

## INTEGRATION OF ICT BY THE USE OF THE YOODLI ARTIFICIAL INTELLIGENCE ON STUDENTS' SPEAKING SKILL

Oleh :

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### ABSTRACT

The aim of this research is to know the integration of ICT on students' speaking learning by the use of the Yoodli AI. The research was conducted by using mixed method explanatory sequential design with 12 students as the sample taken by total sampling. Questionnaire and test were using in collecting the data. Based on the data analysis, it was seen that Yoodli AI helped students in speaking. The mean score of students speaking skill before using Yoodli AI was 64.4 categorized "fail" and after 84.8 categorized "very good". Furthermore, based on inferential statistic by using Liliefors Test, the result shows the L-count > L-table. It means, it means there is a significant effect of the using Yoodli AI on students' speaking skill at the second semester students of Institut Pendidikan Tapanuli Selatan.



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### 1. INTRODUCTION

Speaking is an essential ability which means learning that leads to the provision of oral communication skills in English. Speaking is a skill that is really needed to be able to communicate with people around the world (Parupali, 2019). Speaking skills are needed be capable to communicate ideas and information to other people and connect them with other people around the world.

To build effective communication, good speaking skills are needed. Good speaking skills will create active interactions and prevent misunderstandings in communication (Cameron, 2021).

As an essential productive skill, speaking ability is more difficult to learn compared to other speaking abilities (Akbari, 2015; Febriyanti, 2018; Sawitri, 2019; and Sulistyorini, 2018). So it becomes a challenge in developing English learners' speaking skills.

In learning speaking, appropriate methods are needed to have a significant impact on speaking abilities. This will create English speaking

proficiency as a measure of a person's ability in English (Khasanah et al., 2022).

Indicators of English speaking ability are pronunciation, grammar, vocabulary, fluency and comprehension (Kashinathan & Abdul Aziz, 2021). Mapgun and Aulia (2022) in their research said that speaking skills are challenging since speaking English requires five different things, namely pronunciation, fluency, grammar, vocabulary and understanding.

It is considered the most difficult skill because there are many obstacles faced in communicating ideas, thoughts or information in English. This also happened to students at the second semester of Institut Pendidikan Tapanuli Selatan. Students got problems in speaking, especially in pronunciation, fluency and grammar used. As a result, students become less confident and less able to convey ideas and information in English as expected.

One effort that can be made to support speaking learning to respond to students' difficulties in speaking English is by using technology. Nowadays, ICT (Information Communication

Technology) can be used in English language learning, especially speaking learning integrated.

Artificial Intelligence (AI) is developing rapidly nowadays in learning environment. AI's ability to process and analyze data more quickly and efficiently than humans is the main reason for its rapid use. Through the AI application, speaking learning helps quickly and efficiently. There are many AI that can be used in learning speaking, including Yoodli, Duolingo, ELSA (English Learning Speech Assistant), and others.

In this research, researchers are interested in using Yoodli AI in teaching speaking for students at Institut Pendidikan Tapanuli Selatan . Yoodli AI is a new artificial intelligence that can help users become more fluent and accurate in speaking English. With the Yoodli AI application, students can practice speaking in a relaxed and interesting way without pressure or worry. Based on the foregoing explanation, researchers are interested in using Yoodli AI to affect students' skill to speak English.

## 2. RESEARCH METHODS

The place of this research is Institut Pendidikan Tapanuli Selatan which is located on Jalan Stn. Moh. Arif, Batang Ayumi Jae District, Padangsidempuan City. The research population was all students of the English Education study program, totalling 87 people. The research sample used purposive sampling, namely 12 first semester students.

This research uses a mixed method research design, explanatory sequential design, combining quantitative and qualitative data collection and analysis techniques. The instrument of research questionnaire and test.

## 3. RESULTS AND DISCUSSION

### a. Data Description of the Integration of ICT by using Yoodli AI in Teaching Speaking Skill at the Second Semester of Institut Pendidikan Tapanuli Selatan

Data that answers the first question was collected through a questionnaire distributed by researchers in the form of a Google form, then respondents were asked to answer a questionnaire that provided their perceptions about using Yoodli AI in speaking class. Findings show that Yoodli AI is one of the AI-powered speaking training apps that helps improve communication skills especially in pronunciation needed during meetings, job interviews, presentations, and more. The data results are divided into five parts based on the responses given by students, then the results are grouped based on the grades given. The answers were divided into four categories: strongly agree (4), agree (3), disagree (2), and strongly disagree (1). Researchers show the results in the table below. For greater clarity, an overview of the data obtained during the research is presented as follows:

