



# Micro Learning Media for Teaching English at Junior High School Students

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## ABSTRAK

Kurangnya minat siswa dalam belajar bahasa Inggris di SMP cenderung disebabkan oleh kurangnya ingatan terhadap materi yang dijelaskan. Pembelajaran mikro adalah aktivitas kecil yang dilakukan guru dan siswa di dalam kelas, untuk membantu daya ingat siswa yang pendek. Artinya guru perlu menyediakan materi pembelajaran berukuran kecil untuk membantu siswa mempertahankan ingatannya. Berdasarkan fenomena tersebut pengembangan materi video dengan menggunakan konsep *microlearning* sangat diperlukan. Tujuan dari penelitian ini adalah untuk mengembangkan media pembelajaran mikro untuk pengajaran bahasa Inggris pada siswa SMP. Video pembelajaran mikro yang dikembangkan dalam penelitian ini dipadukan dengan tiga model pembelajaran yaitu; pembelajaran berbasis masalah, pembelajaran berbasis proyek, dan pembelajaran berbasis penemuan. Keefektifan materi video yang dikembangkan untuk pelajar di sekolah menengah pertama dievaluasi berdasarkan kriteria materi bahasa Inggris yang baik seperti yang ditunjukkan oleh rumus. Selain itu, checklist tersebut terdiri dari 5 skala penilaian yaitu; 5 mewakili sangat baik, 4 mewakili baik, 3 mewakili rata-rata, 2 mewakili di bawah rata-rata, dan 1 mewakili buruk. Hasil penelitian menunjukkan bahwa kualitas materi video pembelajaran mikro yang diterapkan di SMP yang dikembangkan adalah baik. Oleh karena itu, materi video berbasis pembelajaran mikro baik untuk membantu siswa SMP dalam mempertahankan ingatan mereka dalam belajar bahasa Inggris.

## ABSTRACT

The students' lacked of interest in learning English at Junior High School tended to cause of having short memory on the material being explained. Micro-learning is a tiny activity by teachers and learners in the classroom, to help the students' short memory. This means that teachers need to provide a bit-sized learning material to help students to maintain their memories. Based on the phenomena developing video materials using the micro-learning concept is badly needed. The aim of this study is to develop micro learning media for teaching English at junior high school students. The micro-learning video developed in this research are combined with three teaching model namely; problem-based learning, project-based learning and discovery-based learning. The effectiveness of the developed video materials for the learners at junior high school was evaluated using criteria of a good English material suggested by the formula. Moreover, the checklist consisted 5 scales of scoring they are; 5 represents excellent, 4 represents good, 3 represents average, 2 represents below average, and 1 represents poor. The result showed that the quality of the developed micro-learning-based video materials implemented at junior high school was good. Thus, the micro-learning based video materials were good to help the students at junior high school to sustain their memories in learning English.

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## 1. INTRODUCTION

In the increasingly advanced digital era, teachers must continue to hone their skills and knowledge to remain relevant and compete in a changing world. Advances in technology, particularly in telecommunications and computing, have resulted in significant improvements in accessibility. With affordable mobile, tablet and computer devices and fast internet connections, individuals can communicate and access information on social media through computer applications (Hikmah, 2019; Leliana et al., 2021). The next effect is the social addiction that arises from using these applications. This social addiction also arises among students. The result of this social addiction for students is that student retention decreases, students' concentration in learning becomes weak, and the ability to understand material becomes unstable (Ghasia & Rutatola, 2021; Morrar et al., 2017). Previous study state this situation was predicted more than 10 years ago (Ratnaya, 2011). The symptoms of social addiction can get worse over time. This social addiction reduces awareness and increases emotional capacity (Leung, 2014; Sriwilai & Charoensukmongkol, 2016). Even individuals who are addicted to playing social games have the view that playing social games can improve self-concept and self-efficacy, gain a sense of belonging to a community and distract them from life's challenges (Kalhour & Ng, 2016; Sriwilai & Charoensukmongkol, 2016).

