

A Study on The Students' Perceptions on Using ChatGPT in Teaching and Learning Process at English Department

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Abstract

Technology advancements are important for university especially for the students. This research aims to find out the perceptions of the 8th semester English Department Student on using ChatGPT in teaching and learning process. This research using descriptive quantitative approach, conducted in April 2024 up to May 2024 and located in the Riau University, English Department. English Department Students in Riau University in the 2020 academic year students are the target population, while sample determined by Cluster Random Sampling, and lottery method. Finding shows English students agreed that ChatGPT has many roles for students learning process. Students got many benefits and advantages from ChatGPT such as improve their reading and writing skill, grammar and vocabulary skill, as well as problem-solving and critical-thinking skill. This research can be reference for teachers to give more attention to the usage of any AI-based application. The teacher can use a new strategy or formula, set appropriate technique or media to improve students' ability in process of learning English. It is expected that additional researchers will expand on the research samples or locations. With the potential offered by ChatGPT provides more and more challenges for educators to do Educational process. However, it still prioritizes ethical and moral values Upholding academic values is very necessary in using ChatGPT This is so that humans/individuals as users can consider it carefully the benefits and effects that will be obtained if you depend on technology without any critical filtering in science.

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INTRODUCTION

The use of technology in education has become increasingly prevalent in recent years. Technology helps schools, colleges, and students facilitate the daily learning process. Technologies play various roles in supporting learning activities for both teachers and students. The technologies that help students learn easier today known as ICT or Information and Communication

Technology. ICT referred to internet and computer-based technologies used to produce, save, view, and distribute information (Arif & Handayani 2021). There are also AI-based ICT tools, such as chatbots, commonly used by EFL learners. According to Rudolph et al. (2023b), examples of these chatbots include Bing Chat, Alphabet's Bard, Baidu's Ernie, and ChatGPT.

According to Perkins (2023), ChatGPT is a chatbot that highly extensive and has been trained on a wide range of data, allowing it to produce text that is similar to what a human might write in response to short input prompts. ChatGPT itself is one of the AI tools in the form of a chatbot that can assist people in answering anything or giving commands in the context of a conversation.

EFL Learners specifically can use ChatGPT as a tool that helps them in learning English, writing assignments, finding ideas, creating scenarios and also as a machine translator (Tlili et al. 2023). Some ChatGPT users showed that ChatGPT can improve the education by providing a lot of advantages for instance, teachers and students in their learning process, such as customized learning materials, or even making some quiz questions for assessment.

Kaid et al. (2023) found that in students' and teachers' minds, ChatGPT can motivate students to improve their writing and reading abilities. ChatGPT-based instruction inspires the students in writing tasks or works, increases student's intention to learn confidently and independently and their enjoyment during the English learning process.

This research discovered that ChatGPT helps improve students' intrinsic, extrinsic, and autonomous motivation. The same thing with students' macro and micro language skills such as vocabulary, grammar as well as reading and writing abilities are also impacted positively by this chatbot because it persuades students to read, analyze, think and write more. Previous researcher such as Kaid et al. (2023) used Non-Probability sampling to determine the samples, while this research used Probability sampling which is giving the same opportunities to all group samples that is the three English classes of 2020 academic year in Riau University. Previous researcher was looking for the benefits or advantages and disadvantages from ChatGPT, while this research is looking for the role of ChatGPT by showing the components from the perception of English Study Program students in their teaching and learning process.

Based on the researcher's experience, as an English Department Student, researcher see ChatGPT as a massive AI used by some of the English students especially in class 2020 A use this ChatGPT without any higher consideration and awareness to avoid and realize the dangers that they can get at any time from ChatGPT.

As the primary study, researcher did an interview with five English Department Students on August 19th, 2023. Researcher asked them about the potential, what language skills that improve by ChatGPT, and their opinion

about the future enhancement of ChatGPT. Their responds are ChatGPT can help them spread their ideas, and shorten their time because ChatGPT is simpler and faster in giving answers. The students also stated that ChatGPT improve their reading, writing, critical thinking and problem-solving skill, and in the future, they are all sure that ChatGPT could help their learning process in the campus, become the Learning Management System (LMS) or the learning portal between students with lectures in the university.

