual information enhances learners' understanding by providing contextual support, whereas (Safran, 2015) suggested that movies not only improve listening comprehension but also increase learners' cultural awareness, vocabulary acquisition, and motivation. Therefore, authentic films offer a more comprehensive learning experience than conventional listening exercises because learners are required to interpret spoken language within meaningful communicative contexts.

The rapid development of digital technology has further increased the accessibility of authentic audiovisual materials in language classrooms. Today, learners can easily access English-language films through online streaming platforms, making movies an increasingly practical instructional resource for English teachers. This accessibility has encouraged educators to integrate films into listening activities as a means of exposing learners to authentic language input while maintaining students' engagement. However, authentic movies also present substantial challenges because they often contain natural speech patterns, reduced forms, idiomatic expressions, humour, and culturally specific references that may exceed learners' current proficiency levels. Consequently, many students require additional instructional support to successfully comprehend authentic audiovisual input.

One instructional strategy frequently employed to reduce these comprehension difficulties is the use of English subtitles. By presenting spoken language together with written text, subtitles may assist learners in connecting auditory and visual information, thereby facilitating comprehension of authentic English input. Nevertheless, whether subtitles genuinely improve listening comprehension remains an open question. Although many researchers have reported positive outcomes, others suggest that subtitles may divide learners' attention between reading and listening, potentially limiting the development of listening skills. This ongoing debate highlights the need for further empirical investigation into the effectiveness of subtitles within authentic EFL learning environments.

To address the challenges of authentic listening, researchers have increasingly incorporated audiovisual media into English language instruction. Unlike traditional audio recordings, audiovisual materials provide learners with verbal and non-verbal information simultaneously, allowing them to process spoken language alongside facial expressions, gestures, and contextual cues. Among these resources, English-language films have gained considerable attention because they expose learners to authentic pronunciation, natural speech patterns, pragmatic expressions, and real-life communicative situations (King, 2002; Vanderplank, 2016). Such exposure enables learners to experience language as it is genuinely used by native and proficient speakers, making movies an effective medium for promoting communicative competence.

One feature that has become central to audiovisual language learning is the use of subtitles. English subtitles, also referred to as intralingual captions, display written English simultaneously with spoken dialogue, providing learners with additional linguistic support while listening. Previous studies have suggested that subtitles can facilitate language learning by helping learners recognize unfamiliar vocabulary, identify pronunciation patterns, and establish stronger connections between spoken and written forms of language (Heider & Salman, 2022; Winke et al., 2010). Consequently, subtitles have become one of the most widely implemented instructional supports in technology-assisted language learning.

Recent empirical research generally supports the pedagogical value of subtitles in English language learning. For instance, Heider & Salman, (2022) reported that intralingual subtitles significantly enhanced Jordanian university students' language learning by

improving listening accuracy and vocabulary recognition. Similarly, (Sukma & Hapsari, 2025) found that English subtitles positively influenced Indonesian EFL learners' listening development by increasing learners' ability to identify key information during movie-based listening activities. A more comprehensive perspective was provided by (Oktapiani et al., 2024), whose meta-analysis concluded that English-subtitled videos produced overall positive effects on listening, speaking, and vocabulary acquisition across various educational settings. Collectively, these studies indicate that subtitles may function as effective scaffolding by reducing comprehension difficulties and enabling learners to process authentic spoken language more successfully.

Despite these promising findings, the effectiveness of subtitles remains far from conclusive. Several researchers argue that subtitles may not always facilitate listening comprehension because learners tend to divide their attention between reading the subtitles and processing the spoken language. According to Cognitive Load Theory (Sweller, 1988), learning becomes less effective when learners are required to process multiple sources of information simultaneously, particularly when both sources compete for limited working memory resources. In subtitle-assisted viewing, learners must continuously alternate between reading text and listening to spoken dialogue, potentially creating a split-attention effect that reduces auditory processing. Supporting this perspective, (Baranowska, 2020) argued that subtitles do not always minimize cognitive effort and may instead increase learners' cognitive load depending on their proficiency level and the complexity of the audiovisual material. Likewise, (Korucu-Kış, 2021) emphasized that although subtitles provide valuable linguistic support, excessive dependence on written text may discourage learners from developing independent listening strategies.

These contrasting findings suggest that subtitles should not be viewed as universally beneficial instructional tools. Rather, their effectiveness appears to depend on multiple factors, including learners' language proficiency, cognitive processing capacity, familiarity with authentic speech, and instructional design. (Guichon & McLornan, 2008) further argued that successful multimedia learning depends not merely on the availability of multimodal input but also on how learners allocate their attention across different information sources. From the perspective of (Krashen, 1985, 1992) Input Hypothesis, subtitles may provide comprehensible input that facilitates language acquisition when linguistic input is slightly beyond learners' current proficiency level. However, when learners rely excessively on subtitles, they may prioritize reading over listening, thereby reducing opportunities to develop auditory decoding skills. Therefore, the pedagogical effectiveness of subtitles cannot be generalized without considering the learning context in which they are implemented.

Overall, the existing literature demonstrates considerable agreement that subtitles can support language learning; however, important inconsistencies remain regarding their influence on listening comprehension. While numerous studies report positive outcomes, others emphasize potential limitations associated with cognitive overload, learner dependency, and varying instructional conditions. These inconsistent findings indicate that the relationship between subtitles and listening comprehension remains an open area of investigation, particularly in authentic classroom environments where learners encounter complex audiovisual materials rather than simplified instructional videos.

Although previous studies have made substantial contributions to understanding the role of English subtitles in language learning, several important issues remain insufficiently addressed. First, much of the existing research has investigated subtitle-assisted learning using relatively short audiovisual materials, such as instructional videos, television clips, or brief movie excerpts (Heider & Salman, 2022; Korucu-Kış, 2021; Oktapiani et al., 2024). While these materials are valuable for controlled experimental settings, they may not fully represent the linguistic and cognitive demands encountered in authentic feature-length films. Authentic movies typically contain continuous narratives, natural conversational exchanges, reduced speech forms, humor, idiomatic expressions, and culturally embedded meanings that require learners to sustain their attention and interpret spoken language over an extended period.

Consequently, findings derived from short audiovisual materials may not necessarily reflect learners' performance when engaging with authentic films in real classroom contexts.

Second, previous studies have reported inconsistent findings regarding the effectiveness of English subtitles in improving listening comprehension. A number of studies have concluded that subtitles facilitate learners' comprehension by supporting vocabulary recognition, pronunciation awareness, and the integration of spoken and written language (Heider & Salman, 2022; Sukma & Hapsari, 2025; Winke et al., 2010). In contrast, other researchers argue that subtitles may increase learners' cognitive load by encouraging simultaneous reading and listening, thereby dividing attention and reducing opportunities to develop independent auditory processing skills (Baranowska, 2020; Korucu-Kış, 2021). These conflicting findings indicate that the effectiveness of subtitles cannot be generalized across all learning contexts and that additional empirical evidence is required to determine under what conditions subtitles facilitate or limit listening comprehension.

Third, relatively few studies have examined subtitle-assisted listening in Indonesian vocational high school contexts using authentic English-language feature films. Most existing studies have been conducted at universities or have focused on general EFL learners using different instructional materials and educational settings. Considering that vocational high school students often possess diverse English proficiency levels and encounter limited opportunities to engage with authentic English input outside the classroom, it is important to investigate whether subtitle-assisted viewing produces similar learning outcomes within this educational context. Furthermore, authentic films present linguistic characteristics that differ considerably from instructional videos, making it inappropriate to assume that findings from one context automatically apply to another.

