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Enhancing students' understanding of listening strategies through ubiquitous learning (video-based learning)

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Abstract

This article presents a thorough case study examining the efficacy of video-based learning in enhancing students' comprehension of listening strategies. The study was conducted in a university and focused on a cohort of 57 students who faced listening skills problems such as quickly forgetting what was heard or unfamiliar with the words. These students were exposed to meticulously designed video lessons to refine their listening skills and apply strategic techniques. A robust data collection methodology was employed to assess the impact of video-based learning, including systematic classroom observations and detailed feedback gathered through student questionnaires and in-depth interviews. The analysis of the collected data revealed compelling results, indicating a significant improvement in the students' understanding of listening strategies following their engagement with video-based learning. These findings underscore the effectiveness of video in enhancing students' listening skills. The data was presented in statistics, which showed that 52.6 % of students agreed that learning through video helped their understanding of the materials. Furthermore, this research highlights the critical role of technology-enhanced pedagogical approaches in modern education, one of which is using ubiquitous learning, namely video-based learning. Also, the data showed that 59.6 % of students felt the positive benefits of video-based learning, which can be accessed anywhere and anytime. In the end, this research contributes valuable empirical evidence that supports the integration of video-based learning as a strategy tool for improving students' understanding of listening material, thereby paving the way for more effective educational practices.

Keywords: Listening strategies; ubiquitous learning; video-based learning

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INTRODUCTION

Listening comprehension is a crucial skill in language learning because listening is the core of communication. It means learners can comprehend and interpret the nuances of speech through effective listening. Yet, many students struggle to develop effective listening strategies because the words are still strange. They felt difficulty in recognizing words and inferring meaning from context. In addition, the results of the analysis showed that students faced various challenges in listening skills, such as unfamiliar accents, fast speed of speech, and new vocabulary (Astika & Kurniawan. 2020). It means traditional methods of instruction often fall short of providing engaging and interactive learning experiences that cater to diverse learning styles. One of the reasons is disengagement between the students and lectures, the minimal use of technology, and limited interaction in listening activities.

In recent years, integrating multimedia tools such as videos has gained traction as a promising approach to enhancing language learning outcomes. The recent teaching and learning methods cannot be separated from the use of the internet, such as E-learning, which uses computers and an internet connection. Also, M-learning or mobile learning uses smartphones in teaching and learning materials. The progress of wireless communication and sensor technologies has developed the research issues of Electronic learning (e-learning) to mobile learning (m-learning), accessible learning (a-learning) (Robledo & Ayala. 2018), and now from m-learning to ubiquitous learning (u-learning) (Shazia et al., 2016). All of these progress significantly influenced the process of teaching and learning. It provides educators and students with a range of tools that enhance the educational experience.

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Video-based Based Learning is one of the ubiquitous learning strategies. It is a powerful tool in modern education that provides the flexibility to learn anytime and anywhere. It gives an easier way to access information, comprehend the materials, and collaborate with peers in giving comments on the video. It provides unique features of a learning management system, enjoyable and engaging learning, and encouraging tasks that enhance students' participation, motivation, self-discipline, and autonomy in an online learning environment (Wulanjani et al., 2022). It also influenced their satisfaction and perception of learning (Robledo &Ayala, 2018). Also, the students showed positive learning experiences and perceptions when they used videos on YouTube (Widiastuti et al., 2022); they understood and remembered the complex concepts better when they were exposed to a visual explanation video on YouTube (Chen & Brown, 2012). Internet connection is still a problem for students. It caused several challenges related to the teaching and learning process. Bashir et al. (2021) found that there was a lack of participation in the online class and the unavailability of study materials among the students. Also, students' tendency to cheat and plagiarise as a major independent.

Listening and technology

Listening is an important part of English learning because listening helps build meaning and respond to spoken messages. It helps students understand and communicate better in the language. Good listening skills make it easier to follow conversations and instructions and even understand media like video and music. It thrives academically and socially in educational circumstances. Additionally, listening comprehension is a complex process that identifies and understands dialogue and monologues, such as what the speaker said (Megasari, 2021) in a real conversation or through some audio or video.

The Completeness of technology is needed in the implementation of U-learning, where computing systems, communication, and sensor devices are integrated into the daily lives of students. It aims to make learning more integrated or immersive. The media used in these teaching and learning methods help the teacher and students access the materials in real-time, even in different places or classrooms, or readily available to teachers and students both within and beyond the classroom (Swan et al., 2006). The virtual classroom also builds to manage the effectiveness and efficiency of the materials and tasks that are given to the students. Also, it helps the teacher evaluate students' activeness and the results of learning targets. This is in line with the statement from Chew et al. (2018), Kukulska-Hulme (2007), and Lee (2011) that technologies improve educational access, such as removing geographical constraints in learning, help students to develop a self-centered learning pedagogy, and facilitate an efficient communication mechanism for learning as well as endorsement and review of content between teachers and learners.

