



Technology-Based Independent TOEFL Learning Through YouTube Among Non-English Majors

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Abstract

The development of digital technology has transformed English language learning practices, particularly in independent learning environments. One of the most widely used digital platforms is YouTube, which provides flexible and accessible learning resources for English as a Foreign Language (EFL) learners. This study aimed to explore the strategies used by non-English major students in learning TOEFL Listening independently through YouTube and to examine how they manage their learning process through self-regulated learning practices. This research employed a qualitative descriptive exploratory design. The participants were non-English major students at Universitas Negeri Semarang who had experience using YouTube for TOEFL Listening preparation. Data were collected through questionnaires and semi-structured interviews. The collected data were analyzed using thematic analysis to identify patterns of learning strategies and technology-based learning behaviors. The findings revealed three major themes: cognitive strategies in understanding TOEFL Listening, metacognitive strategies in independent learning, and the use of YouTube as a technology-based learning platform. The students actively applied strategies such as focusing on keywords, replaying audio, using subtitles, and adjusting playback speed. The findings also showed that students practiced self-regulated learning through planning, monitoring, and evaluating their learning progress. In addition, YouTube was perceived as a flexible and supportive platform for independent TOEFL learning despite challenges related to native speaker speed, accents, and digital distractions. In conclusion, successful TOEFL Listening learning through YouTube depends not only on technology availability but also on students' ability to manage their independent learning effectively.

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INTRODUCTION

The development of digital technology in recent years has brought significant changes to teaching practices, particularly in the field of English as a Foreign Language (EFL). In the context of English Language Teaching (ELT), the learning process is no longer limited to formal classrooms but also takes place through technology-based learning environments that enable students to learn independently (Anderson Terry, 2008). Digital technology provides broader opportunities for language learners to gain more flexible access to learning resources and supports independent learning outside the formal classroom setting (Widiawati, 2022).

This transformation has shifted the role of learners from passive recipients of knowledge to active participants who are expected to take greater responsibility for managing their own learning process. As a result, the integration of digital technology into language learning is no longer viewed merely as a complementary instructional tool but as an essential component that facilitates learner autonomy, flexibility, and continuous access to authentic learning resources. This shift is particularly important in EFL contexts, where opportunities to use English in everyday communication remain limited, making technology an important bridge between classroom instruction and independent language practice.

One widely used digital platform is YouTube, as it provides authentic, flexible, and easily accessible learning materials for learners from diverse educational backgrounds (Yuyun & Simamora, 2021). (Wang & Chen, 2020) explain that YouTube allows learners to independently access authentic English language materials through a flexible digital learning environment. Various studies indicate that YouTube can support English language learning through interactive audiovisual exposure and the use of authentic language, particularly in enhancing listening skills (Othman et al., 2023). In addition to serving as a source of learning materials, YouTube also provides learners with opportunities to develop learner autonomy through learning outside the formal classroom (Lai & Gu, 2011). Unlike conventional learning resources, YouTube enables learners to personalize their learning experiences by selecting materials that match their proficiency levels, learning objectives, and preferred learning pace. Its interactive features, such as subtitles, playback speed adjustment, replay options, and recommendation algorithms, provide learners with greater control over the learning process and encourage repeated exposure to authentic English input. These characteristics make YouTube particularly suitable for supporting independent language learning, especially for learners who have limited access to formal English instruction or additional learning support outside the classroom. Therefore, YouTube is increasingly being utilized as a medium for self-directed English language learning outside the classroom.

The use of digital platforms in English language learning is also evident in preparation for standardized English proficiency tests, such as the TOEFL ITP (Test of English as a Foreign Language – Institutional Testing Program). The TOEFL is one of the instruments used to measure the academic English proficiency of non-native speakers (Phillips, 2001) and serves as a critical requirement in both academic and professional fields. At many universities in Indonesia, TOEFL scores are used as graduation requirements, for scholarship applications, and for other academic purposes. However, for non-English major students, the TOEFL is often seen as a challenge due to limited exposure to English within their academic environments (Gunantar & Rosaria, 2023). Unlike English major students who receive more intensive language instruction throughout their academic programs, non-English major students generally have fewer opportunities to develop English proficiency in formal learning settings. Consequently, many of them must seek alternative learning resources outside the classroom to improve their TOEFL performance independently. This situation highlights the increasing importance of technology-based learning platforms in providing accessible and flexible opportunities for TOEFL preparation, particularly for students who have limited time, financial resources, or access to formal preparation courses.

