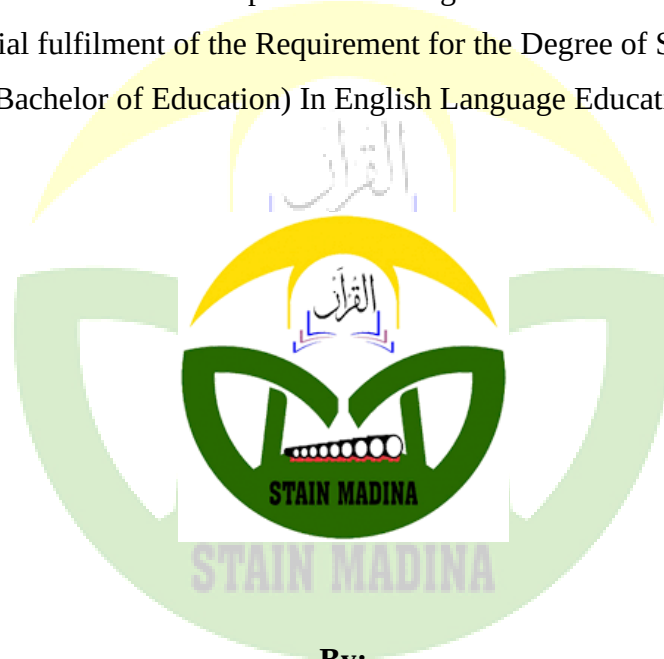


**SENIOR HIGH SCHOOL STUDENTS' COGNITIVE EXPERIENCES IN
WATCHING SHORT EDUCATIONAL VIDEOS: A
PHENOMENOLOGICAL STUDY ON WORKING
MEMORY AND COGNITIVE FLEXIBILITY
PROCESSES**

A THESIS

Submitted to the Department of English Education in a
Partial fulfilment of the Requirement for the Degree of Strata I
(Bachelor of Education) In English Language Education



By:

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22130004

**ENGLISH LANGUAGE EDUCATION STUDY PROGRAM
STATE COLLEGE OF ISLAMIC STUDIES
MANDAILING NATAL**

2026

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If someday, it is proven as duplication, imitation, plagiarism, or made by others partly or entirely, I understand that my *Skripsi* and academic title will be cancelled due to the law.

Panyabungan, September 2026

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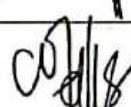


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ABSTRACT

Husin As'ari Lubis (SRN: 22130004). *Senior High School Students' Cognitive Experiences in Watching Short Educational videos: A Phenomenological Study on Working Memory and Cognitive Flexibility Processes.* This study aims to explore senior high school students' cognitive experiences in processing information while watching short educational English videos. The main focus includes the processes of working memory, cognitive flexibility, cognitive strategies used to retain new vocabulary, and cognitive obstacles faced along with how students overcome them. A qualitative approach with a phenomenological design was employed to reveal the essence of students' lived learning experiences. The participants were six Grade XI students at SMAN 3 Panyabungan selected through purposive sampling. Data were collected using think-aloud activities, observation, semi-structured interviews, and field notes, and were analyzed using thematic analysis. The findings indicate that students' working memory operates more effectively when information is supported by visual cues, clear contexts, repetition, and connections to prior knowledge. Meanwhile, cognitive flexibility is demonstrated through students' ability to dynamically shift attention between audio, subtitles, and visual elements. Dominant cognitive strategies employed include contextual guessing, utilizing visual cues, reading subtitles, replaying, pausing, and note-taking. Main cognitive obstacles encountered include fast speech rates, unfamiliar vocabulary or idioms, dense information, and divided attention. In conclusion, watching short educational videos is an active cognitive process that is both meaningful and mentally demanding, where learning success heavily depends on how students manage memory load and regulate their attention.

Keywords: Short Educational Video, Cognitive Experience, Working Memory, Cognitive Flexibility, Phenomenology, English Language Learning.

