The Effectiveness of Interactive Learning Method Toward Students' Speaking Ability

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Abstract. This research examines the efficacy of interactive learning techniques in enhancing students' speaking skills in English. A quantitative approach with a correlational design was employed, involving 65 students from two vocational high school classes divided into experimental (interactive) and control (non-interactive) groups. Data were collected through observations and speaking tests, assessed using five criteria: pronunciation, grammar, fluency, vocabulary, and comprehension. The results indicate a notable enhancement in the post-test scores of the interactive class in comparison to the non-interactive class, with a significant effect size (Cohen's d = 1. 80). Statistical tests verified normality, variance homogeneity, and significant differences in learning gains, supporting the conclusion that interactive learning methods are highly effective in enhancing students' English speaking skills.

Keywords: Interactive learning method, Speaking ability, Student, EFL

1. INTRODUCTION

Traditional learning materials are still used by teachers in rural regions. They continue to employ basic PowerPoint and thick card material. However, these materials often lack creativity and fail to incorporate innovative elements that enhance student engagement, especially in rural settings [1]. Interactive learning can be utilized to develop an educational tool for e-learning. Numerous modern technological resources, platforms, and advanced concepts have been integrated into the curriculum, especially in the area of education, to facilitate online learning prospects [2]. The interactive teaching method is a learning activity that emphasizes the needs of the students and promotes their engagement in the learning experience [3]. Interactive training as an educational strategy and its effect on knowledge transfer and retention among learners [4]. Problem-solving activities are a frequent part of interactive education, motivating students to employ critical thinking skills to evaluate data, examine information, and address academic challenges. Team-based activities that foster collaboration and the exchange of ideas among students are a typical element of interaction in the educational experience. Consequently, via discussions and debates, collaborative learning fosters critical thinking while improving communication skills and exposing students to a variety of viewpoints [5]. Active participation, deep understanding, and intrinsic encouragement in the learning process are components of student engagement, which goes beyond being physically present in the classroom [6]. An essential part of the learning process is educational media. Among the media required are technology and computer-based media. Learning media seeks to pique students' interest in the subject matter, particularly in more difficult-to-understand content. Students' lack of enthusiasm, interest, and focus on the subject leads to the creation of learning media [7].

The usage of interactive learning media affects students' higher order thinking skills [8]- [10]. To improve learning outcomes, it is important to move away from boring methods. An inappropriate learning model can lead to passive behavior among students during lessons. Students will only remain silent, listen, and record the learning information provided by the teacher. To overcome difficulties, teachers must use innovative learning methodologies. The learning technique in question is interactive. Interactive creative learning involves transforming students' cognitive structures through the assimilation of new knowledge, skills, and talents [11]-[13]. The word interactive is crucial for creating an effective and efficient teaching and learning process in which the teacher can capture students' attention and students

can absorb more compared to the conventional method [14]-[16]. Implementing interactive teaching learning strategies can lead to successful training. The active and interactive methods promote the sharing of information, feedback, collaborative problem-solving, educational scenario simulation, and self-evaluation as well as evaluation of other participants' behavior [17]. Students are given an opportunity to grasp the relationship between knowledge, information transfer, and inference through the application of modern method-based learning approaches [18]. To facilitate interactive learning, students must be equipped for cooperation, perception, communication, and social interaction [19]. The Interactive Teaching Tools environment includes a variety of digital resources such as PowerPoint presentations, videos or movies, online simulations, interactive quizzes, and inventive games that can promote student engagement and retention [20]. Student interaction is described as the ability to respond continuously [21]. The test analysis result shows the distinction in learning outcomes between the pre-test and post-test. The mean score indicates that the developed medium effectively enhances the learning objectives [22]. This study revealed an average effect size of 0. 64 (SD = 1. 06). This indicates that interactive learning media influences science learning outcomes for students by 23. 89% [23]. In addition to improving students' theoretical test scores, the online and offline interactive teaching approach can increase their engagement in the learning process [24]. The interactive teaching places a strong emphasis on using interactive exercises to increase language acquisition and further enhance communication skills [25].