Among all sections of the TOEFL, the Listening Section is one of the most difficult because it requires the ability to quickly and accurately comprehend spoken information in various academic contexts. In the context of listening comprehension, learners often face difficulties due to the speaking speed of native speakers and their limited vocabulary (Renandya & Farrell, 2011). Additionally, not all students have the opportunity to take formal TOEFL preparation courses due to time constraints, cost, and limited access to learning resources. Listening comprehension also demands learners to process spoken information in real time, requiring them to recognize key ideas, infer meaning from context, and respond before the information disappears. Unlike reading activities, listening does not allow learners to revisit the spoken text unless technological support is available. As a result, many

learners experience anxiety and reduced confidence when completing the Listening Section, particularly when they encounter unfamiliar vocabulary, different accents, or rapid speech delivery. These conditions encourage students to utilize technology-based platforms, such as YouTube, as an alternative for self-directed TOEFL learning.

As a digital learning platform, YouTube provides various TOEFL learning resources, particularly for the Listening Section, such as listening exercises, simulated academic conversations, strategies for understanding audio, and discussions of TOEFL listening questions. Through features like video replay, audio speed adjustment, and the flexibility to choose materials according to their needs, YouTube allows learners to manage their own learning process more independently. These characteristics align with the concept of self-regulated learning. (Zimmerman, 2002) explains that self-regulated learning is a process in which learners actively manage their learning through the stages of planning, monitoring, and evaluation. Within this framework, technology serves not only as a source of learning materials but also as a medium that enables learners to regulate their own learning activities. By deciding what materials to study, determining the frequency of practice, monitoring their comprehension, and evaluating their learning progress, students become active agents in the learning process rather than passive recipients of information. Therefore, understanding how learners apply self-regulated learning while utilizing YouTube for TOEFL preparation is important for explaining the effectiveness of technology-based independent learning, particularly in the context of EFL learners with limited exposure to English.

In technology-based learning, students do not merely act as passive recipients of information but also as learners who actively determine learning strategies, select learning resources, and control their own learning process. (Lai & Gu, 2011) state that the use of technology in language learning enables learners to develop greater self-directed control over their learning through activities outside formal classroom settings. Nevertheless, learning for the TOEFL via YouTube also presents various challenges. Previous research indicates that students still face difficulties in understanding spoken information, limited vocabulary mastery, and challenges keeping up with the audio speed in the TOEFL Listening Section (Meilinda & Yuliah, 2019). Additionally, learning via YouTube tends to be less structured compared to formal classroom instruction, thus requiring a higher level of self-directed learning (Marselina, 2019). These challenges indicate that simply providing access to digital learning resources does not automatically ensure successful learning outcomes. Instead, the effectiveness of technology-based learning largely depends on learners' ability to regulate their own learning process, select appropriate learning strategies, and utilize digital resources effectively. Consequently, understanding how learners manage their independent learning while using technology has become increasingly important, particularly in learning contexts where teacher guidance is limited.

Several studies have examined the use of YouTube in technology-based English language learning and TOEFL preparation. (Devi et al., 2025) found that YouTube is viewed as a flexible, easily accessible learning medium capable of boosting students' motivation to study for the TOEFL. Other research also indicates that the use of YouTube as a medium for English language learning during the pandemic has a positive impact on student engagement and learning outcomes (Rasman, 2021). Additionally, (Wang & Chen, 2020) explain that the use of YouTube in English language learning is closely related to the application of self-regulated learning, as students actively select materials, manage their study time, and evaluate their understanding through digital content. Although these studies have demonstrated the educational potential of YouTube, they primarily emphasize its effectiveness as a learning medium, students' perceptions, or general language learning outcomes. As a result, relatively little attention has been given to the specific learning processes through which learners independently utilize YouTube to prepare for standardized English proficiency tests, particularly the TOEFL Listening Section. This indicates that further investigation is needed to understand not only whether YouTube supports learning, but also how learners regulate their learning strategies while using the platform.