ABSTRAK

Husin As'ari Lubis (SRN: 22130004). *Senior High School Students' Cognitive Experiences in Watching Short Educational videos: A Phenomenological Study on Working Memory and Cognitive Flexibility Processes.* Penelitian ini bertujuan untuk mengeksplorasi pengalaman kognitif siswa SMA dalam memproses informasi saat menonton video edukasi bahasa Inggris berdurasi pendek. Fokus utama penelitian mencakup pemrosesan working memory, cognitive flexibility, strategi kognitif yang digunakan untuk memahami kosa kata baru, serta hambatan kognitif yang dihadapi beserta cara mengatasinya. Pendekatan kualitatif dengan desain fenomenologi digunakan untuk mengungkap makna mendalam dari pengalaman belajar siswa secara subjektif. Subjek penelitian terdiri dari enam siswa kelas XI SMAN 3 Panyabungan yang dipilih melalui teknik purposive sampling. Data dikumpulkan melalui kegiatan think-aloud, observasi, wawancara semi-terstruktur, dan catatan lapangan, kemudian dianalisis menggunakan analisis tematik. Hasil penelitian menunjukkan bahwa working memory siswa bekerja lebih efektif ketika materi didukung oleh petunjuk visual, konteks yang jelas, pengulangan, dan keterkaitan dengan pengetahuan awal. Sementara itu, cognitive flexibility terlihat dari kemampuan siswa mengalihkan perhatian secara dinamis antara audio, teks terjemahan (subtitles), dan visual. Strategi kognitif yang dominan digunakan meliputi menebak arti dari konteks, memanfaatkan isyarat visual, menggunakan subtitles, memutar ulang (replaying), menghentikan sementara (pausing), dan mencatat. Hambatan kognitif utama yang ditemukan adalah laju bicara yang cepat, kosakata/idiom yang asing, informasi yang padat, dan kesulitan membagi fokus. Kesimpulannya, menonton video edukasi pendek merupakan proses kognitif aktif yang bermakna sekaligus menuntut pemrosesan mental yang cermat, di mana keberhasilannya sangat bergantung pada kemampuan siswa mengelola beban memori dan perhatian.

Kata Kunci: Video Edukasi Pendek, Pengalaman Kognitif, Working Memory, Cognitive Flexibility, Fenomenologi, Pembelajaran Bahasa Inggris.

MOTTO

"A drop of my parents' sweat that flows represents a thousand steps forward."

There is always a price in every process

“Be confident, trust yourself and never let anybody put you down, if anybody puts you down because they are jealous”

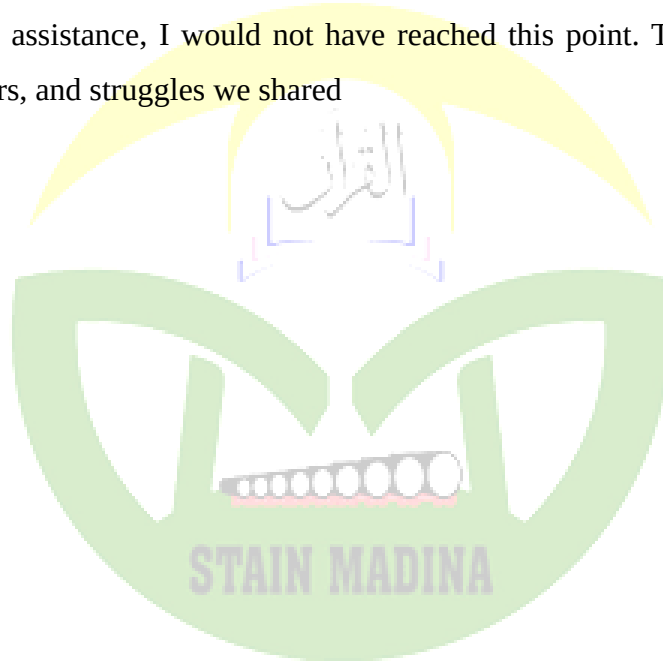
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DEDICATION