Speaking is the capacity to use spoken language to interact with others. It helps individuals engage effectively with their environment. Students' speaking ability is influenced by where and how they learn and apply theories of speaking [26]. In the current era of media and mass communication, strong verbal English skills are vital [27]. Although many workers and students possess a basic ability to speak English, challenges remain, particularly among students who often struggle to communicate effectively in the language [28]. Research shows that English as a Second Language (ESL) students often exhibit weaker speaking and listening skills compared to their reading and writing abilities [29]. Furthermore, the ability to speak in public is essential and greatly influences success in both personal and professional domains [30]. There are several common reasons why students find it difficult to communicate in English: lack of ideas, limited vocabulary, lack of speaking opportunities, and unengaging teaching methods [31]. Even though teachers and students may use English during class, many students still lack confidence when speaking in front of their peers [32]. A well-structured learning strategy and supportive environment are crucial in helping students improve their language proficiency [33]. Teachers can incorporate techniques such as role-play, debates, storytelling, and small group discussions to make instruction more interactive and student-centered. These activities not only help students express their thoughts but also allow them to engage meaningfully with their peers while unconsciously mastering the learning material [34].

Learning English remains a challenge, particularly in speaking. It requires mastery of multiple skills including vocabulary, sentence structure, and pronunciation [35]. In Indonesia, students still struggle to use English in everyday conversations [36]. Common problems faced in EFL speaking classes include fear of making mistakes, shyness, lack of vocabulary, and large class sizes [37]. Nevertheless, several studies have shown that interactive learning strategies can help overcome these challenges. When applied effectively, these methods increase students' confidence, improve their communication skills, and reduce reliance on their first language [38]. Therefore the study has a purpose to describe the effectiveness of using interactive learning for enhancing students' speaking skills.

2. METHOD

A quantitative method employing a correlational design was utilized in this research to examine the connection between data. This research includes two variables. To collect data, the author took the population of class SMK TKM Purworejo in the 2025/2026 academic year. The research was conducted in two classes, namely class X TP D and class X TKJ A, totaling 65 students. The author decided to take samples using Cluster Sampling Technique. Cluster Sampling Technique involves dividing the student population into groups (clusters), followed by the random selection of several clusters, with all members in the chosen cluster being sampled.

In gathering data, the researcher utilized Observation and Test. The observation to obtain data on interactive student and test to obtain student speaking ability. In the data collection process, the researcher used spinner applications to randomize and divide students into groups and use mobile phones to record student answers. Each group that advances will be recorded and will show their speaking ability, then the author uses the analytical rubric of H. Douglas Brown's theory to assess students' speaking skills. There are five aspects. Each aspect is assessed separately such as the Pronunciation, Grammar, Fluency, Vocabulary and comprehension [39].

Various measurements will be utilized within the framework of descriptive analysis to summarize and interpret the data. This approach will highlight the average scores of students' pre-tests and post-tests, demonstrating academic progress following the intervention. Additionally, graphs will be created to visualize the distribution of scores before and after the treatment. The study will involve two classes. The experimental group will participate in diverse interactive activities such as group discussions and debates intended to foster active engagement and collaboration among students. In contrast, the control group will follow a traditional instructional approach, serving as a clear comparator to the interactive learning model.

To assess the effectiveness of the interactive learning strategy, both groups will undergo a pre-test and a post-test. The pre-test will assess students' speaking abilities prior to the intervention, while the post-test will evaluate any improvements in their speaking skills after the instructional period.

3. FINDINGS

Table 1. Result of Descriptive Test

Interactive Classrooms

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test class inter	33	9	20	13.79	2.382
Post-test class inter	33	12	22	17.12	2.162
Valid N (listwise)	33				

Non-Interactive Classes

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test class inter	33	7	14	11.85	1.623
Post-test class inter	33	10	17	13.70	1.591
Valid N (listwise)	33				

The results of the descriptive statistical analysis revealed that in the class utilizing interactive learning, the average pre-test score was 13.79, with a standard deviation of 2.382. The scores ranged from a minimum of 9 to a maximum of 20. After the intervention, the post-test scores showed improvement, with the mean rising to 17.12 and a slightly lower standard deviation of 2.162. These findings suggest that the implementation of interactive learning strategies contributed positively to student performance.