The ability of modern students in social media is very high. Modern students have a good level of technological understanding and are fast in mastering electronic devices, skilled in using applications and social media platforms. Modern students often have high creativity in creating social media content such as photos, videos and interesting posts. For them cell phones are more intended as a medium of entertainment (Lampropoulos et al., 2019; Lepp et al., 2015). They can use various features and filters to beautify their content. Social media allows modern students to communicate digitally with other people, including peers, family members, or specific communities. They can use text messages, comments, or share stories to interact. However, it is important to note that modern students still need guidance and assistance from adults in using social media positively and responsibly. Parents and educators need to be actively involved in teaching them about online ethics, digital self-awareness, and promoting safe and healthy behavior in social media use. Situations like this require teachers to adjust their learning methods according to the abilities of modern students, namely the learning process via mobile phones. Learning via cell phones or computers facilitates students to learn from various places and at different times (Agus Wirawan & Ratnaya, 2011; Zhao et al., 2010).

This kind of method is often called microlearning. Microlearning refers to learning strategies that present information in the form of small, easily digestible units, usually in the form of modules or short lessons. This approach focuses on delivering concentrated and structured content on a regular basis, with the aim of increasing knowledge retention and application in the short term. One of the main advantages of microlearning is its flexibility (Newnham & Dutt, 2023; Yusnidar, Y., & Syahri, 2022). Compared to traditional learning approaches that require students to spend a long time in one learning session, microlearning allows individuals to learn in a short time and according to their schedule. This enables effective learning among busy individuals with limited time, such as full-time working professionals. In addition, microlearning is also suitable for independent learning and increases knowledge retention and understanding. Short and structured learning modules allow individuals to choose the topics they want to study according to their needs and interests. Microlearning can also help with attention and concentration problems. Microlearning is considered quite effective in learning (Carter & Youssef-Morgan, 2022; Nowak et al., 2023). In traditional learning approaches that involve long learning sessions, participants often lose focus and have difficulty sustaining their attention. Microlearning can improve reasoning skills, an interesting way of learning and help understand content.

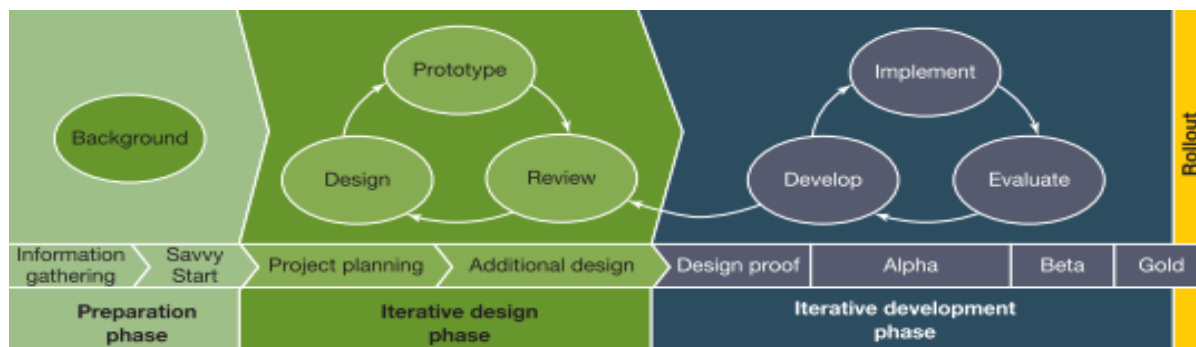
Education and learning continue to develop along with advances in technology. One of the growing trends in learning is microlearning. Microlearning is a learning process that focuses on delivering information in small pieces that can be consumed quickly and easily to address the various needs of students. It is a way of teaching and delivering learning content in a small, specific volume. This approach has become very popular because of its ability to facilitate efficient, flexible, and personalized learning. As the pace of technological change increases, a large number of learners rely on microlearning to seek real-time knowledge for adoption. To keep content concise, instructional design efforts must focus on achieving maximum output. Microlearning involves two stages, namely content creation or instructional design and implementation of the content using advanced technology. Content is shortened in small modules with duration from 5 minutes to 15 minutes. Microlearning objects have a simple and easy structure (Dolasinski & Reynolds, 2023; Newnham & Dutt, 2023; Romero-Rodríguez et al., 2023). Formats range from behavior modification systems and applications to acquire rote knowledge, to lessons with short tutorials, animations, infographics, and simple diagrammatic representations, to small AI-based language assistance systems for learning purposes.

