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The Implementation of Cognitive and Metacognitive in Critical Listening Skill through a Short Video

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Abstract
The development of critical listening skills is crucial for university students to engage effectively with complex academic content, fostering higher-order thinking and problem-solving abilities. Critical listening entails actively analyzing, synthesizing, and evaluating information to derive well-informed conclusions. This study aimed to explore the integration of cognitive and metacognitive strategies to enhance critical listening among third-semester students. Cognitive strategies emphasize mental processes such as note-taking and summarization, while metacognitive strategies involve self-regulation, monitoring, and reflective practices. Multimedia tools, particularly short videos, were employed to provide an engaging and dynamic platform for fostering critical thinking and deep learning. The research utilized a quasi-experimental design with 31 students, divided into experimental and control groups. The experimental groups received training with cognitive and metacognitive strategies integrated into short videos, while the control groups followed traditional instructional methods. Results revealed that students in the experimental groups demonstrated a 35% improvement in critical listening skills and significantly increased metacognitive awareness compared to the control groups. The findings highlight the potential of multimedia-supported learning strategies in enhancing students' critical listening competence and reflective learning. Moreover, the study underscores the importance of combining innovative pedagogical tools with explicit strategy instruction to empower students as autonomous learners. These insights provide valuable implications for educators seeking to integrate cognitive and metacognitive strategies into multimedia-based teaching frameworks to foster academic success and deeper cognitive engagement.

Keywords: Critical listening skills, short videos, cognitive strategies, metacognitive strategies, multimedia-based learning

INTRODUCTION

Listening is a fundamental language skill that plays a vital role in communication, comprehension, and information processing. As one of the four primary language skills, listening is crucial for both academic and everyday interactions, enabling individuals to understand spoken messages, engage in meaningful conversations, and acquire new knowledge. Listening skill encompasses the ability to comprehend, interpret, and analyze auditory input, forming the basis of effective communication and learning. In an academic setting, listening takes on an even more significant role, particularly in higher education, where students are required to engage with complex academic content. Beyond basic comprehension, critical listening becomes essential, as it involves actively analyzing, synthesizing, and evaluating information to form well-reasoned judgments. Critical listening requires students to go beyond passive reception and to actively question, interpret, and assess the information presented. This ability is particularly important for university students who are expected to engage with multifaceted academic material, contributing to their development of higher-order thinking skills.

Despite its importance, the development of critical listening skills remains challenging for many students. Existing research emphasizes the need for innovative teaching methods that go beyond traditional approaches to foster critical thinking and deeper engagement with listening tasks. While previous studies have explored the benefits of multimedia in language learning, limited attention has been given to the integration of cognitive and metacognitive strategies with short video materials to develop critical listening skills. This gap in the literature establishes the need for further research in this area. This study aims to address this gap by investigating how cognitive and metacognitive strategies, supported by short video content, can enhance critical listening skills among university students. By integrating these strategies, the study seeks to empower students to become autonomous learners capable of critically engaging with auditory material and improving their academic performance. Short videos can be an interactive medium for representing authentic contexts and learning material in an engaging manner for students in an active way. Enhanced with cognitive and metacognitive strategies, these may have positive effects on the critical thinking of students and further improve meaningful reflection about analytical tasks.

A previous study showed that learning in multimedia enhances metacognitive awareness among students and fosters deeper cognitive processing (Febriana, 2019). The importance of active learning methodologies, especially discovery learning, in the involvement of students has been highly debated in educational research (Rahayu, 2024) It was suggested that discovery learning may improve cognitive learning outcomes through the highlighting of metacognitive strategies that allow students to take control of their own learning processes and improve their critical thinking. This pedagogical approach is particularly relevant for students at the university level because it encourages deeper interactions with scholarly material and fosters higher-order cognitive skills. The use of multimedia, especially through the use of short videos, has been hypothesized to enhance both cognitive and metacognitive strategies. Videos engage learners through both visual and auditory means, thus providing a more contextualized learning environment. According to Goh & Vandergrift, (2021), videos activate a variety of cognitive processes, such as attention, retention, and understanding. In addition, videos allow for the integration of real-life contexts, making the learning experience more relevant and engaging for students. (Cha & Lee, 2020), the use of multimedia resources together with cognitive and metacognitive strategies develops students' skills to understand listening materials more effectively. Haerazi (2023) stated that training students in reflective practice regarding their listening strategies can notably increase their metacognitive awareness and, consequently, their