This thesis is dedicated to:

- My beloved parents have provided endless moral and material support and prayers for my success, as there are no words as beautiful as the prayers from parents. A simple thank you will never be enough to repay their kindness.
- My esteemed lecturers and examiners have sincerely devoted their time to guiding and directing me, providing invaluable lessons that have helped me improve. Thank you so much; your contributions will always be cherished.
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Panyabungan, 25 September 2026

The Researcher

Husin Asari Lubis

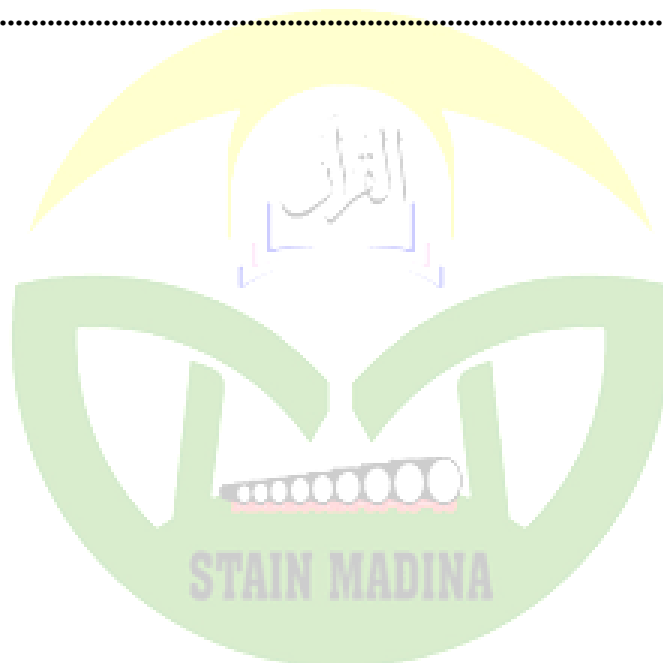
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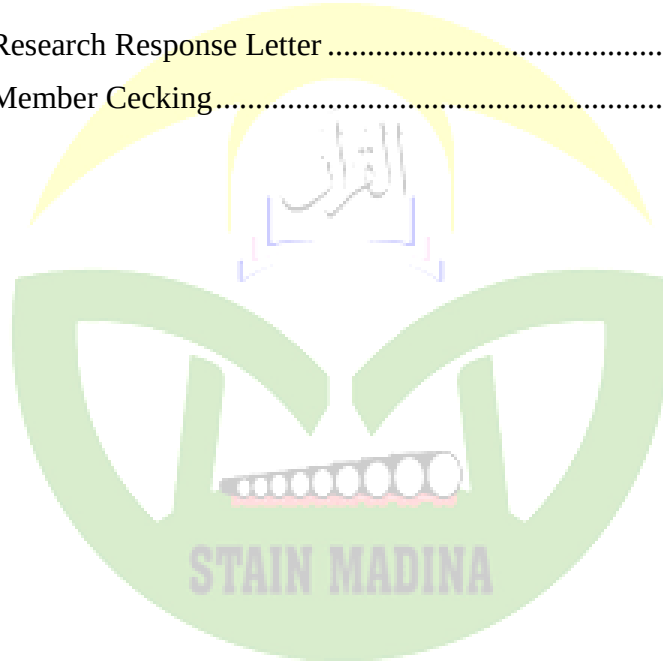
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CHAPTER I

