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YouTube-Assisted Listening Instruction (YALI): A Study of Listening Comprehension and Listening Anxiety of University Students of German as a Foreign Language

Ahmet Tanır¹

İskenderun Technical University

Abstract

The present study aimed to investigate the effects of YouTube-assisted listening instruction (YALI) on the listening anxiety of students of German as a foreign language (GFL) and their listening comprehension performance. For this purpose, a total of ninety-six senior undergraduate students were equally divided into three groups using the criterion sampling technique: (a) YouTube-assisted listening instruction (experimental group); (b) traditional listening instruction with auditory materials (control group - 1); and (c) instruction without listening exposure (control group - 2). The instructional approach was underpinned by Richard E. Mayer's Cognitive Theory of Multimedia Learning (CTML). After a ten-week treatment process, results revealed that the students in YALI showed the best GFL listening comprehension performance compared to the control groups. In addition, YALI was observed to reduce students' GFL listening anxiety. Finally, a negative linear correlation between listening anxiety and listening comprehension performance was detected. This meant that students' listening anxiety decreased as their listening comprehension performance increased. To gain a better understanding of the effects of YALI on GFL listening comprehension performance and listening anxiety, relevant implications were discussed.

Key Words

Listening anxiety • Listening comprehension • YouTube

¹ **Correspondance to:** İskenderun Technical University, School of Foreign Languages, İskenderun, Hatay, Türkiye. E-mail: ahmet.tanir@iste.edu.tr **ORCID:** 0000-0001-6148-5417

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Introduction

Listening is one of the most complex language skills (Vandergrift, 2004) to be learned and mastered by foreign language (FL) learners (Graham, 2003), one that plays an active role in the internalization of language rules and the emergence of other language skills (Luu, Lian, & Siriyothin, 2021). Compared to the other basic language skills (reading, speaking, and writing), listening is primary channel that FL learners should use since the very beginning of their adventure of language learning (Bulut, 2019), and the fact that it is the first receptive skill developed by FL learners makes it an integrated skill (Harmer, 2007). However, due to phonological and lexical features such as invisible word boundaries, irregular pauses, false starts, and intonation patterns (Rahimi & Soleymani, 2015), many researchers (e.g., Berk, 2019; Chambers, 1996; Field, 2010; Luu et al., 2021; Lynch, 2009; Walker, 2014) have posited that teaching and learning listening as a language skill pose distinct challenges. Listening, especially in a non-native context, presents heightened difficulties for FL learners due to the need for control over speaking rate (Osada, 2004) and a reliance on lexical and contextual knowledge (Weber & Cutler, 2006). Moreover, spoken language differs from literary language (Berk, 2019), and even when spoken at a normal pace, run-on sentences and accent variances might make listening comprehension difficult for a FL student to understand (Buck, 2001). In such instances, a FL learner may suffer significant levels of anxiety and stress since he/she must not only understand but also respond to the speech (Vandergrift & Goh, 2012). FL learners with high anxiety levels lack self-confidence while listening in the FL context (Gregerson, 2003) and tend to be passive in classroom activities compared to their less anxious peers (Horwitz et al., 1986; Rahimi & Soleymani, 2015). As a consequence, a paramount affective factor influencing the progression of listening skills and the performance in listening comprehension is recognized as listening anxiety. In this regard, there is an urgent need to develop effective pedagogical strategies to increase foreign language learners' listening skills and reduce their listening anxiety.

Due to its complex nature, listening comprehension has received less attention in second or foreign language acquisition studies than other skills and competences (Bulut, 2019; Clement, 2007; Luu et al., 2021; Lynch, 2009). In this regard, Nunan (2002) compared listening abilities to “Cinderella, who is overshadowed by her siblings and constantly ignored by her family” (as cited in Berk, 2019, p. 39). The importance of listening skills in a second or foreign language has long been highlighted, and however, listening instruction in traditional classroom settings does not seem to enable FL learners to become effective listeners. Moreover, in today's world, English is the lingua franca across many domains (Luijckx, Gerritsen, & van Mulken, 2020) and most studies have naturally focused on research on English listening comprehension and listening anxiety. One of the salient observations to emphasize in this context is that individuals learning a foreign language (FL) or others, whether intentionally or inadvertently, encounter exposure to English language content through various mediums, including social media and other digital platforms. From this perspective, measurements of the effectiveness of learning environments and teaching materials in improving listening skills and listening comprehension performance in English may not yield the desired consistent results. Conducting similar research in the context of different languages can yield accurate and consistent results for the growing amount of FL listening literature. To this end, the current study directed its focus towards an investigation of listening comprehension performance and the presence of listening anxiety within the realm of German as a foreign language (GFL). In Turkey, as in many other countries, German is taught as a second foreign

language after English. Nevertheless, to the author's previous knowledge, the question of the extent to which GFL listening comprehension develops over time and how GFL listening anxiety decreases over time has not received much attention in Turkey or elsewhere. This study aimed to address this gap by conducting experimental research on the improvement of Turkish-speaking students' GFL listening comprehension performance and the reduction of listening anxiety in a learning context underpinned by [Richard E. Mayer's \(2009\) Cognitive Theory of Multimedia Learning \(CTML\)](#).

To achieve this, a training condition was designed to improve the students' GFL listening comprehension performance and reduce listening anxiety in a classroom setting through YouTube, which is an online video sharing and social media platform. YouTube has recently been one of the most regularly used multimedia tools in the classroom by educators because it is free and the most often logged-in platform for individuals for a variety of purposes ([Heriyanto, 2015](#)). In particular, research on YouTube has concluded that auditory and visual components are three times more effective than regular written texts in terms of retention time of vocabulary ([Al Qasim & Al Fadda, 2013; Heriyanto, 2015; Kabooha & Elyas, 2018](#)), increases students' motivation, classroom engagement and interaction ([Callow & Zammit, 2012; Kabooha, 2016](#)), and has positive effects on learner autonomy ([Hafner & Miller, 2011](#)). Based on the CTML, which proposes that multimedia enables individuals to form coherent mental representations between auditory and visual images and increases the functionality of the individual's brain, the current study suggests that YouTube may be the most appropriate educational tool to improve GFL listening comprehension performance and reduce listening anxiety. Via the utilization of YouTube, it becomes feasible to establish an authentic learning milieu within the classroom setting, facilitating heightened instances of foreign language (FL) learners' exposure to the target language. Such exposure, characterized by the simultaneous presentation of verbal and visual stimuli, holds the potential to enhance listening comprehension skills and mitigate listening anxiety.

Considering the research context, unlike previous studies, the present study focused on students who were learning German as a second foreign language after English and doing a BA program, with the exception of FL didactics, and the research design was different from other studies. Therefore, the study has two main aims to obtain the most meaningful results. First, it is to address the complex contours and controversial issues in the listening literature to raise awareness of listening comprehension and listening anxiety in the FL context by designing YouTube-assisted listening instruction (henceforth YALI) that differs from traditional classroom listening instruction, thereby promoting future collaboration among educators, linguists, and researchers. This will provide educators and researchers with analytical ideas for developing more systematic and better designed curricula for FL listening instruction in the future. Finally, the present study draws the reader's attention to the listening comprehension and listening concerns of GFL learners and offers innovative suggestions.

Literature Review

Listening Comprehension

The cognitive, emotional, and behavioral experiences that individuals acquire throughout their lives enable them to create perceptual filters to perfectly interpret listening in real-life contexts ([Wolvin, 2018](#)). In doing so, individuals

attach their own meaning to words, which in turn influences how they interpret incoming input during communication (Burley-Allen, 1995). In this way, listening comprehension is seen as an active process involving the interaction of multiple underlying sub-processes (Becker, 2016). Many researchers (e.g., Glenn, 1989; Luu et al., 2021; Nunan & Miller, 1995; Rahimi & Soleymani, 2015; Vogely, 1995, 1998; Witkin, 1990; Wolvin, 2018) have concluded that listening comprehension in a foreign language is a complex process with hundreds of variables. Moreover, it is still unclear what factors affect students' listening comprehension (Rahimi & Soleymani, 2015). Therefore, it is not possible to talk about a limited number of factors.

The length of the auditory materials played to the students in classroom settings and the fact that they include a lot of information may negatively affect the quality of the listening skills of FL learners. If a FL learner's vocabulary is limited, he/she may not be able to retain all the information (Balkaya & Akpınar Dellal, 2022). However, listening comprehension can be successful if the instructor makes the necessary interventions, i.e., repeated listening. The instructor factor is crucial to conducting successful listening training (Tanir, 2020, 2022). This challenge becomes notably more pronounced in the context of conversational interactions between a foreign language (FL) learner and a native speaker. The learner cannot control and interfere with the speed of the speaker's speech (Lynch, 2009). Moreover, the speaker may use words that the listener does not know, and so, he/she may get stuck on the unfamiliar word and miss the next parts of the speech. In such cases, the listener may use non-verbal cues such as gestures, facial expressions, and intonations, which can lead to misunderstanding by speakers from different cultures (Berk, 2019; Underwood, 1989). Hence, it is imperative to underscore that achieving a heightened degree of proficiency in listening comprehension hinges not only on an extensive lexical repertoire but also on a nuanced grasp of contextual knowledge within the target language.

Moreover, FL research has revealed that individual factors such as level of education, age, gender, and general proficiency level have long-term effects on listening comprehension (Moyer, 2006). It has been found that students with high levels of language proficiency self-monitor themselves during listening tasks (O'Malley, Chamot, & Küpper, 1989) and consciously use their own strategies during listening. The listening comprehension performance of those with high language proficiency is higher than that of those with low language proficiency. On the other hand, it has been suggested that providing strategy training with visual input and word storming during listening instruction can result in high levels of comprehension and that multimedia and computer technologies can be useful interfaces for such activities (Gruba, 2004; Hulstijn, 2003; Moyer, 2006).

The aforementioned studies provide valuable insights into the factors that influence the listening comprehension of FL learners at different language levels and their intentions to use strategies during listening instruction. However, little has been shared about how to design listening instruction that is most appropriate for FL listening comprehension. It is also not clear to what extent university students' listening comprehension performance improves.

