

# Development Of Social Media-Based One-Stop Microlearning Videos

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## Abstract

This research is motivated by the fact that the learning process at Taman Siswa Junior High School has not yet utilized technology-based media in teaching. The findings from observations reveal that the learning media currently used do not meet the needs of Generation Z. The purpose of this research is to produce instructional video media to facilitate the learning process of seventh-grade students at Taman Siswa Junior High School on Procedure Texts. This type of research is development research or research and development (R&D) using the Sadiman development model. The researcher chose the Sadiman model because it is designed to develop learning media in the form of audio, video, and film. The steps taken include (1) Needs analysis, (2) Formulating objectives, (3) Formulating materials, (4) Developing measurement tools, (5) Scriptwriting, (6) Media production, (7) Validation, (8) Revision, and (9) Final product. The sample consists of 30 seventh-grade students at Taman Siswa Junior High School. The research results show that the developed media are valid, feasible, and able to provide satisfaction to seventh-grade students at Taman Siswa Junior High School regarding procedure texts.

**Keywords:** One-Stop Learning, Micro Learning, Procedure Text

## 1. Introduction

In this digital era, technology is advancing very rapidly. This is due to the world entering Industry 5.0, where technology becomes a tool for humans. As the world undergoes this digital transformation, numerous changes follow, impacting various aspects of life, including education. The advancement of technology in the educational sector significantly affects the learning process. There is an increasing demand to improve the quality of education in Indonesia so that it can keep pace with ongoing developments (Ramadani et al., 2023). It can be said that this digital era has become integrated with the current societal conditions, particularly in education. This situation makes it easier, faster, and offers greater opportunities for people to access various information to meet their needs. This is reinforced by the opinion of Miristianti et al., (2024) that technology helps society create innovations that enhance daily life and create favorable conditions for performing energy-intensive tasks.

The high intensity of technology use, especially on social media, can be integrated into learning for Generation Z, where the use of social media and learning must be designed as a unified whole. Thus, the use of social media that leverages technology can become a learning medium for Generation Z in their daily lives (Ramdani et al., 2021). This is one way educators can optimize social media as an engaging learning medium to increase students' interest and understanding of the learning material, demonstrating that social media, which is so close to modern life, has great potential to be used as an alternative and entertaining educational platform for the current generation (Wulandari & Sari, 2022). This is supported by Budiman (2022), who argues that the use of social media as a learning medium positively influences the

teaching and learning process both inside and outside the classroom. Furthermore, the presence of various application platforms that allow for the creation of interesting videos increasingly dominates smartphone usage in this digital era, evidenced by the abundance of video content spread on social media.

One form of media usage that supports the utilization of technology and makes learning innovative and impactful on student learning outcomes is the use of TikTok as a learning tool. TikTok is a social media and video application from China. The use of the TikTok application can be an alternative that supports the learning process because TikTok has a lot of educational content. TikTok was the most downloaded application in the first quarter (Q1) of 2018 with a total of 45.8 million downloads (Mana, 2021). This indicates that people are more likely to use TikTok for searching for different types of information.

TikTok offers a variety of videos that can be used for educational purposes. Mana (2021) states that TikTok can be used as an interactive learning medium when teaching Indonesian. TikTok offers users the freedom to upload and download videos. Therefore, TikTok content is very diverse, including content that provides information in the form of steps for making or completing certain tasks, packaged in short videos. TikTok is one of the media that can present content in the form of short videos that can encourage students to learn the material creatively on their own (Kelas & Man, 2022), which is an advantage compared to YouTube, which offers long-duration videos that sometimes bore students when listening to the material. Creatively designed products not only encourage students to listen to the material but also provide them with useful ideas and information.