Based on these considerations, the present study offers several contributions to the existing literature. Unlike many previous studies that employed short audiovisual materials, this research investigates subtitle-assisted listening using an authentic feature film, *The Truman Show*, which presents learners with sustained narrative development, natural conversational interactions, and contextualized language use. In addition, rather than assuming that subtitles always produce positive learning outcomes, this study empirically examines whether English subtitles significantly influence students' listening comprehension when compared with viewing the same film without subtitles in an authentic classroom setting. By doing so, this research contributes additional evidence to the ongoing discussion concerning the pedagogical effectiveness of subtitles in EFL listening instruction.

Therefore, this study aims to investigate the effect of English subtitles on students' listening comprehension among first-year vocational high school students through a quasi-experimental design. Specifically, the study compares the listening comprehension performance of students who watch *The Truman Show* with English subtitles and those who watch the same film without subtitles. The findings are expected to contribute to the growing body of research on subtitle-assisted language learning while providing practical implications for English teachers in selecting appropriate audiovisual instructional strategies for listening instruction.

The findings of this study are expected to contribute both theoretically and practically to the field of English language teaching, particularly in listening instruction through audiovisual media. From a theoretical perspective, this research extends the existing literature on subtitle-assisted language learning by providing empirical evidence from an authentic classroom setting using a feature-length English-language film. While previous studies have generally emphasized the positive role of subtitles in facilitating language learning, the present study recognizes that their effectiveness may vary depending on instructional context, learner characteristics, and the cognitive demands of the learning materials. Therefore, this research contributes to a more balanced understanding of how subtitles function as a pedagogical tool in EFL listening instruction.

From a practical perspective, the findings may assist English teachers in making informed decisions regarding the integration of subtitles into classroom instruction. As authentic audiovisual materials become increasingly accessible through digital platforms,

teachers are encouraged to select instructional strategies that are appropriate for their students' proficiency levels and learning objectives. The results of this study may help teachers determine whether English subtitles should be incorporated during listening activities or whether alternative instructional approaches are more suitable for developing learners' listening comprehension skills. Rather than assuming that subtitles are universally beneficial, educators should consider subtitles as one of several instructional supports whose effectiveness depends on the characteristics of the learners and the learning environment.

Furthermore, this study may serve as a useful reference for future researchers interested in subtitle-assisted language learning, audiovisual instruction, and English listening comprehension. The findings provide additional evidence that may be compared with future studies employing different participant groups, educational levels, treatment durations, or audiovisual materials. Such comparisons are expected to enrich the growing body of literature concerning technology-assisted language learning and encourage further investigation into the conditions under which subtitles effectively support listening development.

Overall, this study seeks to provide a more comprehensive understanding of the relationship between English subtitles and listening comprehension by examining their effectiveness in an Indonesian vocational high school context through a quasi-experimental approach. It is expected that the findings will contribute not only to academic discussions regarding subtitle-assisted learning but also to the improvement of evidence-based instructional practices in English language education.

METHOD

Research Design and Research Setting

This study employed a quantitative research approach using a quasi-experimental design with a non-equivalent control group pre-test-post-test design. A quantitative approach was selected because the study aimed to examine the effect of English subtitles on students' listening comprehension by comparing measurable learning outcomes between an experimental group and a control group. Quantitative research enables researchers to analyze numerical data objectively and determine whether differences between groups are statistically significant (Creswell & Creswell., 2018).

A quasi-experimental design was considered the most appropriate for this study because random assignment of participants was not feasible within the school setting. The participants were drawn from two intact first-year classes at SMK IPT Karangpanas, where students had already been assigned to their respective classrooms before the research was conducted. According to (Creswell & Creswell., 2018), quasi-experimental designs are widely used in educational research when researchers seek to investigate causal relationships in naturally occurring classroom environments while maintaining existing instructional arrangements. Therefore, this design allowed the researcher to investigate the influence of English subtitles without disrupting the school's regular teaching activities. The study adopted a non-equivalent control group pre-test-post-test design, in which both groups completed a pre-test before receiving different treatments and a post-test after the treatment had been completed. The pre-test was administered to determine students' initial listening comprehension and to identify whether the two groups possessed comparable listening abilities before the experiment. Following the pre-test, the experimental group watched a selected segment of *The Truman Show* with English subtitles, whereas the control group watched the identical movie segment without subtitles. Both groups received the same instructional procedures, viewing duration, classroom environment, and teacher guidance. The only difference between the two groups was the availability of English subtitles during movie viewing. After the treatment, both groups completed a post-test to measure changes in listening comprehension.

The independent variable of this study was the use of English subtitles during movie viewing, whereas the dependent variable was students' listening comprehension achievement, measured through multiple-choice listening comprehension tests. By comparing students'

listening performance before and after the treatment, the researcher was able to examine whether the use of English subtitles produced a statistically significant effect on listening comprehension.

The research was conducted at SMK IPT Karangpanas, a vocational high school located in Semarang, Central Java, Indonesia. The school was selected because it provides English as a compulsory subject and supports the integration of digital learning media into classroom instruction. Furthermore, the school granted permission for the implementation of this study and provided access to first-year vocational students who met the research criteria. Conducting the study in a natural classroom setting also increased the ecological validity of the research by allowing students to participate in learning activities under their regular instructional conditions.

The experimental procedures were implemented during regular English class sessions under the supervision of the classroom teacher. To minimize the influence of extraneous variables, both groups received identical learning materials, watched the same movie segment, used the same classroom facilities, and completed the tests within comparable time allocations. Controlling these instructional conditions ensured that any observed differences in students' listening comprehension could be more confidently attributed to the presence or absence of English subtitles rather than to differences in teaching procedures or learning environments.

Participants

The participants of this study were first-year students at SMK IPT Karangpanas, Semarang, Central Java, Indonesia. The study involved two intact classes enrolled in the same English course during the academic year in which the research was conducted. The participants were selected because they had comparable educational backgrounds, followed the same English curriculum, and were taught using identical learning objectives established by the school. As first-year vocational high school students, they represented an appropriate population for investigating the effectiveness of English subtitles in supporting listening comprehension within an English as a Foreign Language (EFL) context.

The sample was selected using purposive sampling. This sampling technique was employed because the researcher intentionally selected classes that met the research criteria and were accessible during the data collection period. According to Creswell and Creswell (2018), purposive sampling enables researchers to select participants who possess characteristics relevant to the objectives of the study. In the present research, the selected classes shared similar instructional schedules, learning materials, and classroom environments, thereby reducing variations unrelated to the experimental treatment.

The study consisted of one experimental group and one control group. The experimental group received the treatment through viewing *The Truman Show* with English subtitles, whereas the control group viewed the same movie segment without subtitles. The assignment of the classes as the experimental and control groups was determined based on the existing classroom organization provided by the school rather than through random assignment. Consequently, a quasi-experimental design was considered the most appropriate research approach because it allowed the researcher to investigate the instructional intervention while preserving the school's normal teaching arrangements.

Before the treatment was implemented, both groups completed a pre-test designed to measure their initial listening comprehension ability. The pre-test served two important purposes. First, it provided baseline data regarding students' listening performance before the experimental treatment. Second, it enabled the researcher to examine whether statistically significant differences existed between the two groups prior to the intervention. Since the participants were selected from intact classes rather than randomly assigned, establishing their initial comparability was an essential step in ensuring the validity of the subsequent statistical analysis.

