



# THE EFFECT OF TIKTOK-BASED NANO LEARNING ON STUDENT'S ENGLISH SPEAKING SKILLS

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## Abstract

This study aims to examine the effect of TikTok-based Nano Learning on students' English speaking skills, particularly on asking and giving opinions. The scope of the study includes improving students' speaking ability scores through short video-based social media popular on the Kampung Inggris TikTok account. There are two groups in this study: the experimental class that received Nano Learning treatment using TikTok and the control class that followed conventional learning and then used a quasi-experimental method with a post-test design only. There were 40 students in the sample, 20 students in each of the experimental and control classes. From the two groups, it was found that statistical analysis showed significant differences in student learning outcomes, with the experimental class showing the greatest improvement. According to statistics, TikTok media can improve students' speaking skill ratings by being organized to present short, relevant, and interesting content. The conclusion of this study confirms that the TikTok-based Nano Learning method is effective in improving students' speaking skill scores. The implications of these results encourage the development of digital media-based learning strategies that are appropriate to the characteristics and learning needs of the current generation, while also contributing to innovation in the field of English language education.

**Keywords:** Nano Learning; TikTok; Speaking Skills

## 1. Introduction

The development of human civilization and science will continue to evolve in line with technological advances, which have led technologists to continuously create various forms of innovation to assist humans in their daily activities. The true effect of globalization is innovation in readily available materials (Sumaryanto & Ibrahim, 2023). Modern humans have also embraced the various technological advances that have been produced over the past few decades.

Along with global technological developments, they have impacted all aspects of human life, including education, economics, politics, the arts, and culture. Technological advancements are unavoidable, as the world will continue to evolve, keeping pace with technological advancements. With the increasing advancement of information technology, which has spread to all levels of society, access to technology has become increasingly easier.

Information technology is the technology used to process data so that it can be converted into information. Currently, technology is widely used by computer users, as well as other devices that operate on similar principles, such as mobile phones, tablets, and iPhones. Information and communication technology has impacted all areas of our lives (Khotimah et al., 2024). The learning method known as nanolearning utilizes small, easy-to-understand chunks

of material. This method aligns with how information is consumed in the digital age, where students' attention is often divided. According to (Denojean-Mairet et al., 2024), nanolearning can improve information retention and facilitate more flexible learning. Nanolearning activities can be created as short videos on the TikTok app, lasting 15 to 60 seconds, created by users (Khlaif & Salha, 2021)

The impact of TikTok usage on students' learning levels needs to be understood. Numerous studies have shown that TikTok has two impacts on students: positive effects, such as gaining new knowledge, insights, and experiences, and negative effects, such as addiction, loss of time, and neglect of physical health (Malimbe et al., 2021). Research by (Sari, 2022) shows that using TikTok in English learning can increase students' motivation and interest in learning. Therefore, TikTok can be an effective medium to support the learning process.

Material *Asking and Giving Opinion* has communicative, contextual, and oral language practice-oriented characteristics. This material emphasizes the use of simple expressions to express and respond to opinions in everyday situations. Its dialogic and expressive nature allows students to practice speaking actively through short conversations. The language structure used is relatively easy to understand and suitable for visualization in the form of short videos, making it ideal for this method. *nano learning* TikTok-based. This material greatly supports the development of speaking skills and increases student participation in an interactive and engaging way.

In reality, many students still struggle to learn English, especially at the high school level. Many learning media are used to support the learning process, such as TikTok and other media. Therefore, the TikTok-based Nano Learning method is very enjoyable and time-efficient. English can be summarized very briefly and repeated to improve student learning outcomes. (Khasanah, 2022) TikTok is widely used as a simple means of communication, and short videos are faster than other social media.

MAN 1 Kediri City is an educational institution committed to integrating technology into learning. At MAN 1 Kediri City, students are given the freedom to experiment with various learning media, such as using TikTok in their learning. Almost all students have TikTok apps and accounts and frequently use them to watch entertainment and share various short educational content. Given the diverse backgrounds of students, the use of innovative learning methods is crucial for achieving efficient learning outcomes. This research will explore how TikTok-based nanolearning can be implemented in this school environment.

Several previous studies have demonstrated positive results in the use of social media and technology in learning. For example, research by (Pratiwi et al., 2023) demonstrated that, compared to conventional methods, students who used social media for learning achieved significantly higher learning outcomes. This provides the basis for this study to further explore the influence of TikTok.

Thus, the description that has been explained above, the author is motivated to conduct research on the problems that have been explained with the title "The Effect of TikTok-Based Nano Learning on Students' English Speaking Skills at MAN 1 Kediri City". Then, to understand how in the context of Education can apply social media as a learning method is the purpose of this research. With the Nano Learning method focusing on students' speaking skills in the material of asking and giving opinions, this research is expected to help develop innovative and effective learning methods, especially in the current digital era.