This situation influences the new learning paradigm, a context-aware ubiquitous learning environment that gives ease of use and access to the learning materials whenever and wherever in any way (Kalantzis et al., 2015). The teacher prepares the materials that can be accessed online or offline. Here, the students use their smartphones as learning media because they are already familiar with the use of smartphones, which are used by everyone in the city or remote area.

U-Learning helps the teacher prepare the materials as soon as possible in the form of video, poster, text, task, or test and then share them with the students. Also, it gives an easy evaluation through scoring or observation in online discussions. Dwiyanto (2020) and Gerhana et al. (2020) stated several education tools can be used to support the use of ubiquitous learning, such as GPS or GIS systems, sensor networks and natural user interface, cloud and mobile computing, artificial intelligence, context-based computing, internet connection, mobile communication system.

Using the overall objective and goal of U-learning will improve the teaching and learning of listening skills. The techniques in implementing U-learning can be started from the use of several media below: The use of social media, such as Facebook, Youtube, Instagram, Twitter, Telegram, WhatsApp, etc. The use of Artificial intelligence such as chatGPT, smart atau intelligent assistant, etc.; The use of teaching-learning websites such as British Council, Quizziz, Khan Academy, Brainly, Liveworksheet, Canva Design School, Coursera, Brain Academy online, Duolingo, Ruangguru, etc.; The use of interactive tech tools such as Answergarden, Padlet, etc.;

The use of applications such as wordBit B.Inggris, English stories with Levels, Readable, Listen and Read English, etc. In this study, the use of videos uploaded to YouTube becomes a multimedia tool in learning listening strategy. The topic of each video learning is based on the course outline, and "English Survival" is the handout for learning during the second semester of the one-year English Program at the Islamic State University of Maulana Malik Ibrahim. Therefore, this study attempted to investigate the impacts of video-based learning on students' understanding of listening strategies and its implications for language education. The study addressed several research questions below:

1. What are the impacts of video-based learning on students' understanding of listening materials?
2. What are the students' perceptions of video-based learning in listening comprehension?
3. What is the effectiveness of video-based learning in listening strategies?

METHOD

This study applies a qualitative approach to investigate the impact of video-based learning on students' listening comprehension. Also, to explore the perception and effectiveness of video-based learning in enhancing students' comprehension of listening strategies. The study aimed to know the experiences and perceptions of students who struggled with listening skills. The focus of this study is on how video-based learning influences students' understanding and perception. The questionnaire is used as the instrument of study, and in-depth interviews and observation as the triangulation data technique.

Participants

The study was conducted at a university with a cohort of 57 students who faced common listening problems, such as difficulty in understanding the information or materials and unfamiliarity with certain vocabulary. These students were selected because of their focus on learning English for listening skills as the subject of the course, their specific needs to improve their listening skills, and their willingness to participate in the research.

Data collection

Classroom observations were conducted to monitor student engagement and interaction during video-based lessons. Additionally, students provided feedback through open-ended questionnaires to gather detailed feedback on the student's experience, effectiveness, perception, and comprehension of the usefulness of video-based learning. Additionally, in-depth interviews were held to crosscheck the reason for the results of the questionnaire or get deep information about students' perceptions, challenges, and advantages of this learning strategy.

Data analysis

The analysis of the data involves a thematic coding process, which was performed by watching the video to measure improvements in listening comprehension. Qualitative data from classroom observations and student feedback surveys were analyzed thematically to identify patterns and insights into students' experiences with video-based learning. The data from the questionnaire became the primary data, and the data from observation and in-depth interviews became the secondary data. All of the data were carefully analyzed to find how video-based learning affected students' comprehension, perception, and effectiveness.

FINDINGS

The analysis revealed a statistically significant improvement in students' listening comprehension after participating in the video-based lessons. Specifically, students demonstrated enhanced skills in active listening, note-taking, making predictions, and analyzing their answers. Classroom observations indicated increased engagement and collaboration among students during video-based activities. Furthermore, the majority of students reported positive perceptions of video-based learning,

citing its effectiveness in reinforcing listening strategies and making learning more enjoyable.