In comparison, the class following a non-interactive or traditional approach recorded an average pre-test score of 11.85, accompanied by a standard deviation of 1.623. The post-test average increased modestly to 13.70, with a standard deviation of 1.591, indicating only a slight improvement in student outcomes without the interactive intervention.

Table 2. Result of Normality Test

Interactive Classrooms

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-test class in	.172	33	.015	.973	33	.573
Post-test class in	.130	33	.170	.966	33	.380

a. Lilliefors Significance Correction

Non-Interactive Class

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-test class non	.185	33	.006	.951	33	.138
Post-test class non	.188	33	.005	.967	33	.409

a. Lilliefors Significance Correction

To ensure that the data meets the assumptions required for parametric testing, the Shapiro-Wilk test was employed to assess normality. In the interactive learning group, the significance value of the Shapiro-Wilk test for the pre-test was 0.573, and for the post-test, it was 0.380. As both values are greater than the 0.05 threshold, it can be inferred that the pre-test and post-test scores in this group are normally distributed.

Similarly, in the non-interactive group, the Shapiro-Wilk significance values were 0.138 for the pre-test and 0.409 for the post-test. Since these values also exceed 0.05, the data for this group can likewise be considered to follow a normal distribution.

Table 3. Result of Variance Homogeneity Test

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Post-test	Based on Mean	1.145	1	64	.290
	Based on Median	1.515	1	64	.223
	Based on Median and with adjusted df	1.515	1	57.463	.223
	Based on trimmed mean	1.381	1	64	.244

The homogeneity of variance test is conducted employing Levene's Test to confirm that the variance among data groups is uniform. The outcomes of the test indicated that the significance value of Levene's Test for the post-test was 0. 290, exceeding 0. 05.

Table 4. Result of Hypothesis Test

Each Class

Group Statistics

	Class	N	Mean	Std. Deviation	Std. Error Mean
Post test	Interactive	33	17.12	2.162	.376
	Non-Interactive	33	13.70	1.591	.277

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Post-test	Equal Variances Assumed	1.366	.247	7.330	64	.000	3.424	.467	2.491	4.358
	Equal Variances not Assumed			7.330	58.799	.000	3.424	.467	2.489	4.359

Each Class

Group Statistics

	Class	N	Mean	Std. Deviation	Std. Error Mean
Gain	Interactive	33	3.33	1.451	.253
	Non-Interactive	33	1.85	1.004	.175

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Gain	Equal Variances Assumed	6.005	.017	4.835	64	.000	1.485	.307	.871	2.098
	Equal Variances not Assumed			4.835	56.930	.000	1.485	.307	.870	2.100

The findings from the hypothesis test employing the Independent Samples T-Test indicated that a substantial difference existed between the post-test scores of the interactive class and the non-interactive class. The t-value recorded was 7. 330, accompanied by a significance (p-value) of 0. 000.

Result of Data Visualization
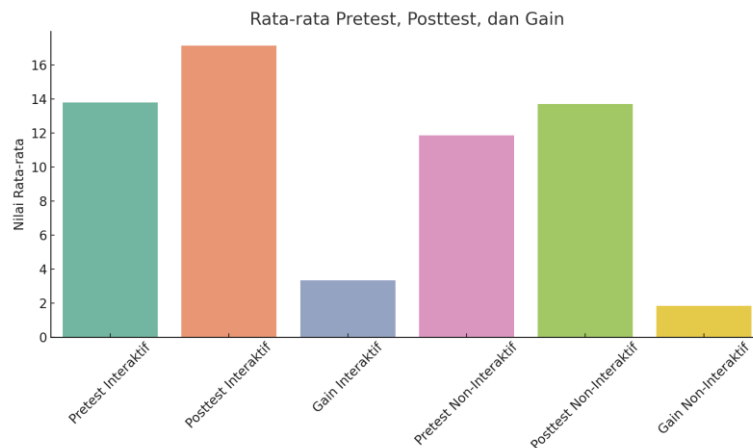

Picture 1. Average Pre-test, Post-test, Gain

As shown in Picture 1, the interactive class outperformed the non-interactive class in terms of average pre-test, post-test, and gain scores. The interactive group began with a slightly higher pre-test mean of 13.79, suggesting a modest advantage in initial speaking ability compared to the non-interactive group, which had a mean score of 11.85.