In microlearning, learning material is presented in the form of short and focused learning units. Typically, this content is in the form of short videos, infographics, or interactive modules that can be accessed via digital devices such as smartphones or tablets. This approach aims to convey information directly and without interruption, so students can quickly gain an understanding of the topic being studied, making lessons easier and more enjoyable (Dyjur & Li, 2015; Kossen & Ooi, 2021). Microlearning has a flexible nature. Students can access learning materials anytime and anywhere according to their needs. This enables self-directed learning and allows students to choose the most suitable time and place to study. For example, students can access learning videos while they are on their way home, or study interactive modules during breaks at school. Thus, microlearning takes advantage of free time and allows learning to be integrated into students' daily lives.

In addition to flexibility, microlearning is also effective in maximizing information retention. Research shows that learning in chunks improves students' ability to better understand and remember information. Because material is presented in focused and structured sections, students are able to process information incrementally and build knowledge incrementally. This helps avoid the saturation and overload of information that often occurs in more traditional learning. The personalized approach is also a strength of microlearning. In microlearning, students can choose learning materials that are most relevant to their needs and interests. For example, if a student wants to study a particular math topic, they can choose a learning unit that focuses on that topic. In this way, microlearning enables personalized learning, which can increase student motivation and engagement in the learning process. The aim of this study is to develop micro learning media for teaching English at junior high school students.

## 2. METHOD

This study was conducted by using SAM (Allen & Sites, 2012). The preparation phase, Iterative design phase, and Iterative development phase research aim to produce the product as an educational model. In this case, the researcher created the product as microlearning-based English video for 8th-grade students in junior high school. The subject of this study consisted of 33 students. The research procedure in this study used SAM model. This model has three phases: preparation, iterative design, and iterative development. The researcher used the three phases because this model is more efficient and can revise effectively. The procedure is presented in Figure 1.



**Figure 1.** Successive Approximation Model (SAM) for Instructional Design and Development

In the preparation phase, there were two activities that the researcher was conducted. In the first activity, the researcher collected some information by observing the lesson plan and interviewing the teachers and learners in the classroom's teaching and learning process. In addition, by doing those activities, the researcher knows the students' needs and could design for the next phase. In the iterative design phase, the researcher conducted project planning and additional design. The researcher planned the project after finding problems in the previous phase. The researcher designed an English video material project based on observation of the classroom, interviewed the English teacher and the students, and observed the lesson plan done in the first phase. Moreover, before the researcher designed the English video material, the researcher created the blueprint and the script.

The research instruments used in this study to collect the data were observation, interview guides for the teacher, interview guides for the students, and checklist expert judges. The research data were analyzed by descriptive qualitative and descriptive quantitative. Descriptive quantitative used the checklist consisted 5 scales of scoring they are; 5 represents excellent, 4 represents good, 3 represents average, 2 represents below average, and 1 represents poor.

## 3. RESULT AND DISCUSSION

### Result

The researcher designed three English video materials based on interview the English teachers and the learners and also observed the lesson plan done in the first phase. The researcher created three English video materials based on the observation that the learners were difficult to understand the tenses and according the syllabus the learners learned three tenses namely; simple past tense, present continuous tense and simple present tense in eight grade students. Moreover, before the researcher designed three of English video materials, the researcher created the blueprint sand the scripts. Therefore, the blueprints consisted of three materials and methods developed. Materials and methods used to develop learning videos. The first material was designed with the concept of micro-learning and combined with syntax of problem-based learning. The second material was designed with the concept of micro-learning and combined with syntax of project-based learning based on syntax. The third material was designed with the concept of micro-learning and combined with syntax of discovery-based learning based the syntax. The researcher discussed and reviewed the prototype to expert as additional designs and the researcher revised the prototype based on the reviewed by expert.

