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ENHANCING UNDERGRADUATE CRITICAL LISTENING THROUGH DISCORD-BASED VIDEO CHAIN-QUESTION STRATEGY

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Abstract
The advancement of digital technology has reshaped language learning, demanding pedagogical approaches that foster higher-order skills. Critical listening, the ability to evaluate and analyze spoken content, is crucial in higher education, yet students often struggle to develop it in online settings that lack interaction. This study addresses this gap by investigating the effectiveness of the Video Chain-Question strategy, implemented via the Discord platform, in enhancing the critical listening skills of undergraduate EFL students. This study employed a developmental research (R&D) design following the 3PS Model (Analysis, Strategy, Application & Evaluation). Twenty fifth-semester students from an International Class Program participated in the research. The intervention used authentic documentary videos within Discord's collaborative environment. Data were collected using pre-tests and post-tests, and subsequently analyzed using a Paired Sample T-Test. The findings revealed a statistically significant improvement in students' critical listening abilities following the intervention. The results of this study indicate that there is a significant difference between the pre-test and post-test, with 92% of scores being above average. The needs analysis also confirmed that both students and lecturers were active technology users, validating the choice of Discord as an alternative LMS. The results suggest that the integration of the Video Chain-Question strategy within Discord creates a dynamic, interactive, and effective environment that successfully enhances students' critical listening skills.

Keywords:
Critical Listening; Video Chain-Question Strategy; Discord; English as a Foreign Language; Cooperative Learning

A. INTRODUCTION

The rapid advancement of digital technology has transformed education, particularly in language learning. In higher education, online platforms have become essential for flexible, interactive, and collaborative learning environments in the post-pandemic era (Azizah et al., 2021). Listening, as a receptive skill, is fundamental to language acquisition and supports the development of other skills such as speaking, reading, and writing (Vandergrift, 2007). However, students still face challenges in listening comprehension due to speech rate, accent variation, and limited authentic exposure in online settings (Purwaningsih & Wahyuni, 2023).

To address these issues, cooperative learning has been increasingly integrated into online environments to promote interaction and engagement. Studies have shown that online cooperative strategies, such as virtual interviews and group discussions, enhance students' motivation, confidence, and comprehension

outcomes (Hidayah, 2022; Hidayati, Emiliana, & Pratama, 2023). These approaches are especially relevant for Generations Z and Alpha, who prefer interactive and technology-driven learning (Harianingsih & Jusoh, 2022).

Listening skills have become even more crucial in the digital era as learners are exposed to podcasts, videos, and social media interactions. Beyond understanding spoken content, critical listening**, t**he ability to evaluate and reflect on what is heard—has become an essential competence in academic and professional settings (Yue, 2022). A recent study in *Heliyon* (2024) reported that blended and online learning modes significantly improved students' listening proficiency compared to traditional methods.

Given that Generations Z and Alpha thrive in digital and collaborative environments, the integration of cooperative learning with authentic audiovisual materials is timely and relevant. Discord, a platform originally designed for gamers, has recently gained attention for its potential as a digital learning space due to its real-time voice, video, and screen-sharing features that support collaborative learning (Makridou et al., 2021; Septiawan & Permana, 2022). To optimize its pedagogical potential, an effective teaching strategy such as the Video Chain-Question method can be applied. This strategy encourages active and critical listening through a cycle of watching documentary-based videos, generating questions, and discussing them with peers (Rahman et al., 2021).

Although various digital tools and video-based methods have been used in listening instruction, few researchers have focused on integrating Discord-based cooperative learning with the Video Chain-Question strategy to enhance critical listening skills**.** There have been limited studies examining how digital interactions foster analytical and reflective listening among EFL learners in higher education. Therefore, this research aims to fill this gap by exploring the effectiveness of implementing the Video Chain-Question strategy through Discord in developing students' critical listening abilities.

B. METHODS

Research Design

This study adopts a developmental research design (R&D) to design, implement, and evaluate an instructional model. The framework follows Ramadhan's (2025) 3Ps Model (Fase Analisis, Fase Strategi, Fase Penerapan & Evaluasi).