After the implementation of interactive learning strategies, the interactive class exhibited a substantial improvement, with an average post-test score rising to 17.12. In contrast, the post-test mean in the non-interactive class increased to only 13.70. Furthermore, the gain score which indicates the difference between pre-test and post-test results was significantly greater in the interactive group (3.33) than in the non-interactive group (1.85), underscoring the effectiveness of the interactive learning approach.
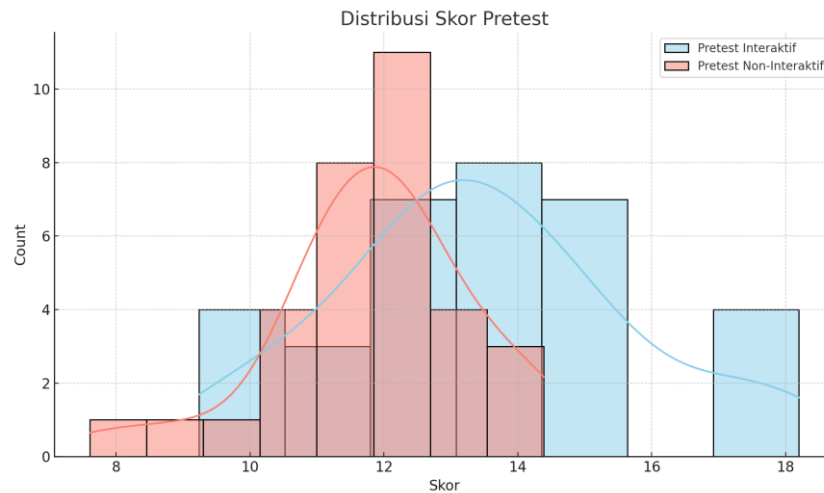
Picture 2. Pre-test Score Distribution

Based on Picture 2, it illustrates the distribution of pre-test scores for both classes. The score distribution in both classes tends to be close to the normal distribution, with interactive classes having a more even distribution of values and a tendency to higher scores than non-interactive classes. The normality of this data meets one of the important assumptions for the use of parametric tests such as the t-test, so that the validity of the statistical analysis used in this study is acceptable.
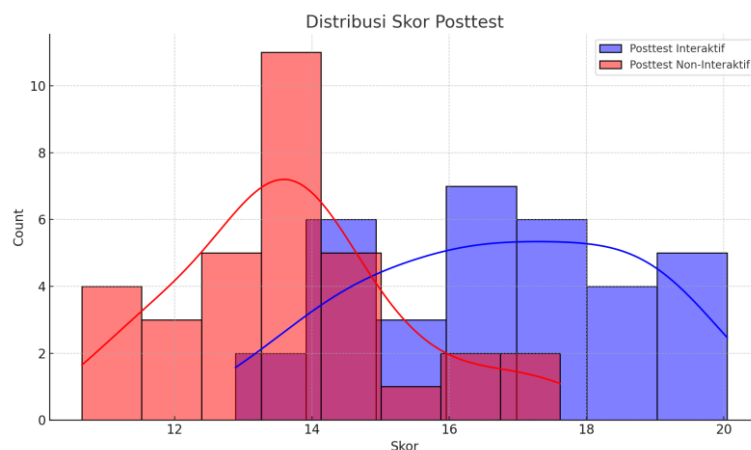