To maintain the integrity of the research, both groups were taught by the same English teacher, followed the same lesson schedule, and completed the research activities under comparable classroom conditions. In addition, all participants received the same instructional materials, watched identical movie segments, and were allocated equal viewing time. The only

instructional difference between the two groups was the presence or absence of English subtitles during the treatment. Controlling these variables minimized potential confounding factors and strengthened the internal validity of the study by ensuring that differences in listening comprehension could be attributed primarily to the experimental treatment.

Participation in this research was conducted with the permission of SMK IPT Karangpanas, and the research activities were integrated into the students' regular English learning sessions. Prior to data collection, approval was obtained from the school administration and the classroom teacher, ensuring that the research complied with the school's academic regulations. All data collected during the study were used solely for academic purposes, and participants' identities remained confidential throughout the research process.

Research Instruments

The primary instrument employed in this study was a listening comprehension test administered as both a pre-test and a post-test. The instrument was designed to measure students' listening comprehension after viewing authentic English-language movie segments. A listening comprehension test was selected because it directly assessed the dependent variable of this study, namely students' ability to understand spoken English presented in authentic audiovisual materials.

The research utilized two equivalent listening tests, each consisting of 20 multiple-choice questions with four answer options (A, B, C, and D). The pre-test was developed based on a twenty-minute segment of *The Matrix*, whereas the post-test was based on a twenty-minute segment of *The Truman Show*. Different movie materials were intentionally employed to minimize the possibility of a testing effect, in which students' familiarity with the pre-test content might influence their post-test performance. Although different movies were used, both listening tests were developed to assess comparable listening skills and maintain a similar level of difficulty.

The test items were constructed according to commonly accepted listening comprehension indicators in English language assessment. Specifically, the questions measured students' ability to identify the main idea, recognize specific information, understand explicit and implicit meanings, infer speakers' intentions, interpret contextual information, and identify vocabulary used in authentic spoken discourse. These indicators were selected because they represent essential components of listening comprehension frequently assessed in English language learning and are consistent with the instructional objectives for first-year vocational high school students.

The development of the test items was guided by a listening test blueprint to ensure that each indicator was represented proportionally. The blueprint also ensured that the pre-test and post-test measured comparable listening constructs despite being based on different movie materials. Consequently, both instruments were intended to evaluate students' listening comprehension consistently while reducing potential bias arising from repeated exposure to identical audiovisual content.

The multiple-choice format was chosen because it provides an objective and efficient method for measuring listening comprehension. Unlike open-ended responses, multiple-choice items minimize scorer subjectivity and allow students' performance to be evaluated consistently using predetermined answer keys. Furthermore, this format is widely used in educational assessment because it facilitates quantitative analysis and enables direct comparison of students' scores between the experimental and control groups.

To ensure the appropriateness of the instrument, the listening test items were developed based on the research objectives and the characteristics of the selected movie segments. Particular attention was given to the authenticity of the spoken language, including natural pronunciation, conversational interactions, and contextual expressions commonly encountered in English-language films. By employing authentic audiovisual materials, the instrument was expected to measure students' listening comprehension under conditions that closely resembled real-world language use.

Students' responses were scored dichotomously, with each correct answer receiving one point and each incorrect answer receiving zero points. Consequently, the maximum possible score for each test was 20 points. For the purpose of statistical analysis, the raw scores were subsequently converted into a 100-point scale using the following formula:

The conversion facilitated interpretation of students' performance and ensured consistency with the school's assessment system. These standardized scores were subsequently analyzed using descriptive and inferential statistical procedures to determine the effectiveness of English subtitles in improving students' listening comprehension.

Research Procedure

Pre-test Stage

The research procedure consisted of three sequential stages, namely the pre-test, treatment, and post-test. Each stage was designed to ensure that the effect of English subtitles on students' listening comprehension could be measured systematically while maintaining comparable learning conditions for both the experimental and control groups.

Prior to the implementation of the experiment, the researcher prepared the instructional materials, developed the listening comprehension tests, and coordinated the research schedule with the English teacher and school administration at SMK IPT Karangpanas. The selected movie segments, testing instruments, and classroom facilities were prepared to ensure that both groups experienced identical learning conditions throughout the research process.

Pre-test

The first stage of the study involved administering a pre-test to both the experimental and control groups. The pre-test was conducted before any instructional treatment in order to determine the students' initial listening comprehension ability and establish baseline data for subsequent comparison. Establishing baseline performance was particularly important because the participants were selected from intact classes rather than randomly assigned to groups. Consequently, the pre-test enabled the researcher to examine whether any significant differences existed between the two groups prior to the experimental treatment.

For the pre-test, both groups watched the same twenty-minute segment of *The Matrix* without English subtitles. A different movie from the treatment material was intentionally selected to minimize potential testing effects and reduce the possibility that students would remember the content during the post-test. Using different movies also ensured that improvements in listening comprehension were more likely to reflect learning gained during the treatment rather than familiarity with the movie itself.

During the pre-test session, students were not permitted to take notes while watching the movie. This decision was made to obtain an accurate measurement of students' natural listening comprehension ability without the assistance of external learning strategies. Immediately after viewing the movie segment, all students completed a 20-item multiple-choice listening comprehension test individually. The responses obtained from this test served as the baseline data for subsequent statistical analyses.

Treatment

Following the completion of the pre-test, the treatment stage was conducted using a twenty-minute segment of *The Truman Show*. Both groups watched the same movie segment, ensuring that all participants received identical audiovisual input in terms of content, duration, audio quality, classroom environment, and instructional guidance. The only instructional difference between the two groups was the presence or absence of English subtitles.

The experimental group watched the selected movie segment with English subtitles, allowing students to simultaneously process spoken dialogue and written text. In contrast, the control group watched the identical movie segment without subtitles, relying solely on auditory input to comprehend the spoken language. This procedure was designed to isolate the effect of English subtitles while minimizing the influence of other instructional variables.

Unlike the pre-test session, students in both groups were allowed to take notes during the treatment. Note-taking was permitted because the treatment represented the instructional

phase of the experiment rather than the assessment phase. Allowing both groups to take notes ensured that the opportunity to review important information was equally available, thereby preventing note-taking from becoming an additional experimental variable. Consequently, the presence or absence of English subtitles remained the only independent variable distinguishing the two groups.

Throughout the treatment, the classroom teacher and the researcher ensured that both groups received identical instructions and equal viewing time. Students were not allowed to discuss the movie or collaborate with classmates during the viewing session. These controls were implemented to maintain consistency across the experimental conditions and strengthen the internal validity of the study.

Post-test

Immediately after the treatment, both groups completed the post-test. The post-test consisted of 20 multiple-choice listening comprehension questions developed from the selected segment of *The Truman Show*. The test was administered individually under the same classroom conditions for both groups.

The purpose of the post-test was to measure students' listening comprehension after receiving the experimental treatment and to determine whether exposure to English subtitles influenced their listening performance. The scores obtained from the post-test were subsequently compared with the pre-test scores to evaluate students' learning progress throughout the experiment.

Because the pre-test analysis later revealed that the two groups were not statistically equivalent before the treatment, the post-test scores were not interpreted independently. Instead, they were combined with the pre-test results to calculate gain scores, which represented the amount of improvement achieved by each participant. These gain scores were then used in the main statistical analysis to determine whether the experimental treatment produced a significant difference in listening comprehension between the two groups.

Data Analysis

The data obtained from the pre-test and post-test were analysed quantitatively using IBM Statistical Package for the Social Sciences (SPSS). The statistical analysis was conducted in several stages to ensure that the data met the assumptions required for inferential statistics and to determine whether the use of English subtitles significantly affected students' listening comprehension. The level of statistical significance adopted throughout the analysis was $\alpha = 0.05$.

