

## Micro-learning-Based English Learning Videos for Vocational High School Students: Needs Analysis

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### ABSTRACT

This study aims to identify the needs of vocational high school students in learning English grammar, particularly focusing on tenses, to support the development of microlearning-based instructional videos. Using Hutchinson and Waters' (1987) needs analysis theory, the research involved 30 eleventh-grade Accounting students from a vocational high school in Medan. Data were collected through semi-structured interviews and analyzed thematically. The findings show that students perceive English tenses; Simple Present, Simple Past, and Present Perfect as essential for academic tasks and workplace communication. However, they experience significant difficulties in understanding these grammar rules due to the lack of engaging, contextual, and accessible learning media. Students expressed a strong preference for short, visually-rich videos with relatable examples that they can access independently. These results suggest that instructional materials should integrate microlearning principles to address students' necessities, lacks, wants, and learning preferences. The study recommends the design of microlearning videos embedded with project-based and problem-based learning models to support 21st-century skills.

**Keywords:** English learning video, micro-learning, needs analysis

### ABSTRAK

Penelitian ini bertujuan untuk mengidentifikasi kebutuhan siswa Sekolah Menengah Kejuruan (SMK) dalam pembelajaran Bahasa Inggris, khususnya pada materi tenses, guna mendukung pengembangan video pembelajaran berbasis microlearning. Penelitian ini menggunakan teori analisis kebutuhan dari Hutchinson dan Waters (1987) dan melibatkan 30 siswa kelas XI jurusan Akuntansi dari salah satu SMK swasta di Medan. Data dikumpulkan melalui wawancara semi-terstruktur dan dianalisis secara tematik. Hasil penelitian menunjukkan bahwa siswa menganggap tenses Bahasa Inggris; Simple Present, Simple Past, dan Present Perfect sangat penting untuk tugas akademik dan komunikasi di dunia kerja. Namun, siswa mengalami kesulitan dalam memahami aturan tata bahasa tersebut karena keterbatasan media pembelajaran yang menarik, kontekstual, dan mudah diakses. Siswa mengungkapkan preferensi kuat terhadap video pembelajaran singkat yang dilengkapi visual menarik dan contoh yang relevan, serta dapat dipelajari secara mandiri. Hasil ini menunjukkan bahwa pengembangan media pembelajaran perlu mengintegrasikan prinsip-prinsip microlearning untuk memenuhi kebutuhan, kekurangan, keinginan, dan gaya belajar siswa. Penelitian ini merekomendasikan pengembangan video microlearning yang diintegrasikan dengan model pembelajaran berbasis proyek dan masalah guna mendukung keterampilan abad ke-21.

**Kata kunci:** pembelajaran mikro, analisis kebutuhan, video pembelajaran bahasa Inggris

## A. Introduction

The digital era has permeated all aspects of life, including education. As a result, teachers must shift from conventional teaching paradigms to ones that utilize technology that students are most familiar with and proficient in (Kivunja, 2014). Students in the digital era certainly have different learning characteristics than those of students in previous eras. Students in the digital era are also called digital native learners. When teachers utilize digitalization in their learning, they must consider the characteristics of today's learners: they want to learn quickly, with materials easily accessible when needed, and available in bite-sized chunks (Enache, 2022). Students' working memory capacity, or cognitive load, has not been considered. This relates to cognitive load theory (Clark et al., 2003). However, this theory serves as the basis for designing learning materials, particularly effective learning media and instructional strategies.

In this regard, micro-learning can be a solution (Kadiev et al., 2021). The benefits are improved critical thinking skills, reduced cognitive load, and more focused learning activities (Adhipertama et al., 2020; Susilana et al., 2022). Furthermore, micro-learning can be applied through videos, text, images, and so on.

Previous research has developed micro-learning-based learning videos in several subjects, namely science, English (Gocen & Aydemir, 2020; Teresa et al., 2023; Román-Sánchez et al., 2023; Alshammari, 2024). However, there is still a research gap: the resulting instructional videos do not yet integrate specific learning models that promote 21st-century skills. Furthermore, most research is conducted in higher education and junior high schools, with limited research conducted in vocational schools.

Based on initial observations, researchers found that learning problems persisted at a Private Vocational High School majoring in accounting. Teachers tended to rely solely on textbooks as learning resources. Learning media used consisted of cardboard and lacked the

integration of technology to promote 21st-century skills. The learning media used did not align with students' needs and desires, resulting in low student interest in English learning. Furthermore, students exhibited poor retention when teachers explained material in front of the class, and there was a lack of innovation in learning. These results show that there is an urgent need for new types of instructional media that meet the demands of students and the skills needed for the 21st century.

The 21st-century skills must be possessed by the students including critical thinking, collaboration, creativity, and communication. These skills can be implemented through three learning models: Problem-based learning (PBL), Project-based learning (PjBL), and Discovery learning. These three learning models are highly suited to student characteristics and the problems at hand. However, despite its demonstrated efficacy in teaching and learning English, it is crucial to perform a needs analysis to address this evolving context. Consequently, this can be executed by researchers. A primary objective of needs analysis is to identify the requirements that must be addressed in alignment with the current circumstances. An analysis is required to ascertain the students' desires.

## B. Research Method

This study used a descriptive qualitative method to create micro-learning-based English instructional films based on a requirements analysis. The needs analysis employed a theoretical framework by Hutchinson and Waters (1987). The participants of this study were 10 eleventh-grade Accounting students from a private vocational high school (SMK) in Medan, Indonesia. They were selected using purposive sampling, as they are considered the target users of the English video materials being developed. Data were collected through semi-structured interviews, guided by an interview protocol built upon Hutchinson & Waters' distinction of: Target Needs: including necessities, lacks, and wants and Learning Needs.