Picture 3. Post-test Score Distribution

Based on Picture 3, the distribution of post-test scores also shows a pattern that tends to be normal, with higher median and modes in the interactive class compared to the non-interactive class. This proves that after the learning intervention, students in interactive classes not only have higher average grades, but also a more stable and consistent distribution of grades, with fewer outliers than non-interactive classes. This further strengthens the finding that interactive learning is effective in improving overall student achievement.
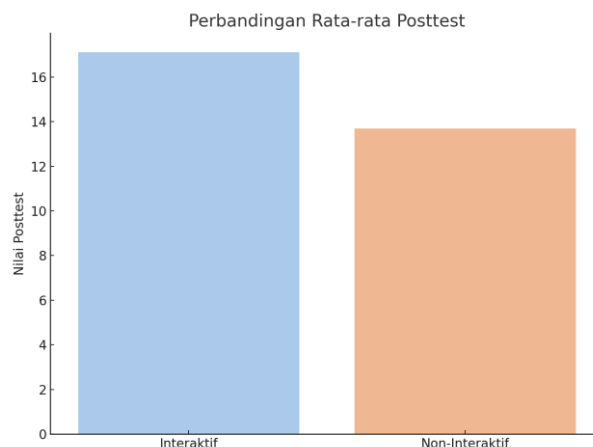
Picture 4. Comparison of Post-test Averages

Based on Picture 4, it illustrates the comparison of the average post-test scores between interactive and non-interactive classes. A stark difference (17.12 for interactive and 13.70 for non-interactive) proves that the use of interactive methods in learning provides better outcomes. The results of the statistically significant t-test ($p < 0.05$) confirm that this difference is not due to chance, but is an effect of the teaching method applied.
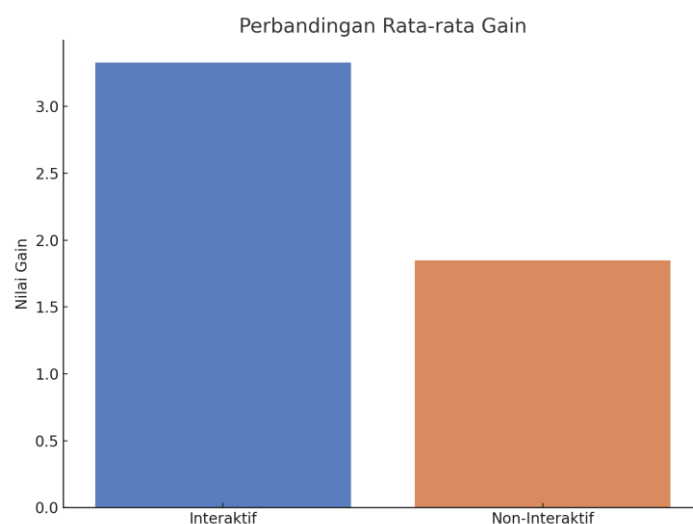
Picture 5. Average Gain Comparison

Based on Picture 5, it shows the average gain score, which is a direct indicator of improving student learning outcomes. The interactive class showed an average gain score of 3.33, much higher than the non-interactive class which only reached 1.85. This difference indicates that interactive methods not only improve students' final results, but also encourage the growth of their knowledge and skills more significantly than non-interactive methods. This is also indicated in the outcomes of the t-test on the gain score, which reveals significant disparities between classes.

4. DISCUSSION

The findings of this study provide compelling evidence that the use of interactive learning methods is highly effective in improving students' speaking abilities in English. The statistical outcomes reveal that learners in the experimental group showed marked progress after being engaged in activities such as group discussions and debates. Compared to conventional teaching models, interactive instruction significantly enhances students' achievements across cognitive, psychomotor, and affective domains,

while simultaneously increasing their engagement and flow in learning, suggesting its wide-ranging application in EFL contexts [40]. Moreover, learner-centered strategies like debates, case studies, project-based learning, and self-assessment have been shown to considerably foster students' critical thinking and speaking capabilities [41].

Descriptive analysis showed a substantial increase in the speaking ability scores of students exposed to the interactive method, from an average pre-test score of 13.79 to 17.12 in the post-test, with an increase of 3.33 points. Meanwhile, the control group taught with the non-interactive method only experienced an increase from 11.85 to 13.70 or 1.85 points. These results clearly indicate that the interactive approach is more effective in improving students' oral communication skills.