From the results of the interviews conducted by the researcher on the learning process at Taman Siswa Junior High School, it was found that technology-based media is still not being utilized in teaching, and the learning media used do not meet the needs of Generation Z. Furthermore, the learning process has never used TikTok media. In this activity, instructional video media can be used to address the issue of limited learning media by developing media that includes images, motion, text, and audio, which have not been used before. This aligns with Sitorus et al. (2022), who state that TikTok can be used as a learning tool for teaching the Indonesian language. Considering the four factors in its application, namely writing, reading, listening, and speaking, these elements become the main components of the Indonesian language that can be applied more interactively when using TikTok in the learning process. Currently, this is supported by the abundance of interesting content that can be linked to learning (Rahmana et al., 2022). Students can easily access interesting content through social media applications.

Using TikTok as a learning medium gives students the freedom to choose the videos presented. Students have easy access to material on TikTok, with all materials provided in video format. TikTok presents videos with short durations, so using TikTok for microlearning can be employed in creating educational content to solve the problem of long-duration educational videos (Marti & Tuti Ariani, 2023). Students can easily access the material anytime, anywhere, and select materials according to their interests and needs. Students often struggle to determine the right time to study, especially when deciding which material to be tested using traditional methods. With the TikTok platform as a learning medium, it can be used as an effective tool for microlearning, contextual learning, and flexible study time regulations (Belakang, 2020).

In line with Merdekawati et al. (2014), who state that media types will continue to evolve, especially in the current educational environment, particularly in the form of exercises/tutorials/simulations/games, educators need multimedia that encompasses all four models together, which will simplify everything for students. Deep learning using a single medium, or what can be called the unique learning concept of One-Stop Learning, also allows students to review material if they have not fully understood it with the one-stop learning (OSL) system. This system gives students the freedom to choose the material they want to learn. OSL supports students in independent learning and allows them to decide when to start learning as they wish. OSL is developed to increase students' willingness to learn through asynchronous e-learning methods, or self-directed learning. This requires engaging, interactive, and entertaining educational content that can be accessed anytime, anywhere in an adaptive and flexible manner. Students can start and finish independent learning anytime within a specified time frame.

According to Putu et al. (2014), the use of media in learning the Indonesian language will provide direct experience to students because they gain more experience through the use of instructional videos, thereby enhancing their understanding of the Indonesian language. On the other hand, procedural text material requires visuals to see the process. Procedural text is a text that explains how to do something accurately and systematically. For someone using an object or performing an activity that is not yet clear, a high level of understanding of a specific text is necessary. Therefore, to keep students attentive to the material they are learning, media that can explain procedures clearly and concisely is needed. Using the TikTok application allows teachers to create video content discussing complex procedural texts with engaging backgrounds worth discussing and accompanied by calming music, enabling students to listen to the discussion attentively (Pratiwi & Apriyani, 2022).

Similar previous research conducted by Durrotunnisa & Nur (2020) states that one solution to support the learning process is the presence of social media applications. This is further supported by Hutamy et al. (2021), who found that 55.36% of the community stated that TikTok could be used as an educational medium that aligns with the meaning of educational material. Using the TikTok application as a learning media solution can make students not only waste time on social media but also gain knowledge from their social media use because it is used as a learning medium, making it easier to understand the material presented. Based on the explanations provided, the research on the Development of Social Media-Based One-Stop Microlearning Videos can be utilized as an excellent learning medium for Indonesian language subjects with the hope of providing deeper insights into the appropriate media selection for procedural text materials applied in everyday life.

## **2. Method**

This research uses the research and development (R&D) model. The development of this media requires a development model as a basic reference. The development follows the Sadiman model (2012), which consists of the following steps: (1) Needs analysis, (2) Formulating objectives, (3) Formulating materials, (4) Developing measurement tools, (5) Scriptwriting, (6) Media production, (7) Validation, (8) Revision, and (9) Final product.