Listening Anxiety

FL listening anxiety was first introduced conceptually in 2000 (Kim, 2005; Ji, Qin, & Li, 2022). Previously, listening anxiety was conceptualized as a sub-dimension of the Foreign Language Classroom Anxiety Scale

(FLCAS) developed by Horwitz, Horwitz and Cope (1986). In this context, scholars and educators have found it reasonable to focus on one of the selected skills (listening, reading, speaking, and writing) when investigating the relationship between foreign language learners' performance and their anxiety (Zhang, 2013). Moreover, the FLCAS focuses more on speaking than other skills and has been used to measure communication anxiety, test anxiety, and fear of negative evaluation (Aida, 1994; Balkaya, Arabacıoğlu, & Çakır, 2020; Cheng, Horwitz, & Schallert, 1999; Li, 2022; Zhang, 2013). Therefore, it may not be sufficient to link language skills such as listening and reading in the FLCAS with FL performance (Zhang, 2013). Conducting an in-depth examination of the causal associations existing between anxiety and performance within a specific language skill domain may yield refined and precise metrics for assessing anxiety within that particular skill.

However, speaking in the FL context is often reported by learners as the most anxiety-provoking language skill (Horwitz, 2001; Phillips, 1992; Young, 1990; Zhang, 2013), and this may be the determining factor in the neglect of research on the effect of FL anxiety on listening comprehension performance. Moreover, many studies on FL listening anxiety have examined the relationship between listening anxiety and other affective variables such as motivation (Adnan, Marlina, Trisno, & Hutapea, 2021; Amiryousefi & Tavakoli, 2011; Bang & Hiver, 2016; Chow, Chiu, & Wong, 2018; Li, 2022; Liu & Yuan, 2021), self-efficacy (Arslan, 2017; Canaran, Bayram, Doğan, & Baturay, 2020; Fathi, Derakhshan, & Torabi, 2020; Mills, Pajares, & Herron, 2006), metacognitive awareness (Durmaz & Aşık, 2022; Xu & Huang, 2018), and engagement (Zhang, Dai, & Ardasheva, 2020). The findings indicated that language anxiety has a holistic effect on other affective variables (Gopang, Bughio, Memon, & Faiz, 2016; Horwitz, 2017; Lili, 2015; Liu & Huang, 2011; Mesri, 2012; Otair & Abd Aziz, 2017; Polat & Erişti, 2019; Xu, 2011). In this regard, it has been reported that the quality of instructional materials used (El Haj Hassan & Haj Hassan, 2018; Vogely, 1998), phonological features such as speaking rate, diction, and accent differences (Wilson, 2006), and learners' familiarity with the listening text (Lili, 2015) are factors behind FL listening anxiety. Nonetheless, it is noteworthy that a constrained body of research has documented instances wherein foreign language (FL) listening anxiety has exhibited no discernible predictive influence on listening comprehension outcomes (e.g., Bang & Hiver, 2016; Kim & Baek, 2017; Liu, 2016; Vafae & Suzuki, 2020). Therefore, although it is accepted as a reality, there is no clear definition of the relationship between language anxiety and listening comprehension in the FL context.

Based on the research mentioned above, it is clear that there is a complex relationship between listening comprehension and language anxiety. It may be difficult to generalize from the vast majority of such research to the sources of listening anxiety for several reasons. First, almost all the relevant research addressed listening anxiety in English as a foreign or second language. Different results are likely to emerge in various FL contexts. Second, the FL perception of learners was English, and the instruments used to measure FL anxiety focused much more on English listening anxiety. As previously mentioned, contemporary foreign language (FL) learners frequently encounter substantial exposure to the target language, such as English, beyond the confines of formal educational settings, often through diverse online platforms. Consequently, the manifestation of FL anxiety may remain latent and pose inherent challenges in terms of its accurate measurement.

The Cognitive Theory of Multimedia Learning

Mayer's (2009) CTML is concerned with how multimedia instructional design affects the way the human mind works and how presented information is processed in the brain. Grounded in cognitivism, the theory draws on the information processing model of cognition (Ibrahim, 2012) and proposes memories that transform stimuli into information (Jonassen & Driscoll, 2013).

According to CTML, individuals learn deeply not only from words but also from the combination of words and pictures to form mental representations (Mayer, 2014). In doing so, it presents the vocabulary through learning contents composed of a combination of auditory and visual components such as animations, illustrations, pictures, photographs, or videos. The aim is to enable the learner to construct new knowledge by maximizing motivation and active participation. However, the main challenge of instructional design is how to encourage learners to engage in appropriate cognitive processing without the cognitive load that the capacity of the verbal or pictorial materials is likely to occur during learning. To overcome this problem, instructional materials and activities should be designed considering the minimum external load and the maximum intrinsic cognitive processing potential (Brünken, Plass, & Leutner, 2004). For this purpose, Mayer (2009) proposes five principles to reduce unnecessary cognitive processing in a multimedia learning environment: coherence, signaling, redundancy, spatial contiguity, and temporal contiguity principles. First, the coherence principle refers to increasing memory capacity by reducing external factors that interfere with the functioning of the mental process during learning (Sweller, 2010). Second, the signaling principle states that learners can learn better “when cues that highlight the organization of the essential material are added” (Jiang, Renandya, & Zhang, 2017, p. 729; Mayer, 2009). Third, the redundancy principle states that text and graphics in multimedia presentations cause visual working memory overload, and therefore auditory and visual animations integrate words and events in the mind more quickly and learn better with less cognitive processing (Mayer, 2009). Fourth, the spatial contiguity principle refers to the fact that physically integrating text and visuals allows students to retain learning inputs in working memory for a long time and increases the chances of active learning (Jiang et al., 2017). Finally, the temporal contiguity principle argues that the auditory and visual components of multimedia learning materials should be presented simultaneously.

Considering the general principles of CTML, YouTube may be a platform where audio and visual components are presented in the most effective way, and FL learners can experience listening activities individually anytime and anywhere. Moreover, it is user-friendly, free, and engaging, promoting language learning among learners (Yaacob, Amir, Asraf, Yaakob, & Zain, 2021). YouTube may increase students' potential exposure to the target language in terms of listening (Saputra & Fatimah, 2018). Therefore, the present study addressed YALI to improve university students' GFL listening comprehension performance and reduce GFL listening anxiety.

The Present Study

Based on some of the research gaps mentioned above, the current research focuses on two main areas in the context of listening, one of the four basic language skills: (a) the long-term gains of YALI in GFL listening

comprehension; and (b) its role in reducing anxiety in GFL listening. In line with these aims, different listening instruction approaches were designed by the author to test the effectiveness of the target listening instruction. To achieve the research objectives, the following questions were addressed in the present study:

- (1) To what extent do the three different listening instruction approaches improve the students' GFL listening comprehension performance?
- (2) To what extent do the three different listening instruction approaches improve the students' GFL listening anxiety?
- (3) Is there a correlation between listening anxiety and listening comprehension performance?

Method

Research Design

The present study was conducted using a nonrandomized controlled trial design (or pretest-post-test study with two control groups), which is one of the quasi-experimental design types. Since it was not possible to assign students to the groups randomly according to this research design, the participants were assigned to the groups by the criterion sampling technique, one of the purposive sampling types. For this purpose, the students were assigned to three groups: (a) YouTube-assisted listening instruction (YALI) (EG: experimental group); (b) traditional listening instruction with auditory materials (CG1: control group-1); and (c) instruction without listening exposure (CG2: control group-2). Quantitative data were used for the measurements. The dependent variables were GFL listening comprehension performance and GFL listening anxiety, and the independent variable was YALI.

Participants

The participants were a total of 96 senior students (55 males and 41 females) who were doing a BA program in three different academic majors of the faculty of tourism at a technical university located in a city in the south of Türkiye. Their majors were gastronomy and culinary arts, tourist guidance, and tourism management, respectively. The criterion sampling technique was used to form the study group. In this regard, the German listening comprehension test (GLCT) was administered to a total of 117 students enrolled in the German III course. According to the test results, the German language level of 8 students was determined as A1, 96 as A2, and 13 as B1. Accordingly, 96 students with A2 level were included in the study, and 32 students were equally assigned to the three groups. Of the 32 students in the experimental group, 19 were boys and 13 were girls, 11 girls and 21 boys in CG1, and 15 boys and 17 girls in CG2. One-way ANOVA results showed that there was no significant difference between the GLCT pre-test scores of the three groups ($F(2, 93) = 2.188, p = .118$). The students' ages ranged from 22 to 24. Their mother tongue was Turkish.

Instruments

German Listening Comprehension Test (GLCT). In this study, GLCT was prepared by the researcher based on the listening texts on Lingua.com and used as a pre- and post-test to measure the students' listening proficiency in German. The GLCT consisted of six authentic passages and 30 questions (see Table 1). Each passage was performed

as monologues. The content of the passages covered a variety of daily routines. The average length of the passages was 2.23 minutes.

Table 1

Description of GLCT passages

Passage	Text title	Description
Passage one	Bei den Großeltern (With grandparents)	<ul style="list-style-type: none"> • Question Type: True-false (5 items) • Format: monologue • Length: 2.22
Passage two	Eine lange Reise (A long journey)	<ul style="list-style-type: none"> • Question Gap-filling (5 items) • Format: monologue • Length: 2.31
Passage three	Im Einkaufszentrum (In the shopping center)	<ul style="list-style-type: none"> • Question Type: Multiple-choice (5 items) • Format: monologue • Length: 2.15
Passage four	Im Wald (In the forest)	<ul style="list-style-type: none"> • Question Type: Multiple-choice (5 items) • Format: monologue • Length: 2.24
Passage five	Ein Tag im Schwimmbad (A day in the swimming pool)	<ul style="list-style-type: none"> • Question Type: Multiple-choice (5 items) • Format: monologue • Length: 2.28
Passage six	Jana geht zum Zahnarzt (Jana goes to the dentist)	<ul style="list-style-type: none"> • Question Type: Multiple-choice (5 items) • Format: monologue • Length: 2.19

The GLCT questions included three types of questions: true-false (5 items), gap-filling (5 items), and multiple-choice (20 items). The maximum score a student could get was 30. Each query carried a valuation of one point. To test the reliability of the GLCT items, the researcher conducted a pilot study with 48 students at the A2-level in aviation management. The validity and reliability measurements revealed that the GLCT showed acceptable internal consistency (Cronbach's $\alpha = 0.96$), indicating that the results had high reliability.