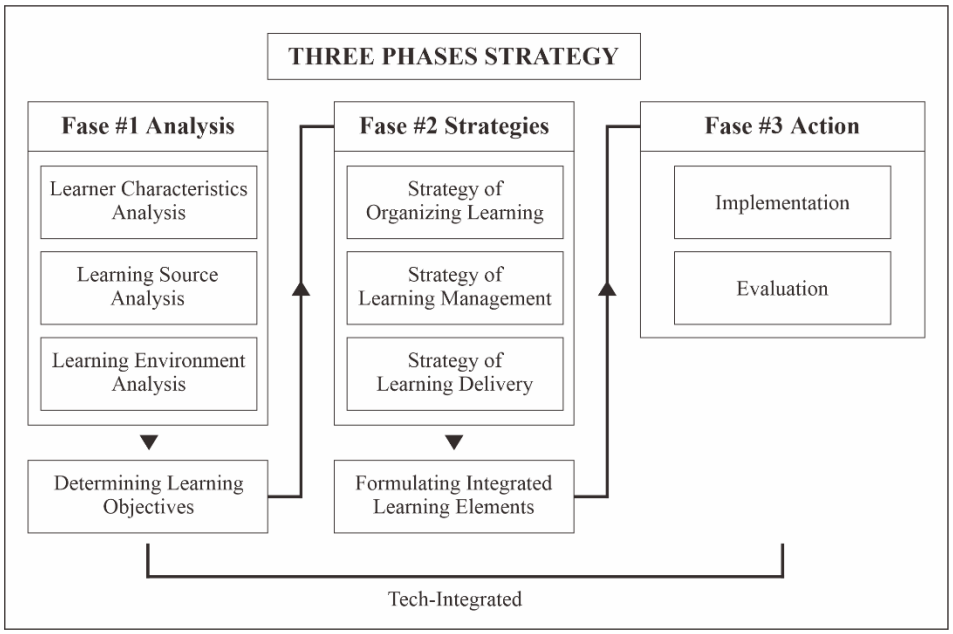

Figure 1. Three Phases Strategy Framework

The Research Procedure

The first phase is analysis phase, it serves as the foundation of the instructional design process, paving the way for effective teaching and learning. Several essential stages must be completed before moving to the next phase, namely: (1) analysis of learner characteristics, (2) analysis of learning resources, and (3) analysis of the learning environment. These three stages collectively define the learning objectives, ensuring that the instructional process proceeds with a clear and measurable direction.

The second is the strategy design phase, this phase constitutes the core of implementing effective, efficient, and engaging instruction. Upon completing the initial analysis, the learning objectives aligned with students' needs and classroom conditions are determined. Understanding these needs assists instructors in tailoring pedagogical approaches to optimize the learning experience. Three major components are designed in this phase: (1) organizational strategy, (2) delivery strategy, and (3) learning mode strategy. The integration of these three components results in a coherent and adaptive instructional formula that meets the contextual demands of the teaching and learning process.

Phase of implementation and evaluation were conducted in two online sessions through the Discord platform, enabling synchronous face-to-face interaction between the lecturer and students. During the first meeting, after an initial briefing on the instructional strategy, a documentary video entitled *Higher Education in Finland* was played collectively. Following the viewing session, the lecturer initiated a chain of questions directed to one student, who then continued the sequence by posing questions to another peer, thereby creating a continuous dialogic learning flow. The second meeting followed the same structure, using a different documentary entitled *Higher Education in Australia*. Similar interactive activities were carried out as in the first session.Both meetings concluded with an evaluation phase, which was critical for assessing learning outcomes and identifying potential improvements for future instructional model development.

Participants of the Study

The participants of this study consisted of 20 fifth-semester students from the English Education Department enrolled in the International Class Program (ICP). The implementation of the instructional strategy was conducted with this group, as they required a more advanced and interactive approach to their learning process. The entire instructional procedure was conducted online across two sessions, each featuring a distinct documentary video as the primary material.

Learning Materials and Duration

The learning material consisted of a 30-minute English-language documentary selected for its authentic academic content and intermediate-level linguistic complexity. The Video Chain-Question strategy required students to attentively watch the documentary, formulate content-based questions, and respond to peers' inquiries. This design fostered both listening comprehension and critical inquiry. Each instructional session lasted for 100 minutes, which was deemed sufficient for implementing the designed learning strategy effectively.

Data Analysis Techniques

In the analysis phase, data were collected through observation and interviews to identify learners' needs and formulate specific learning objectives. These methods provided qualitative insights into student characteristics, learning challenges, and instructional preferences.

To evaluate the effectiveness of the developed instructional design, statistical analyses were performed on the students' learning outcome data. The analysis began with tests of homogeneity and normality to determine the data distribution characteristics. The Kolmogorov–Smirnov test was applied to assess whether the data followed a normal distribution.

Subsequently, a Paired Sample T-Test was used to compare the pre-test and post-test scores following the implementation of the Discord-based instructional design. This test was selected as it effectively measures differences in learning outcomes within the same group before and after the intervention. The t-value was calculated using the following formula:

$$t_{hitung} = \frac{\overline{X}_D}{\sqrt{\frac{\sum d^2}{N\,(N-1)}}}$$

The results of this analysis provide evidence regarding the effectiveness of the instructional model. Specifically, they determine whether the use of Discord as a learning management platform, in combination with the Video Chain-Question strategy, leads to a significant improvement in students' critical listening skills.

C. RESULT & DISCUSSION/ نتائج البحث ومناقشتها

The implementation of this learning strategy required a preliminary analysis to determine learning objectives aligned with the 3PS theory. The findings revealed that both learners and lecturers are active technology users who are already accustomed to studying anytime, anywhere, and with anyone. This became the foundation for utilizing technology in the teaching and learning process. The observation results were supported by interviews conducted with the participants of this study. The learners' statements regarding the use of technology as a learning companion further strengthened the research findings.