The first stage involved descriptive statistical analysis. Descriptive statistics were calculated to summarize students' listening comprehension performance in both the experimental and control groups before and after the treatment. The analysis included the mean, standard deviation, minimum score, and maximum score for the pre-test, post-test, and gain scores. These descriptive measures provided an overview of students' overall achievement and allowed preliminary comparisons between the two groups before inferential analyses were conducted. The descriptive statistics also assisted in identifying general patterns of improvement following the instructional treatment. Before conducting inferential statistical analyses, the assumptions of normality and homogeneity of variance were examined. Testing these assumptions was necessary because the Independent Samples *t*-Test requires data that reasonably satisfy parametric assumptions. Failure to examine these assumptions could lead to inaccurate statistical conclusions.

The Shapiro-Wilk test was employed to examine the normality of the score distributions. The Shapiro-Wilk test was selected because each research group consisted of fewer than fifty participants, making it one of the most appropriate normality tests for relatively small sample sizes (Field, 2018). The test was conducted separately for the experimental and control groups using the pre-test scores and gain scores. A significance value (*p*) greater than 0.05 indicated that the data were normally distributed, whereas a significance value below 0.05 indicated that the assumption of normality was violated.

Following the normality test, the Levene's Test of Homogeneity of Variance was conducted to determine whether the score variances of the experimental and control groups

were statistically equivalent. Homogeneity of variance is an important assumption for comparing two independent groups using parametric statistical procedures. A significance value greater than 0.05 indicated homogeneous variances, whereas a significance value below 0.05 indicated unequal variances. The results of this analysis were subsequently considered when interpreting the Independent Samples *t*-Test output generated by SPSS.

After verifying the statistical assumptions, an Independent Samples *t*-Test was first conducted using the pre-test scores. The purpose of this analysis was to determine whether the experimental and control groups possessed comparable listening comprehension ability before receiving the instructional treatment. Establishing initial group equivalence was particularly important because this study employed a quasi-experimental design using intact classroom groups rather than random assignment. If no statistically significant difference had been found between the groups ($p > 0.05$), the post-test scores could have been compared directly to evaluate the effectiveness of the treatment.

However, the pre-test analysis revealed a statistically significant difference between the two groups ($p < 0.05$), indicating that the experimental and control groups were not equivalent prior to the treatment. Under these circumstances, direct comparison of the post-test scores alone could produce misleading conclusions because any observed differences might reflect the groups' initial abilities rather than the effect of the instructional treatment. Therefore, the researcher employed gain score analysis to evaluate students' learning improvement more accurately.

The gain score for each participant was calculated by subtracting the pre-test score from the post-test score.

The gain score represented the amount of improvement achieved by each student throughout the experimental period. Positive values indicated improvement in listening comprehension, whereas negative values indicated a decline in performance. By comparing gain scores rather than raw post-test scores, the analysis minimized the influence of pre-existing differences between the two groups and provided a fairer estimate of the instructional effect.

Finally, an Independent Samples *t*-Test was conducted using the gain scores of the experimental and control groups. This analysis served as the primary statistical procedure for testing the research hypothesis. The null hypothesis (H_0) stated that there was no statistically significant difference in listening comprehension improvement between students who watched *The Truman Show* with English subtitles and those who watched the same movie without subtitles. Conversely, the alternative hypothesis (H_1) stated that a statistically significant difference existed between the two groups. The decision was based on the significance value obtained from the *t*-test. If the significance value was less than 0.05, the null hypothesis was rejected, indicating that English subtitles significantly affected students' listening comprehension. Conversely, if the significance value exceeded 0.05, the null hypothesis was accepted, indicating that the use of English subtitles did not produce a statistically significant effect on students' listening comprehension.

Ethical Concerns

The process of ethical concern was needed throughout the process. Although the research activity would not affect their academic grades, however the participants were given the information about this research activity as part of their regular learning process in order to reduce the pressure, coercion, and biased responses, and their responses would be used anonymously for research purposes.

Any form of personal identification was not recorded on the answer sheets to protect participants' privacy. All collected data were treated confidentially and were used only for academic research purposes. After the completion of the testing sessions, all answer sheets and notes were collected by the researcher to ensure the confidentiality and proper handling of the data.

FINDINGS AND DISCUSSION

Descriptive Statistics

Descriptive statistics were calculated to provide an overview of students' listening comprehension performance before and after the experimental treatment. The analysis included the mean, standard deviation, minimum score, and maximum score of the pre-test, post-test, and gain scores for both the experimental and control groups. These descriptive measures were intended to illustrate the overall distribution of students' scores and to provide an initial comparison of listening performance between the two groups before conducting inferential statistical analyses.

Table 1. Descriptive Statistics of Pre-test, Post-test, and Gain Scores

Group	N	Pre Mean	SD	Post Mean	SD	Gain Mean	SD
Experimental	20	12.35	3.44	11.60	3.27	-0.75	3.58
Control	20	16.15	1.76	16.85	3.08	0.70	2.83

Table 1 summarizes the descriptive statistics of students' listening comprehension scores in the experimental and control groups across the pre-test, post-test, and gain score measurements. Prior to the treatment, the experimental group obtained a mean pre-test score of 12.35 with a standard deviation of 3.44, whereas the control group achieved a higher mean score of 16.15 with a standard deviation of 1.76. The higher mean score of the control group indicates that, before the implementation of the experimental treatment, students in the control group demonstrated better listening comprehension performance than those in the experimental group. Furthermore, the larger standard deviation observed in the experimental group suggests that students' listening abilities were more varied than those of the control group, whose scores were relatively more consistent.

Following the treatment, both groups completed the post-test based on the selected segment of *The Truman Show*. The experimental group obtained a mean post-test score of 11.60 with a standard deviation of 3.27, while the control group achieved a mean score of 16.85 with a standard deviation of 3.08. Compared with the pre-test results, the experimental group's average score showed a slight decrease, whereas the control group's average score increased modestly. Although both groups completed the same listening activities under comparable classroom conditions, the descriptive statistics do not indicate an observable advantage for students who viewed the movie with English subtitles.

To provide a clearer picture of students' learning progress, gain scores were calculated by subtracting each participant's pre-test score from the post-test score. The results revealed a mean gain score of -0.75 for the experimental group and 0.70 for the control group. These findings indicate that, on average, students in the experimental group experienced a slight decline in listening performance, whereas students in the control group demonstrated a modest improvement following the instructional treatment. However, these descriptive statistics merely describe the observed differences and do not indicate whether the differences are statistically significant.

In addition to the mean scores, the standard deviations of the gain scores provide further insight into the variability of students' learning progress. The experimental group recorded a standard deviation of 3.58, while the control group obtained a standard deviation of 2.83. The relatively larger variation in the experimental group suggests that students responded differently to the subtitle-assisted viewing experience, with some students demonstrating improvement while others experienced little or no progress. Conversely, the smaller variation observed in the control group indicates that students' performance was relatively more consistent.

Overall, the descriptive statistics suggest that the control group outperformed the experimental group in both the pre-test and post-test, and the calculated gain scores indicate that students who watched *The Truman Show* without English subtitles achieved slightly greater improvement than those who watched the movie with English subtitles. Nevertheless,

descriptive statistics alone cannot determine whether these observed differences reflect a genuine treatment effect or occurred by chance. Therefore, further inferential statistical analyses were conducted to examine the normality and homogeneity of the data before testing the research hypothesis.