Although various studies have discussed the use of YouTube in English language learning, most research still focuses on general English language learning, classroom learning outcomes, or students' perceptions of digital media. Research specifically exploring how non-English major students independently manage their TOEFL learning through YouTube, particularly in the Listening Section, remains limited. Moreover, previous studies have rarely examined the relationship between technology-based learning and self-regulated learning in explaining how non-English major students organize, monitor, and evaluate their independent TOEFL learning process. This limitation creates a

research gap, as understanding students' learning processes is essential for explaining why technology-based learning can support successful TOEFL preparation beyond merely providing access to learning materials. Therefore, this study aims to explore the learning strategies used by non-English major students in studying the TOEFL Listening Section via YouTube, how they manage the self-directed learning process, and how they view YouTube's role in supporting technology-based TOEFL learning. Unlike previous studies that primarily focus on students' perceptions or the general effectiveness of YouTube, this study specifically investigates the cognitive and metacognitive strategies employed by non-English major students during independent TOEFL Listening preparation through YouTube. Furthermore, this study integrates the perspective of self-regulated learning to explain how learners plan, monitor, and evaluate their learning while utilizing technology-based resources. Therefore, the novelty of this study lies in its comprehensive exploration of independent TOEFL Listening learning through the integration of technology-based learning and self-regulated learning within the context of non-English major students in an EFL environment. This study is expected to contribute to the study of technology-based learning and self-regulated learning in the context of EFL, particularly regarding self-directed TOEFL learning.

METHODS

This study employs a qualitative research design with a descriptive-exploratory approach to understand and describe the self-directed learning strategies used by non-English major students through the use of YouTube. The descriptive-qualitative approach was used to gain an in-depth understanding of the participants' experiences and perspectives (Creswell & Poth, 2016). This approach was chosen because the study focuses on experiences, learning strategies, and how students manage their learning processes from the participants' perspective. Rather than measuring the effectiveness of YouTube through numerical data or testing causal relationships, this study seeks to explore how learners experience technology-based independent learning in authentic learning contexts. Therefore, a qualitative approach was considered the most appropriate because it allows the researcher to capture rich descriptions of participants' learning experiences, learning behaviors, and personal reflections regarding the use of YouTube for TOEFL Listening preparation. This study was conducted among non-English major students at Semarang State University who have taken or are preparing to take the TOEFL ITP test. The research setting was selected because TOEFL ITP is widely recognized as an important academic requirement for university students, making TOEFL preparation a relevant learning activity among non-English major students. This context provided an appropriate setting for exploring how students independently utilize digital learning resources to improve their English listening skills outside formal classroom instruction.

The selection of participants was based on the consideration that non-English major students generally face limitations in access to formal English language instruction, study time, and an environment that supports active English language use. These conditions encourage them to utilize digital platforms, such as YouTube, as an alternative for self-directed TOEFL learning. Research participants were selected using purposive sampling with specific criteria, namely non-English major students who had used YouTube as a medium for TOEFL learning, particularly for the TOEFL Listening Section.

A total of 40 non-English major students participated in the questionnaire to provide an overview of their independent TOEFL learning strategies through YouTube. Subsequently, 10 participants were purposively selected for semi-structured interviews based on their experience using YouTube for TOEFL Listening preparation and their willingness to share their learning experiences in greater depth. This technique was used because the researcher needed participants with experience relevant to the research focus so they could provide in-depth information regarding technology-based self-directed learning strategies. Purposive sampling was considered appropriate because qualitative research emphasizes the selection of information-rich participants who are able to provide detailed insights into the phenomenon being investigated. By combining questionnaire data from a broader group of participants with in-depth interview data from selected participants, this study was able to obtain both a general overview of students' learning behaviors and a deeper understanding of their experiences, learning strategies, and self-regulated learning practices while using YouTube for TOEFL Listening preparation.

In data collection, this study used two instruments: a closed-ended questionnaire and semi-structured interviews. The questionnaire served as a supplementary tool to obtain an initial overview of the self-directed learning strategies students employed prior to the in-depth interviews. The

questionnaire was distributed online via Google Forms and consisted of 27 statement items on a five-point Likert scale: never, rarely, sometimes, often, and always. The statements in the questionnaire focused on self-directed TOEFL learning activities, the use of YouTube in the learning process, and aspects of self-regulated learning such as planning, monitoring, and evaluation of learning. The use of the questionnaire enabled the researcher to identify general patterns of students' learning behaviors and their frequency of applying particular learning strategies while preparing for the TOEFL Listening Section through YouTube. The questionnaire findings also served as preliminary data that informed the interview stage by helping the researcher identify issues requiring further exploration. Consequently, the questionnaire functioned not only as a descriptive instrument but also as a guide for developing more focused interview questions regarding students' experiences and self-regulated learning practices.

The primary instrument in this study was a semi-structured interview used to explore in greater depth students' learning experiences, the strategies employed during self-directed TOEFL learning, and the utilization of YouTube as a technology-based learning medium. Semi-structured interviews allow researchers to obtain more in-depth and flexible data through follow-up questions based on participants' responses (Kallio et al., 2016). Each interview lasted approximately 15–25 minutes, depending on the participants' responses and the depth of the discussion. This duration allowed the researcher to explore participants' learning experiences comprehensively while maintaining a focused and manageable interview process. The interviews consisted of open-ended and closed-ended questions, allowing participants to provide more detailed explanations while giving the researcher the opportunity to ask follow-up questions based on the participants' answers.