"*I am used to using mobile technology in my learning, even if it is just to search for supporting information. The Internet today serves as an effective and efficient source that helps me in learning*." (Respondent 1)

"*The flexibility in learning really helps me adjust to my own learning pace. Since I am quite slow in understanding the material, I can search for additional information from other learning sources provided by the lecturer*." (Respondent 2)

The data analysis also included insights from all participants involved in the teaching and learning process, including lecturers. One of the lecturers' statements supported the use of the 3PS framework in this analysis:

"*The use of technology in teaching certainly helps me in giving instructions and even in collecting assignments. Besides teaching, I can also find various information and teaching strategies, which provides me with many alternatives*." (Supervisor)

The interview findings above correspond to the first phase, which involves analyzing three main aspects: the learning environment, learning resources, and learner characteristics. It can be concluded that both the environment and the classroom participants are highly digital native Learning objectives could then be formulated after completing this phase, namely, to develop students' *critical listening* skills through the use of video chain-question activities**.** After determining the objectives, the process continued to the second phase, which involved selecting the appropriate media, LMS, and learning strategies to optimize the teaching and learning process. Online learning was deemed highly feasible based on the observation results, and Discord was chosen as the most suitable LMS. The selected learning strategy was a chain question, aimed at enhancing learners' listening skills.

4.2 Learning Outcome Analysis

To evaluate the effectiveness of the intervention, this study measured the improvement in students' *critical listening* skills (N = 20) by comparing their pre-test scores (before the treatment) and post-test scores (after the treatment). The data were analyzed using descriptive statistics and a Paired Sample T-Test.

Table 1. The Score of Pre-test and Post-test

Partisipan (N=20)	Nilai Pre-Test	Nilai Post-Test
Student 1	55	75
Student 2	60	80
Student 3	48	72
Student 4	52	78
Student 5	65	85
Student 6	70	90
Student 7	45	68
Student 8	58	82
Student 9	62	81
Student 10	50	77
Student 11	55	79

Student 12	68	88
Student 13	53	75
Student 14	61	83
Student 15	49	74
Student 16	66	86
Student 17	57	80
Student 18	63	84
Student 19	51	76
Student 20	59	82
Rata-Rata (Mean)	56.85	79.75
Standar Deviasi	7.08	5.71

Table 2. Table 2. Mean and Standard Deviation

Test	N	Rata-rata (Mean)	Standard Deviation
Pre-Test	20	56.85	7.08
Post-Test	20	79.75	5.71

Table 2 shows a clear increase in the mean score. The mean pre-test score was 56.85, indicating the participants' initial level of understanding. After the implementation of the Discord-based Video Chain-Question strategy, the mean post-test score substantially increased to 79.75. To examine whether this improvement was statistically significant, a Paired Sample T-Test was conducted. The results of the T-Test are presented in Table 3.

Table 3. Mean and Standard Deviation

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1 PRETEST - POSTTEST	-22.400	2.349	.525	-23.499	-21.301	-42.654	19	.000

The T-Test results in Table 3 show a t-value of -42.654 with degrees of freedom (df) = 19. The obtained significance value (2-tailed) was p = .000. Based on the decision criterion where $p < 0.05$, these results indicate that the Null Hypothesis (H_0) is rejected. This confirms that there is a statistically significant difference between the pre-test and post-test scores. The mean score improvement of 22.4 points can be attributed to the effectiveness of the applied intervention. These quantitative findings support that the use of the Video Chain-Question strategy, implemented through the Discord platform, had a positive and significant impact on enhancing students' *critical listening* skills.

D. CONCLUSION/ الخاتمة

This study was designed to investigate the effectiveness of implementing the Video Chain-Question strategy through the Discord platform in enhancing university-level EFL students' critical listening skills. The research adopted a Research and Development (R&D) design following the 3PS Model framework (Analysis, Strategy, Implementation & Evaluation). Based on the findings obtained, several conclusions can be drawn.

First, in the Analysis phase, qualitative findings from observations and interviews confirmed that both learners and lecturers are active technology users who are already

accustomed to utilizing digital resources for learning. This validates the feasibility and relevance of using digital platforms such as Discord as an alternative learning environment to support cooperative learning strategies.

Second, the quantitative findings from the Implementation & Evaluation phase demonstrated the effectiveness of the intervention. The statistical results revealed a significant improvement in students' critical listening abilities. The participants' mean score (N = 20) increased from 56.85 on the pre-test to 79.75 on the post-test. The Paired Sample T-Test confirmed that this improvement was statistically significant (p = .000, which is lower than the alpha value of 0.05).

These results indicate that the integration of the Video Chain-Question strategy with Discord's interactive features (such as voice and text channels) successfully transformed passive listening activities into an active, dialogic, and reflective process. This model encouraged students not only to comprehend audiovisual content but also to critically analyze, evaluate, and formulate questions, which are the core components of critical listening. However, this study has limitations, particularly regarding the small sample size (N = 20). Therefore, future research is recommended to test this model on a larger scale and in different contexts to strengthen the generalizability of the findings.

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