German Listening Anxiety Scale (GLAS). The GLAS in this study was a copy of the version of the Foreign Language Listening Anxiety Scale (FLLAS) by [Elkhafafi \(2005\)](#) adapted by [Zhang \(2013\)](#) to measure foreign language anxiety in English listening classrooms. The FLLAS was originally a five-point Likert scale (range: 1= strongly disagree – 5 = strongly agree) and consisted of 20 items. The items were modified for this study to adapt them to listening anxiety in the context of listening in GFL classes. For example, the item “I get upset when I’m not

sure whether I understand what I'm hearing in English" was changed to "I get upset when I'm not sure whether I understand what I'm hearing in German." Their items were translated into Turkish, and the accuracy of the Turkish translation was checked by an English lecturer. The pre-test (Cronbach's $\alpha = .87$) and post-test (Cronbach's $\alpha = 0.91$) scores for the GLAS had acceptable internal consistency, and it means that the scale showed high acceptable reliability.

Treatment

General Information about GFL Courses at the Relevant Academic Program. GFL courses were taught as a second foreign language after English to the 3rd and 4th undergraduate students according to the regulations of the relevant academic program. At the end of a four-semester GFL course, it is hoped that students can acquire the main language skills (writing, reading, speaking, and listening) and use them successfully in their daily and professional lives. Furthermore, it is noteworthy that German as a Foreign Language (GFL) courses were aligned with substantial ECTS (European Credit Transfer and Accumulation System) credits, thereby necessitating a student's successful completion of GFL requirements as an integral component in the pursuit of a bachelor's degree.

In the scope of the study, the students in all three groups participated equally and fully in German Course III during the fall semester of the 2022–2023 academic year. They were taught by a single lecturer, used the same textbook, and performed the same tasks. During the research process, the groups were exposed to the three different GFL listening instruction approaches. The course lasted for two hours (45 minutes each) a week. The details are described in the following section.

Teaching materials. GFL listening comprehension instruction in EG was performed through videos delivered in the form of dialogue on YouTube. The videos were episodes of a mini-series entitled "Mein Weg nach Deutschland", and the length of each episode ranged from approximately seven to nine minutes. The mini-series was produced by the Goethe-Institute for teaching German to foreigners. All episodes are available on YouTube, and anyone who wants to learn German can access and practice listening anytime and anywhere via his/her PC or mobile device (e.g., smartphone or tablet PC) for free. Furthermore, the students also had the opportunity to watch the episodes with German subtitles. The texts for each episode were also available as PDFs to read along at the website of the Goethe Institute (<http://www.goethe.de/mwnd/miniserie>). This mini-series was chosen because it is set in a real-world context from the perspective of a non-native German speaker. In this way, the students would put themselves in the shoes of the character in the mini-series and experience in advance the listening comprehension and speaking difficulties they might face when they go to Germany.

However, listening activities for the students in CG1 were carried out through audio files of the textbook called *Begegnungen Deutsch als Fremdsprache A2+: Integriertes Kurs- und Arbeitsbuch* by Buscha and Szita (2013). The audio files, each of which varied in length from about five to eight minutes, were run on the author's laptop in the classroom. The listening texts were in the form of monologues and dialogues delivered for the purpose of reinforcing the relevant topics. Finally, those in CG2 did not conduct any listening activity. Worksheets were used in addition to the textbook.

GFL Listening Instruction Approaches. GFL listening instruction in EG and CG1 was carried out in a traditional classroom setting. The treatment covered a period of nine weeks for the groups and consisted of two phases: preparatory and main implementation stages.

Preparatory stage: This stage lasted one week, and two-hour sessions (45 minutes each) were conducted with students in both groups during their own class hours. In the first 45-minute session, problems in GFL listening were discussed and effective solutions and techniques to improve listening skills were verbally conveyed to the students. In this context, they were introduced to the author's five basic listening principles for being an active listener, inspired by Dale (1947) (see Table 2). In the second 45-minute session, these principles were modeled through a simple listening task to help them better manage and understand an effective listening process.

Table 2

General principles to promote GFL listening comprehension

Elements	The questions promoting GFL listening comprehension process
Concentration	<ol style="list-style-type: none"> (1) Focus on the speaker. (2) Do not let environmental factors distract you. (3) Analyze the speaker's body language. (4) Do not let your thoughts distract you.
Routation	<ol style="list-style-type: none"> (1) Use your own body language and gestures to convey your attention. (2) Route the conversation with your body language and gestures. (3) Show the speaker that you are listening. (4) Do not allow the speaker to use long and complex sentences.
Feedback	<ol style="list-style-type: none"> (1) Ask the speaker to repeat to avoid misunderstanding. (2) Repeat sentences or words you hear to get confirmation. (3) Periodically summarize the conversation.
Compliance	<ol style="list-style-type: none"> (1) Do not interrupt the speaker. (2) Pay attention to the pronunciation of words. (3) Stay in the context of the conversation.
Empathy	<ol style="list-style-type: none"> (1) Be open and empathetic in your response. (2) Assert your opinions respectfully. (3) Put yourself in the speaker's shoes.

Main implementation stage: This stage, which lasted eight weeks, started in the second week of the treatment. In the first lesson, EG students watched the episode of the relevant mini-series on YouTube related to the main topic of the weekly listening task selected from the relevant textbook in the classroom via a projector. To measure students' actual listening skills, the videos were released without German subtitles. Then, the multiple-choice and true-false questions about the events in the episodes were asked to the students. In the second lesson, the same episodes were

made to be watched with German subtitles. Afterwards, the students were asked to come together in pairs to form a group and to use their creativity to reenact the events about the related topic. The aim was to encourage learners to construct a coherent mental representation based on CTML, maximizing lexical and visual activity related to the events in the episodes. Thus, the negative impact of the intrinsic cognitive load on the long-term retention of listening comprehension and listening anxiety was to be reduced by synchronously sharing phonological features of words and contextual and lexical knowledge through auditory and visual components. On the other hand, CG1 students listened to the audio files of the textbook via the author's laptop in the classroom during the treatment process. The subject matter of the listening texts was similar to that in EG. In the first stage, the audio files were played as a whole. CG1 students were asked questions about the texts. Afterwards, the audio files were played in parts, i.e., sentence by sentence, and they were asked to orally repeat the German equivalents of the expressions that they caught. However, CG2 students were not exposed to any listening instruction. The lessons were conducted face-to-face in the classroom, as in the other groups. The dialogues in the textbook were acted out by CG2 students. In addition, worksheets were distributed to them for the reinforcement of relevant topics.

Procedure

Initially, in April 2022, the author obtained the necessary approvals from the Scientific Research and Publication Ethics Committee of the university to conduct the present study. Then, in May 2022, a pilot study was conducted with a small group to check the validity and reliability of data collection tools. The present study was carried out during the fall semester of the 2022–2023 academic year. In October 2023, a 45-minute meeting was held with the students to inform them about the purpose of the study. Students were told that participation in the study was based on voluntariness (All students fully participated in the study). Moreover, participants were duly apprised of the study's significance in the context of identifying efficacious strategies for enhancing their proficiency in German listening comprehension skills. Prior to the treatment, the GLCT pre-test was administered to the students to determine the study groups in the second week. After two days, the students completed the GLAS pre-test in about 40 minutes. In the third week, the students in EG and CG1 were instructed on the principles of being an active listener. From the fourth week on, the nine-week treatment process was conducted. After the treatment, the students in all three groups administered the post-tests of the relevant data tools. The research process for the present study lasted 13 weeks in total.

Data Analysis

The data were analyzed using SPSS 24 statistical software. The skewness and kurtosis coefficients of pre-test and post-test scores were examined to check the assumption of normality. Accordingly, the skewness coefficients for all dependent variables ranged between $-.022$ and $.246$, and the kurtosis coefficients varied from $-.449$ to $.488$, indicating that the data were normally distributed. To compare the pre-test scores in all three groups, a one-way ANOVA test was run. The statistical significance of within-subject (time: pre-test and post-test) and between-subject (group: EG, CG1, and CG2) effects and interaction effects (time \times group) was examined by the repeated measures ANOVA test. On the other hand, a Pearson correlation analysis was performed to evaluate the correlation between listening comprehension performance and listening anxiety. The level of significance was set at 0.05.

Results

The Effect of YALI on GFL Listening Comprehension

Table 3 presents the descriptive statistics for the GLCT test results for each group (EG: YouTube-assisted listening instruction (YALI), CG1: traditional listening instruction with auditory materials, and CG2: instruction without listening exposure).

Table 3

Descriptive statistics for students' GFL listening comprehension

Time	EG		CG1	CG2	Total	
	N	M (SD)	M (SD)	M (SD)	N	M (SD)
Pre-Test	32	10.09 (1.65)	10.21 (1.87)	10.93 (1.68)	96	10.41 (1.76)
Post-Test	32	19.81 (2.07)	16.09 (2.31)	14.09 (2.30)	96	16.66 (3.24)

As presented in Table 3, all three groups increased their mean scores on the post-test. Accordingly, EG1 showed the highest listening comprehension performance on the post-test ($M = 19.81$; $SD = 2.07$). This was followed by CG1 ($M = 16.09$; $SD = 2.31$). However, CG2 seemed to have the lowest performance ($M = 14.09$; $SD = 2.30$).

Next, the assumptions for performing the repeated measures ANOVA analysis were checked. Box's M test revealed that the covariances across the groups were equal, Box's $M = 2.404$, $F(6, 215559.692) = .388$, $p = .887$. Based on the results, Wilks' Lambda test was continued for further analysis.