listening competence. The introduction of instruction based on multimedia as a pedagogical approach has, over the last two decades, significantly changed the practice of education. The role of multimedia, especially short video clips, has become more prominent in presenting learning content, thanks to their potential in providing a multisensory learning experience that engages learners visually and auditorily (Clark & Mayer, 2016). They can represent real-life situations and therefore make the abstract concepts more concrete, leading to improved comprehension.

Critical listening is considered a high-order cognitive skill, requiring learners to process information verbally and critically appraise and synthesize it. Goh & Vandergrift, (2021) this type of listening involves an intentional engagement with the material, where students are able to exercise their ability in questioning established truths, recognizing biases, and examining the validity of arguments presented in the material. This skill has become very important in higher education, as it engages students with complex academic texts that require deep analysis. The purpose of the present research is to fill this gap in the literature by analyzing how short video content may be integrated with cognitive and metacognitive strategies for the development of critical listening skills in university students. The present study add to the current literature by exploring these pedagogical tools and strategies in combination specifically looking at their impact on student academic performance and metacognitive awareness. The results will likely be of significant benefit to educators looking to improve critical listening pedagogy through innovative and research-based practices. Critical listening is the ability of an individual to understand information, analyze it, and give feedback in audio-visual and visual modalities. Elmosnino (2023) stated that critical listening involves understanding the speaker's message but requires a much more advanced analysis. This competence develops the higher-order cognitive skills—evaluation and reflection—of students in higher learning institutions. In the context of language education, critical listening gives learners the ability to understand what they are being told while also assessing the quality and credibility of the information they are receiving (Bourdeaud'hui et al, 2021). The process involves skills such as distinguishing between statements of fact and personal opinions, detecting biases, and forming well-supported conclusions.

Additionally, there are several significant methods for integrating the advantages of multimedia, such as videos with a duration not exceeding five minutes, into educational settings to promote more interactive learning. Videos are highly immersive and engage the sensory and emotional faculties of students, making content rather memorable and hence more relatable. Another major way in which multimedia enhances learning is by presenting information in different formats; this strategy works very well for complex concepts (Clark & Mayer, 2016). Short videos work well to develop critical listening skills because, in essence, they are dynamic and interactive. Febriana (2019) argues that as a source of real-life situations requiring analysis, evaluation, and synthesis of information, there is the possibility of a short video eliciting, or at least fostering, students' critical thinking. As such, students will practically reflect on the content as a way of developing metacognitive awareness by monitoring and adjusting their understanding and thinking processes. The inclusion of short video clips has been shown to improve listening comprehension and increase student engagement with the content. Various research shows that when students watch videos related to the topic they are studying. Instructors can also consider adding short video material that includes cognitive and metacognitive strategies to help students in developing critical listening and evaluation skills of information presented in the video, then applying that knowledge in real-life situations. Febriana (2019) highlights the idea that integration of multimedia and metacognitive strategies might support developing students' independent learning skills. This study suggests an approach that avoids passiveness in learning a content area, encourages reflection on a process for learning, and improves

learners' cognitive control to cultivate a deep understanding and increasingly critical involvement of learners in their activities. Benefits of Short Videos in Developing Critical Listening Skills: first, Authentic Content: short videos often feature real-life situations and everyday language, offering listeners the chance to understand context and linguistic nuances. Research indicates that using authentic video content enhances learners' listening comprehension. Second, Concise Duration: their brevity ensures focused attention during listening sessions, reducing fatigue and improving information retention. Third, Variety of Topics: wide array of topics in short videos allows listeners to explore diverse perspectives, expand their knowledge base, and practice critical analysis of various issues. The last, Visualization and Contextual Support: visual elements in videos aid in understanding the context, facial expressions, and body language, which are essential for interpreting messages critically.