The focus of the interviews included how students planned their learning process, monitored their learning progress, evaluated their understanding, and their perceptions of YouTube's role in supporting self-directed TOEFL learning. The interview protocol was designed to encourage participants to describe their actual learning experiences rather than simply report whether they used YouTube for learning. During the interviews, participants were invited to explain how they selected learning materials, overcame listening difficulties, utilized YouTube features, and evaluated their own learning progress while preparing for the TOEFL Listening Section. Follow-up questions were asked whenever participants' responses required further clarification or elaboration, allowing the researcher to obtain richer and more comprehensive descriptions of their learning experiences. The combination of questionnaire and interview data enabled the researcher to compare participants' reported learning behaviors with their detailed explanations, thereby providing a more comprehensive understanding of technology-based self-directed learning through YouTube.

Interview data were collected in person or via WhatsApp video calls, depending on the participants' availability. All interviews were recorded using the researcher's smartphone, then transcribed and double-checked to ensure data accuracy. The quotes used in this study are written in Indonesian because the interviews were conducted in Indonesian. The research data was analyzed using thematic analysis to identify patterns of technology-based self-directed learning strategies and participants' learning experiences. (Braun & Clarke, 2006) explain that thematic analysis is conducted through several stages: understanding the data, coding, grouping categories, and developing main themes based on patterns found in the data. Thematic analysis was selected because it enables researchers to systematically identify recurring patterns across participants' responses while maintaining the richness of qualitative data. This analytical approach was considered appropriate for the present study because the research aimed to explore students' learning experiences, learning strategies, and self-regulated learning practices rather than to quantify their behaviors.

In this study, the analysis process was conducted through several stages: repeatedly reading and understanding all the data, coding the key data, grouping codes into similar categories, and developing main themes related to self-directed TOEFL learning strategies via YouTube. During the familiarization stage, the researcher repeatedly read the interview transcripts and questionnaire responses to gain a comprehensive understanding of the participants' experiences. The researcher then assigned initial codes to meaningful statements related to technology-based learning, cognitive strategies, metacognitive strategies, and the use of YouTube features. Codes with similar meanings were subsequently organized into broader categories before being refined into overarching themes that addressed the research objectives.

Throughout the analysis process, the researcher continuously reviewed the relationship between the themes and the original data to ensure that each theme accurately represented the participants' experiences. The analysis was conducted systematically so that the meaning contained

in the participants' experiences could be deeply understood and aligned with the research objectives. To enhance data credibility, the interview transcripts were reviewed and compared with the questionnaire results, allowing the researcher to ensure the consistency of the information provided by the participants. This process of comparing findings from the two data sources enabled the researcher to confirm recurring patterns and minimize potential inconsistencies in participants' responses. Furthermore, the systematic organization of coding, categorization, and theme development strengthened the trustworthiness of the findings by ensuring that each conclusion was grounded in the collected data rather than based on individual interpretation alone.

FINDINGS AND DISCUSSION

The results of the thematic analysis indicate that there are three main patterns of technology-based self-directed TOEFL learning strategies using YouTube among non-English major students, namely: (1) cognitive strategies for understanding TOEFL Listening, (2) metacognitive strategies in self-directed learning, and (3) the use of YouTube as a technology-based learning medium. These three themes demonstrate how students actively manage their learning processes when utilizing digital technology to support their TOEFL preparation.

Cognitive Strategies for Understanding TOEFL Listening Subheading

The questionnaire results indicate that non-English major students employ various cognitive strategies while studying TOEFL Listening via YouTube. The most dominant strategies include replaying the listening audio, focusing on keywords, and noting down important vocabulary. These findings suggest that students do not rely solely on repeated exposure to listening materials but actively apply specific cognitive strategies to facilitate comprehension. Rather than functioning as passive users of digital content, they consciously select learning techniques that enable them to process spoken information more effectively. This indicates that students are actively engaged in constructing meaning from listening materials while independently utilizing YouTube as a learning resource.