**Table 1 Results of students' responses through questionnaires**

No	Statements	SD	D	A	SA
1	Students are more engaged in speaking when they use Yoodli AI technologies	0%	0%	20%	80%
2	The Yoodli artificial intelligence improve the students' speaking ability	0%	0%	0%	100%
3	By using Yoodli, pronunciation skills are improved	0%	0%	6.7%	93.3%
4	By using Yoodli AI, students are helped to be fluent in speaking	0%	0%	20%	80%
5	I prefer Yoodli AI than other AI apps	0%	0%	53.3%	46.7%
6	Yoodli AI tools improve the quality of speaking	0%	0%	6.7%	93.3%
7	Yoodli AI tools are easily to access	0%	0%	53.3%	46.7%
8	Yoodli AI instruments are flexible	0%	0%	46.7%	53.3%
9	The features of Yoodli AI tools are numerous	0%	0%	6.7%	93.3%
10	Yoodli AI tools enhance students' motivation to speak	0%	0%	20%	80%
11	Yoodli AI reduces speaking anxiety	0%	0%	6.7%	93.3%

In the next question, students fill in answers according to their experience and what they feel when using Yoodli AI. In the question "Tell me about your feelings when using Yoodli AI in learning speaking," students answer, "By using Yoodli AI, students feel helped in becoming skilled because of the features available." Students also feel happy when using it and think Yoodli AI is a good application to use in learning.

To the question "Tell me your opinion about the features of Yoodli AI", students answered, "The features available in Yoodli AI are very diverse and after practice you will be given grades and input suggestions to make your speaking skills better."

To the question "Tell me about Yoodli AI contribution to your speaking", the student answered, "This application can help to better understand and find mistakes and speak well and know how to use vocabulary well and very effectively.

To the question "Tell me how you feel speaking English after using Yoodli AI," the students answered, "When using Yoodli AI they felt better, happier, helped and more confident when speaking."

Based on the analysis above, researchers found that the results of the questionnaire given to second semester students of the South Tapanuli Education Institute English Language Education Program in the 2023/2024 academic year showed that the use of technology through Yoodli AI helped students in learning speaking.

### b. The Result of Students' Speaking Skill Before Using Yoodli AI at the Second Semester of Institut Pendidikan Tapanuli Selatan

The pretest given to second semester students consist of 12 students before using Yoodli AI to determine their initial condition, found that the highest score was 86 and the lowest score was 40.

The mean, median and mode achieved by students on pretest are as follows:

**Table 2 The Pretest Score of Mean, Median, Mode of the Students' Speaking Skill**

No	Criteria	Score	Category
1	Mean	64.4	Good
2	Median	70	Good
3	Mode	70	Good

Based on the table above, it can be seen that the score obtained by students was 66.42 in the good category, the median was 76.00 and the mode was 76. For more details:

**Table 3 Students' Pretest Scores Before Using Yoodli AI**

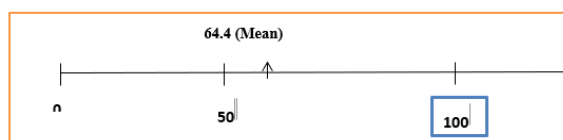
No	Kriteria	Skor	Kategori
1	Mean	64.4	Baik
2	Median	70	Baik
3	Mode	70	Baik

**Table 4 Indicators Score of Speaking Skill Before Using Yoodli AI at the Second Semester Students of Institut Pendidikan Tapanuli Selatan**

No	Item	Average
1	Grammar	13.1
2	Vocabulary	13.4
3	Comprehension	14
4	Fluency	12
5	Pronunciation	12

- The first indicator of students' speaking skills is grammar. Before using Yoodli AI, the score for grammar was 13.1 which means "some inaccuracies were found in grammar"
- The second indicator of speaking skills is vocabulary. Before using Yoodli AI, the score was 13.4 which means "Some vocabulary is inadequate or inappropriate"
- The third indicator is understanding, the score is 14 which is categorized as "Understands normal dialogue quite well, but sometimes requires repetition or rearrangement".
- The fourth indicator is the fluency score, the score is 12 which is categorized as "Speech speed seems to be slightly affected by language problems"
- The fifth indicator is pronunciation, a score of 12 which means "Little in accurate pronunciation".