The findings suggest that video-based learning can be a valuable tool for enhancing students' understanding of listening strategies. The multimedia nature of videos allows for visual and auditory input, catering to different learning preferences and promoting active engagement. Integrating authentic content into video lessons also exposes students to real-world language use, fostering a deeper understanding of context and cultural nuances. As displayed in Figure 1, learning through videos (YouTube) can provide comfort for students when learning listening skills. 56.1% of students agree with this. 12.3% of students strongly agree. They feel very comfortable and happy when learning using videos. The remaining 29.8% of students feel that there is no difference between learning using videos and not, and only 1.8% of students disagree, possibly due to the internet network not being supportive enough, which hinders the listening learning process. Besides, learning through videos (YouTube) can make it easier for students to understand the material. Figure 2 shows that most of the students, 56.1%, agree that videos make their listening learning activities easier, and 12.3% of students strongly agree. Perhaps the learning process of listening through video (YouTube) is supportive enough for them. The remaining 35.1% of students have a neutral or indifferent opinion, and they can learn to listen well without or with videos.

Figure 1

Students' Perceptions of Comfortness on Learning through YouTube

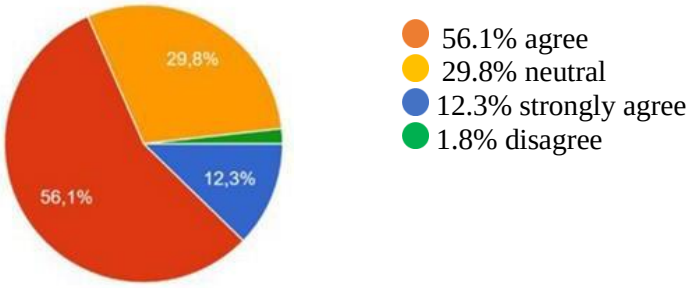
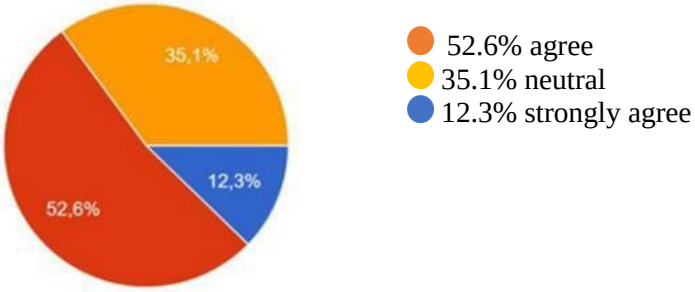


Figure 2

Students' Perceptions of the Ease of Learning through YouTube



Moreover, learning by listening through videos (YouTube) provides clarity in delivering the material. 59.6% of students agree, and 10.5% strongly agree that using videos helps them to understand what they hear or what the speakers say clearly. By using videos, students can repeat what the speakers say many times and can even slow down the speed of their voices so that they can clearly understand what is being said. The rest, 29.8%, are neutral or indifferent. Students who disagree may be due to poor internet connections in their place. While students who have advanced listening skills feel that they can hear what the speakers say clearly.

Continuing from Figure 3, Figure 4 clearly states that 57.9% of students think that learning through videos (YouTube) can be repeated many times so that it increases understanding of the material. 28.1% strongly agree, and the remaining 14% of students are neutral. From this data, it can be concluded that students who learn listening using videos (YouTube) are helped to clearly

understand what the speakers are saying, and not a single student disagrees with the benefits of learning listening using videos (YouTube). Learning to listen anywhere and anytime is highly expected by many students. Here, YouTube provides this convenience. Learning through videos (YouTube) can be done anywhere and anytime. Figure 5 illustrates that 59.6% of students agree that learning using videos (YouTube) can be done anywhere and anytime, and 28.1% strongly agree with this opinion. This states that videos on YouTube are very helpful in the learning process of students to improve their listening skills, even though 12.3% have a neutral opinion.