In developing process, the researcher developed three contents of three English video materials. In three English video, the researcher used the concept of micro-learning which was every video divided into some activities. In the first video, the researcher used the material of simple past tense and the first video divided into five activities namely; pre-activity, whilst activity 1, whilst activity 2, and whilst activity 3 and the last was post activity in the video. The activity can be seen table on Table 1.

**Table 1. The Content of First Video Activity**

No	Activities	Explanation
1	Pre-Activity	The presenter greeted the learners and gave some questions and also showed the dialogue to the learners related with the topic about simple past tense.
2	Whilst Activity 1	The presenter asked to the learners about what the topic that the learners learned.
3	Whilst Activity 2	The presenter showed some picture to the learners and asked to the learners to match the pictures with some sentences.
4	Whilst Activity 3	The presenter discussed about the pictures and also the sentences.
5	Post-Activity	The presenters asked to the learners about discussion previously and the presenter explained about simple past tense materials.
		The presenter gave the task for the learners

Based on [Table 1](#), the researcher used micro-learning concept which was the researcher divided the video into five small video and combined with syntax of project based-learning in the first video.

In the second video, the researcher used the material of present continuous tense and the researcher divided the second video into five activities namely; pre-activity, whilst activity 1, whilst activity 2, and whilst activity 3 and the last was post activity in the video. In third video, the researcher used the material simple present tense and the second video divided into five activities namely; pre-activity, whilst activity 1, whilst activity 2, and whilst activity 3 and the last was post activity in the video. The activity can be seen table on [Table 2](#).

**Table 2. The Content of Second Video Activity**

No	Activities	Explanation
1	Pre-Activity	The presenter greeted the learners and showed the conversation to the learners
2	Whilst Activity 1	The presenter asked about the learners' feeling after watching the conversation and the presenter asked the learners to find the group. In addition, the presenter gave the question to the learners
3	Whilst Activity 2	The presenter discussed the questions and explained the topic about present continuous tense.
4	Whilst Activity 3	The presenters gave the conclusion about the explanation of present continuous tense.
5	Post-Activity	The presenter gave the task for the learners

Based on [Table 2](#), the researcher used micro-learning concept which was the researcher divided the video into five small video and combined with syntax of problem based-learning in the first video.

In the third video, the researcher used the material of simple present tense and the researcher divided the third video into five activities namely; pre-activity, whilst activity 1, whilst activity 2, and whilst activity 3 and the last was post activity in the video. In third video, the researcher used the material simple present tense and the third video divided into five activities namely; pre-activity, whilst activity 1, whilst activity 2, and whilst activity 3 and the last was post activity in the video. The activity can be seen table on [Table 3](#).

**Table 3. The Content of Third Video Activity**

No	Activities	Explanation
1	Pre-Activity	The presenter greeted the learners and showed the conversation to the learners.
2	Whilst Activity 1	The presenter asked to identify about time signals that used in the conversation.
3	Whilst Activity 2	The presenter discussed about time signals that used in the conversation.
4	Whilst Activity 3	The presenters explained the materials about simple present tense.
5	Post-Activity	The presenter gave the task for the learners

Based on [Table 3](#), the researcher used micro-learning concept which was the researcher divided the video into five small video and combined with syntax of discovery based-learning in the third video.

In addition, those of three English videos materials used the concept of micro-learning which was those videos divided into some activities. After developing the prototype, the researcher implemented the prototype in learning process and it was found that the learners were enthusiastic and gave a good response. After implementing of the prototype, the learners gave some input to make the voice of the presenter's became more clearly. The researcher evaluated and reviewed about some input that already give and until the prototype became a good and became more clearly. In addition, in iterative development phase was flexible and did not waste much time to revise



the three English video materials and until the product was good quality. The resulting product is evaluated using a scale of 5. The results of data analysis stated that the average value was 46. This average value was consulted with the category criteria. Based on this criterion, the products produced in this study were in the good category.