Table 1. Cognitive Strategies Used by Non-English Major Students

Learning Strategies	Dominant Frequency
Repeating Listening Audio	Often
Focusing on Key Words	Always
Not Down Important Vocabulary	Sometimes

The findings from the questionnaire were corroborated by the interview results. Participants explained that they actively used specific strategies to understand the TOEFL Listening audio, rather than simply listening passively. One participant stated:

Excerpt 1

"Sebelum audionya mulai, saya cepet-cepet baca pilihan jawabannya... jadi otak saya udah siap nangkep kata kunci tertentu daripada coba memahami semua kata malah jadi kehilangan fokus"

The excerpt shows that students tend to use a keyword-focusing strategy to predict important information before the audio is played. This finding indicates that students employ a selective attention strategy to reduce the difficulty of processing the rapidly delivered TOEFL audio. (Vandergrift, 1997) explains that the keyword-focusing strategy is part of the cognitive strategies in listening comprehension that help learners focus their attention on important information during the listening process.

The interview findings further demonstrate that students intentionally prioritize essential information rather than attempting to understand every individual word in the listening passage. This strategy reflects an awareness of the cognitive demands of the TOEFL Listening Section, where spoken information is presented continuously and cannot be reviewed during the actual test. By directing their attention to keywords and contextual clues, students are able to reduce cognitive overload and allocate their mental resources more efficiently to identify the correct answers.

Rather than trying to understand every word, students prefer to focus their attention on key information that can help them answer questions more effectively. This finding aligns with previous research showing that cognitive strategies in listening help EFL learners process spoken information more efficiently. The consistency between the questionnaire and interview findings suggests that keyword identification is not an incidental strategy but a deliberate learning behavior adopted by many participants during independent TOEFL preparation. This demonstrates that students have developed practical approaches for coping with listening difficulties through repeated learning experiences using YouTube.

The use of keyword-focusing strategies also indicates active listening behavior, as students consciously direct their attention to avoid cognitive overload when encountering complex listening material. From the perspective of self-regulated learning, this behavior reflects learners' ability to regulate their cognitive processes by selecting strategies that best suit their learning needs. Instead of depending on teacher guidance, participants independently determined how they would approach listening tasks, evaluated which strategies were effective, and continuously refined those strategies through repeated practice. This illustrates that technology-based learning is not merely about accessing digital content but also about learners' capacity to manage and optimize their own learning process.

In this context, YouTube provides repeated exposure to authentic English, allowing students to practice their listening skills independently and flexibly. Features such as replay, adjustable playback speed, and the availability of diverse TOEFL Listening materials allow learners to revisit difficult sections, reinforce vocabulary acquisition, and practice listening at their own pace. These affordances support the implementation of cognitive strategies that may be difficult to apply during formal classroom instruction with limited practice time. Consequently, YouTube serves not only as a repository of learning materials but also as a learning environment that facilitates the development of effective listening strategies through continuous independent practice.

Metacognitive Strategies in Self-Directed Learning

Data analysis shows that students employ various metacognitive strategies while studying for the TOEFL independently via YouTube. These strategies include learning planning, monitoring comprehension, and evaluating learning outcomes. The questionnaire findings suggest that students are actively involved in regulating their own learning process rather than relying solely on the availability of digital learning materials. The relatively high frequency of monitoring and evaluation activities indicates that participants continuously assessed their learning progress and adjusted their learning strategies according to the challenges they encountered during TOEFL Listening practice.

Table 2. Students' Metacognitive Strategies

Metacognitive Activities	Dominant Frequency
Determining learning targets	Sometimes
Repeating audio when you don't understand	Often
Checking answers after practice	Often
Evaluating learning outcomes	Always

Interview results indicate that students consciously organize their self-directed learning process before beginning TOEFL practice. Participants explained that they select YouTube channels based on the difficulty level of the material and adapt them to their abilities.

Excerpt 2

"Saya akan cari channel YouTube yang sering direkomendasikan orang-orang, kemudian memilih videonya berdasarkan level kesulitannya. Jadi...waktu belajar nggak terlalu susah di awal."

This excerpt shows that students engage in a planning phase before studying by selecting learning resources appropriate to their skill level. This behavior reflects an important aspect of self-regulated learning, particularly the planning stage, where learners prepare strategies and learning

resources before engaging in learning activities. (Zimmerman, 2002) explains that learners with self-regulated learning skills actively set their own goals, strategies, and learning resources. The interview findings indicate that students do not randomly consume digital learning content but deliberately select resources that correspond to their current level of proficiency. This demonstrates that learners are capable of making informed decisions regarding their learning process, an essential characteristic of self-regulated learning. By beginning with materials that match their abilities, students are more likely to build confidence and gradually develop their listening competence before progressing to more challenging TOEFL materials.

During the monitoring stage, students recognize the difficulties they encounter when understanding the listening audio and then adjust their learning strategies.