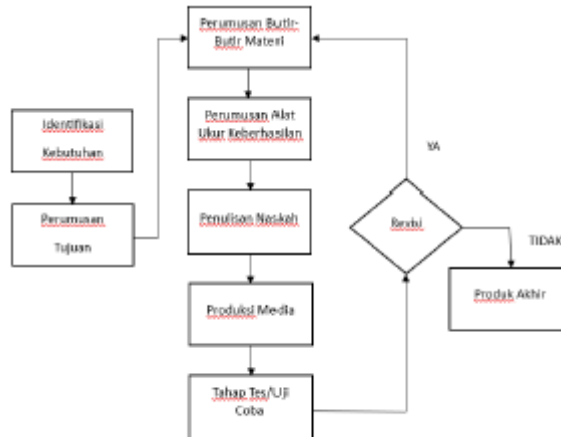


Figure 1. Sadiman's Development Model (2010)

### Needs Identification Stage

Sadiman (2012) states that needs are the motives possessed by individuals concerning the abilities, attitudes, and skills of learners. This stage is the initial step in the research process, where a needs assessment is conducted through long-term (offline) and short-term (online) observations in the target area. From the observations conducted by the researcher at Taman Siswa Junior High School, several issues were identified:

1. Lack of variety and creativity in selecting learning media. In the learning activities, teachers only use textbooks and student worksheets (LKS).
2. The school has adequate learning facilities, such as projectors, which can be used in the learning process but are underutilized.
3. Students tend to be less responsive when given written assignments.
4. The school has never used the TikTok platform for delivering learning content that includes explanations accompanied by visuals.

Given the issues found in the field, the developed instructional videos are expected to help students understand procedural texts in their daily lives.

Prerequisites for grade VII junior high school students to access TikTok:

Table 1. User Skills

USER SKILLS	
<b>Material</b>	Students must first understand the procedural text material.
<b>Technical</b>	Students must have basic skills in using digital devices such

	as laptops, smartphones, or tablets, and understand how to access and use the TikTok application.
<b>Digital</b>	Students must have basic internet skills and access to a stable internet connection.
<b>Communication</b>	Students must have the ability to communicate effectively through social media, such as sending messages, sharing content, and interacting with other users.
<b>Creativity</b>	Students must have the ability to create and innovate in making engaging and relevant video content related to the lesson material.
<b>Analysis</b>	Students must have the ability to analyze and understand content obtained from TikTok, as well as the ability to evaluate the information received.
<b>Ethics</b>	Students must have the ability to use TikTok ethically and responsibly, such as not sharing content that does not meet ethical standards and not disturbing other users.

### Objective Formulation Stage

At this second stage, objectives are formulated for the Indonesian language subject on procedural text material. According to Sadiman (2012), in the goal-setting phase, students can communicate where they are going, why they should go there, and how they will know when they have reached the desired goal. (Appendix 1)

### Formulation of Material Points

Formulating material involves outlining the learning materials that need to be studied or the learning experiences that students must engage in to achieve the learning objectives. In this stage, the material points that are researched and become the content of the instructional video are aligned with the learning objectives found in the procedural text material for 7th grade. (Appendix 2)

### Formulation of Measurement Tools

In this stage, the researcher uses several types of questionnaires, including expert validation questionnaires and student response questionnaires. These questionnaires are used by the researcher to collect data in the form of scores, feedback, and suggestions related to the validation of the developed product and the feasibility of the media. (Appendix)

### Media Script Writing

At this stage, the media script serves as a guide during the production or development process. In this development, the script contains instructions that provide information used as a reference in creating the media. The script design involves formulating the media idea and title, determining the objectives, composing the script, and deciding on the media format.

### Media Production

The Media Production Phase is the stage where the previously written script is applied to develop the media.

a. Media Specifications : The media to be created should align with the chosen theme to attract students' interest. The product developed in this research is a video for Indonesian

language learning on procedural text material using the TikTok platform. The production of the instructional video involves two important steps:

1. Visual production, which involves capturing motion pictures.
2. Audio production, which involves recording sound for the developed media.

b. Content : The content developed for the application aligns with the needs analysis based on competency standards, basic competencies, and learning objectives tailored to the needs of students in the Indonesian language subject. The material to be included in the application is procedural text material.

### **Testing/Trial Stage**

Evaluation and measurement are essential in research activities. The validation program at the testing/trial stage aims to check the effectiveness of the media used for teaching and the validity of the media to be launched. This stage uses questionnaires to collect data to determine the program's feasibility in the learning process. Validity tests are conducted by subject matter experts, media experts, and students (audience).