Figure 3
Students' Perceptions of the Clarity of Learning through YouTube

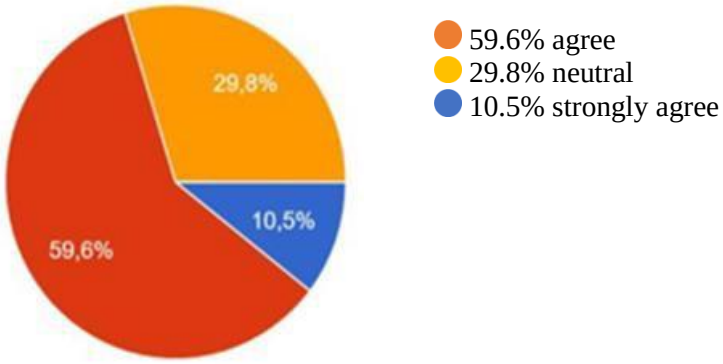


Figure 4
Students' Perceptions of the Benefits of Learning through YouTube

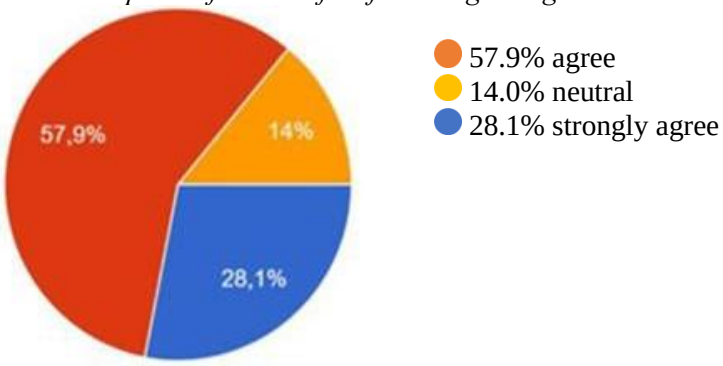
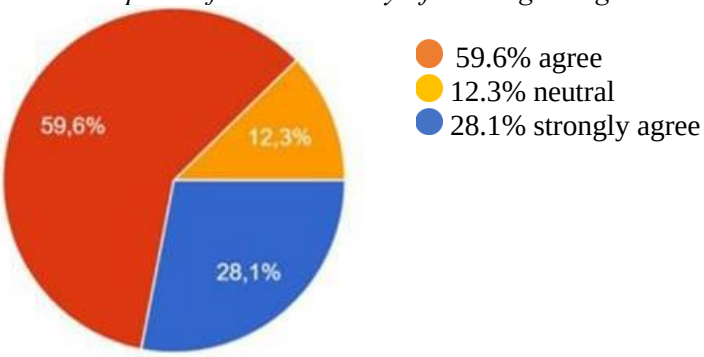


Figure 5
Students' Perceptions of the Accessibility of Learning through YouTube



One way to find out the development of students' listening skills is by utilizing YouTube. Learning through videos (YouTube) makes it easier to work on practice questions in the video because it can be done anytime and anywhere (see Figure 6). This was agreed upon by 54.4% of students, and 10.5% of

students stated that they strongly agreed with the statement, although 31.6% of students were neutral and 3.5% of students stated that they disagreed. For students who disagreed, it could be because there was no internet connection or the network quality did not support it. As seen in Figure 7, only 43.9% of students agreed that learning through videos would make them dare to write detailed answers in the YouTube comment column, and 7% strongly agreed. While 45.6% were neutral and 3.5% disagreed. We can conclude that almost 3.5% of students disagree that learning through videos (YouTube) makes them brave, possibly because they do not want their answers directly. This figure shows that ubiquitous video also has a negative effect on students.

Figure 6
Students' Perceptions of the Access to Practice from YouTube

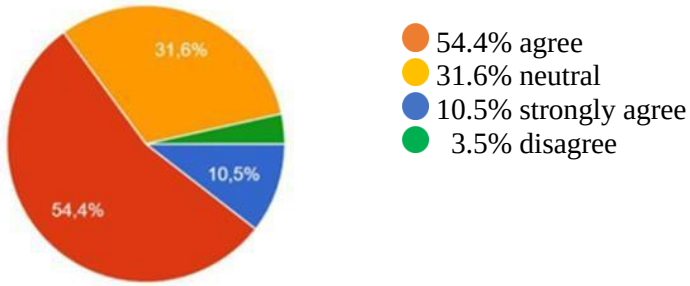
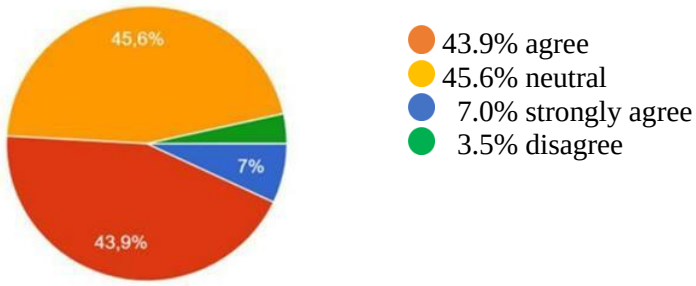


Figure 7
Students' Perceptions of the Encouragement from YouTube



Another advantage of learning through videos (YouTube) is the increase in students' English vocabulary. Figure 8 shows that 54.4% of students agree and 8.8% of students strongly agree. In addition, 35.1% of students were neutral students, and 1.8% disagreed. Thus, we can conclude that one way to increase English vocabulary is to use videos (YouTube) because they can be done anytime, anywhere, and the appearance of the video is usually much more interesting, so it increases students' motivation to learn. Lastly, learning through video (YouTube) improves students' listening skills. We can conclude from Figure 9 that 54.4% of students agree and 12.3% strongly agree. Although 29.8% of students have a neutral opinion, and 3.5% of them disagree.