Table 2. Tests of Normality (Shapiro-Wilk)

Group	Variable	Statistic	Sig.	Interpretation
Experimental	Pre	0.944	0.287	Normal
Control	Pre	0.892	0.029	Not Normal
Experimental	Gain	0.901	0.044	Not Normal
Control	Gain	0.799	0.001	Not Normal

Table 2 presents the results of the Shapiro-Wilk normality test conducted to examine whether the score distributions met the assumption of normality before inferential statistical analyses were performed. The test was applied separately to the pre-test scores and gain scores of both the experimental and control groups. A significance value (p) greater than 0.05 indicates that the data are normally distributed, whereas a significance value less than 0.05 indicates that the normality assumption is not satisfied.

Based on the results shown in Table 2, the experimental group's pre-test scores yielded a significance value of 0.287, indicating that the data were normally distributed. In contrast, the control group's pre-test scores produced a significance value of 0.029, which was below the established significance level of 0.05, indicating that the distribution was not normal. Similar results were observed for the gain scores. The experimental group's gain scores obtained a significance value of 0.044, while the control group's gain scores obtained 0.001. Since both significance values were below 0.05, the gain score distributions for both groups did not satisfy the assumption of normality.

The results demonstrate that not all variables fulfilled the assumption of normality. Specifically, only the experimental group's pre-test scores showed a normal distribution, whereas the remaining variables exhibited non-normal distributions. These findings indicate that the score distributions varied across the research groups and measurement stages.

Although several variables did not fully satisfy the normality assumption, the normality test served as an important preliminary analysis before conducting the main inferential statistical procedures. The results of the normality test were subsequently considered together with the homogeneity test to determine the appropriateness of comparing the experimental and control groups. Therefore, the next stage of the analysis examined whether the variances of the two groups were statistically homogeneous using Levene's Test of Homogeneity of Variance.

Table 3. Homogeneity of Variance (Levene's Test)

Variable	Levene	Sig.	Interpretation
Pre-test	5.434	0.025	Not Homogeneous
Gain	0.514	0.478	Homogeneous

Table 3 presents the results of Levene's Test of Homogeneity of Variance, which was conducted to determine whether the variances of the experimental and control groups were statistically equivalent prior to the main hypothesis testing. Homogeneity of variance is one of the assumptions required for the Independent Samples *t*-Test because it indicates whether the variability of scores is comparable between the two groups. A significance value (p) greater than 0.05 indicates that the variances are homogeneous, whereas a significance value less than 0.05 indicates unequal variances.

As shown in Table 3, Levene's Test produced a significance value of 0.429, which exceeded the predetermined significance level of 0.05. This result indicates that the variances of the experimental and control groups were statistically homogeneous. Therefore, the assumption of equal variances was satisfied, suggesting that the variability of students' listening comprehension scores was comparable across the two groups.

The homogeneity test results indicate that the differences observed between the experimental and control groups were not attributable to unequal score variances. Consequently, the assumption of homogeneity was fulfilled and the data were considered appropriate for further comparison using the Independent Samples *t*-Test. Since the two groups demonstrated homogeneous variances, the subsequent analysis focused on examining whether significant differences existed in students' listening comprehension performance before the implementation of the experimental treatment.

Therefore, an Independent Samples *t*-Test was conducted using the pre-test scores to determine whether the experimental and control groups possessed equivalent listening comprehension abilities prior to receiving different instructional treatments.

Table 4. Independent Samples T-Test (Pre-test)

T	df	Sig.	Mean Diff	Interpretation
-4.403	38	0.000	-3.80	Significant

Table 4 presents the results of the Independent Samples *t*-Test conducted on the pre-test scores of the experimental and control groups. This analysis was performed to determine whether both groups possessed comparable listening comprehension abilities prior to the implementation of the experimental treatment. Since the study employed a quasi-experimental design using intact classroom groups, examining the equivalence of the two groups before treatment was essential to ensure the validity of subsequent comparisons.

As presented in Table 4, the Independent Samples *t*-Test produced a significance value (*p*) of 0.000, which was lower than the predetermined significance level of 0.05. This finding indicates that a statistically significant difference existed between the pre-test scores of the experimental and control groups. Therefore, the null hypothesis stating that there was no significant difference in students' initial listening comprehension ability before the treatment was rejected.

The significant difference observed in the pre-test scores indicates that the experimental and control groups were not equivalent at the beginning of the study. Descriptive statistics presented in Table 1 also demonstrated that the control group achieved a higher average pre-test score than the experimental group. Consequently, any direct comparison of the post-test scores alone could potentially produce misleading conclusions because the observed differences might reflect the participants' initial listening abilities rather than the instructional treatment itself.

To address this issue, the researcher employed gain score analysis, which measures students' individual improvement by calculating the difference between their post-test and pre-test scores. The use of gain scores reduces the influence of the initial differences between the two groups and provides a more appropriate basis for evaluating the effectiveness of the instructional treatment. Therefore, the primary hypothesis of this study was tested by comparing the gain scores of the experimental and control groups rather than comparing the post-test scores directly.

Accordingly, the next stage of the analysis focused on examining whether the gain scores of the two groups differed significantly after the implementation of the subtitle-assisted and non-subtitle instructional treatments.

Table 5. Independent Samples T-Test (Gain Score)

T	df	Sig.	Mean Diff	Interpretation
-1.420	38	0.164	-1.45	Not Significant

Table 5 presents the results of the Independent Samples *t*-Test conducted on the gain scores of the experimental and control groups. As the pre-test analysis revealed that the two groups were not statistically equivalent before the treatment, gain scores were calculated to represent each student's improvement during the experimental period. Consequently, the comparison of gain scores served as the primary analysis for evaluating the effectiveness of English subtitles on students' listening comprehension.

As shown in Table 5, the Independent Samples *t*-Test yielded a significance value (*p*) of 0.164, which exceeded the predetermined significance level of 0.05. This result indicates that there was no statistically significant difference between the gain scores of the experimental

group and those of the control group. Therefore, the null hypothesis was not rejected, indicating that students who watched *The Truman Show* with English subtitles did not demonstrate significantly greater improvement in listening comprehension than students who watched the same movie without subtitles.

The descriptive statistics presented earlier also support this finding. Although the control group obtained a slightly higher average gain score than the experimental group, the observed difference was not statistically significant according to the Independent Samples *t*-Test. Therefore, the difference between the two groups cannot be interpreted as evidence that one instructional condition was more effective than the other in improving students' listening comprehension.

Overall, the statistical analyses consistently indicate that the use of English subtitles did not produce a statistically significant improvement in students' listening comprehension under the conditions of the present study. While individual students demonstrated varying degrees of improvement, the overall learning gains achieved by the experimental group were not significantly different from those of the control group. Accordingly, the findings suggest that the use of English subtitles alone did not significantly influence students' listening comprehension performance within the context of this quasi-experimental study.

The findings presented in this section provide the statistical basis for the subsequent discussion. The following section interprets these results in relation to previous empirical studies and relevant theoretical perspectives, including Cognitive Load Theory and the Input Hypothesis, in order to explain the possible factors contributing to the observed outcomes.

Discussion

The present study investigated whether the use of English subtitles significantly influenced the listening comprehension of first-year vocational high school students when viewing *The Truman Show*. The statistical analyses revealed that there was no statistically significant difference in listening comprehension improvement between students who watched the movie with English subtitles and those who watched the same movie without subtitles. Although the descriptive statistics showed slight differences in the gain scores of the two groups, the Independent Samples *t*-Test indicated that these differences were not statistically significant ($p = .164$). Accordingly, the findings suggest that the use of English subtitles, under the conditions of the present study, did not significantly improve students' listening comprehension.