Table 4

The repeated measures ANOVA results of students' GFL listening improvement

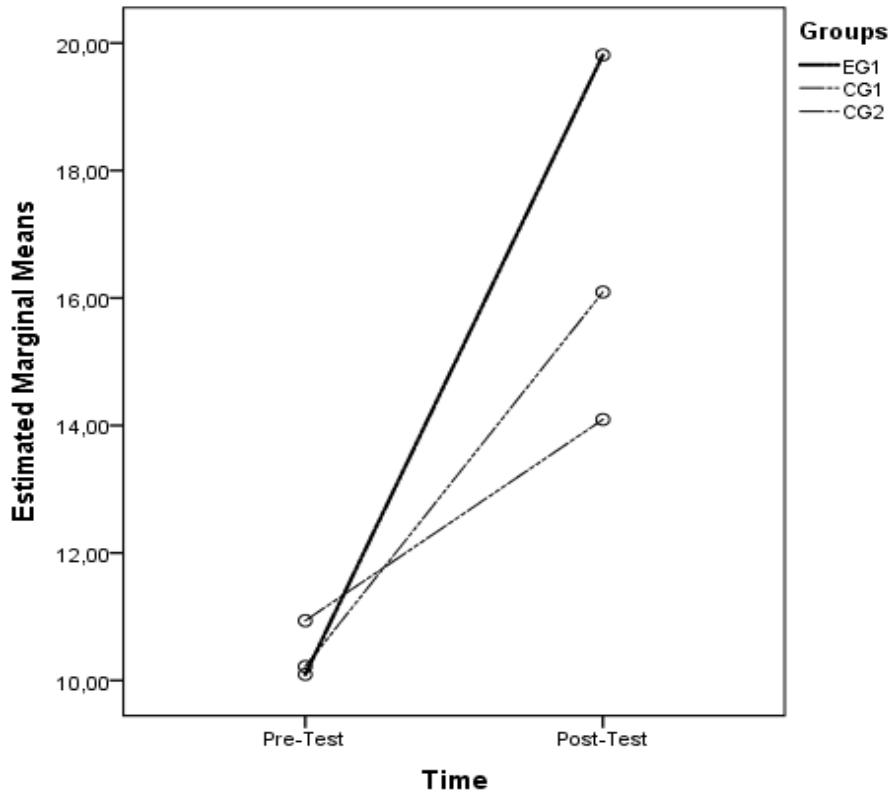
Source	df	F	p	Partial η^2
Between subject effects				
Group	2	19.112	.000**	.291
Error	93			
Within subject effects				
Time	2	700.038	.000**	.883
Time \times Group	2	64.946	.000**	.583
Error	93			

*** $p < .05$

As shown in Table 4, results revealed that the time effect had a statistically significant effect on students' GFL listening comprehension performance, $F(2, 93) = 700.038, p < .05$, Partial $\eta^2 = .883$, large effect. This meant that students in each group improved their listening comprehension scores over time. Findings also revealed a significant effect of group (i.e., treatment), $F(2, 93) = 19.112, p < .05$, Partial $\eta^2 = .291$, large effect, indicating that the GFL listening comprehension performance among the groups differed statistically. Then, results demonstrated a significant interaction effect of time \times group, $F(2, 93) = 64.946, p < .05$, Partial $\eta^2 = .583$, large effect. Figure 1 shows the time \times group interaction effect for all three groups.

Figure 1

Interaction effect of time \times group in the GFL listening comprehension



The Levene's Test of Equality of Variances indicated that the homogeneity of variances was achieved for the pre-test ($F(2, 93) = .523, p = .595$) and the post-test ($F(2, 93) = 301, p = .741$). Therefore, the Bonferroni Post Hoc test was performed for comparison of the groups. Bonferroni Post Hoc test on the post-test indicated that the listening comprehension performance of EG-students was significantly better compared to that of CG1 ($p < .05$) and CG2 ($p < .05$). In addition, no significant difference between listening comprehension scores in CG1 and CG2 on the post-test ($p = .361$) was detected although CG1-students outperformed those of CG2.

Overall, the findings revealed that EG exposed to YALI was more beneficial in terms of GFL listening comprehension performance compared to other instruction approaches. Moreover, CG1 performed better than CG2, but no statistically significant effect was observed.

The Effect of YALI on GFL Listening Anxiety

Table 5 presents the descriptive statistics of GFL listening anxiety depending on time and treatment. The mean scores on the pre-test were 3.49, 3.59, and 3.45, respectively, for EG, CG1, and CG2 students ($SD = .63, .55, \text{ and } .60$), indicating that they had high levels of GFL listening anxiety. One-way ANOVA results also revealed that there were no significant differences across the groups on the pre-test ($F(2, 93) = .490, p = .614$).

Table 5

Descriptive statistics for students' GFL listening anxiety

Time	EG		CG1		CG2		Total	
	N	M (SD)	M (SD)	M (SD)	N	M (SD)		
Pre-Test	32	3.49 (.63)	3.59 (.55)	3.45 (.60)	96	3.51 (.59)		
Post-Test	32	2.07 (.55)	2.56 (.62)	3.03 (.53)	96	2.56 (.69)		

The repeated measures ANOVA was performed to determine whether there was a decrease in the GFL listening anxiety in the three groups. Beforehand, the assumptions for the analysis were checked. Box's M test revealed the equality of the covariances across the groups Box's $M = 13.202, F(6, 215559,692) = 2.132, p = .046$. For this reason, further analysis was continued with Wilks' Lambda test.

Table 6

The repeated measures ANOVA results of students' GFL listening anxiety decrease

Source	<i>df</i>	<i>F</i>	<i>p</i>	Partial η^2
Between subject effects				
Group	2	8.788	.000**	.159
Error	93			
Within subject effects				
Time	2	149.330	.000**	.616
Time \times Group	2	14.021	.000**	.232
Error	93			

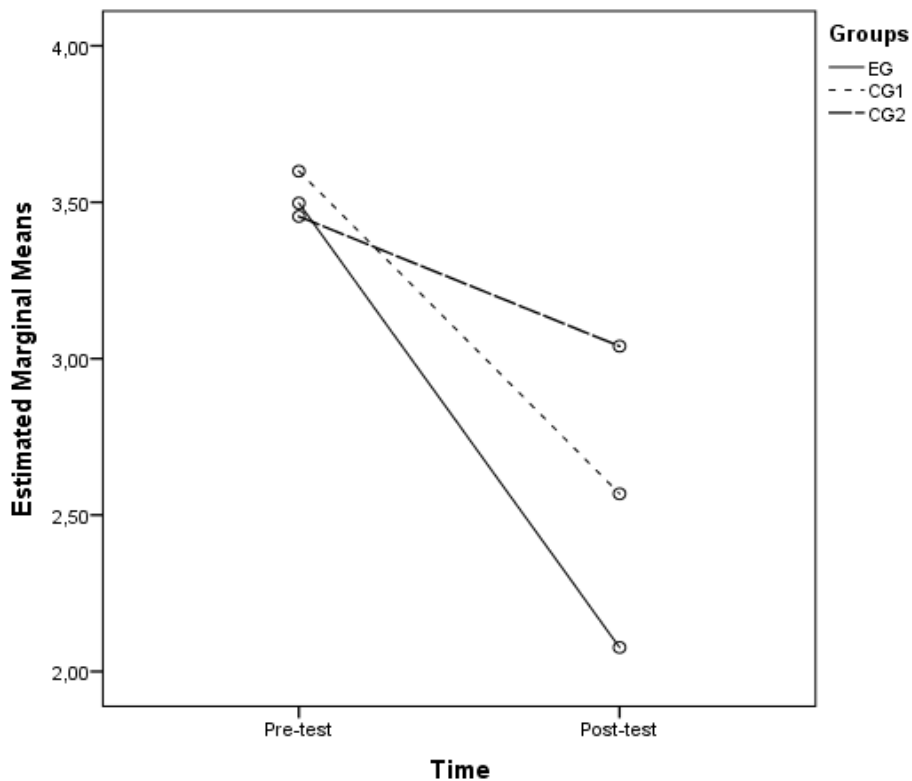
*** $p < .05$

As shown in Table 6, results revealed that the time effect had a statistically significant effect on students' GFL listening anxiety, $F(2, 93) = 149.330, p < .05$, Partial $\eta^2 = .616$, large effect. This meant that students in each group became less anxious about GFL listening over time. Results also revealed a significant effect of group (i.e., treatment), $F(2, 93) = 8.788, p < .05$, Partial $\eta^2 = .159$, large effect, indicating that the GFL listening anxiety among the groups differed statistically. Then, results demonstrated a significant interaction effect of time \times group, $F(2, 93)$

= 149.330, $p < .05$, Partial $\eta^2 = .232$, large effect. Figure 2 shows the interaction effect of time \times group for the three groups.

Figure 2

Interaction effect of time \times group in the GFL listening anxiety



A post-hoc test was performed to compare the three groups in terms of GFL listening anxiety. Initially, the homogeneity of variances was checked. Levene's test did not reveal any violations for the pre-test ($F(2, 93) = .215, p = .807$) and the post-test ($F(2, 93) = .020, p = .981$). In this regard, the Bonferroni post-hoc test was preferred. The Bonferroni post-hoc test on the post-test revealed that the GFL listening anxiety levels of EG students were significantly lower compared to those of CG1 ($p < .05$) and CG2 ($p < .05$). In addition, CG1 students had lower levels of GFL listening anxiety than CG2 students, but no significant difference ($p = .437$) was observed between them.

The findings provided a better understanding of the overall reduction in GFL listening anxiety in all groups over time after treatment. The EG group had statistically the lowest anxiety compared to the two control groups. Consequently, it can be inferred that YouTube yielded a favorable impact in diminishing the levels of listening anxiety experienced by the students.

Correlation between Listening Anxiety and Listening Comprehension Performance

Pearson's product-moment correlation coefficient was calculated to assess the relationship between students' GFL listening anxiety (LA) and listening comprehension performance (LCP). The results are presented in Table 7.