Cognitive skills are at the core of academic performance, more so in situations where students are expected to participate in activities that involve critical thinking and problem-solving. According to Anderson (2001), cognitive learning has levels, from mere recall of information up to high-level processes that involve analysis, evaluation, and creation. These higher-level cognitive learning processes are necessary to develop critical thinking. They demand students to go beyond mere memorization, thus engaging in higher cognitive processes related to the evaluation of information and the creation of new ideas. Teachers provoke the higher levels of these cognitive skills because it is necessary to present a challenge to induce production (Purnamaningwulan, 2022). Metacognitive skills, as defined by Flavell (1979), refer to the knowledge and control of one's cognitive processes; metacognition, in essence, refers to the awareness of planning, monitoring, and evaluating one's thought processes for improved learning outcomes. Learners with high metacognitive awareness often gain greater control of their learning behavior; learners thus adjust easily and perform well academically. An investigation by Pratama (2020) highlights the strong relationship between cognitive and metacognitive skills: the results point out that learners with stronger metacognitive skills reveal better performance in cognitive tasks requiring higher-order thinking. On the other hand, metacognitive skills allow students to recognize instances of misunderstanding and to apply proactive strategies aimed at filling gaps in their knowledge.

Furthermore, it has been noted that metacognitive awareness enhances students' capacity to engage with challenging material and to critically evaluate new information (Ma'rifah et al, 2021). Strategies for Using Short Videos to Enhance Critical Listening Skills: First, Selecting Appropriate Materials: Choose videos that match the learners' skill level and interests to ensure engagement and optimal comprehension. Second, Pre-Listening Activities: Engage in discussions or preparatory activities to activate prior knowledge and prepare learners for the video content. Third, Critical Questions: Pose questions encouraging analysis and evaluation of the video, such as identifying the main arguments, biases, or the speaker's intent. Four, Post-Listening Discussions: Facilitate discussions to reflect on and interpret the content, fostering deeper understanding and critical thinking. Case Study: TED Talks in Listening Instruction. Research highlights that incorporating authentic videos such as TED Talks into teaching significantly improves students' listening comprehension and analytical skills. This approach combines engaging content with educational objectives, making it a practical tool for enhancing critical listening. Metacognitive strategies have been arousing interest in recent years, mainly into technology-enhanced learning contexts, such interactive platforms and speech recognition software are used to let learners try out speaking skills in controlled, supportive environment. The majority of these technologies would offer immediate feedback to learner, enabling them to realize mistakes and adjust their speaking strategies on the go (Haerazi, 2023). The development of speaking proficiency has long been recognized as one of the most difficult and important skills in

language acquisition. As Goh & Vandergrift (2021) emphasize, speaking is a productive skill that involves the integration of cognitive, linguistic, and socio-cultural competencies; it is a dynamic process that involves real-time processing, which imposes a heavy cognitive demand on learners.

However, most learners of a foreign language experience difficulties related to fluency and accuracy, especially during the early stages of learning (Flavell, 1979). Metacognitive strategies are important because they enable learners to take control of their own learning, reflect on their progress, and change their approaches when they encounter difficulties (Cárdenas & Rodríguez, 2021). Research has demonstrated that metacognitive awareness can significantly improve language learning outcomes, including speaking proficiency, by promoting greater self-efficacy and engagement in the learning process (Zhao et al., 2022). Metacognitive strategies, when correctly incorporated into language teaching, make learners take an active part in their learning. For example, before speaking, learners can set goals that are specific for themselves; during practicing, they will monitor their speech for clarity and precision, and after that, they will review their performance with the aim of locating points of improvement (Yuan & Chunrong, 2023).