Excerpt 3

"kalau belum paham, aku ulang lagi audionya sambil liat subtitle, dan mencatat kosakata penting atau potong kalimat."

This excerpt shows that students actively monitor their understanding while studying. Behaviors such as replaying the audio, using subtitles, and noting down important vocabulary reflect the presence of metacognitive monitoring, as students evaluate their level of understanding and adjust their learning strategies when they have difficulty understanding the audio. This finding supports the concept of self-regulated learning proposed by (Pintrich, 2004), which emphasizes the importance of monitoring skills in helping learners control their learning processes. The consistency between the questionnaire and interview findings further suggests that monitoring is a habitual learning behavior rather than an occasional response to difficulty. Instead of abandoning challenging listening materials, participants modified their learning strategies by utilizing YouTube features that allowed them to better understand the audio. This adaptive behavior reflects learners' ability to recognize learning problems and respond by selecting appropriate strategies, demonstrating effective metacognitive regulation during independent learning.

In addition to planning and monitoring, students also evaluate their learning outcomes after completing the listening exercises.

Excerpt 4

"Karena keterbatasan kosakata dalam bahasa Inggris, ditambah lagi kalau pakai audio native speaker pengucapannya cepat banget...jadi aku perlambat speed-nya jadi 0.75x dulu biar paham konteks dan pengucapannya. Kemudian, cara aku mengevaluasi hasil belajar dengan sering latihan Listening dan lihat ada peningkatan dalam menjawab soal atau nggak."

The excerpt shows that students are aware of the learning difficulties they face and strive to overcome them using the technological features available on YouTube. The use of audio speed adjustment features and repeated listening practice indicates the presence of self-monitoring and self-evaluation processes in self-directed learning. These findings reinforce Zimmerman's (2002) theory, which states that learners capable of self-regulating their learning will actively evaluate their learning outcomes and adjust their strategies when encountering difficulties. This finding also demonstrates that technology can facilitate the evaluation stage of self-regulated learning by providing learners with opportunities to repeat listening exercises, adjust playback speed, and continuously monitor their progress. Rather than viewing learning difficulties as obstacles, participants used YouTube's technological features as learning supports that enabled them to improve their comprehension gradually. Such practices illustrate that successful technology-based learning depends not only on access to digital resources but also on learners' ability to evaluate their own performance and modify their learning strategies accordingly.

Overall, the research findings indicate that non-English major students are not passive learners. Instead, they actively manage the learning process through planning, monitoring, and evaluation when preparing for the TOEFL Listening section independently via YouTube. The integration of questionnaire and interview findings demonstrates that metacognitive strategies are consistently applied throughout the learning process, beginning with planning appropriate learning activities, continuing with monitoring comprehension during practice, and ending with evaluating learning outcomes to improve future performance. These findings highlight that YouTube functions not merely as a platform for accessing TOEFL materials but also as a learning environment that supports the

development of self-regulated learning skills among non-English major students. Consequently, the effectiveness of YouTube in TOEFL preparation is closely associated with learners' ability to actively regulate and reflect on their own learning processes rather than simply consuming digital learning content.

The Use of YouTube as a Technology-Based Medium

The research findings also indicate that students have a positive perception of YouTube as a technology-based learning medium that supports independent TOEFL study. Students utilize various technological features available on YouTube to aid their listening practice. The questionnaire results demonstrate that students consistently utilize YouTube not only to access learning materials but also to regulate their learning activities according to their individual needs. The high frequency of responses related to playback control, ease of access, and the availability of diverse listening materials suggests that students perceive these technological features as essential components of their independent learning process rather than merely supplementary tools.

Table 3. The Use of YouTube as a Technology-Based Medium

YouTube Utilization	Dominant Frequency
Playback control features	Always
Use of subtitles	Often
Ease of access	Always
Various listening materials	Always
Supports independent learning	Often

Participants explained that YouTube helps them tailor the learning process to their individual needs. Additionally, students view YouTube as a flexible, easily accessible, and practical learning medium for self-directed TOEFL preparation.