Table 7

Correlation between listening anxiety and listening comprehension performance in GLCT

Variables	Correlation (LCP and LA)
Pre-test	$r = .033$ ($p = .749$)
Post-test	$r = -.384$ ($p = .000$)

*** $p < .001$

Prior to the treatment, a positive correlation between students' GFL listening anxiety and listening comprehension performance was detected, but this relationship was not significant ($r = .033$, $p = .749$). After the treatment, results revealed that there was a linear negative and significant correlation between students' GFL listening anxiety and listening comprehension performance ($r = -.384$ ($p < .001$). That is to say, if a student's listening anxiety decreases, his/her listening comprehension scores will increase.

Discussion

Primarily, the present study aimed to carry out a comparative investigation of the effects of YALI on the GFL listening comprehension performance of the students at A2 level and their GFL listening anxiety. In the context, three different listening instruction approaches were proposed in the study: YouTube-assisted listening instruction (YALI) (EG), traditional listening instruction with auditory materials (CG1), and instruction without listening exposure (CG2).

Regarding the first research question, after only ten weeks of treatment, the results revealed a significant increase in GFL listening comprehension scores in all three groups. However, the listening comprehension scores of EG students exposed to YALI were statistically significant compared to those in the two control groups. This suggests that YALI seems to be a feasible and effective approach to improving students' GFL listening comprehension. These findings of the study were in line with those of previous studies (Al-Alwan, Asassfeh, & Al-Shboul, 2013; Nomass, 2013; Yaacob et al., 2021), which found that using video podcasts via YouTube in traditional classroom settings had a statistically significant effect on students' FL listening comprehension development. The present study also confirmed the previous studies (Etemadfar, Soozandehfar, & Namaziandost, 2020; Hosseini & Mahmood, 2021; Namaziandost, Neisi, & Momtaz, 2019; Shahnama, Ghonsooly, & Shirvan, 2021; Qiu & Luo, 2022; Vaezi, Afghari, & Lotfi, 2019; Xiaoyan, 2018), which reported that flipped-classroom instruction had a positive effect on the FL listening skills of the students highly exposed to authentic listening materials in the classroom. One of the most important findings of the present study was that there was no statistically significant difference between the GFL listening comprehension scores of CG1 students who received listening instruction through the audio files of the textbook and C2 students who were not exposed to any listening activity. These findings of the study were in line

with those of previous studies (Abidin, Pour-Mohammadi, Souriyavongsa, Tiang, & Kim, 2011; Vandergrift, 2007; Yaacob et al., 2021), which indicated that audio files did not lead to significant improvement in students' FL listening comprehension performance and FL listening skills, even though the tasks and activities provided were appropriate for their language proficiency levels. One possible reason that explains this finding may be that the students' internal cognitive load may have increased because of their inability to organize the events described in the audio files they listened to in class into a coherent cognitive representation in their minds, and as a result, they may have had difficulty in understanding what they listened to. In addition, the cognitive overload due to the design and functional characteristics of the audio files may not have guided students' existing lexical and contextual knowledge to comprehend what they listened to. Hence, it can be posited that YouTube-assisted listening instruction (YALI) potentially augments learners' acumen pertaining to micro-listening skills, including the ability to adapt to diverse pronunciation nuances and discern intricate intonation patterns. This differential advantage in comparison to conventional audio-based language pedagogies has been noted in the work of Waring (2003). Furthermore, the mitigation of cognitive overload, which emanates from the inherent complexity of information processing, as expounded by Sweller (2010), can be achieved through the integration of visual and auditory stimuli within listening comprehension tasks. Consequently, this amalgamation holds promise in optimizing students' foreign language (FL) listening comprehension performance. Therefore, the present study suggests that YALI can help students be aware of their own potential while listening to speakers of the target language and improve their FL listening skills by minimizing the internal and external cognitive overload caused by the complexity of instructional activities and materials, which is one of the most important barriers to learning according to the CTML.

The results related to the second research question revealed that YALI reduced students' GFL listening anxiety. These findings of the present study were consistent with those of previous studies that reported that doing listening activities through mobile devices (e.g., smartphones and tablet PCs) (Chinnery, 2006; Evans, 2008; Kim, 2018; Rahimi & Soleymani, 2015), online collaborative learning programs (Magen-Nagar & Shonfeld, 2018), and the flipped classroom method of instruction (Abdolrezapour, 2019; Lai & Hwang, 2016; Qiu & Luo, 2022) had a significant effect on reducing students' FL listening anxiety. A possible explanation for this may be that students' other basic (reading, speaking, and writing) and supportive skills (grammar, vocabulary, and pronunciation) compared to their listening skills improved during the treatment process. This conclusion is supported by previous studies (Elkhafafi, 2005; Liu, 2016; Liu & Xu, 2021; Zhang, 2013), which suggested that students' FL listening anxiety decreased as their general foreign language learning anxiety decreased. Another possible explanation may be that the length of exposure to the target language through authentic listening materials delivered on YouTube reduced students' GFL listening anxiety. However, this finding of the study contradicted that of Hwang, Hsu, Lai and Hsueh (2017), which found that the problem-based computer game designed by themselves did not reduce the English listening anxiety of the students with an average age of 15. The contradiction between the studies may be explained by the fact that the issue of FL listening anxiety may not only be a general FL learning anxiety but also exist in the context of technology-based language learning. Moreover, the participants were in the adolescent period, when physical and mental development take place at the same time, considering their average age. Therefore, their attitudes towards not only FL listening anxiety but also the FL learning process as a whole and their perceptions

towards learning through computer games may have an impact on the increase in FL listening anxiety depending on various internal and external cognitive factors. Another noteworthy discovery in the present study revealed a lack of statistically significant differentiation between the levels of German as a Foreign Language (GFL) listening anxiety exhibited by students in Control Group 1 (CG1) and Control Group 2 (CG2). The reason why the GFL listening anxiety of CG1 students did not decrease statistically can be explained by the fact that the students felt isolated in the classroom and could not gain learner autonomy because the procedure of listening to the audio files and implementing the activities was carried out under the control of the instructor. The previous studies, which revealed the positive effect of YouTube on students' motivation and autonomous learning in foreign language learning (Callow & Zammit, 2012; Hafner & Miller, 2011; Kabooha & Elyas, 2018) and the effectiveness of the individual, collaborative, and interactive nature of the flipped classroom method of instruction on students' FL listening anxiety (Eryilmaz & Cigdemoglu, 2019; Lai & Hwang, 2016; Qiu & Luo, 2022; van Alten et al., 2019) supported this conclusion. Therefore, the present study suggests that anxiety is a cognitive and latent factor, and that YALI is a feasible and effective approach to helping students overcome FL listening anxiety by reducing the cognitive overload that may be caused by external factors during the listening process.

Regarding the last research question, the results revealed a negative linear relationship between GFL listening anxiety and GFL listening comprehension performance. The findings of the present study were consistent with those of previous studies (Brunfaut & Revesz, 2015; Cheng et al., 2014; Dalman, 2016; Liu, 2016; Liu & Thondhlana, 2015; Lucas, Miraflores, & Go, 2011; Liu & Xu, 2021; Qiu & Luo, 2022; Shu-Yan & Cha, 2019; Valizadeh & Alavinia, 2013; Xu & Huang, 2018; Yamauchi, 2014; Zhang, 2013) indicating that there was a significant negative relationship between FL listening anxiety and levels of listening proficiency. Therefore, this meant that a student with a low level of FL listening anxiety improved his/her FL listening comprehension. Based on this evidence, the present study suggests that YALI captures the perfect harmony of auditory and visual components, which provokes students to retain in their long-term memory what they have learned by forming mental representations of the events in the target listening tasks in the form of a sound-image-word spiral. Thus, the students can make sense of an unknown word and its pronunciation by capturing clues from the previous auditory associations in their minds, and their levels of FL listening anxiety may decrease. In addition, it can be argued that authentic learning, i.e., real-life episodes presented through YouTube, minimizes the intrinsic cognitive overload caused by the complexity of learning materials by inferring from students' own lives. This assertion finds support in Mayer's Cognitive Theory of Multimedia Learning (CTML) from 2009, which posits that an individual's capacity for verbal and visual memory is inherently selective and, moreover, does not permit concurrent focus on multiple audio-visual materials or textual inputs. Therefore, YouTube may maximize students' intrinsic cognitive processing potential during listening and reduce students' FL listening anxiety during listening tasks or oral communication with speakers of the target language. This inference was supported by Vogely (1998), who indicated that the vocabulary capacity of a student can induce FL listening anxiety. For example, a student constantly focuses on the word when he/she hears a previously unfamiliar sound during listening, and this may lead to a lack of listening comprehension (Zhang, 2013). However, the findings of the present study contradicted those that classroom anxiety based on the flipped classroom model did not cause any change in students' FL listening performance (Hosseini & Mahmoodi, 2021), that the level

of FL anxiety did not decrease with the increase in language proficiency (Saito & Samimy, 1996), and that test anxiety had no statistical effect on listening test performance (Aida, 1994; In'nami, 2006; MacIntyre & Gardner, 1989). A possible explanation may be that classroom and test anxiety is related to general learning anxiety rather than FL listening, which may have led to manipulative results due to students' tendency to answer the items of the scale beyond FL listening anxiety. Therefore, the fact that listening skills are a less studied area compared to other language skills may cause many questions to remain unanswered in the context of FL listening anxiety and FL listening comprehension performance.

Conclusion

The present study offers a number of theoretical and practical implications. First, it was found that YALI was successfully integrated into the GFL listening course and improved students' listening comprehension. Theoretically, this is in line with CTML, which states that multimedia teaching materials represented in words and pictures help students learn deeply. Therefore, the relevant educational tools should be focused on maximizing intrinsic cognitive processing, considering the selectivity of individuals' verbal and visual perceptions, and their use in traditional classroom settings to improve students' FL listening comprehension performance should be encouraged.

Second, YALI created an effective authentic learning environment where students could be intensively exposed to GFL and, as a result, reduce their GFL listening anxiety. Although it led to a decrease in the levels of students' listening anxiety, the current instructional approach should be considered as a complementary method rather than an alternative to traditional learning. This phenomenon can be attributed to the pivotal role played by instructors in enhancing the efficacy of German as a Foreign Language (GFL) listening courses. They are therefore role models and are at the center of learning and creativity. In this regard, they need to know the reasons behind students' FL listening anxiety and have the competence to prepare effective listening materials by taking preventive measures.