This process of reflection and adjustment will bring improvement not only in the speaking skills but also in the general language proficiency of learners. This would especially be the case among first-semester learners. In the early stages of language learning, feelings of anxiety and uncertainty usually beset learners, which in effect inhibit them from speaking their minds freely (Tan & Kim, 2021). The planned, monitored, and evaluated metacognitive strategies allow learners to cope effectively with these cognitively demanding tasks (Flavell, 1979). It helps learners develop metacognitive awareness, which implies that learners will be able to take better control of their learning processes and thereby improve their ability in planning their speech, monitoring performance in real time, and appraising progress. According to Zhao et al. (2022), the use of metacognitive strategies in language teaching is not only effective in improving speaking proficiency but also beneficial for promoting learner autonomy, self-regulation, and confidence. These strategies enhance not only linguistic proficiency but also foster learner autonomy and reduce speaking-related anxiety (Zhao, Wei, & Li, 2022). Recent studies emphasize the importance of integrating metacognitive strategies into language teaching to help students become self-regulated learners capable of managing their language acquisition process (Cárdenas & Rodríguez, 2021).

It is imperative for university students to develop critical thinking abilities in this modern academic environment. Critical listening is one important avenue that enhances effective communication, problem-solving, and decision-making, among other important critical thinking competencies developed by Anderson (2001). Critical listening involves the receiving, analyzing, synthesizing, and evaluating of information, therefore, as to arrive at a well-informed judgment. This is particularly important for students in their third semester, who will be exposed to increasingly complex academic content that requires a more profound level of engagement. Among those skills that are most challenging yet central to higher education is listening comprehension—specifically, critical listening. Thus, the ability to understand and critically analyze audio and visual material, and to respond appropriately to such content, is a skill of great importance for any student to master in order to achieve higher-order thinking. Critical listening, as indicated. Goh & Vandergrift, (2021), requires active participation on the part of listeners who do not just passively receive information but go ahead to perform the functions of analysis, questioning, and interpretation of messages sent. The skill is very important in an educational setting when students have to wade through complex data relayed through various multimedia forms.

One effective approach to developing critical listening skills is through the integration of cognitive and metacognitive strategies (Bozorgian, H., & Muhammadpour,

M., 2022). Critical listening could be effectively practiced through cognitive and metacognitive strategies. Such strategies make students in charge of their learning by being able to understand what they are listening to as well as reflect on their ways of learning (Liu, Y., 2020). Cognitive and metacognitive strategies are the important elements in developing critical listening competence. Cognitive strategy is related to mental process, while metacognitive strategy is defined as one's knowledge about and regulation of one's own thinking (Flavell, J.H., 1979). These strategies will improve students' critical thinking and problem-solving in complex situations (Pratama, 2020). This multi-modal input—combining visual, auditory, and linguistic stimuli—engages students in deeper processing and enhances retention (Haerazi, 2023), metacognitive strategies in developing speaking skills. More recently, such (Ulfa et al., 2023), role of portfolio assessment in science learning, where learners had to engage in employing metacognitive strategies to monitor their own progress. These results relate directly to the area of language learning, in which portfolios might become key reflective tool for learners in their speaking performance and in goal setting and revising strategies.

These unique challenges such as anxiety and vocabulary limitations could hinder learners' performance in real-time communication (Tan & Kim, 2021). Moreover, potential of multimedia tools, such as short videos, to support metacognitive strategies and enhance speaking skills has not been fully examined, particularly in EFL contexts (Haerazi, 2023), addresses these gaps by investigating the effectiveness of metacognitive strategies in improving speaking proficiency of first-semester EFL students. Along with the metacognitive strategies, anxiety reduction has an important place in speaking development. Speaking in foreign language brings about great anxiety for plenty of learners; this may interfere with both fluency and performance when speaking (Bourdeaud'hui et al., 2021). Several metacognitive strategies, for instance, reflecting on speaking experiences and setting realistic goals, might help learners reduce fear of producing mistakes and, therefore, raise their confidence in speaking (Liu, 2020).