Excerpt 5

"Fitur pause, replay, dan subtitle sangatlah membantu dalam proses belajar mandiri. Kayak...speed audio bisa disesuaikan semau kita, ketersediaan subtitle pada audio, dan kita bisa mengulang penjelasan soal sebanyak yang kita mau tanpa batas waktu, sehingga kita bisa menyerap pemahaman lebih maksimal"

These excerpts show that YouTube's features provide students with greater control over their learning as they manage their study activities. Features such as replay, subtitles, and audio speed settings help students overcome listening difficulties and improve their understanding of TOEFL Listening material. These findings indicate that YouTube functions not only as a source of learning materials but also as a digital learning environment that supports self-regulated learning. The interview findings reveal that students intentionally utilize these features to address specific learning difficulties encountered during TOEFL Listening practice. Rather than using YouTube passively, participants actively selected technological features that matched their learning preferences and adjusted their learning process whenever they experienced comprehension problems. This finding suggests that the effectiveness of YouTube lies not only in the availability of learning content but also in the flexibility it offers learners to personalize their learning experiences according to their individual needs and proficiency levels.

These findings align with the research by (Wang & Chen, 2020), which explains that language learning via YouTube is closely related to learners' ability to manage their own learning strategies and processes. Additionally, (Harahab Putri, 2019) also states that YouTube supports self-directed learning because it provides flexible learning access and allows learners to tailor the learning process to their needs. Through YouTube, students can select materials according to their needs, set their own learning

pace, and access learning materials repeatedly. The present findings extend these previous studies by demonstrating that YouTube's technological affordances are closely connected to students' metacognitive decision-making during independent TOEFL preparation. Participants did not simply access learning videos; they actively determined when to pause, replay, adjust playback speed, or activate subtitles based on their level of understanding. Such behaviors illustrate how technology can facilitate learners' ability to plan, monitor, and evaluate their own learning processes, which are fundamental components of self-regulated learning.

However, the effectiveness of YouTube-based learning remains influenced by students' ability to maintain focus, select appropriate content, and manage distractions during the self-directed learning process. This finding suggests that technology alone cannot guarantee successful learning outcomes. Although YouTube provides extensive learning opportunities, its educational value ultimately depends on learners' ability to regulate their attention, maintain learning motivation, and critically select high-quality learning materials. Therefore, the successful integration of YouTube into TOEFL preparation requires not only accessible digital resources but also well-developed self-regulated learning skills that enable learners to maximize the benefits of technology while minimizing potential distractions. Overall, these findings highlight that YouTube serves as a supportive learning environment that promotes learner autonomy by providing flexible access to authentic materials, interactive learning features, and opportunities for continuous independent practice in the context of TOEFL Listening preparation.

CONCLUSION

The results of this study indicate that non-English major students employ various learning strategies when studying for the TOEFL Listening section independently via YouTube, including cognitive strategies, metacognitive strategies, and the use of digital technology features. Students do not merely act as passive learners but actively manage their learning process through planning, monitoring, and evaluation. These findings indicate the presence of self-regulated learning practices in technology-based TOEFL learning. Furthermore, YouTube is viewed as a flexible, easily accessible learning medium that supports students' independent learning needs through features such as replay, subtitles, playback speed, and a variety of listening materials. Nevertheless, students still face several challenges, such as the speaking speed of native speakers, differences in accents, digital distractions, and inconsistent quality of learning content. Overall, this study demonstrates that the success of TOEFL Listening learning via YouTube is influenced not only by the availability of technology but also by students' ability to select appropriate learning strategies and effectively manage the self-directed learning process. Thus, YouTube can function not only as a source of learning materials but also as a digital learning environment that supports learner autonomy and self-regulated learning in the context of EFL instruction.

This study contributes to the growing body of research on technology-based language learning by providing a deeper understanding of how non-English major students regulate their learning while preparing for the TOEFL Listening section through YouTube. Unlike previous studies that primarily focused on students' perceptions of YouTube or its general effectiveness as a learning medium, this study highlights the cognitive and metacognitive strategies underlying students' independent learning processes. These findings demonstrate that the successful integration of digital technology into language learning depends not only on the availability of technological resources but also on learners' capacity to regulate and evaluate their own learning effectively.

From a pedagogical perspective, the findings suggest that educators and language instructors may consider incorporating technology-supported self-directed learning into TOEFL preparation programs. Rather than relying exclusively on classroom instruction, teachers can guide students in developing effective cognitive and metacognitive strategies for utilizing digital platforms such as YouTube. Strengthening students' self-regulated learning skills may help them become more independent and strategic learners when preparing for standardized English proficiency tests.

This study has several limitations. First, the research involved participants from a single university, which may limit the transferability of the findings to other educational contexts. Second, the study focused exclusively on non-English major students and the TOEFL Listening section; therefore, the findings may not fully represent learning strategies used in other TOEFL sections or by students with different academic backgrounds. Future studies may involve participants from multiple institutions, compare English major and non-English major students, or examine the use of other

digital learning platforms to provide a broader understanding of technology-based self-directed learning in EFL contexts.