Finally, the present study concluded that GFL listening anxiety has a significant impact on students' listening comprehension. A high level of listening anxiety is an important factor that causes students to underperform in GFL listening comprehension. Therefore, the selection and design of listening activities should avoid using videos with a lot of written text that may cause cognitive overload. During listening, students focus on the words rather than the sound and thus have difficulty following the phonetic discourse of the words, such as intonation and pronunciation. Similarly, learners may encounter difficulties in their listening process when encountering an unfamiliar word, leading to a state of being ensnared by this lexical unfamiliarity and subsequently disengaging from the broader contextual understanding of the listening material.

In conclusion, YALI can be an alternative method for developing listening skills that have been neglected due to their complex nature. Although the present study was conducted with undergraduate students in the GFL context, the approach used in the design of the study can be adapted to research on FL listening skills development anywhere in the world.

Limitations and Suggestions for Further Research

The present study suffered from some limitations. In this regard, the study also offers several suggestions for directions for further research. First, it provides some preliminary evidence on the effect of YALI on students' listening anxiety and listening comprehension performance in the classroom, with particular emphasis on its effect in the GFL context. Therefore, it should be replicated in different language contexts to confirm the present findings. Second, the participants in the study were all at the A2 level. It would be interesting to include data from learners at different levels of language proficiency on the effectiveness of YALI as a potential instructional approach for improving FL listening comprehension performance and reducing FL listening anxiety. Third, gender was not considered as an independent factor in the present study. Gender may have an impact on the research results, and further research could investigate the effect of gender. Finally, all participants were of Turkish origin, and their number was limited. It is possible that similar results may or may not be found among students from different ethnic groups. In summary, further research in this context is recommended.

Ethic

Prior to data collection, ethical approval was obtained from the Ethics Committee for Scientific Research and Publications of Iskenderun Technical University dated 09.05.2022 with resolution number 2022-57973.

Author Contributions

The whole process of the research was conducted by the researcher.

Conflict of Interest

The author discloses that there is no conflict of interest.

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References

- Abdolrezapour, P. (2019). Applying computer-mediated active learning intervention to improve L2 listening comprehension. *Applied Research on English Language*, 8(4), 511-530. <https://doi.org/10.22108/are.2019.115355.1424>
- Abidin, M. J. Z., Pour-Mohammadi, M., Souriyavongsa, T., Tiang, C. D. B., & Kim, N. O. L. (2011). Improving listening comprehension among Malay preschool children using digital stories. *International Journal of Humanities and Social Science*, 1(14), 159-164. Retrieved from https://www.ijhssnet.com/view.php?u=https://www.ijhssnet.com/journals/Vol_1_No_14_October_2011/21.pdf
- Adnan, A., Marlina, L., Trisno, E., & Hutapea, S. C. (2021, September). The correlation between EFL college students' learning motivation with listening anxiety at intermediate listening classes. In *Eighth International Conference on English Language and Teaching (ICOELT-8 2020)* (pp. 19-22). Atlantis Press. <https://doi.org/10.2991/assehr.k.210914.004>
- Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope's construct of foreign language anxiety: The case of students of Japanese. *The Modern Language Journal*, 78(2), 155-168. <https://doi.org/10.2307/329005>
- Al-Alwan, A., Asassfeh, S., & Al-Shboul, Y. (2013). EFL learners' listening comprehension and awareness of metacognitive strategies: How are they related?. *International Education Studies*, 6(9), 31-39. <https://doi.org/10.5539/ies.v6n9p31>
- Al Qasim, N., & Al Fadda, H. (2013). From CALL to MALL: The effectiveness of podcast on EFL higher education students' listening comprehension. *English Language Teaching*, 6(9), 30-41. <http://dx.doi.org/10.5539/elt.v6n9p30>
- Amiryousefi, M., & Tavakoli, M. (2011). The relationship between test anxiety, motivation and MI and the TOEFL iBT reading, listening and writing scores. *Procedia-Social and Behavioral Sciences*, 15, 210-214. <https://doi.org/10.1016/j.sbspro.2011.03.075>
- Arslan, A. (2017). Investigation of secondary school students' listening anxiety and academic self-efficacy beliefs in terms of various variables. *International e-Journal of Educational Studies*, 1(1), 12-31. Retrieved from <https://dergipark.org.tr/en/pub/iejes/issue/33293/370575?publisher=jcer?publisher=jcer>
- Balkaya, Ş., & Akpınar Dellal, N. (2022). Einstellungen, Vorurteile und Stereotype von türkischen Gymnasiast(Inn) en gegenüber der deutschen Sprache. *Muttersprache*, 132(2), 151–175. <https://doi.org/10.53371/60349>
- Balkaya, Ş., Arabacıoğlu, B., & Çakır, M. (2020). Angstzustände im Fremdsprachenunterricht von Studierenden der Abteilung Deutsch als Fremdsprache auf Lehramt (Am Beispiel Anadolu Universität). *Studien zur deutschen Sprache und Literatur*, (44), 111-134. <https://doi.org/10.26650/sdsl2020-0019>
- Bang, S., & Hiver, P. (2016). Investigating the structural relationships of cognitive and affective domains for L2 listening. *Asian-Pacific Journal of Second and Foreign Language Education*, 1(1), 1-19. <https://doi.org/10.1186/s40862-016-0013-8>

- Becker, A. (2016). L2 students' performance on listening comprehension items targeting local and global information. *Journal of English for Academic Purposes, 24*, 1-13. <http://dx.doi.org/10.1016/j.jeap.2016.07.004>
- Berk, R. R. (2019). *The effect of podcasts on listening comprehension and listening anxiety in teaching Turkish as a foreign language*. (Unpublished Doctoral Dissertation). Gazi University.
- Brunfaut, T., & Revesz, A. (2015). The role of task and listener characteristics in second language listening. *Tesol Quarterly, 49*(1), 141-168. <https://doi.org/10.1002/tesq.168>
- Brünken, R., Plass, J. L., & Leutner, D. (2004). Assessment of cognitive load in multimedia learning with dual-task methodology: Auditory load and modality effects. *Instructional Science, 32*, 115-132. <https://doi.org/10.1023/B:TRUC.0000021812.96911.c5>
- Buck, G. (2001). *Assessing listening*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511732959>
- Bulut, A. (2019). *The effect of listening to audiobooks on anxiety and development of listening and pronunciation skills of high school students learning English as a foreign language* (Order No. 28738094) [Doctoral Dissertation, Bursa Uludag University (Turkey)]. ProQuest Dissertations and Theses Global. <https://www.proquest.com/openview/555fb5ee256e8a3edaaf80a7ded0f9d3/1?pq-origsite=gscholar&cbl=2026366&diss=y>
- Burley-Allen M. (1995). *Listening: The forgotten skill: A self-teaching guide*. John Wiley & Sons.
- Buscha, A., and Szita, S. (2013). *Begegnungen Deutsch als Fremdsprache A2+: Integriertes Kurs- und Arbeitsbuch* (2nd Ed.). Schubert.
- Callow, J., & Zammit, K. (2012). 'Where lies your text?' (Twelfth night act I, scene V): Engaging high school students from low socioeconomic backgrounds in reading multimodal texts. *English in Australia, 47*(2), 69-77. <https://search.informit.org/doi/10.3316/informit.739457706121016>
- Canaran, Ö., Bayram, İ., Doğan, M., & Baturay, M. H. (2020). Causal relationship among the sources of anxiety, self-efficacy, and proficiency in L2 listening. *International Journal of Listening, 1*-13. <https://doi.org/10.1080/10904018.2020.1793676>
- Chambers, G. N. (1996). Listening. Why? How?. *Language Learning Journal, 14*(1), 23-27. <https://doi.org/10.1080/09571739685200341>
- Cheng, L., Klinger, D., Fox, J., Doe, C., Jin, Y., & Wu, J. (2014). Motivation and test anxiety in test performance across three testing contexts: The CAEL, CET, and GEPT. *Tesol Quarterly, 48*(2), 300-330. <https://doi.org/10.1002/tesq.105>
- Cheng, Y. S., Horwitz, E. K., & Schallert, D. L. (1999). Language anxiety: Differentiating writing and speaking components. *Language Learning, 49*(3), 417-446. <https://doi.org/10.1111/0023-8333.00095>
- Chinnery, G. M. (2006). Going to the MALL: Mobile assisted language learning. *Language Learning & Technology, 10*(1), 9-16. Retrieved from <http://llt.msu.edu/vol10num1/emerging/>

- Chow, B. W. Y., Chiu, H. T., & Wong, S. W. (2018). Anxiety in reading and listening English as a foreign language in Chinese undergraduate students. *Language Teaching Research*, 22(6), 719-738. <https://doi.org/10.1177/1362168817702159>
- Clement, J. (2007). *The impact of teaching explicit listening strategies to adult intermediate- and advanced-level ESL university students*. (Doctoral dissertation). Retrieved from <https://dsc.duq.edu/etd/418>
- Dale, E. (1947). *Audio-visual methods in teaching*. The Dryden Press.
- Dalman, R. M. (2016). The relationship between listening anxiety, listening comprehension strategies, and listening performance among Iranian EFL university students. *International Journal of Modern Language Teaching and Learning*, 1(6), 241-252. Retrieved from <http://www.ijmltl.com/fulltext/paper-01122016185800.pdf>
- Durmaz, B. N., & Aşık, A. (2022). Relationship between metacognitive awareness, listening anxiety and ambiguity tolerance of Turkish EFL learners. *The Reading Matrix: An International Online Journal*, 22(2), 92-107. <https://www.readingmatrix.com/files/29-72myvkbw.pdf>
- El Haj Hassan, S., & Haj Hassan, Z. (2018). Using TED talks as authentic videos to enhance students' listening comprehension and motivation. In *Teacher Investigations of ELT Practice: ACE Action Research 2018*. University of Oregon. Retrieved from <http://hdl.handle.net/1794/23529>
- Elkhafaiji, H. (2005). Listening comprehension and anxiety in the Arabic language classroom. *The modern language journal*, 89(2), 206-220. <https://doi.org/10.1111/j.1540-4781.2005.00275.x>
- Eryilmaz, M., & Cigdemoglu, C. (2019). Individual flipped learning and cooperative flipped learning: Their effects on students' performance, social, and computer anxiety. *Interactive Learning Environments*, 27(4), 432-442. <https://doi.org/10.1080/10494820.2018.1522652>
- Etemadfar, P., Soozandehfar, S. M. A., & Namaziandost, E. (2020). An account of EFL learners' listening comprehension and critical thinking in the flipped classroom model. *Cogent Education*, 7(1), 1835150. <https://doi.org/10.1080/2331186X.2020.1835150>
- Evans, C. (2008). The effectiveness of m-learning in the form of podcast revision lectures in higher education. *Computers & Education*, 50(2), 491-498. <https://doi.org/10.1016/j.compedu.2007.09.016>
- Fathi, J., Derakhshan, A., & Torabi, S. (2020). The effect of listening strategy instruction on second language listening anxiety and self-efficacy of Iranian EFL learners. *Sage Open*, 10(2), 2158244020933878. <https://doi.org/10.1177/2158244020933878>
- Field, J. (2010). Listening in the language classroom. *ELT journal*, 64(3), 331-333. <https://doi.org/10.1093/elt/ccq026>
- Glenn, E. C. (1989). A content analysis of fifty definitions of listening. *International Journal of Listening*, 3(1), 21-31. https://doi.org/10.1207/s1932586xijl0301_3