So if added up, the average student speaking score is 64.4, meaning that student speaking is "bad". Researchers show the histogram as follows:



**Figure 1: The Histogram of Students' Pretest in Speaking Skill**

Based on the histogram above, it showed that higher scoring was skewed to the right, which means the data was not normally distributed where the significant pretest was smaller than 0.05.

### c. The Result of Students' Speaking Skill After Using Yoodli AI at the Second Semester of Institut Pendidikan Tapanuli Selatan

After the pretest was distributed, a posttest was then given to 12 students in learning speaking. After data collection, it was discovered that the highest value was 95 and the lowest value was 78. The mean, median and mode achieved by students in the posttest are as follows:

**Table 5 The Posttest Score of Mean, Median, Mode of the Students' Speaking Skill**

No	Criteria	Score	Category
1	Mean	84.8	Very good
2	Median	86	Very good
3	Mode	86	Very good

Based on the table above, it can be seen that the score obtained by the students was 84.83 with a very good category, a median of 86, and a mode of 86. For more details:

**Table 6 Indicators Score of Speaking Skill After Using Yoodli AI at the Second Semester Students of Institut Pendidikan Tapanuli Selatan**

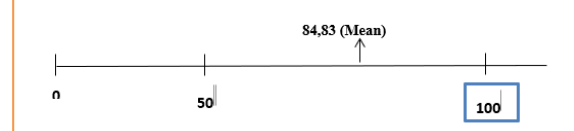
No	Item	Average
1	Grammar	16.5
2	Vocabulary	17
3	Comprehension	17.1
4	Fluency	16.8
5	Pronunciation	17.25

- The first indicator of students' speaking skills is grammar. After using Yoodli AI, the score for grammar was 16.58 which means "some grammatical inaccuracies were found".
- The second indicator is vocabulary, the score is 17 which means "Almost nothing is inaccurate or almost everything is correct"
- The third indicator is understanding, the score is 17.16 which means "Understanding everything in the conversation"
- The fourth indicator is fluency, the score is 16.83 which means "Native-like fluency"
- The fifth indicator is pronunciation, the score is 17.25, which is included in the "Accurate Pronunciation" category.

So if you add it up, the average student speaking score is 84.83, which means the student's speaking category is "very good". The researcher shows the histogram as follow:

**Table 9 Mean, Median, Mode Score of Students' Speaking**

No	Kriteria	Skor	Kategori
1	Mean	84.8	Sangat Baik
2	Median	86	Sangat Baik
3	Mode	86	Sangat Baik



**Figure 4: The Histogram of Students' Posttest in Speaking Skill**

Based on the histogram above, it showed that higher scoring was skewed to the left, which means the data was normally distributed where the significant pretest was higher than 0.05.

From the research results, it was found that the integration of ICT through the use of Yoodli AI in speaking really helps students in their speaking skills. Students are helped by Yoodli AI features which are complete, flexible and easy to use. The results of this research are in line with previous research which shows that learning using artificial intelligence can help improve learning in emergency situations, such as recent pandemics and natural disasters (Seren & Özcan, 2021). AI-based applications can increase student motivation because of the fun learning atmosphere. Furthermore, according to Fitria (2021), AI makes study time efficient and helps students complete assignments and make assessments more quickly. Previous research by Ocaña-Fernández et al. (2019), who found that difficulties in learning English can be overcome with artificial intelligence (AI) used in the classroom (Sumakul et al, 2022). This makes it easier for students to recognize and correct their mistakes. As a result, compared to learning in traditional ways, the benefits obtained by using AI make learning English more comfortable for students.

This finding is in line with research conducted by Ji et al. (2023), which states that AI can reduce difficulties in language acquisition and anxiety in foreign languages. Therefore, the use of AI in learning can reduce students' concerns about speaking in public. Then Zhang & Zou (2020) said that AI provides a more adaptable way for language learners to interact. They can receive feedback and coaching in an environment that doesn't make them as anxious as normal situations.

#### 4. CONCLUSIONS

Based on the research results, it was found that the ICT integration through the use of Yoodli AI, an average of 95% of students felt that their speaking was greatly helped by the use of Yoodli AI in speaking classes. The speaking score obtained before using Yoodli AI and after using Yoodli AI experienced significant changes at medium level.

This means that the integration of ICT through the use of Yoodli AI in speaking class helps students in learning speaking, improving the quality of speaking, especially in vocabulary and fluency. With AI, students' vocabulary increases, fluency also increases because the level of anxiety when speaking decreases. Therefore, the use of artificial intelligence, in this case Yoodli AI, is recommended in speaking class.

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