INTRODUCTION

A. Background of Study

In this digital era, short-form videos have become an integral part of senior high school students' daily lives. Platforms such as Tik-Tok, YouTube Shorts, and Instagram Reels offer content in bite-sized durations of 15 to 60 seconds. Among this content, English educational videos are increasingly prevalent, presenting opportunities for incidental language learning. However, little is known about how students cognitively process information from such brief and fast-paced audiovisual inputs. According to Digital 2025: Global Overview Report (2025) Students often spend two to four hours each day watching short videos on their mobile phones. They usually scroll through many videos in one session, moving quickly from one topic to another. Some videos explain vocabulary, simple grammar, or daily expressions in English. Students often say that they enjoy this kind of content because it is short and easy to access. However, during informal conversations, several students admit that they do not always understand or remember what they watch. This situation suggests that frequent exposure to short videos does not automatically lead to effective learning.

Learning through digital media involves several cognitive processes that help learners understand, store, and use information effectively. One important concept is cognitive experience, which refers to the mental activities that occur when individuals interact with information and construct meaning from what they encounter. Cognitive experience includes attention, perception, memory, interpretation, and decision-making processes that shape how learners understand learning materials. According to Dawson (2025) cognitive experience reflects how individuals actively process and interpret information during learning activities. Another important concept is working memory, which refers to the temporary system responsible for holding and processing information while a task is being performed. Working memory allows learners to retain information briefly while simultaneously analyzing, organizing, and connecting it with prior knowledge.

Cowan (2017) explains that working memory has a limited capacity, making it essential for learners to manage incoming information efficiently. In addition, cognitive flexibility refers to the ability to adapt thinking, shift attention, and respond to changing information or learning situations. This ability enables learners to switch between different tasks, perspectives, or sources of information while maintaining comprehension. Diamond (2013) argues that cognitive flexibility supports adaptive learning because learners must continuously adjust their understanding when encountering new or unfamiliar information. These three concepts are closely interconnected in digital learning environments. While cognitive experience reflects the overall mental process of learning, working memory supports temporary information processing, and cognitive flexibility enables learners to adapt to various forms of input. Together, these cognitive components influence how students understand, remember, and respond to educational content delivered through short English videos.

Recent data from the Ministry of Education, Culture, Research, and Technology (2023) show that the use of digital technology among students in secondary education, especially in accessing learning content through mobile devices. Many students are now familiar with digital platforms and use them not only for communication but also for learning purposes. In daily practice, students often rely on short videos to gain quick information, including English vocabulary and simple explanations. This habit reflects a shift in how students interact with learning materials, where information is received in shorter and more dynamic formats. However, most classroom practices still focus on final answers rather than the thinking process behind them. Students are usually asked to complete tasks without being guided to reflect on how they understand and remember the content. As a result, important cognitive processes such as Working Memory and Cognitive Flexibility are rarely explored in depth, especially in the context of video-based learning.

Students' experiences when watching short educational English videos are closely related to internal cognitive processes that influence how they understand

and retain information. One key concept in this study is working memory, which refers to the ability to hold and process information for a short time while performing a task. When students watch short videos, they need to listen, understand, and remember information at the same time. This can be challenging because the information is delivered quickly and continuously. According to Sweller (2020) Cognitive Load Theory offers a valuable interpretive framework to understand how learners experience information complexity. Because working memory has limited capacity, rapid or overly dense multimodal videos can create high perceived extraneous load, leading to processing difficulties. Understanding how learners subjectively experience these cognitive demands is essential for optimizing multimedia learning design. Research has shown that a substantial proportion of English-related content on social media platforms consists of educational materials, including vocabulary instruction, pronunciation practice, grammar explanations, and conversational expressions. According to Clark and Mayer (2023), multimedia-based instructional content can facilitate language learning when it is integrated into structured learning activities.

However, despite the growing availability of educational English videos on platforms such as TikTok and YouTube Shorts, their use in formal classroom instruction remains limited and often unsystematic. Many teachers continue to rely on conventional teaching materials rather than incorporating short-form educational videos into planned learning activities. According to Unesco (2023) in many classrooms, teachers still rely on textbooks and printed exercises, while students continue to access short English videos outside the classroom.