- Gopang, I. B., Bughio, F. A., Memon, S. A., & Faiz, J. (2016). Foreign language anxiety and learner beliefs in second language learning: A research timeline. *Theory and Practice in Language Studies*, 6(8), 1591. <http://dx.doi.org/10.17507/tpls.0608.10>
- Graham, S. (2003). Learner strategies and advanced level listening comprehension. *Language Learning Journal*, 28(1), 64-69. <http://dx.doi.org/10.1080/09571730385200221>
- Gregerson, T. S. (2003). To err is human: A reminder to teachers of language-anxious students. *Foreign Language Annals*, 36(1), 25-32. <http://dx.doi.org/10.1111/j.1944-9720.2003.tb01929.x>
- Hafner, C., & Miller, L. (2011). Fostering learner autonomy in English for science: A collaborative digital video project in a technological learning environment. *Language Learning and Technology*, 15(3), 68-86. Retrieved from <http://lt.msu.edu/issues/october2011/hafnermiller.pdf>
- Harmer, J. (2007). *The practice of English language teaching*. Pearson Education.
- Heriyanto, D. (2015). The effectiveness of using YouTube for vocabulary mastery. *ETERNAL (English Teaching Journal)*, 6(1). <https://doi.org/10.26877/eternal.v6i1.2290>
- Horwitz, E. K. (2017). On the misreading of Horwitz, Horwitz & Cope (1986) and the need to balance anxiety research and the experiences of anxious language learners. In C. Gkonou, M. Daubney and J. M. Dewaele (Eds.), *New insights into language anxiety* (pp. 31-48). Multilingual Matters.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125-132. <https://doi.org/10.2307/327317>
- Hosseini, S. A., & Mahmoodi, K. (2021). Flipped classroom model and its impact on Iranian EFL Learners' classroom anxiety and listening performance. *Computer-Assisted Language Learning*, 22(3), 1-16. Retrieved from <http://callej.org/journal/22-3/Hosseini-Rajabi-Mahmoodi2021.pdf>
- Hwang, G. J., Hsu, T. C., Lai, C. L., & Hsueh, C. J. (2017). Interaction of problem-based gaming and learning anxiety in language students' English listening performance and progressive behavioral patterns. *Computers & Education*, 106, 26-42. <https://doi.org/10.1016/j.compedu.2016.11.010>
- Ibrahim, M. (2012). Implications of designing instructional video using cognitive theory of multimedia learning. *Critical Questions in Education*, 3(2), 83-104. Retrieved from https://academyedstudies.files.wordpress.com/2014/12/mohamed_ibrahim_submissionfinal.pdf
- In'nami, Y. (2006). The effects of test anxiety on listening test performance. *System*, 34(3), 317-340. <https://doi.org/10.1016/j.system.2006.04.005>
- Ji, S., Qin, X., & Li, K. (2022). A systematic review of foreign language listening anxiety: Focus on the theoretical definitions and measurements. *Frontiers in Psychology*, 13, 859021. <https://doi.org/10.3389/fpsyg.2022.859021>

- Jiang, D., Renandya, W. A., & Zhang, L. J. (2017). Evaluating ELT multimedia courseware from the perspective of cognitive theory of multimedia learning, *Computer Assisted Language Learning*, 30(7), 726-744. <http://dx.doi.org/10.1080/09588221.2017.1359187>
- Jonassen, D., & Driscoll, M. (2013). Multiple-channel communication: The theoretical and research foundations of multimedia. In D. M. Moore, J. K. Burton, and R. J. Myers. (Eds.), *Handbook of Research on Educational Communications and Technology* (pp. 967-993). Routledge.
- Kabooha, R. (2016). Using movies in EFL classrooms: A study conducted at the English Language Institute (ELI), King Abdul-Aziz University. *English Language Teaching*, 9(3), 248-257. <https://doi.org/10.5539/elt.v9n3p248>
- Kabooha, R., & Elyas, T. (2018). The effects of YouTube in multimedia instruction for vocabulary learning: Perceptions of EFL students and teachers. *English language teaching*, 11(2), 72-81. <http://doi.org/10.5539/elt.v11n2p72>
- Kim, Y. J. (2018, July). The effects of mobile-assisted language learning (MALL) on Korean college students' English-listening performance and English-listening anxiety. In *Proceedings of the 8th International Conference on Languages, Social Sciences, Education and Interdisciplinary Studies* (pp. 277-298). Retrieved from http://heaig.org/images/proceedings_pdf/H12174241.pdf
- Kim, M., & Baek, S. (2017). The structural relationship of factors in Korean fifth graders' L2 listening proficiency. *English*, 21, 30(3), 337-364. Retrieved from <https://www.dbpia.co.kr/Journal/articleDetail?nodeId=NODE08855041>
- Lai, C. L., & Hwang, G. J. (2016). A self-regulated flipped classroom approach to improving students' learning performance in a mathematics course. *Computers & Education*, 100, 126-140. <https://doi.org/10.1016/j.compedu.2016.05.006>
- Li, R. (2022). Examining foreign language listening anxiety and its correlates: a meta-analysis. *Porta Linguarum: revista internacional de didáctica de las lenguas extranjeras*, (38), 99-117. <https://doi.org/10.30827/portalin.vi38.22173>
- Lili, Z. H. A. I. (2015). Influence of anxiety on English listening comprehension: An investigation based on the freshmen of English majors. *Studies in Literature and Language*, 11(6), 40-47. <http://dx.doi.org/10.3968/7952>
- Liu, M. (2016). Interrelations between foreign language listening anxiety and strategy use and their predicting effects on test performance of high-and low-proficient Chinese university EFL learners. *The Asia-Pacific Education Researcher*, 25(4), 647-655. <https://doi.org/10.1007/s40299-016-0294-1>
- Liu, M., & Huang, W. (2011). An exploration of foreign language anxiety and English learning motivation. *Education Research International*, 493167. <https://doi.org/10.1155/2011/493167>
- Liu, M., & Xu, H. (2021). Testing effects of foreign language listening anxiety on Chinese university students' English listening test performance. *Frontiers in psychology*, 12, 701926. <https://doi.org/10.3389/fpsyg.2021.701926>

- Liu, M., & Yuan, R. (2021). Changes in and effects of foreign language classroom anxiety and listening anxiety on Chinese undergraduate students' English proficiency in the COVID-19 context. *Frontiers in Psychology, 12*, 670824. <https://doi.org/10.3389/fpsyg.2021.670824>
- Liu, M., & Thondhlana, J. (2015). A study of Chinese university EFL learners' foreign language listening anxiety, listening strategy use and listening performance. *Indonesian JELT: Indonesian Journal of English Language Teaching, 10*(1), 33-57. <https://doi.org/10.25170/ijelt.v10i1.1507>
- Lucas, R. I., Miraflores, E., & Go, D. (2011). English language learning anxiety among foreign language learners in the Philippines. *Philippine ESL Journal, 7*(94-119). Retrieved from https://www.researchgate.net/publication/256495249_English_Language_Learning_Anxiety_among_Foreign_Language_Learners_in_the_Philippines
- Luijckx, A., Gerritsen, M., & van Mulken, M. (2020). The effect of Dutch student errors in German business letters on German professionals. *Business and Professional Communication Quarterly, 83*(1), 34-56. <https://doi.org/10.1177/2329490619870550>
- Luu, M. T. L., Lian, A. P., & Siriyothin, P. (2021). Developing EFL learners' listening comprehension through a computer-assisted self-regulated prosody-based listening platform. *CALL-Electronic Journal, 22*(1), 246-263. Retrieved from <http://callej.org/journal/22-1/Luu-Lian-Siriyothin2021.pdf>
- Lynch, T. (2009). *Teaching second language listening*. Oxford University Press.
- MacIntyre, P. D., & Gardner, R. C. (1989). Anxiety and second language learning: Toward a theoretical clarification. *Language Learning, 39*(2), 251-275. <https://doi.org/10.1111/j.1467-1770.1989.tb00423.x>
- Magen-Nagar, N., & Shonfeld, M. (2018). The impact of an online collaborative learning program on students' attitude towards technology. *Interactive Learning Environments, 26*(5), 621-637. <https://doi.org/10.1080/10494820.2017.1376336>
- Mayer, R. (Ed.). (2014). *The Cambridge handbook of multimedia learning* (2nd Ed.). Cambridge University Press. <https://doi.org/10.1017/CBO9781139547369>
- Mayer, R. (2009). *Multimedia learning* (2nd Ed.). Cambridge University Press. <https://doi.org/10.1017/CBO9780511811678>
- Mesri, F. (2012). The relationship between gender and Iranian EFL learners' foreign language classroom anxiety (FLCA). *International Journal of Academic Research in Business and Social Sciences, 2*(6), 147. Retrieved from <https://knowledgewords.com/images/the-relationship-between-gender-and-iranian-efl-learners-foreign-language-classroom-anxiety-flca.pdf>
- Mills, N., Pajares, F., & Herron, C. (2006). A reevaluation of the role of anxiety: Self-efficacy, anxiety, and their relation to reading and listening proficiency. *Foreign language annals, 39*(2), 276-295. <https://doi.org/10.1111/j.1944-9720.2006.tb02266.x>