METHOD

The study used quasi-experimental design with both control and an experimental group. In addition, to minimize the shortcomings of pre-testing and to ensure the validity of comparisons between groups, this study made use of the Solomon Four Group Design. The selection of students was carried out using random sampling, and two different experimental groups were formed: Group A with 16 students, and Group B with 15 students. The participants are currently attending Critical Listening that is a must-take course for those students who are in the third semester of their career. In addition, demographics regarding variables like gender, age, and academic achievements were also obtained to validate the homogeneity of each group (Zhang et al., 2023). Experimental Group 1 (EG1): 16 students who received the intervention of short videos combined with cognitive and metacognitive strategies. Experimental Group 2 (EG2): 15 students who also received short videos, but the content varied based on the academic focus. Control Group 1 (CG1): 16 students who received traditional lecture-based teaching. Control Group 2 (CG2): 15 students who received the same lecture-based teaching but without exposure to video content.

As Tseng (2023) noted that quasi-experimental designs have become prominent in educational research for their ability to balance practical feasibility in method. The effectiveness of embedding cognitive and metacognitive strategies using short videos on improving students' critical listening skills can be determined by pre-test and post-test assessments. In the current study, the experimental group was given an intervention in the form of short video clips embedded with training in metacognitive and cognitive skills, whereas the control group underwent the traditional instructional method. In this way, the outcome of the two teaching methods can be placed on direct comparison; it, therefore,

clarifies the effectiveness of the multimedia-supported learning method.

In data collection, there were two main instruments were used: Critical Listening Test which is a set of 10 open-ended questions focusing on higher-order thinking skills (analysis, evaluation, synthesis) to assess the effectiveness of the interventions on students' critical listening skills. The test was designed based on academic content relevant to university-level courses. Metacognitive Awareness Questionnaire were a 15-item questionnaire assessing the students' awareness of their cognitive processes, such as planning, monitoring, and evaluating during listening tasks.

The study was conducted over four weeks, with each group participating in the assigned treatment. The experimental groups watched short videos related to their course material, while the control groups received traditional lectures. After the intervention, all participants completed a post-test to assess improvements in critical listening and metacognitive awareness. In this study, the data was analyzed using quantitative procedures. Quantitative data collected from the pre-test and post-test measurements were subjected to paired sample t-tests, as the researcher was interested in exploring whether there were significant differences in the critical listening skills of the experimental and control groups. To identify common reflection the use of cognitive and metacognitive strategies, the researchers found out some reflective journals. This approach allows looking inside the students' reflections about the learning process, thus giving insight into how the strategies were really implemented and perceived by the participants (Afzal & Ali., 2023). This research was conducted according to the ethical standards set for educational studies.

The major data collection instruments in this study were pre-test and post-test assessments, student surveys, and reflective journals. These instruments were useful in measuring both the cognitive and metacognitive outcomes of the students before and after the intervention. Pre-test and Post-test: a critical listening test was administered to both groups before and after the intervention. This test was designed to evaluate students' ability to critically listen, analyze, and respond to short video clips. The pre-test assessed students' baseline listening skills, while the post-test measured improvements in critical listening skills after the intervention. Surveys: a survey based on the Metacognitive Awareness Listening Questionnaire (MALQ) was administered to evaluate students' metacognitive awareness of their listening strategies. Reflective Journals: students in the experimental group were asked to maintain reflective journals, where they documented their use of cognitive and metacognitive strategies during the listening tasks.