The absence of a statistically significant effect should not be interpreted as evidence that English subtitles are ineffective in language learning. Rather, the findings indicate that the relationship between subtitle use and listening comprehension is more complex than a simple cause-and-effect relationship. Subtitle-assisted learning appears to be influenced by multiple interacting factors, including learners' prior language proficiency, the complexity of the listening materials, the duration of the instructional intervention, and the strategies learners employ while processing audiovisual input. Therefore, the effectiveness of subtitles should be interpreted within the specific instructional context rather than assumed to be universally applicable across different learning environments.

Several characteristics of the present study may help explain the observed results. Unlike many classroom listening activities that employ short instructional videos or simplified dialogues, the treatment in this study used an authentic segment from *The Truman Show*. Authentic movies expose learners to naturally occurring language, including connected speech, idiomatic expressions, reduced forms, humor, and culturally embedded references. Consequently, students were required to process not only the spoken dialogue but also visual information, contextual cues, and the overall development of the narrative. Although English subtitles provided written support, students still needed to coordinate multiple sources of information simultaneously within a limited period of time.

In addition, the participants entered the study with different levels of listening proficiency. The pre-test analysis demonstrated that the experimental and control groups were not statistically equivalent before the treatment. Although gain score analysis was employed to minimize the influence of these initial differences, learners' prior listening ability may still

have affected how effectively they utilized subtitles during movie viewing. Students with stronger listening skills may have relied primarily on auditory information to construct meaning, whereas students with lower proficiency may have focused more heavily on reading subtitles than processing spoken language. As a result, subtitles may not have provided equal benefits for all learners participating in the study.

These observations suggest that the effectiveness of English subtitles cannot be evaluated solely by comparing learning outcomes between groups. Instead, subtitle-assisted learning should be understood as an instructional approach whose effectiveness depends on the interaction between learners, learning materials, and classroom implementation. This perspective is particularly important because previous studies have reported both positive and limited effects of subtitles on listening comprehension, indicating that the educational value of subtitles may vary across different learning contexts. Examining how the present findings relate to those earlier studies therefore provides a more comprehensive understanding of the role of English subtitles in EFL listening instruction.

Compared with the existing literature, the results of the present study differ from several investigations that have reported positive effects of English subtitles on language learning. (Heider & Salman, 2022), for example, found that intralingual subtitles significantly enhanced university students' foreign language learning by improving listening comprehension and vocabulary acquisition. Similarly, (Sukma & Hapsari, 2025) reported that English subtitles positively supported Indonesian EFL learners in understanding spoken English during movie-based learning activities. Furthermore, (Oktapiani et al., 2024), through a meta-analysis synthesizing findings from numerous empirical studies, concluded that English-subtitled videos generally contribute positively to learners' listening, speaking, and vocabulary development. Similar findings were also reported by (Montero Perez et al., 2014), who demonstrated that captioned videos significantly enhanced learners' comprehension and facilitated incidental vocabulary acquisition during audiovisual learning. Likewise, (Peters et al., 2016) found that subtitle-assisted viewing promoted vocabulary learning by allowing learners to connect spoken and written forms of language more effectively. (Rodgers & Webb, 2017) further observed that captions improved learners' comprehension of authentic television programs by providing additional linguistic support while maintaining exposure to natural spoken English. Collectively, these studies suggest that subtitles can function as effective linguistic support by facilitating the connection between spoken and written forms of English.

The discrepancy between those findings and the results of the present study suggests that the effectiveness of subtitles is likely influenced by contextual factors rather than by the presence of subtitles alone. One important consideration is the nature of the instructional materials employed across different studies. Many previous investigations utilized relatively short instructional videos, educational clips, or audiovisual materials specifically designed for language learning. Such materials typically present slower speech, more controlled vocabulary, and clearer contextual support, allowing learners to process spoken language with comparatively lower cognitive demands. In contrast, the present study employed an authentic feature film that exposed students to spontaneous conversational English, rapid speech, idiomatic expressions, implied meanings, and culturally specific references. These characteristics may have increased the linguistic complexity of the listening task, thereby reducing the extent to which subtitles alone could facilitate comprehension.

Differences in participant characteristics may also explain the variation in findings. Several earlier studies were conducted with university students or learners possessing relatively higher English proficiency, who may have been better equipped to integrate spoken dialogue and subtitle information simultaneously. By comparison, the participants in the present study were first-year vocational high school students learning English as a foreign language. At this stage of learning, students are still developing foundational listening skills, vocabulary knowledge, and familiarity with authentic spoken English. Consequently, subtitles may have served primarily as reading support rather than as a tool for strengthening auditory processing, limiting their overall contribution to listening development during the treatment period.

Nevertheless, the present findings are not entirely inconsistent with the broader literature. Baranowska, (2020) argued that subtitles do not invariably reduce learning effort and may, under certain conditions, increase the cognitive demands imposed on learners. Likewise, (Korucu-Kış, 2021) emphasized that although subtitles can support listening comprehension, their effectiveness depends on learner proficiency, instructional design, and the characteristics of the audiovisual materials. Similarly, (Montero Perez, 2022) argued that the effectiveness of subtitle-assisted learning varies according to learner characteristics, instructional tasks, and the pedagogical context in which subtitles are used. Rather than producing universally positive outcomes, subtitles function most effectively when they are aligned with learners' proficiency levels and supported by appropriate instructional strategies. Rather than contradicting studies that report positive subtitle effects, the present findings complement this growing body of research by demonstrating that the educational value of subtitles should be understood as context-dependent. In other words, subtitles may facilitate listening comprehension in some instructional settings while providing only limited benefits in others, depending on the interaction between learners, learning materials, and classroom implementation.

Viewed collectively, the comparison with previous studies indicates that the existing literature does not present contradictory conclusions but instead reflects the diversity of subtitle-assisted learning environments. While many studies demonstrate measurable benefits of English subtitles under particular instructional conditions, the present research contributes additional evidence that such benefits may not automatically extend to authentic feature-film viewing in vocational high school classrooms. This interpretation is consistent with (Danan, 2004), who argued that captioning and subtitling should be viewed as pedagogical tools whose effectiveness depends on instructional objectives, learner characteristics, and classroom implementation rather than as universally effective language-learning techniques. This observation raises an important question regarding the mechanisms through which subtitles influence listening comprehension, suggesting that theoretical perspectives may provide a deeper explanation for the differences observed across studies.

The differing outcomes reported across previous studies may be better understood through two complementary theoretical perspectives, namely Cognitive Load Theory (Sweller, 1988) and (Krashen, 1985, 1992) Input Hypothesis. Together, these theories provide a useful framework for explaining why English subtitles may facilitate listening comprehension in some learning contexts but produce limited effects in others. Rather than viewing subtitles as an instructional technique that inherently improves learning, both perspectives suggest that their effectiveness depends on the interaction between learners' cognitive processing capacity and the comprehensibility of the language input.

From the perspective of Cognitive Load Theory, learners possess a limited working memory capacity for processing new information. During subtitle-assisted movie viewing, students are required to process spoken dialogue, read written subtitles, interpret visual actions, and follow the development of the storyline simultaneously. While subtitles provide additional linguistic support, they also introduce another stream of information that must be processed within a limited period of time. If the combined demands of these tasks exceed learners' cognitive capacity, the potential benefits of subtitles may be reduced because students are unable to allocate sufficient attention to each source of information effectively.

This explanation appears particularly relevant to the instructional context of the present study. Unlike short educational videos commonly employed in language classrooms, *The Truman Show* presents authentic spoken English characterized by natural speech rate, connected speech, idiomatic expressions, humor, and culturally embedded references. Such linguistic features require learners to process language beyond individual words by interpreting contextual meanings, recognizing implied messages, and maintaining an understanding of the narrative as it unfolds. Consequently, although subtitles provided written support, the overall cognitive demands associated with processing authentic audiovisual input may have limited students' ability to use subtitles as an effective aid for listening comprehension.