- Moyer, A. (2006). Language contact and confidence in second language listening comprehension: a pilot study of advanced learners of German. *Foreign Language Annals*, 39(2), 255-275. <https://doi.org/10.1111/j.1944-9720.2006.tb02265.x>
- Namaziandost, E., Neisi, L., & Momtaz, S. (2019). The effectiveness of flipped classroom model on listening comprehension among Iranian upper-intermediate EFL learners. *Journal of Applied Linguistics and Language Research*, 6(4), 129-139. Retrieved from <http://www.jallr.com/index.php/JALLR/article/view/1045>
- Nomass, B. B. (2013). The impact of using technology in teaching English as a second language. *English language and literature studies*, 3(1), 111. <https://doi.org/10.5539/ells.v3n1p111>
- Nunan, D. (2002). Listening in language learning. In J. C. Richards and W. A. Renandya (Eds.), *Methodology in language teaching: An anthology of current practice* (pp. 238- 241). CUP.
- Nunan, D., & Miller, L. (1995). *New ways in teaching listening*. TESOL.
- O'Malley, J. M., Chamot, A. U., & Küpper, L. (1989). Listening comprehension strategies in second language acquisition. *Applied linguistics*, 10(4), 418-437. <https://doi.org/10.1093/applin/10.4.418>
- Osada, N. (2004). Listening comprehension research: A brief review of the past thirty years. *Dialogue*, 3(1), 53-66. Retrieved from http://www.talk-waseda.net/dialogue/no03_2004/2004dialogue03_k4.pdf
- Otaif, I., & Abd Aziz, N. H. (2017). Exploring the causes of listening comprehension anxiety from EFL Saudi learners' perspectives: A pilot study. *Advances in Language and Literary Studies*, 8(4), 79-84. Retrieved from <https://journals.aiac.org.au/index.php/all/article/view/3706>
- Polat, M., & Eristi, B. (2019). The effects of authentic video materials on foreign language listening skill development and listening anxiety at different levels of English proficiency. *International Journal of Contemporary Educational Research*, 6(1), 135-154. <https://doi.org/10.33200/ijcer.567863>
- Qiu, Y., & Luo, W. (2022). Investigation of the effect of flipped listening instruction on the listening performance and listening anxiety of Chinese EFL students. *Frontiers in Psychology*, 13, 1043004. <https://doi.org/10.3389/fpsyg.2022.1043004>
- Rahimi, M., & Soleymani, E. (2015). The impact of mobile learning on listening anxiety and listening comprehension. *English Language Teaching*, 8(10), 152-161. <http://dx.doi.org/10.5539/elt.v8n10p152>
- Saito, Y., & Samimy, K. K. (1996). Foreign language anxiety and language performance: A study of learner anxiety in beginning, intermediate, and advanced-level college students of Japanese. *Foreign language annals*, 29(2), 239-249. <https://doi.org/10.1111/j.1944-9720.1996.tb02330.x>
- Saputra, Y., & Fatimah, A. S. (2018). The use of TED and YOUTUBE in extensive listening course: Exploring possibilities of autonomy learning. *Indonesian JELT: Indonesian Journal of English Language Teaching*, 13(1), 73-84. <https://doi.org/10.25170/ijelt.v13i1.1451>

- Shahnama, M., Ghonsooly, B., & Shirvan, M. E. (2021). A meta-analysis of relative effectiveness of flipped learning in English as second/foreign language research. *Educational Technology Research and Development*, 69(3), 1355-1386. <https://doi.org/10.1007/s11423-021-09996-1>
- Shu-Yan, W., & Cha, K. W. (2019). Foreign language listening anxiety factors affecting listening performance of Chinese EFL learners. *Journal of Asia TEFL*, 16(1), 121. <http://dx.doi.org/10.18823/asiatefl.2019.16.1.8.121>
- Sweller, J. (2010). Element interactivity and intrinsic, extraneous, and germane cognitive load. *Educational psychology review*, 22, 123-138. <https://doi.org/10.1007/s10648-010-9128-5>
- Tanir, A. (2022). Comparing synchronous and asynchronous learning environments during process of learning German as a third language in terms of enhancing students' metacognitive awareness. *Higher Education Studies*, 12(2), 168-192. <https://doi.org/10.5539/hes.v12n2p168>
- Tanir, A. (2020). Learning difficulties in German as a third language experienced by Turkish undergraduate students. *International Education Studies*, 13(6), 131-145. <https://doi.org/10.5539/ies.v13n6p131>
- Vaezi, R., Afghari, A., & Lotfi, A. (2019). Investigating listening comprehension through flipped classroom approach: Does authenticity matter. *Call-Ej*, 20(1), 178-208. Retrieved from <http://callej.org/journal/20-1/Vaezi-Afghari-Lotfi2019.pdf>
- Vafae, P., & Suzuki, Y. (2020). The relative significance of syntactic knowledge and vocabulary knowledge in second language listening ability. *Studies in Second Language Acquisition*, 42(2), 383-410. <https://doi.org/10.1017/S0272263119000676>
- Valizadeh, M. R., & Alavinia, P. (2013). Listening comprehension performance viewed in the light of emotional intelligence and foreign language listening anxiety. *English Language Teaching*, 6(12), 11-26. <http://dx.doi.org/10.5539/elt.v6n12p11>
- van Alten, D. C., Phielix, C., Janssen, J., & Kester, L. (2019). Effects of flipping the classroom on learning outcomes and satisfaction: A meta-analysis. *Educational Research Review*, 28, 100281. <https://doi.org/10.1016/j.edurev.2019.05.003>
- Vandergrift, L. (2007). Recent developments in second and foreign language listening comprehension research. *Language teaching*, 40(3), 191-210. <https://doi.org/10.1017/S0261444807004338>
- Vandergrift, L. (2004). 1. Listening to learn or learning to listen?. *Annual review of applied linguistics*, 24, 3-25. <https://doi.org/10.1017/S0267190504000017>
- Vandergrift, L., & Goh, C. (2012). *Teaching and learning second language listening: Metacognition in action*. Routledge. <https://doi.org/10.4324/9780203843376>
- Vogely, A. J. (1998). Listening comprehension anxiety: Students' reported sources and solutions. *Foreign language annals*, 31(1), 67-80. <https://doi.org/10.1111/j.1944-9720.1998.tb01333.x>

- Vogely, A. (1995). Perceived strategy use during performance on three authentic listening comprehension tasks. *The Modern Language Journal*, 79(1), 41-56. <https://doi.org/10.1111/j.1540-4781.1995.tb05414.x>
- Walker, N. (2014). Listening: The most difficult skill to teach. *Encuentro*, 23(1), 167-175. Retrieved from <https://erevistas.publicaciones.uah.es/ojs/index.php/encuentro/issue/view/157/97>
- Waring R. (2003). *The relationship between extensive reading and extensive listening*. Retrieved from www.extensivereading.net/docs/ER-JALT2003/JALT2003-aring.doc
- Weber, A., & Cutler, A. (2006). First-language phonotactics in second-language listening. *The Journal of the Acoustical Society of America*, 119(1), 597-607. <https://doi.org/10.1121/1.2141003>
- Wilson, J. T. S. (2006). *Anxiety in learning English as a foreign language: Its associations with student variables, with overall proficiency, and with performance on an oral test*. (Doctoral dissertation). <https://digibug.ugr.es/bitstream/handle/10481/1074/16235290.pdf;jsessionid=8A4B0BF8FAD2F80237070B0299328A94?sequence=1>
- Witkin, B. R. (1990). Listening theory and research: The state of the art. *International Journal of Listening*, 4(1), 7-32. https://doi.org/10.1207/s1932586xijl0401_3
- Wolvin, A. D. (2018). Listening processes. In J. I. Liontas (Ed.), *The TESOL Encyclopedia of English Language Teaching*, (pp. 1-7). John Wiley & Sons. <https://doi.org/10.1002/9781118784235.eelt0569>
- Xiaoyan, S. (2018). The application of flipped classroom model in college English listening teaching. In *International Conference on Education, Psychology, and Management Science (ICEPMS 2018)*. Francis Academic Press. <https://doi.org/10.25236/icepms.2018.224>
- Xu, F. (2011). Anxiety in EFL listening comprehension. *Theory & Practice in Language Studies*, 1(12). <https://doi.org/10.4304/tpis.1.12.1709-1717>
- Xu, J., & Huang, Y. T. (2018). The mediating effect of listening metacognitive awareness between listening test anxiety and listening test performance. *The Asia-Pacific Education Researcher*, 27(4), 313-324. <https://doi.org/10.1007/s40299-018-0388-z>
- Yaacob, A., Amir, A. S. A., Asraf, R. M., Yaakob, M. F. M., & Zain, F. M. (2021). Impact of Youtube and video podcast on listening comprehension among young learners. *International Journal of Interactive Mobile Technologies*, 15(20), 4-19. <https://doi.org/10.3991/ijim.v15i20.23701>
- Yamauchi, Y. (2014). Revised version of the foreign language listening anxiety scale: precise description of subordinate concepts' influence on learners. *ARELE: Annual Review of English Language Education in Japan*, 25, 143-158. https://doi.org/10.20581/arele.25.0_143
- Zhang, X. (2013). Foreign language listening anxiety and listening performance: Conceptualizations and causal relationships. *System*, 41(1), 164-177. <http://dx.doi.org/10.1016/j.system.2013.01.004>

Zhang, X., Dai, S., & Ardasheva, Y. (2020). Contributions of (de) motivation, engagement, and anxiety to English listening and speaking. *Learning and Individual Differences, 79*, 101856. <https://doi.org/10.1016/j.lindif.2020.101856>