## Discussion

In iterative development phase, the researcher developed the prototype which was three English video materials. In developing process, the researcher developed the content of three English video materials. In three English video, the researcher used micro-learning concept which was every video divided into some activities (Ouyang & Scharber, 2017; Priyastuti, M. T., 2020). In addition, those of three English videos materials used the concept of micro-learning which was those videos divided into some activities. After developing the prototype, the researcher implemented the prototype in learning process and it was found that the learners were enthusiastic and gave a good response. After implementing of the prototype, the learners gave some input to make the voice of the presenter's became more clearly (Heru, 2018; Suprianti, 2020). At the end, the researcher tried to evaluate again the prototype became a good and became more clearly.

In developing the micro-learning-based video material and the researcher create three micro-learning English video materials. The researcher used three materials and combined three syntax namely; simple past tense combined project-based learning, present continuous tense combined problem-based learning and simple present tense combined discovery-based learning (Fadlilah et al., 2020; Irving, 2006). Moreover, there were three phases conducted namely; preparation phase, iterative design phase and Iterative development phase. In preparation phase, the researcher conducted the observation and the interview with English teachers and also the learners based on the rill conditions in the field (Kilis & Yildirim, 2019; Sukerti & Susana, 2019).

Based on the research results, the advantages and disadvantages of microlearning can also be found. Some of the advantages of microlearning are: 1). Microlearning makes efficient use of time as learning material is presented in small chunks that can be accessed and consumed quickly. Students can learn learning content in a short time, without having to spend a long time on the learning process. 2). By focusing learning material in short learning units, students can gain a clear, focused understanding of the topic being studied. This helps students to avoid the saturation and overload of information that often occurs in more traditional learning. 3). Microlearning can be accessed through digital devices such as smartphones or tablets, which allows students to study anytime and anywhere according to their needs. This provides flexibility in studying learning materials, especially in remote or self-learning situations. 4). Microlearning allows students to choose the unit of study that is most relevant to their needs and interests (Nowak et al., 2023; Yusnidar, Y., & Syahri, 2022). Students can choose the material they want to study, increasing motivation and involvement in the learning process.

In addition to the advantages above, microlearning has weaknesses, namely: 1). Limitations in deep understanding: Due to its focused nature on small chunks, microlearning may not be suitable for learning complex concepts or topics that require deep understanding. More comprehensive and structured learning may be required to achieve a deeper understanding. 2). Lack of direct interaction: Microlearning tends to be lacking in terms of direct interaction with teachers or classmates. Direct interaction can provide opportunities for discussion, asking questions, and getting direct feedback, which is important in deepening student understanding. 3). Possible lack of monitoring and assessment: In microlearning, it is difficult to monitor and assess students' understanding directly. Teachers may need to find alternative ways to check student understanding, such as through tests or structured assignments. 4). Challenges in self-motivation: Microlearning requires high self-discipline and self-motivation from students (Hasanah & Supriansyah, 2022; Priyastuti, M. T., 2020). Some students may face difficulties in motivating themselves to study independently and stay engaged in learning.

It is important to consider both the strengths and weaknesses of microlearning when designing and implementing learning strategies. While there are many advantages to microlearning, it is not a solution that can replace a more comprehensive learning approach. Microlearning is more suitable as a complement to a broader learning process. More complex concepts or topics that require deep understanding still require time and space to be explained in depth and detail. In addition, direct interaction between teachers and students is also important in providing a more comprehensive and in-depth understanding. Combining different learning approaches and selecting the most appropriate approach for specific learning content is the key to achieving an effective and holistic learning experience.

## 4. CONCLUSION

The use of attractive visual and audio media can help increase student engagement. Interactivity is also an important element in microlearning, which can include interactive questions, short exercises or reflection assignments. Based on the results of applying the prototype to the learning process, it was found that students were enthusiastic and gave good responses. After implementing the prototype, students provide input so that the presenter's voice becomes clearer. Researchers evaluate and review several inputs that have been given until the

prototype becomes better and clearer. In addition, the iterative development stage is flexible and does not waste a lot of time to revise the three English video materials until the product is of good quality. Based on these criteria, the products produced in this research are in the good category.

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