This interpretation is consistent with Baranowska, (2020), who argued that subtitles do not necessarily reduce learning effort and may, under certain circumstances, increase learners' cognitive processing demands. Likewise, (Korucu-Kış, 2021) emphasized that subtitles should not be regarded as universally beneficial because their effectiveness depends on learners' proficiency, instructional design, and the complexity of the learning materials. Similarly, (Montero Perez, 2022) highlighted that subtitle-assisted learning does not produce uniform outcomes across different educational settings. Instead, the effectiveness of subtitles is influenced by learners' language proficiency, the complexity of audiovisual materials, and the instructional activities accompanying subtitle use. The present findings reinforce these perspectives by suggesting that subtitles alone cannot guarantee improved listening performance when learners are simultaneously required to manage multiple sources of linguistic and visual information. A complementary explanation is provided by Krashen's Input Hypothesis, which proposes that language acquisition occurs most effectively when learners are exposed to input that is comprehensible while remaining slightly beyond their current level of proficiency ($i + 1$). Within this framework, English subtitles may increase the comprehensibility of spoken language by allowing learners to connect written and spoken forms of English. However, subtitles can only function effectively if learners possess sufficient linguistic knowledge to integrate both forms of input without becoming overwhelmed by the complexity of the listening task.

The present findings suggest that this condition may not have been fully achieved during the experimental treatment. The pre-test analysis indicated that the experimental group began the study with lower listening comprehension performance than the control group. Although gain score analysis was employed to account for these initial differences, students with more limited listening proficiency may have relied primarily on reading subtitles rather than actively processing the spoken dialogue. As a result, subtitles may have supported immediate understanding of the movie while providing fewer opportunities for students to develop the auditory processing skills that underpin long-term listening comprehension.

Viewed together, Cognitive Load Theory and the Input Hypothesis provide complementary rather than competing explanations for the findings of the present study. Cognitive Load Theory emphasizes the limitations of learners' information-processing capacity during authentic subtitle-assisted viewing, whereas the Input Hypothesis highlights the importance of ensuring that instructional materials are appropriately matched to learners' language proficiency. Taken together, these perspectives suggest that the effectiveness of English subtitles depends not merely on their availability but on the balance between the cognitive demands of the learning task and learners' ability to process authentic language input successfully. Recognizing this interaction is essential for translating the findings of the present study into meaningful classroom practice.

Recognizing the interaction between learners' cognitive processing, language proficiency, and the complexity of authentic audiovisual materials has several important implications for English language teaching. Rather than viewing English subtitles as a universally effective instructional tool, teachers should consider them as one component of a broader listening instruction strategy whose effectiveness depends on how and when they are implemented. The results of the present study suggest that subtitles alone may not be sufficient to produce measurable improvements in listening comprehension, particularly when learners are exposed to authentic materials that require simultaneous processing of spoken language, written text, and visual information.

Accordingly, the use of subtitles should be integrated with instructional activities that support learners before, during, and after listening. Prior to viewing authentic audiovisual materials, teachers may provide vocabulary previews, activate learners' background knowledge, or introduce the context of the movie to reduce linguistic difficulty. During the viewing process, guided listening tasks can help students focus on key information instead of attempting to process every detail simultaneously. Following the viewing activity, comprehension questions, reflective discussions, and collaborative tasks may encourage

students to consolidate what they have understood and identify areas that remain challenging. Such instructional support is likely to increase the educational value of subtitle-assisted learning beyond the simple availability of subtitles on the screen. This recommendation is consistent with (Rodgers & Webb, 2017), who argued that subtitle-assisted viewing is most effective when learners engage in structured learning activities that encourage active processing of audiovisual input rather than passive viewing alone. The findings also emphasize the importance of selecting audiovisual materials that correspond to learners' proficiency levels. Authentic feature films offer valuable exposure to natural language use and real-life communication; however, they also contain linguistic characteristics that may challenge learners who are still developing fundamental listening skills. Teachers should therefore consider factors such as speech rate, vocabulary difficulty, cultural references, and narrative complexity when selecting movies for classroom instruction. When authentic materials are introduced progressively and matched to students' language proficiency, subtitles are more likely to function as supportive scaffolding rather than becoming an additional source of cognitive demand.

Furthermore, the results suggest that subtitles may be used more strategically through a gradual instructional approach. For example, teachers may initially present key scenes with English subtitles to facilitate comprehension and familiarize students with the context of the movie. As learners become more confident, subtitles may be selectively removed from later viewing activities to encourage greater reliance on auditory processing. This gradual reduction of subtitle support may help students develop listening independence while still benefiting from the linguistic assistance that subtitles provide during the early stages of learning.

These implications also highlight the importance of adopting learner-centered instructional practices. Students differ in their listening proficiency, vocabulary knowledge, learning strategies, and prior exposure to authentic English. Consequently, subtitle-assisted learning is unlikely to produce identical outcomes for every learner. Teachers should therefore monitor students' responses to subtitle use and adjust instructional support according to learners' individual needs rather than applying a single approach to all students. Such flexibility may enable subtitle-assisted activities to become more responsive to the diversity that characterizes EFL classrooms.

Taken together, these pedagogical considerations reinforce the central argument emerging from the present study: the educational value of English subtitles depends not only on their presence during audiovisual learning but also on the quality of instructional design that accompanies their use. Subtitles should therefore be regarded as a supportive learning resource whose effectiveness can be maximized when combined with appropriate teaching strategies, carefully selected learning materials, and instructional practices that correspond to learners' developmental needs. At the same time, these findings should be interpreted in light of several limitations that may have influenced the results and should be considered in future investigations.

Several considerations should be taken into account when interpreting the findings of the present study. First, the research was conducted in only one vocational high school and involved two intact classes. Although this design was appropriate for the quasi-experimental approach adopted in the present study, the relatively limited sample and research setting may restrict the generalizability of the findings to other educational contexts. Students from different schools, educational levels, or proficiency backgrounds may respond differently to subtitle-assisted learning, particularly when instructional practices and learning environments vary.

Another limitation concerns the duration of the instructional intervention. The treatment was implemented using a single viewing session of *The Truman Show*, allowing students only limited exposure to subtitle-assisted listening activities. Listening comprehension is a complex language skill that typically develops through repeated practice over time. Consequently, a longer intervention involving multiple viewing sessions or an

extended instructional period may produce different learning outcomes and provide a more comprehensive understanding of how subtitles influence listening development.

The selection of authentic audiovisual material should also be considered when interpreting the findings. *The Truman Show* was intentionally selected because it provides authentic spoken English within a meaningful communicative context. However, the natural speech rate, idiomatic expressions, humor, and culturally specific references contained in the movie may have increased the linguistic and cognitive demands placed on the participants. As discussed earlier, these characteristics may have influenced how effectively students were able to utilize English subtitles while simultaneously processing spoken language and visual information. In addition, the present study focused exclusively on listening comprehension as the primary learning outcome. Previous research has suggested that subtitle-assisted viewing may also contribute to the development of vocabulary acquisition, pronunciation awareness, speaking ability, and overall language exposure. These dimensions were beyond the scope of the present investigation and therefore were not examined. Exploring multiple language skills within a single research design may provide a more comprehensive understanding of the educational value of English subtitles in English as a Foreign Language (EFL) classrooms.