### **Revision**

This stage is the final step in creating instructional video media. Its purpose is to ensure the quality of the produced product by following the development model (Sadiman, 2012). Developers can improve the product based on suggestions from subject matter experts and media experts. If the product has shortcomings that need correction, they are addressed before the final product is ready for use. If there are no improvements needed, the product is ready for use in the learning process.

### **Final Product**

The final product is the last stage of the Sadiman development model. After completing all stages, the media is ready for use in the learning process.

## **3. Results and Discussion**

### **3.1 Result**

The instructional video media, serving as foundational knowledge for procedural text material, is created based on scripts and videos recorded using a smartphone and edited with the VN and Capcut applications, resulting in videos lasting 30 seconds to 1 minute each. After validation by subject matter experts and media experts, the developed instructional videos are deemed feasible and then tested on students. Here is the developed instructional video's product display.



Figure 2. Tiktok Profile

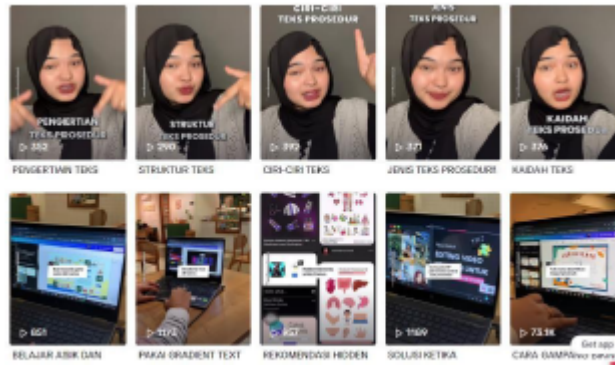


Figure 3. Tiktok Content Video

The assessment of the questionnaire answers given to material experts, media experts and students has a value category on the questionnaire with the following feasibility category according to Arikunto:

Table 2. Scale

Criteria	Score
Strongly Agree	4
Agree	3
Disagree	2
Very Bad	1

In making a conclusion to determine the video is worthy if it has met the eligibility criteria. This criterion is determined as a guideline for assessing the eligibility of the product to be used. The validity criteria are described as follows

Table 3. Eligibility Level Criteria according to Arikunto

Percentage	Description
81%-100%	Very Eligible
61%-80%	Eligible
41%- 60%	Quite Eligible
21%-40%	Not Eligible
< 21%	Very Eligible

Source: (Arikunto, 2010)

Analysis of Student Assessment Result Data. Student assessment result data for product satisfaction was obtained using the Guttman scale.

**Table 4. Guttman Scale**

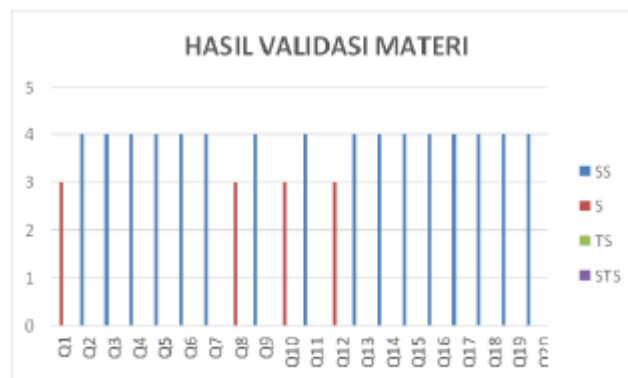
Score	Criteria
1	Agree/Yes
0	Disagree/No

**Table 5. Student Assessment Level Criteria**

Percentage	Criteria
$X > 75\%$	Satisfied
$X < 75\%$	Not Satisfied

In this study, several types of questionnaires were used, namely expert validation questionnaires, and student response questionnaires. The questionnaire was used by researchers to collect data in the form of assessment scores, criticisms and suggestions related to the validation of the products that had been made. After the data was obtained, data analysis techniques were carried out. Data analysis was carried out using the Guttman scale and the Likert scale.