Previous studies on the use of short educational videos in English learning are mostly quantitative and experimental in nature. Several previous studies support this observation. Perez (2014) found that captioned videos significantly improved learners' vocabulary acquisition by connecting spoken and written language. Lestari and Yosintha (2022) reported that English-subtitled videos enhanced students' vocabulary comprehension and retention. Similarly, Kirana and Iswati (2023) demonstrated that TED-Ed animated videos positively affected vocabulary

gain among Indonesian EFL students. Although these studies confirmed the effectiveness of video-based learning, they primarily focused on learning outcomes rather than students' internal cognitive experiences during the learning process. They mainly focus on measuring the effectiveness of videos in improving students' language performance, such as vocabulary acquisition and listening comprehension. These studies also examine factors like caption use, video segmentation, and cognitive load. However, they tend to emphasize learning outcomes rather than the learning process itself. There is still limited research that explores how students actually experience learning while watching short videos. In particular, little attention is given to how students process information, manage memory, adapt their thinking, and deal with difficulties during the learning process.

MAN 1 MADINA as current classroom practice, students are increasingly exposed to short educational videos, yet their internal learning processes remain largely unexplored. Understanding students' subjective experiences is essential to reveal what happens in their minds during video-based learning and to explain why differences in understanding often occur among learners. Learning does not only depend on the content, but also on how students process, store, and adapt information in real time. Without this understanding, teachers may find it difficult to design learning strategies that align with students' cognitive needs. As a result, some students may continue to face difficulties without recognizing the source of the problem, especially when dealing with fast and dense information from short videos. According to Hattie (2016) effective learning depends on how students actively process and construct meaning from the information they receive. Therefore, exploring students' cognitive experiences is essential to improving learning quality.

This study can serve as a practical guide for English teachers to select or design short videos that match students' cognitive capacity. Although previous studies have examined vocabulary improvement, listening achievement, subtitle effectiveness, and cognitive load in video-based learning, very few have explored students' lived cognitive experiences while interacting with short educational

English videos. In particular, limited attention has been given to how working memory and cognitive flexibility operate during actual viewing activities from the learners' perspective. In English language learning, especially in vocabulary and listening, students need materials that are not only engaging but also manageable in terms of information load. Short videos can support learning when they are aligned with how students process and retain new language input. By understanding students' cognitive experiences, teachers can adjust the pacing, content, and structure of videos to support better comprehension and memory. This is important because video-based input can easily overwhelm learners if not designed carefully. According to Moreno (2019), effective multimedia learning depends on how instruction.

This study focuses on students' cognitive experiences when watching short educational English videos, especially how they use working memory and cognitive flexibility during learning. In this study, Cognitive experience in this study refers to how students perceive, interpret, and make meaning from the information Cowan (2017) presented in the videos Dawson (2025). In the context of this study, working memory is reflected in how students process and remember information while watching short educational English videos Cowan (2017). Cognitive flexibility in this study is investigated through students' ability to shift attention between subtitles, spoken language, and visual elements while adapting their understanding to unfamiliar vocabulary or changing contexts. According to Diamond (2013) In this study, cognitive flexibility is also reflected in how students adapt their attention and understanding when processing multiple forms of input presented simultaneously in short educational English videos. According to Cavilla (2017), these cognitive abilities play an important role in supporting comprehension and information processing in multimedia learning environments.

By revealing these processes, the study provides a clearer basis for teachers to use short videos in ways that match how students process and remember information. This can reduce confusion, support vocabulary retention, and make video-based learning more meaningful in the classroom. This study is entitled

“Senior High School Students' Cognitive Experiences in Watching Short Educational English Videos: A Phenomenological Study on Working Memory and Cognitive Flexibility Processes.”