The normality test using the Shapiro-Wilk method showed that the pre-test and post-test scores of both groups were normally distributed, because all significance values were greater than 0.05. This supports the use of parametric statistical analysis in the next stage. In addition, the homogeneity of variance test using Levene's Test showed that there was no significant difference in variance between the two groups ($p = 0.290$), which means that both groups statistically had comparable data distribution.

Further analysis through the Independent T-Test showed a significant difference between the post-test scores of the interactive and non-interactive groups, with a p value of 0.000 (<0.05), indicating the effectiveness of the interactive method. Similar results were also found in the T-test on the gain score, which also showed a p value of 0.000. In addition, the effect size value (Cohen's d = 1.80) showed a very large effect, indicating that the treatment had a significant impact on students' speaking ability.

This large effect strengthens the conclusion that interactive learning not only improves test scores but also significantly strengthens students' communicative competence. From a pedagogical perspective, activities such as role-playing, collaborative tasks, and debates create an immersive and student-centered learning environment. These strategies are not only effective in improving speaking ability but also encourage students' motivation, confidence, and willingness to speak English. Improvements in various aspects of speaking such as pronunciation, grammar, fluency, vocabulary, and comprehension indicate that learning provides comprehensive interactive development, which may not be found in traditional methods. The results suggest that integrating interactive learning techniques into EFL classrooms should be prioritized, especially in vocational or practical language settings. Such approaches not only improve students' speaking abilities but also promote 21st-century skills such as collaboration, critical thinking, and communication. Teachers are encouraged to shift from teacher-centered to learner-centered methods to maximize student participation and language acquisition.

Overall, the results of this study confirm that interactive learning strategies are not only statistically effective but also pedagogically meaningful. Integrating this method into EFL classrooms, especially in vocational settings that emphasize practical communication, can improve the quality of language learning and better prepare students for real-life language use. Interactive learning supports important elements in second language acquisition such as student engagement, increased motivation, student collaboration, and communicative competence. Through structured activities such as debates and discussions, students are encouraged to speak more confidently and spontaneously.

The evidence obtained in this study suggests that interactive learning methods should be more widely applied in EFL classrooms. This strategy is able to transform the learning process into a more active one and improve students' overall speaking ability. Especially in vocational schools that emphasize real-life communication, the application of interactive techniques can improve students' language competence and work readiness. Teachers are encouraged to use student-centered approaches more often to promote fluency, confidence, and the ability to use language critically in authentic contexts.

Future research could explore the long-term impact of interactive learning on other language skills such as listening, reading, and writing. It would also be beneficial to examine how factors such as students' learning styles, personality types, or language anxiety affect their response to interactive learning. Furthermore, qualitative methods such as interviews or classroom observations can be used to gain deeper insight into students' perceptions and engagement during interactive activities.

5. CONCLUSION

Based on the findings and analysis, it can be concluded that the interactive learning method is very effective in improving students' speaking ability in English among the students of grade X SMK TKM Purworejo. The students in the interactive class showed a significantly higher improvement in their post-test scores compared to those in the non-interactive class. The average gain score in the interactive class was also nearly twice that of the non-interactive class, indicating that the method not only improved outcomes but also enhanced the learning process itself.

Moreover, interactive learning activities such as group discussions, debates, and role-plays encouraged active student participation, collaboration, and confidence-building. These elements contributed to students' greater fluency, vocabulary usage, comprehension, and overall speaking performance. The activities encouraged more active participation, reduce anxiety, and created opportunities for authentic language use, all of which are essential for language development.

Given these findings, it is recommended to English teachers in vocational schools adopt interactive learning methods as a core strategy to improve students' speaking competence. Shifting from conventional lecture-based instruction to more engaging, student-centered approaches can enhance not only language but also critical thinking, communication confidence, and collaborative skills.

In summary, the study supports the integration of interactive teaching methods in EFL classrooms, particularly in vocational high schools. Teachers are encouraged to shift from traditional, passive instruction toward more engaging, student-centered strategies to foster better communication skills and prepare students for real-world language use. The interactive learning model offers a robust, evidence based framework that addresses both linguistic and pedagogical needs in EFL classrooms. Future studies may consider exploring its long term impact and adaptation across different educational levels and skill areas.

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