## 2. Method

The posttest-only control group design model is a quantitative approach used with a quasi-experimental design. Two groups participated: an experimental class treated using the Nano Learning approach and a control class not treated. The experimental group was treated (TikTok-based nano learning), while the control class was treated with a conventional approach. Both groups were only given a posttest to determine differences in learning outcomes, particularly in speaking skills focused on expression. *asking and giving opinion*.

In this study, there were 20 subjects, namely 20 students each in grades 10 B and C at MAN 1 Kota Kediri, with class 10 B (experimental) and class 10 C (control). In taking the sample, the technique used was *Random Sampling*.

**Table 1. Research Design**

Subject	Treatment	Post Test
Control Class	x1	O2
Experimental class	x2	O2

Information :

X1: Not getting TikTok Based Nano Learning treatment

X2: TikTok-Based Nano Learning Delivery

The control class received conventional learning treatment (x1), while the experimental class was given treatment using the TikTok-based Nano Learning method (x2). After the treatment, both groups were given a post-test (O2) to measure changes in student learning outcomes. This design allowed researchers to compare the effects of different treatments on improving student abilities, particularly in speaking skills (expression). *asking and giving opinion*).

The hypothesis put forward in this study is:

H0: There is no difference in the use of Tiktok-based Nano Learning on Students' English Speaking Skills at MAN 1 Kediri City.

H1: There are differences in the use of Tiktok-based Nano Learning on Students' English Speaking Skills at MAN 1 Kediri City.

In this study, to assess students' speaking skills, researchers used an assessment rubric. *speaking*, which functions to assess student performance when practicing speaking, is the assessment used. This rubric covers five assessment aspects, namely pronunciation (*pronunciation*), grammar (*grammar*), error cut (*vocabulary*), fluency in speaking (*fluency*), and understanding (*comprehension*). Each aspect is scored on a Likert scale from 1 to 5, so that the maximum total score per student is 25. Assessment is carried out by observing and scoring students when they engage in dialogue or conversation based on the material provided.

Before being used for primary data collection, the assessment rubric was tested for validity and reliability. Experts assessed the appropriateness of the rubric's aspects using a content validity test. The experts (validators) assessed using a scale of 1 (not appropriate) to 4 (very appropriate). Data from the expert assessments were analyzed using Aiken's V formula or a feasibility percentage calculation, and the rubric was declared valid if it achieved a value of  $\geq 3.00$  or minimum 75%.

Next, a reliability test was conducted using an internal consistency approach, measured using Cronbach's Alpha to test consistency between aspects within the rubric. The instrument was deemed reliable and suitable for use because the Cronbach's Alpha value exceeded 0.70.

Pretests and posttests were administered using the same rubric to collect data. The pretest was administered before the experimental class received the treatment, and the posttest was administered after the experimental class had completed the treatment. The assessment results were collected and analyzed quantitatively.

The use of data analysis techniques to ensure whether the data is normally distributed, starting with the Kolmogorov-Smirnov normality test. To ensure that both groups have equal variance, Levene's Test is also used to test for homogeneity. To test the hypothesis that the data is homogeneous and normally distributed (to compare the experimental and control classes), the following is used: *independent sample t-test*. In addition, the N-Gain Score calculation is also used to determine the extent of improvement in student abilities after treatment.

### 3. Results and Discussion

#### 3.1 Result

This study aims to determine the effect of the TikTok-based Nano Learning method on student learning outcomes, especially in the aspect of speaking skills (*speaking*) on the expression material *asking and giving opinion*. Data were collected through pretests and posttests which were assessed using an assessment rubric that covered five aspects: *pronunciation, grammar, vocabulary, fluency, And comprehension*.

Table 3. Validity Test

No	Assessment Aspects	Score	Rat rat	Category
1	Pronunciation	4 4 4	4	Valid
2	Grammar	3 3 4	3,33	Valid
3	Vocabulary	4 4 4	4	Valid
4	Fluency	4 4 4	4	Valid
5	Comprehension	4 4 4	4	Valid

Before being used to assess student learning outcomes, the instrument in the form of a speaking skills assessment rubric was tested for content validity and reliability. Assessments given by experts were used in the content validity test. Sugiyono also stated that an instrument can be said to be valid if the results of expert assessments show a score above a certain category (usually  $\geq 3$  on a scale of 1–4 or 1–5). "The instrument is declared valid if the average expert assessment shows a high score or at least sufficient on the validity criteria." (Sugiyono, 2018). The assessment results showed that all aspects of the rubric were included in the valid category because they obtained an average score  $\geq 3.00$ , so the rubric was declared valid and suitable for use in research.