Figure 8
Students' Perceptions of the Increase of Vocabulary from Learning through YouTube

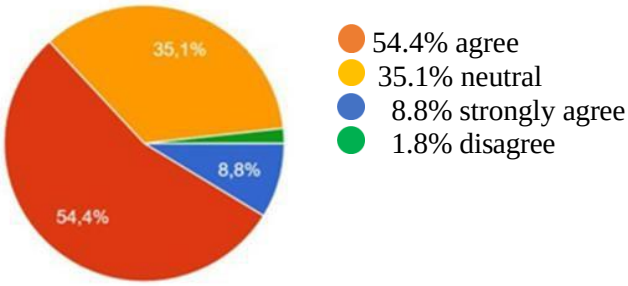
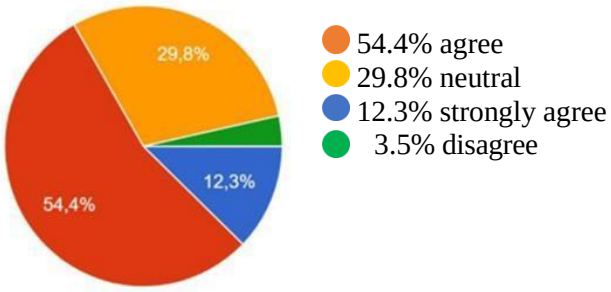


Figure 9

Students' Perceptions of the Increase of Listening Skills from Learning through YouTube



DISCUSSION

The findings revealed that the use of technology, namely videos shown on YouTube, has positive effects on improving students' listening skills. This aligns with Wulanjani et al. (2022), who argue that video-based learning provides unique features of a learning management system, enjoyable and engaging learning, and encouraging tasks. Furthermore, it enhances students' participation, motivation, self-discipline, and autonomy in an online learning environment. Moreover, learning to listen using videos on YouTube can also be a solution to the problems studied by Gultom and friends (2023) regarding difficulties in listening skills. Hence, these findings are intended to answer several of these research questions.

The first question of what are the impacts of video-based learning on students' understanding of listening materials is answered in Figures 3 to 9. Those figures describe the impacts of video-based learning on students' understanding of listening materials. Learning listening skills through videos (YouTube) provides clarity in delivering the material and improves the students' listening skills.

The next question is to reveal the students' perceptions of video-based learning in listening comprehension. Most students confess that ubiquitous learning (video-based learning) can make students feel comfortable, more easily, more confident, and more comfortable while studying listening comprehension. Therefore, students' listening comprehension skills are increasing. Those are described in Figures 1, 2, 3, and 5.

The last research question that the researchers want to reveal is how the effectiveness of video-based learning in listening strategies. As we can see in Figures 4, 8, and 9, this method increases students' English vocabulary and students' listening skills. Students comprehend listening skills better than before using ubiquitous learning (video-based learning).

Furthermore, the findings indicate that a lack of internet connection became a significant barrier for some students to engage in video-based learning effectively. This limitation had several implications for the study's outcomes and the implementation of video-based learning in listening strategies. Also, there was some unfamiliar vocabulary that made some students understand the materials, which influenced their listening skills. Although only a few of the students faced the barriers, it was in line with Bashir et al. (2021), who found that there was a lack of participation in the online class and the unavailability of study materials among the students.

CONCLUSION

This study highlights the positive impact of video-based learning on students' understanding of listening strategies because 57% of university students who struggled with listening skills significantly increased their ability to understand and apply listening strategies. Also, 52.6% of students found video-based learning benefits their understanding of the materials. Additionally, 59.6% of students appreciated the effectiveness, flexibility, and accessibility of video-based learning, which allowed them to learn at their own pace. They can pause, rewind, and rewatch videos as needed, which requires repeated exposure to gain listening comprehension.

These findings emphasize the effectiveness of video-based learning as a pedagogical tool in the

modern teaching-learning process. The study found that using videos helps students' understanding and improves their listening abilities. Then, it is suggested that teachers or lecturers utilize multimedia tools to enrich language education and support students in achieving proficiency in listening comprehension. Further research is important to explore additional factors influencing the effectiveness of video-based learning and its long-term impact on language learning outcomes. Additionally, looks into how issues with low internet connection might affect the learning process and outcomes, so it is suggested to find ways to make video content more accessible.

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