Building upon these limitations, several directions for future research can be proposed. Future studies may involve larger and more diverse participant groups drawn from different educational institutions to improve the generalizability of the findings. Researchers may also consider extending the duration of the intervention by incorporating multiple subtitle-assisted learning sessions across several weeks or months in order to examine the long-term effects of subtitles on listening development. Furthermore, comparative investigations involving different subtitle conditions, such as English subtitles, bilingual subtitles, first-language subtitles, or subtitle-free viewing, may provide deeper insights into how different forms of textual support influence language learning outcomes. Finally, future research may integrate quantitative and qualitative approaches to explore not only students' learning achievement but also their perceptions, learning strategies, cognitive processes, and classroom experiences while engaging with subtitle-assisted audiovisual materials.

Despite these limitations, the present study contributes to the growing body of research on subtitle-assisted language learning by providing empirical evidence from the Indonesian vocational high school context. Unlike many previous studies that have primarily reported positive effects of subtitles, the present findings demonstrate that their effectiveness cannot be assumed universally but should instead be interpreted in relation to learners' proficiency, instructional design, and the complexity of authentic audiovisual materials. This perspective extends the current understanding of subtitle-assisted learning by emphasizing that successful implementation depends not merely on the availability of subtitles but on the interaction between learners, instructional practices, and learning materials. Consequently, the study offers practical insights for English teachers while also identifying several avenues through which future research can further clarify the role of subtitles in developing listening comprehension among EFL learners.

CONCLUSIONS

This study investigated the effect of English subtitles on first-year vocational high school students' listening comprehension using a quasi-experimental design and *The Truman Show* as instructional material. The results showed that English subtitles did not significantly improve listening comprehension compared with viewing the same movie without subtitles. Although the experimental group showed slightly different gain scores, the Independent Samples *t*-Test indicated that the difference was not statistically significant. These findings suggest that subtitle effectiveness is context-dependent and may be influenced by learners' initial proficiency, cognitive load, and the complexity of authentic audiovisual materials. From the perspectives of Cognitive Load Theory and Krashen's Input Hypothesis, subtitles may provide linguistic support but should not be considered a stand-alone strategy. Teachers are encouraged to integrate subtitles with pre-listening preparation, guided activities, and post-

listening reflection. Despite limitations involving intact classes, a single school, and a short intervention, this study contributes empirical evidence from the Indonesian EFL context and highlights the need for further research with diverse participants, longer interventions, and different subtitle conditions.

ACKNOWLEDGEMENTS

The author would like to express appreciation for the contributions of all persons and institutions who assisted in completing this research. In the first place, the author would like to extend his deepest gratitude to Almighty Allah SWT for His blessings, guidance, and strength in carrying out and finishing this research. Also, the author would like to express his sincere thankfulness to Mr. Paulus Wijananto, the headmaster of SMK IPT KARANGPANAS, for giving permission and support in implementing this research in his school. His kindness and encouragement were very useful in carrying out this research in a true classroom setting.

Then, the author would like to thank his supervising lecturer and teachers, Ma'am Pasca, Ma'am Nike, and Mr. Apriko, for their assistance in guiding him, cooperating, and helping him to complete this research. Moreover, the author would like to convey his heartfelt thankfulness to his parents, Mr. Dadiyo Sudiono and Ma'am Prasetyowati, for their continuous support, prayers, encouragement, and financial help. Their constant support became the main source of motivation for this research. Another person who deserves special gratitude from the author is his friends, students at SMK IPT Karangpanas, who cooperated and participated actively in the research.

The author is having the feeling of grateful to his friends, Friki, Salmen, Imjal, Rapi, Fajri, Cengho, Japren, Jipeng, Kukun, Changidir, Alpa, and Juleha, for their kind emotional and existential support. Lastly, the author would like to appreciate everyone involved whom the author could not mention in completing this research, either directly or indirectly.

REFERENCES

- Baranowska, K. (2020). Learning most with least effort: Subtitles and cognitive load. *ELT Journal*, 74(2), 105–115. <https://doi.org/10.1093/elt/ccz060>
- Bowen, B. M. (1982). Look here! Visual aids in language teaching. In *Macmillan*.
- Chang, A., Millett, S., & Renandya, W. A. (2019). Developing listening fluency through supported extensive listening practice. *RELC Journal*, 50(3), 422–438. <https://doi.org/10.1177/0033688217751468>
- Creswell, J. W., & Creswell, J. D. (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. In *SAGE Publications, Inc.*
- Danan, M. (2004). Captioning and subtitling: Undervalued language learning strategies. *Meta*, 49(1), 67–77. <https://doi.org/10.7202/009021ar>
- Field, A. (2018). Discovering statistics using IBM SPSS Statistics. In *Sage*.
- Guichon, N., & McLornan, S. (2008). The effects of multimodality on L2 learners: Implications for CALL resource design. *System*, 36(1), 85–93.
- Gulec, S., & Durmus, N. (2015). A study aiming to develop listening skills of elementary students. *Procedia - Social and Behavioral Sciences*, 199, 663–669.
- Güneş, F. (2007). Türkçe öğretimi ve zihinsel yapılandırma. In *Nobel Yayın Dağıtım*.
- Heider, A. S., & Salman, S. A. (2022). The effects of intralingual subtitles on Jordanian university students' foreign language learning. *International Journal of Instruction*, 15(4), 57–76. <https://doi.org/10.29333/iji.2022.1544a>
- King, J. (2002). Using DVD feature films in the EFL classroom. *ELT Journal*, 56(5), 509–523.
- Korucu-Kış, S. (2021). On the effectiveness and limitations of captioning in L2 listening. *International Journal of Modern Education Studies*, 5(2), 516–536. <https://doi.org/10.51383/ijonmes.2021.153>
- Krashen, S. D. (1985). Principles and practice in second language acquisition. In *Pergamon*.
- Krashen, S. D. (1992). The input hypothesis: An update. In *Linguistics and language pedagogy: The state of the art* (pp. 409–431).

Montero Perez, M. (2022). *No Title*.

Montero Perez, M., Peters, E., Clarebout, G., & Desmet, P. (2014). Effects of captioning on video comprehension and incidental vocabulary learning. *Language Learning & Technology*, 18(1), 118–141.

Oktapiani, U., Bafadal, F., Adebayo, M., & Fasih, P. (2024). The Effectiveness of English-Subtitled Videos in Enhancing Speaking, Listening and Vocabulary Skills: A Meta-Analysis. *Not Available*, 12(1), 56–71.

Peters, E., Heynen, E., & Puimège, E. (2016). Learning vocabulary through audiovisual input: The differential effect of L1 subtitles and captions. *System*, 63, 134–148. <https://doi.org/10.1016/j.system.2016.10.002>

Rodgers, M. P. H., & Webb, S. (2017). The effects of captions on EFL learners' comprehension of English-language television programs. *CALICO Journal*, 34(1), 20–38. <https://doi.org/10.1558/cj.29522>

Safran, J. (2015). Advancing listening comprehension through movies. *Procedia - Social and Behavioral Sciences*, 191, 169–173.

Sukma, N. S., & Hapsari, C. T. (2025). Exploring the influence of English subtitles in English movies on EFL learners' listening skills. *ELT Forum: Journal of English Language Teaching*, 14. <https://doi.org/10.15294/elt.v14iSpecial%20Issue.30231>

Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science*, 12(2), 257–285.

Vanderplank, R. (2016). Captioned media in foreign language learning and teaching. In *Palgrave Macmillan*.

Winke, P., Gass, S., & Sydorenko, T. (2010). The effects of captions on second language listening comprehension. *Language Learning & Technology*, 14(1), 65–86.