Table 4. Validity Test

Cronbach's Alpha	N of Items
,780	5

Next, using IBM SPSS Statistics software, the Cronbach's Alpha value was calculated using a reliability test. The calculation results showed a reliability value of 0.78, indicating that the instrument is considered reliable and suitable for use because it falls into the category exceeding 0.70. Therefore, the rubric instrument can be considered consistent and suitable for use in this study.

**Tabel 5. Descriptive Statistics**

Class		PreTes t	PostTes t
Experimen t	Mean	14,35	18,55
	N	20	20
	Std. Deviation	3,048	2,605
Control	Mean	14,95	15,75
	N	20	20
	Std. Deviation	2,946	3,275
Total	Mean	14,65	17,15
	N	40	40
	Std. Deviation	2,975	3,247

Furthermore, the average pretest score for the experimental class, based on the analysis, was 14.35, increasing to 18.55 after the Nano Learning method used TikTok-based learning videos. In contrast, the control group, taught conventionally, saw an increase from 14.95 to 15.75.

**Tabel 7. Tests of Normality**

	Class	Statistic	df	Say.
PostTest	Experiment	,136	20	,200*
	Control	,153	20	,200*

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The data meets the requirements for parametric testing, according to the results of the normality and homogeneity tests. Based on the test results, the significance values of the experimental class are 0.073 and 0.200, while the control class is 0.025 and 0.200. Because the values show more than 0.05, the data can be said to be normally distributed. To ensure whether the variances of the two groups are equal, then use Levene's Test by conducting a homogeneity of variance test.

**Table 8. Homogeneity**

Levene's Test for Equality of Variances

		F	Say.
GainScore	Equal variances assumed	3,074	,088
	Equal variances not assumed		

Based on the test results above, a significance value of 0.088 indicates that the data exhibits homogeneous variance because the value is greater than 0.05. If the requirements for normality and homogeneity are met, the data can be analyzed using parametric tests, such as the independent t-test.

**Tabel 9. Independent Samples Test**

**t-test for Equality of Means**

	Mean	Std. Error	95% Confidence Interval
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		Sig. (2-tailed)	Difference	Difference	of the Difference
					Lower
GainScore	Equal variances assumed	,001	-3,40000	,96845	-5,36052
	Equal variances not assumed	,001	-3,40000	,96845	-5,37022

The independent t-test results of this study showed a significance value of 0.001, far below the 0.05 threshold for significance. This indicates that there is a statistically significant difference in student learning outcomes between the experimental class using the TikTok-based Nano Learning method and the control class using conventional learning techniques. Therefore, it can be said that the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_1$ ) is accepted. In other words, the increase in learning outcomes that occurred was not caused by chance factors, but rather due to the treatment given in the form of the Nano Learning method with the use of TikTok media as part of the learning process. This finding strengthens the research hypothesis that students' learning experiences will be more effective and relevant by using the Nano Learning method with the integration of short video-based social media in speaking learning, especially in mastering speaking skills. *asking and giving*.

### 3.2 Discussion

This study aims to determine how the TikTok-based Nano Learning method affects students' learning outcomes in speaking skills, especially in terms of expression. *asking and giving opinion* Based on the findings of the statistical analysis, it was found that there was a significant difference between the experimental class using TikTok as a learning aid and the control class using conventional learning techniques. This demonstrates how students' English skills can be improved through the use of digital technology-based media relevant to everyday life.

Based on pre-test findings, both groups' initial speaking abilities were relatively similar. The experimental class significantly outperformed the control class in post-test results after various treatments. This indicates that the use of TikTok social media in the Nano Learning model can create a more engaging, interactive learning environment, and one that aligns with the learning styles of today's digital generation. This research agrees with (Prensky, 2001), who explained that today's students are "digital natives" who tend to respond better to learning approaches involving digital technology.

Information is presented in bite-sized chunks that can be quickly and easily understood through the Nano Learning method. The combination of Nano Learning and the TikTok platform produces dense, concise, and visual learning materials, helping students grasp the language context quickly and effectively. This applies especially to speaking skills. *asking and giving opinion* TikTok's short video format provides concrete examples in the form of dialogue that students can imitate. This finding aligns with Wibowo et al.'s (2023) findings, which explain that Nano Learning is highly effective for microlearning that focuses on a specific competency in a short period of time.