**Expert validation**



**Figure 4. Diagram of material expert results**

Based on the questionnaire results from subject matter experts, 80% responded with "Strongly Agree," and 20% responded with "Agree." A total of 18 items fell into the valid category based on the answer scores, while 2 items were deemed moderately valid. Therefore, the instructional video media for the Indonesian language subject has met the necessary criteria, indicating it is both valid and suitable for use in the learning process.

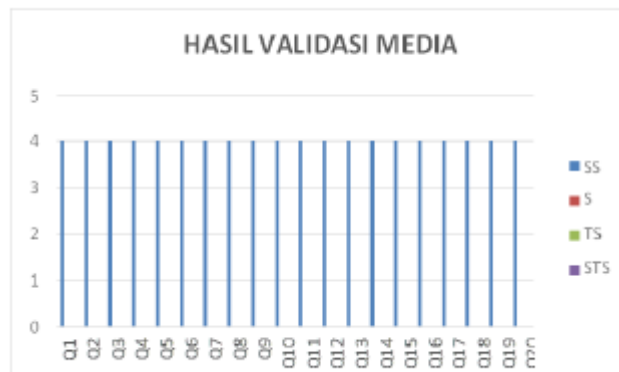


Figure 5. Media expert results diagram

From the media expert validation responses, 100% of the results showed "Strongly Agree" responses across 20 items. Thus, the developed instructional video is deemed valid and highly suitable for educational use.

**Students**

The trial was conducted with 30 seventh-grade students from SMP Taman Siswa. The trial involved three approaches: one-on-one (individual), small group, and large group approaches to gauge student satisfaction with the developed product.

In the one-on-one test stage, which aimed to observe student reactions to the instructional video media, three students were involved: two below-average and one above-average in ability. The individual trial results showed an 89% satisfaction rate. This is evidenced by Figure 6, which shows that the majority of respondents rated "Yes" with relatively few "No" responses. This indicates that the instructional video media received positive feedback from students and meets the required criteria (81%-100%) to be considered valid and suitable for use in the learning process.

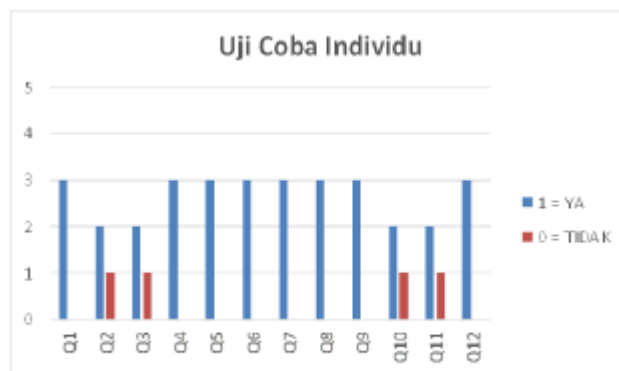


Figure 6. Individual Trial Results Diagram

At the individual trial stage, the researcher took a sample of 3 students. At this stage, it showed a percentage level of 89%. This is evidenced by Figure 6 which shows that the diagram of the results of the individual trial, respondents gave more "Yes" assessments but there were relatively small "No" assessments. This proves that video learning media received positive

responses from students and has met the required criteria, namely valid and feasible (81% - 100%) to be used in the learning process.

In the next test stage, the small group test focuses on student reactions when given instructional video media. This trial was conducted with 7 students of varying levels of ability—high, medium, and low. Additionally, this group included both male and female students. The following is the presentation of the small group test data:

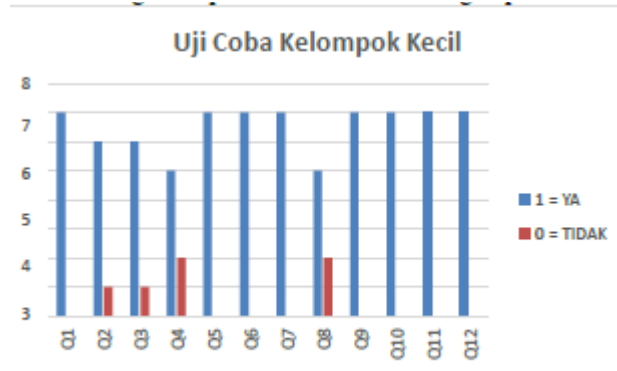


Figure 7. Small Group Trial Results Diagram

In this small group trial phase, the researcher sampled 7 students. This phase showed a percentage level of 93%. As seen in Figure 7, which illustrates the results of the trial, respondents mostly rated 'Yes,' with relatively few 'No' responses. This demonstrates that the video learning media received positive feedback from the students, and according to the established criteria, this learning media is valid and highly suitable for use."