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The authors used AI tools to enhance the language, clarity, and readability of the manuscript. Following the use of this tool, the authors carefully reviewed and revised the AI-assisted content as necessary. The authors remain fully responsible for the accuracy, integrity, and final content of the publication.

REFERENCES

- Anderson Terry. (2008). *The Theory and PracTice of online learning*.
- Braun, V., & Clarke, V. (2006). Qualitative Research in Psychology Using thematic analysis in psychology Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
<http://www.tandfonline.com/action/journalInformation?journalCode=uqrp20%5Cnhttp://www.tandfonline.com/action/journalInformation?journalCode=uqrp20>
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.
- Devi, T., Lestari, D., Pendidikan, U., & Sorong, M. (2025). *Students' Perceptions of Using Yanto Tanjung's YouTube Channel for Learning TOEFL*. 2(2), 39–47.
- Gunantar, D. A. A., & Rosaria, S. D. (2023). Difficulties of Non-English Study Program Students in Carrying Out the Institutional TOEFL Test. *English Education: Jurnal Tadris Bahasa Inggris*, 16(1), 119–134. <https://doi.org/10.24042/ee-jtbi.v16i1.16106>
- Harahab Putri, F. (2019). YouTube for Self-Regulated Language Learning: An EFL Perspective. *English Education: Jurnal Tadris Bahasa Inggris*, 12(2), 42.
<https://ejournal.radenintan.ac.id/index.php/ENGEDU>
- Kallio, H., Pietilä, A. M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing*, 72(12), 2954–2965. <https://doi.org/10.1111/jan.13031>
- Lai, C., & Gu, M. (2011). Self-regulated out-of-class language learning with technology. *Computer Assisted Language Learning*, 24(4), 317–335. <https://doi.org/10.1080/09588221.2011.568417>
- Marselina, M. (2019). *Pengaruh Pemanfaatan Media Sosial Youtube Terhadap Kemandirian Belajar Siswa Kelas Ix Smp Negeri 2 Pontianak Artikel Penelitian Oleh: Maria Marselina Nim. F1141151016*.
- Meilinda, L., & Yuliah, S. (2019). Kesulitan Menyimak dan Strategi Mahasiswa dalam Memahami Bagian Listening Comprehension pada Tes TOEIC. *Jurnal Bahasa Inggris Terapan*, 5(1), 34–51. <https://doi.org/10.35313/jbit.v5i1.1555>
- Othman, K., Rass, A., Arabia, S., Videos, Y., & Skills, L. (2023). *Listening Skills for EFL Secondary School Students in Sudan*. 5(2), 368–383.
- Phillips, D. (2001). Longman complete course for the TOEFL test: Preparation for the computer and paper tests. (No Title).
- Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. *Educational Psychology Review*, 16(4), 385–407.
<https://doi.org/10.1007/s10648-004-0006-x>
- Rasman, R. (2021). Penggunaan youtube sebagai media pembelajaran bahasa inggris pada masa pandemi covid 19. *EDUTECH: Jurnal Inovasi Pendidikan Berbantuan Teknologi*, 1(2), 118–126.
- Renandya, W. A., & Farrell, T. S. C. (2011). “Teacher, the tape is too fast!” Extensive listening in ELT. *ELT Journal*, 65(1), 52–59. <https://doi.org/10.1093/elt/ccq015>
- Vandergrift, L. (1997). The comprehension strategies of second language (French) listeners: A descriptive study. *Foreign Language Annals*, 30(3), 387–409. <https://doi.org/10.1111/j.1944-9720.1997.tb02362.x>
- Wang, H. chun, & Chen, C. W. yu. (2020). Learning English from YouTubers: English L2 learners' self-regulated language learning on YouTube. *Innovation in Language Learning and Teaching*, 14(4), 333–346. <https://doi.org/10.1080/17501229.2019.1607356>

- Widiawati, Y. (2022). Mobile Assisted Language Learning (MALL) untuk Pembelajaran Berbicara Bahasa Inggris Tingkat Perguruan Tinggi: New Trend di Abad 21. *Seminar Nasional Inovasi Vokasi*, 1(1), 235–238. <http://prosiding-old.pnj.ac.id/index.php/sniv/article/view/4549>
- Yuyun, I., & Simamora, F. Y. (2021). Use of Youtube To Support Efl Students' Listening Skills. *ELLTER Journal*, 2(2), 1–12. <https://doi.org/10.22236/ellter.v2i2.7512>
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into Practice*, 41(2), 64–70. https://doi.org/10.1207/s15430421tip4102_2