Previous research also supports the conclusion that TikTok is an important tool for Nano Learning that improves students' speaking skills. For example, research by (Aulady & Warni, 2024) showed that students' confidence and oral communication skills significantly improved when they used TikTok to learn English. Furthermore, research by (Agustina & Dharmawan, 2024) also found that students felt more motivated and enthusiastic about learning English when the material was delivered through short videos on TikTok.

From a learning theory perspective, the results of this study can be explained through behaviorist and cognitive approaches. From a behaviorist perspective, the stimulus was a short video repeatedly showing examples of expressions. *asking and giving opinion* provides positive reinforcement for student responses. From a cognitive perspective, TikTok-based learning allows students to develop understanding through simultaneous observation and processing of visual and auditory information. Furthermore, Vygotsky's constructivist theory is also relevant, as TikTok videos enable *scaffolding* through the example of a speaker model, which acts as *more knowledgeable other* (MKO).

Besides being cognitively effective, using TikTok in learning also touches students' affective aspects. Many students said they felt more relaxed and less awkward when asked to practice speaking skills after watching light-hearted and fun learning videos. This is important considering that one of the main obstacles to learning to speak is shyness and fear of making mistakes. TikTok serves as a psychologically safe learning medium for experimenting, practicing, and making mistakes without high social pressure. As Krashen points out in *Affective Filter Hypothesis*, success in learning a language is greatly influenced by low affective barriers such as anxiety and self-doubt.

Another advantage of TikTok as a learning tool is its ability to provide concise, real-world context in the target language. Much of TikTok content depicts everyday situations, such as asking for help, offering assistance, or asking for opinions, which are highly relevant to the topic. *asking and giving opinion* Students can see how these expressions are used in both informal and formal contexts, thereby enhancing their communicative competence. This aligns with (Richards & Rodgers, 2014) argument regarding the importance of context in language learning for improving students' communicative skills.

However, the results of this study also demonstrate the importance of teachers in designing and guiding the structured use of TikTok. Without clear guidance, students can be distracted by irrelevant entertainment content. Therefore, teachers need to develop a well-planned TikTok integration strategy, for example, by creating a list of appropriate videos, assigning content-based assignments, and encouraging students to create their own speaking practice videos. This process can improve students' critical thinking and creativity, not just their speaking skills.

From a quantitative perspective, the independent t-test significance value of 0.001, which is less than 0.05, shows that the learning outcomes of the experimental and control classes statistically show a significant difference. With a normal data distribution and sufficient sample size (20 students each), these results can be considered valid and reliable. This also indicates that the TikTok-based Nano Learning method is feasible for application in the context of speaking learning, especially for basic competencies such as *asking and giving opinion*.

Furthermore, within the context of the independent curriculum and digital-based learning paradigm, the use of TikTok can be a learning innovation aligned with national education policy. The Ministry of Education, Culture, Research, and Technology (2022)

emphasizes the importance of adaptive learning, relevance to the times, and empowering students as active learners. Therefore, the results of this study have high applicability in daily learning practices in schools, making them not only academically relevant.

However, this study has several limitations. First, the results may not be widely applicable to a larger population due to the small sample size. Second, the treatment duration was relatively short, so it cannot capture the long-term effects of TikTok use on learning. Therefore, further research is recommended that involves more participants from various school backgrounds and examines the impact of TikTok use longitudinally. Furthermore, it is important to assess the effectiveness of this approach on other language skills, such as listening, reading, and writing.

Overall, in the digital age, the results of this study will contribute significantly to the development of English language learning techniques. The use of the TikTok-based Nano Learning method has been shown to improve student learning outcomes in speaking skills, particularly in the context of English. *asking and giving opinion* This provides teachers with the opportunity to use social media in more imaginative and creative ways when integrating it into the teaching and learning process. When used correctly, social media platforms like TikTok can serve as entertaining and beneficial educational resources for the younger generation.

#### 4. Conclusion

Based on the results of the research entitled "The Influence of TikTok-Based Nano Learning On Students' English Speaking Skills", it can be concluded that the use of the TikTok-based Nano Learning method has a significant influence on improving student learning outcomes in speaking skills, especially in the material *asking and giving opinion* This study shows that presenting learning materials in the form of short, engaging, interactive videos that are in line with the characteristics of digital natives can increase student active participation and understanding more effectively than conventional learning methods. These findings directly address the research objectives and confirm the hypothesis that at the high school level, the TikTok-based Nano Learning method has significant effectiveness in the learning context. *speaking* English. Therefore, this approach can be used as an alternative teaching strategy that is relevant to technological developments and the learning needs of this generation of students. For further development, it is recommended that similar research be conducted with a broader scope and a variety of language skills, to strengthen empirical evidence regarding the effectiveness of this method in various learning contexts.

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