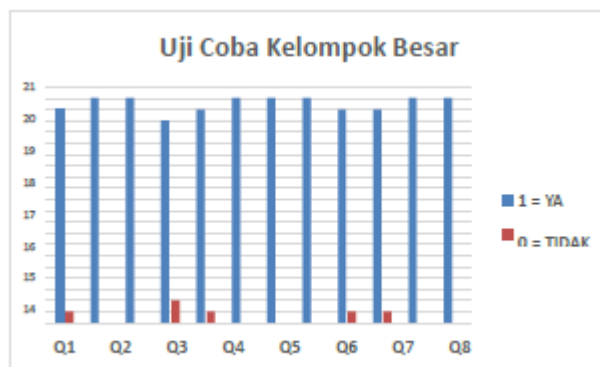


Figure 8. Large Group Trial Results Diagram

In the large group trial phase, the researcher sampled 20 students. This phase showed a percentage level of 98%. As seen in Figure 8, which illustrates the results of the trial, most respondents rated 'Yes.' There were also a few respondents who gave a 'No' rating, but in relatively small numbers. This demonstrates that the video learning media received positive feedback from the students, and according to the established criteria, this learning media is valid and highly suitable for use, with final revisions based on student suggestions and feedback.

**Table 5. Results of the percentage of the feasibility test of Material Experts and Media Experts**

Respondent	Percentage	Description
Material Expert	80%	Eligible
Media Expert	100%	Very Eligible

**Table 6. Results of the percentage of student eligibility tests**

Assessment Aspect	Percentage	Description
Individual Trial	89%	Very Feasible
Small Group Trial	93%	Very Feasible
Large Group Trial	98%	Very Feasible

Therefore, the results of testing with 30 seventh-grade students—through individual trials with 3 students, small group trials with 7 students, and large group trials with 20 students—yielded a recapitulatory score of 93%. Based on the data processing results above, it can be concluded that the video learning media for procedural text material in the Indonesian language subject for seventh-grade junior high school students is valid and suitable for use. Additionally, student feedback shows a positive response, indicating that this media can also provide student satisfaction.

### 3.2 Discussion

The result of this development is a video containing the material "Procedural Text" in the Indonesian Language subject with the research subjects being 30 grade VII students at Taman Siswa Middle School.



Figure 9. Editing Process Flow

In the production process, video recordings were made using a phone's built-in camera. After recording, the videos were edited using VN to cut and merge the videos. Next, voice-over and background sound were added. The video was then further edited to include elements such as explanatory text, subtitles, images or videos, and other supporting elements. The standout feature of this media is that students can choose which video they want to study first, and explanations include voice-overs, images/videos, and subtitles. Additionally, there is a video example of procedural text implementation that is easy for students to follow. Media elements including text, images, video, and audio are used to enrich the material and help students understand illustrations of the content more concretely. This video can be accessed not only via a phone but also directly through a laptop/computer.

The product, validated by material experts, showed a validity percentage of 80%, indicating that the material developed is valid for use in teaching. This aligns with Purwanto & Risdianto (2022), who stated that media development must consider the validity of the material, as it affects student misconceptions. Valid materials will minimize student misconceptions, and the opposite is also true.

The results from media experts showed a validity percentage of 100%, indicating that the developed media is valid for use in teaching. This is consistent with Sitorus et al. (2022), who noted that TikTok can be an educational tool in teaching Indonesian. The role of electronics in education can enhance student learning outcomes. TikTok's media presentation considers voice intonation, color contrast, animation use, image suitability, and more.