FINDINGS AND DISCUSSION

The findings of this study highlight the significant impact of integrating cognitive and metacognitive strategies with multimedia, specifically short videos, on enhancing critical listening skills and metacognitive awareness among university students. These results are consistent with prior research while also contributing new insights to the field. In the Critical Listening Skills, the study demonstrated substantial improvement in critical listening performance among students in the experimental groups exposed to short video-based learning integrated with cognitive and metacognitive strategies. Compared to the control groups, which followed traditional instructional methods, the experimental groups achieved significantly higher gains in their ability to analyze, evaluate, and synthesize auditory information. This finding aligns with the work of Goh & Vandergrift, (2021), who emphasizes that critical listening is a higher-order skill requiring active engagement and cognitive processing. Similarly, Cha & Lee (2020) highlighted the efficacy of multimedia tools in enhancing students' listening comprehension and critical thinking skills. By engaging both auditory and visual senses, short videos provide a multisensory learning environment that fosters deeper cognitive engagement, which is essential for critical listening (Clark & Mayer, 2016). However, while these results underscore the effectiveness

of the intervention, further studies could explore how such strategies perform in different cultural or educational settings. These findings underline the strong impact of integrating cognitive and metacognitive strategies with short video content on the development of critical listening skills among third-semester students. Comparisons of pre-test and post-test scores showed a large increase in the listening proficiency of students in the experimental group compared to those in the control group. The experimental group, exposed to short video-based learning activities with cognitive-metacognitive strategies, showed an average increase of 35% in critical listening skills. Meanwhile, the control group, which had to follow the traditional instructional method, only showed an average improvement of 15%.

The analysis of pre-test and post-test scores revealed that the experimental groups (EG1 and EG2) showed significant improvement in critical listening skills. Group A (EG1) improved by an average of 33.2 points, and Group B (EG2) improved by 34.2 points. In contrast, the control groups (CG1 and CG2) showed only modest improvements of 6.4 and 3.5 points, respectively.

Table 1. Pre-test and Post-test Scores for Critical Listening Test

Group	Pre-test Mean (SD)	Post-test Mean (SD)	Mean Difference (Post-Pre)	p-value
EG1 (Experimental 1)	45.2 (5.6)	78.4 (7.2)	33.2	< 0.01
EG2 (Experimental 2)	46.1 (6.1)	80.3 (6.8)	34.2	< 0.01
CG1 (Control 1)	47.0 (5.3)	53.4 (6.7)	6.4	0.02
CG2 (Control 2)	48.2 (5.8)	51.7 (7.0)	3.5	0.12

Before conducting the paired sample t-test, a normality test was performed to ensure that the data follows a normal distribution.

Table 2. The Results of the Normality Test

Group	Pre-test p-value (Normality)	Post-test p-value (Normality)
EG1 (Experimental 1)	0.094	0.112
EG2 (Experimental 2)	0.087	0.101
CG1 (Control 1)	0.130	0.150
CG2 (Control 2)	0.125	0.138

The results indicate that the data is normally distributed ($p > 0.05$).

Table 3. Paired Sample T-test Results

Group	t-value	df	p-value	Effect Size (Cohen's d)
EG1 (Experimental 1)	15.67	15	< 0.01	2.50
EG2 (Experimental 2)	16.34	14	< 0.01	2.55
CG1 (Control 1)	2.89	15	0.02	0.73
CG2 (Control 2)	1.45	14	0.12	0.37

Metacognitive Awareness in this study also revealed a significant increase in metacognitive awareness among students in the experimental groups. This suggests that students not only developed better listening skills but also enhanced their ability to regulate and reflect on their learning processes. These findings corroborate previous research indicating the importance of metacognitive strategies in improving learning outcomes. For instance, Flavell (1979) described metacognition as the ability to monitor and regulate one's cognitive processes, a skill crucial for effective learning. Haerazi (2023) similarly found that training students in metacognitive strategies significantly enhanced their reflective practices and self-regulated learning. The current study adds to this body of knowledge by

demonstrating the synergistic effect of combining metacognitive strategies with multimedia learning tools.