B. Formulation of the Problems

1. How do senior high school students experience their cognitive processes (working memory and cognitive flexibility) while watching short educational English videos?
2. What cognitive strategies do senior high school students use to understand and remember new vocabulary from short educational English videos?
3. What cognitive obstacles do senior high school students face when watching short educational English videos, and how do they overcome them?

C. Objectives of the Study

1. To describe senior high school students' experiences of working memory and cognitive flexibility while watching short educational English videos.
2. To identify the cognitive strategies employed by senior high school students to understand and retain new vocabulary from short educational English videos.
3. To explore the cognitive obstacles faced by senior high school students and how they overcome them.

D. Significance of the Study

1. Theoretical Significance

This study contributes to the development of knowledge in psycholinguistics and cognitive load theory within the context of English as a Foreign Language (EFL) learning through short-form video. It extends existing discussions by focusing on how learners process brief and fast audiovisual input in real learning situations.

2. Practical Significance

1. **For English teachers:** this study can serve as a reference for selecting or designing short videos that align with students' cognitive capacity.

1. **For educational content creators:** this study can provide input for optimizing video duration, speech rate, and the presentation format of learning materials.
2. **For future researchers:** this study can serve as a starting point for further research, such as developing learning models based on short-form video.
3. **For students:** this study can support reflection on their own learning strategies when using social media to learn English.

E. Scope and Limitation

This study focuses on Grade XI students at SMAN 3 Panyabungan and was conducted from August to September 2026. It examines students' cognitive experiences when watching short educational English videos, particularly related to working-memory-related processes and cognitive flexibility. The study was delimited to six participants who met the purposive sampling criteria, and it does not aim to generalize the findings to a broader population.

F. Key Terms

1. Cognitive Experience

The mental processes that individuals go through when receiving, processing, and storing information. It involves how learners understand and respond to information during learning activities. In this study, cognitive experience is reflected in students' descriptions of their thoughts, feelings, and strategies when watching short educational English videos, especially what happens in their minds during the learning process. According to Neisser (2016) these processes form the basis of how individuals interpret information.

2. Short Educational English Video

Video content of up to two minutes that contains English learning material. In this study, it includes selected videos from Learn English with TV Series, English with Lucy, and BBC Learning English, with durations of 13 to 70 seconds. According to Terry (2017) shorter digital video content can support learning by maintaining attention and reducing cognitive overload.

3. Working Memory

Working-Memory-Related Experiences: The subjective mental experiences of holding, processing, and recalling information over short intervals. In this study, it refers to participants' reported and observed processes of temporarily retaining spoken vocabulary, visual cues, and key meanings while watching short videos, rather than a psychometric measurement of memory capacity Cowan (2016).

4. Cognitive flexibility

The expertise to shift between tasks, rules, or perspectives during learning. In this study, it is reflected in students' ability to understand videos that include subtitles, visuals, and audio at the same time, as identified through interviews. According to Geher et al. (2016), this ability supports adaptive thinking and helps learners respond effectively to complex learning situations. Cognitive Flexibility: The adaptive mental process of shifting attention, selecting processing channels, and adjusting comprehension strategies during learning Cowan (2013). In this study, it refers to students' observed and reported abilities to alternate focus between spoken audio, onscreen subtitles, and visual cues, as well as their capacity to adapt their understanding when facing rapid delivery or unfamiliar idiomatic expressions.

5. Cognitive strategies.

Refers to deliberate mental actions used to support understanding and learning. In this study, they include actions reported by students such as taking notes, repeating information, guessing meanings, and using subtitles while watching videos. According to Griffiths (2018), these strategies help learners process and retain new information more effectively, especially in digital learning environments.

6. Cognitive Obstacles

Mental barriers that interfere with understanding during learning. In this study, they include difficulties reported by students, such as fast speech rate, unfamiliar vocabulary, and distracting visuals while watching videos.

According to Castro-Alonso et al., (2019) these challenges can increase mental effort and make it harder for learners to process information effectively.