Subsequently, the researcher conducted trials with students to gauge their responses and determine whether the learning media was well received. The trials were conducted in three stages: individual, small group, and large group. The individual trial helped the researcher understand individual responses to the product, the small group trial helped understand responses from a small group regarding the product's acceptance as a learning media, and the large group trial provided further insight into student responses and suggestions for the developed product.

In the individual trial, a validity percentage of 89% was obtained, indicating that the developed product is highly suitable. This aligns with Hutamy et al. (2021), who noted that individual trials must be valid. If an individual believes the product is valid, it is likely to be valid in small and large group trials.

The small group trial yielded a percentage of 93%, indicating that the product is highly suitable. This result is consistent with Hutamy et al. (2021), who found that video media is valid in small group trials. Technology in education can be seen in changes in teaching aids or media, becoming increasingly digital and reliant on the internet and software capabilities in personal computers or smartphones.

The large group trial resulted in a percentage of 98%, indicating that the product is highly suitable. This result is consistent with Hutamy et al. (2021), who found video media to be valid in large group trials. In response to technological advancements, educators are expected to be agents of change and not lag behind in technology.

Thus, testing with 30 seventh-grade students through individual trials with 3 students, small group trials with 7 students, and large group trials with 20 students resulted in a

recapitulatory score of 93%. According to the data processing results, it can be concluded that the video learning media for procedural text material in the Indonesian language subject for seventh-grade junior high school students is valid and highly suitable for use in the learning process. Additionally, student feedback shows a positive response, indicating that this media can also provide student satisfaction.

The advancement of technology has transformed various aspects of life, including education. Educators are expected to have creative and innovative learning skills. Technological advancements have led to many new innovations to support the learning process. The variety of learning media has made significant changes in education. It is only natural that education can leverage technology to facilitate learning activities (Widari et al., 2023).

The research data also show the application of constructivist theory, where knowledge and skills are acquired through interaction with the environment, with the video learning media serving as a tool in the classroom learning process. This is consistent with Rahmawati (2021), who stated that constructivism involves students actively forming or discovering and applying knowledge through various ways of meaning-making based on experience, revising when rules no longer apply, and improving problem-solving and critical thinking skills.

Similarly, Ramdani et al. (2021) agree that the high intensity of using this learning media can be integrated into learning for Generation Z, which must design the use of social media and learning as a unified whole. One lifestyle of Generation Z is to seek educational information quickly using smartphones, which includes accessing social media and utilizing it for learning materials, supported by abundant educational content.

Social media can be used for learning, as evidenced by the popularity of TikTok in 2020. This application can serve as an entertainment medium for creating and sharing videos among users, as TikTok is designed for creating and sharing video content (Warini et al., 2021). TikTok is an audio-video-based social media platform favored by Generation Z. TikTok's appeal lies in its engaging content and providing a platform for students to create videos according to their creativity, thus fostering their creativity.

Creating this educational video is assisted by available features and packaged effectively in short durations. Based on industry concepts, this aligns with Malamed (2015), who described short-duration learning, also known as microlearning, as a brief and informal learning experience originating from personal learning environments. Microlearning can be defined as a planned arrangement of short learning experiences designed to achieve further learning objectives. Fatirul Noor Achmad et al. (2022) describe microlearning as a method of delivering education in small units, usually allowing students to pace their learning according to their needs.

#### **4. Conclusion**

Based on the above discussion, the conclusion is that the one-stop microlearning video media for procedural text material has been successfully developed with high validity and is suitable for use in seventh-grade classroom learning at Taman Siswa Junior High School. The product has been validated by material experts (80%), media experts (100%), individual trials (89%), small group trials (93%), and large group trials (98%), with a recapitulatory score of 93%, indicating that it is valid and suitable for use in the learning process. Additionally, student

feedback shows a positive response, suggesting that this media also provides student satisfaction. It is recommended that Indonesian language teachers apply this one-stop microlearning video media based on social media, which has been deemed suitable for use in the learning process.

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