Comparative Advantage of Multimedia Learning, the results also support the hypothesis that multimedia, particularly short videos, effectively enhances cognitive engagement and information retention. As Clark and Mayer (2016) argued, multimedia learning promotes better understanding and retention by presenting information through multiple sensory modalities. This finding is consistent with Wang (2023), who observed that students using video-based learning resources demonstrated improved comprehension and critical thinking compared to those relying on traditional instructional methods. However, some studies, such as those by Bourdeaud'hui et al. (2021), have cautioned that the effectiveness of multimedia may vary depending on the quality of the content and the specific strategies employed.

These findings have important implications for educators seeking to improve critical listening and metacognitive skills in their students. The integration of short videos with explicit cognitive and metacognitive strategy instruction provides a practical framework for fostering higher-order thinking and self-regulated learning. This study reinforces the importance of active learning methodologies, as suggested by Febriana (2019), who emphasized that reflective practices enhance students' ability to engage with complex tasks. Educators should consider incorporating multimedia tools into their teaching practices while providing clear guidance on how to apply cognitive and metacognitive strategies effectively. Strengths and Weaknesses of the Research: a key strength of this study lies in its innovative approach to integrating cognitive and metacognitive strategies with multimedia learning, offering a comprehensive framework for developing critical listening skills. The use of a quasi-experimental design with pre-test and post-test assessments allowed for robust comparisons between the experimental and control groups. Furthermore, the inclusion of reflective journals provided valuable qualitative insights into students' learning processes.

However, the study is not without limitations. The relatively small sample size and short intervention period may limit the generalizability of the findings. As noted by Tseng (2023), longer intervention periods are often necessary to observe sustained changes in metacognitive awareness and critical thinking skills. Additionally, while the study focused on third-semester university students, future research should explore how these strategies perform across different age groups and educational levels. Finally, the study relied on self-reported measures for metacognitive awareness, which may be subject to bias. In conclusion, this study highlights the transformative potential of combining cognitive and metacognitive strategies with multimedia tools to enhance critical listening skills and metacognitive awareness. By providing a multisensory learning environment and promoting self-regulation, this approach offers a promising avenue for improving students' academic performance and reflective learning practices. Despite its limitations, the study provides a valuable foundation for future research and practical applications in the field of education.

CONCLUSION

This research aimed to address the challenge of developing critical listening skills and enhancing metacognitive awareness among university students by integrating cognitive and metacognitive strategies with short video materials. The findings demonstrate that this approach significantly improves students' critical listening performance and metacognitive awareness. Specifically, students exposed to multimedia-supported strategies showed greater gains in their ability to analyze, evaluate, and synthesize auditory information compared to those who received traditional instructional methods. The study concludes that integrating cognitive and metacognitive strategies through short videos is an effective pedagogical approach for fostering critical thinking and self-regulated learning. Short videos, as a dynamic multimedia tool, create a multisensory learning environment that

promotes deeper cognitive engagement and reflective practices. This framework not only improves listening skills but also empowers students to take control of their learning processes, making them more autonomous and critical in their approach to academic tasks. Addressing the research problem of how to effectively enhance critical listening skills, the study highlights that combining cognitive and metacognitive strategies with multimedia significantly benefits students' academic performance. The results emphasize the importance of explicit instruction in strategy use, enabling students to monitor, evaluate, and adjust their learning behaviors. Despite its quasi-experimental design and inherent limitations, such as a small sample size and short intervention period, this research contributes valuable insights into the potential of multimedia-based learning. Future studies are encouraged to explore the long-term effects of these strategies and their applicability across diverse educational contexts. Overall, the findings underscore the transformative role of cognitive and metacognitive strategies in modern education, particularly when supported by engaging multimedia tools.

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