### C. Result and Discussion

The interviews showed results that fit with Hutchinson and Waters' need analysis framework. These results were split into two main groups: target needs and learning needs.

#### 1. Target Needs

##### a. Learning needs

The interviews demonstrated that the students understood how vital it was for school and their future jobs to understand basic English grammar, especially tenses. Most of the students claimed that they needed to know how to use the Simple Present Tense, the Simple Past Tense, and the Present Perfect Tense in order to do well on homework, create reports, or follow written directions in English. In both general and business English, you might use these three tenses when you send business emails, talk about what you did with your money in the past, or report on how well a company is doing.

Moreover, the students claimed they required more than just language instruction; they also desired lesson plans that were very similar to what they would do in real life. They appreciated English materials that had real-life events in them, like fake office conversations, financial terminology, and making reports. These needs suggest that English classes should teach more than just basic language skills. They should also relate the material to the students' fields of study. This is in line with what Dana et al., (2023) said, which was that English resources should be relevant to students' academic and professional needs, especially in vocational education settings.

##### b. Lacks

Students said it was challenging for them to learn new words and understand what they heard, especially when they had to listen to long passages or persons who spoke quickly. When the teacher read from the textbook without using any other media or visual aids, the pupils often had trouble understanding what the teacher was saying. They had a hard time remaining focused and retaining what they had learnt. Some students said that even though they knew what each word meant, they still didn't get the whole meaning.

Another huge problem was that the students weren't talking to each other or doing anything in class. Students complained that English classes were often dull and didn't give them enough possibilities to talk to and learn with other people. Some people didn't like the way things were done in class since they thought the "one size fits all" method didn't work for them. These results reveal that there is a big difference between what students should be able to perform in English class and what they can actually do. This means we need classrooms that can alter and are more fun. This is supported by Hug (2007) and Mohammed et al., (2018) say that micro-learning, which is made up of short, targeted lessons, is a good fit for the fast-paced digital lives and learning styles of today's students.

##### c. Wants

Students really wanted to learn English in a way that was more fun, interesting, and useful for them. Many other people said they would rather learn from videos, especially short, funny ones that they could watch on their phones. They want information that is easy to locate and comprehend, and that is presented in a way that is comparable to how they see it on Tik Tok, You Tube, or Instagram Reels. Micro-learning is great for children because it enables them learn in their own way and at their own pace.

The students also talked about how important it is to know how to be alone. They wanted to be able to stop, rewind, and study whenever they wanted, which isn't possible in a regular classroom. Some people who answered also asked for English resources that covered situations that were important to them or that happened in their area. This would have helped them feel more involved in the issue. Students want more than simply fun movies; they also want learning tools that enable them choose how quickly they learn.

#### 2. Learning Needs

The students say that the best way for them to learn is to use all three of their senses at once: sight, sound, and touch. They said that real-life examples, animations,

pictures, and subtitles helped them understand the topic better. The students said they learnt better when they talked about the movie, worked together in groups, or did tasks that were linked to what they had seen. These answers show how important it is to combine multimodal learning with micro-learning, which is a way to quickly acquire little bits of information in an interesting way. These preferences are in line with the Cognitive Load Theory (Chandler & Sweller, 1991), which says that lowering unnecessary cognitive burden can help with focus and memory. The idea of micro-learning does a good job of dealing with this by breaking material up into smaller, easier-to-digest pieces.

Students enjoyed learning methods that let them go at their own pace and repeat topics until they understood them better. The students indicated that micro-learning videos, especially those that are part of tasks or projects, would help students remember what they learnt and feel more sure of themselves. Teacher need to stop using teacher-centered approaches and start using technology-driven, student-centered ones based on what they need to learn. They shouldn't solely employ micro-learning videos for this reason. In addition, they should also be well-thought-out and engaging approaches of teaching that work for all kinds of students. Also, students liked movies that included project-based and problem-based exercises to get them to think critically and creatively, which are abilities needed for learning in the 21st century (Berkova et al., 2023). These choices show that micro-learning shouldn't just be about observing passively; it should also include active, inquiry-based learning.

#### **D. Conclusion and Suggestion**

In conclusion, the results show that vocational students know how important it is to learn basic English grammar, especially verb tenses, in order to do well in school and at work. But they have a lot of problems in their existing learning environments, such as boring content, not enough examples from real life, and not enough access to digital media. Students want things that are interesting, relevant to their lives, and based

on technology that they can use on their own and when they want. Micro-learning represents a good answer that fits with what kids want to study and how they learn best. Micro-learning can help students stay interested and remember what they've learned by breaking up information into small, easy-to-understand pieces and putting it in real-life situations. So, it is strongly advised to make English instructional films based on micro-learning that are designed for vocational students and use 21st-century learning paradigms like Project-based Learning and Problem-based Learning.

The results imply that vocational high school English teachers should start using micro-learning-based videos in their lessons, especially for grammatical issues that are hard to understand, like verb tenses. These videos should be brief, full of pictures, and relevant to the subject matter so that students can watch them on their own and go back to them when they need to. Instructional designers and developers should make materials that are interesting, based on real-world job situations, and facilitate active learning. Schools should also help with teacher training programs that focus on how to use micro-learning and digital tools in everyday teaching. It is suggested that future studies create and test the usefulness of these kinds of movies in helping people improve their grammar and overall communication skills.

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