Based on the interview, it is clear that many students have various perceptions toward ChatGPT and in this case, it is important to find out the English Department Student's perception of ChatGPT as their learning tool for the sake of ChatGPT stability to provide appropriate learning facilities for leaners and educators in the future as the next learning technology. The aim of this research is to find out the perceptions of the 8th semester English Department Student on using ChatGPT in teaching and learning process. The result of this study will tell the readers how the English Department Students perceive ChatGPT for their learning environment, and also question of this research is what are the 8th semester of English Department Students' perceptions towards ChatGPT?

RESEARCH METHODOLOGY

This research using descriptive quantitative approach, conducted in April 2024 up to May 2024 and located in the Riau University, English Department. English Department Students in Riau University in the 2020 academic year students are the target population, while sample determined by Cluster Random Sampling, and lottery method. And the researcher got class A of 2020 academic year to be the sample of this research.

The instrument of this research is the modified indicators from Kaid et al. (2023), Mensah (2023), Shoufan (2023), and Rudolph et al. (2023) by studied through these sources in order to have appropriate indicators in answering the research question. After selecting process to get the most suitable and in line with the research, there are 6 final items that the researcher chose to be the indicators of the research. They are ChatGPT usage for high education (1), Potential of ChatGPT for student's language skills and thinking skills (2), Reason for using ChatGPT (3), Prospect, effect 34 and opportunity of ChatGPT (4), Challenge and Problem of ChatGPT (5) and Student's personal perception on ChatGPT (6). These research indicators are the main items to be the research instrument by developing the blueprint of the research.

The instrument of this research has been analyzed by three validators to observe every item in the instrument and to confirm that the instrument overall addresses the various dimensions of students' perceptions of ChatGPT. Validators suggested researcher to reconstruct the mistakes and inappropriate items and after that, validators stated that the items of the instrument were valid. The reliability of the instrument was addressed through consistency

among validators. The agreement among the three validators on the validity of the instrument questions indicates a high level of consistency among them.

The data collected through online questionnaire by close-ended 5-point Likert scale questionnaire and the score settled at 5-1 from strongly agree (SA) to strongly disagree (SD). Students' responses were being tabulated by using Microsoft Excel and the Score Interpretation is displayed in the table below:

Table 1. Score Interpretation Criterion

Value Range Likert Scale	Percentage	Category
5	80% - 100%	Very Positive
4	70% - 79,99%	Positive
3	40% - 69,99%	Pure
2	25% - 39,99%	Negative
1	0% - 24,99%	Very Negative

(Adapted from Alfian et al., 2023)

RESULT AND DISCUSSION

The detailed elements of the students' perceptions towards ChatGPT are showed in the Table below:

Table 2. Students' Perceptions Towards ChatGPT

No	Indicators	Percentage	Category
1	ChatGPT usage for high education.	76%	Positive
2	Potential of ChatGPT for student's language skills and soft skills (critical thinking, problem solving)	70%	Positive
3	Challenge and Problem of ChatGPT	70%	Positive
4	Student's personal perception on ChatGPT	67%	Pure
5	Reason for using ChatGPT	77%	Positive
6	Prospect and opportunity of ChatGPT	72%	Positive

Among the 6 elements or indicator there are 5 indicators that categorized into positive perception, they are indicator 1, 2, 3, 5, and 6 with a percentage 70% and above. And there is indicator 4 that categorized into pure perception with a percentage of 67%. The detailed of six indicators presented per indicator table as follows:

A. Average Score of ChatGPT usage for high education

The explanation of first indicator of this research is presented in the table below:

Table 3. The Average Score of ChatGPT usage for high education.

No	Item	Frequency					%	Category
		SA	A	N	D	SD		
1	ChatGPT is useful for conducting assignments	1	1	10	14	12	78%	Positive
2	ChatGPT can be used as a students' learning assistant	0	2	10	14	12	78%	Positive
3	ChatGPT helps me create a logical, informative, and organized paper (as the text organization)	0	4	9	16	9	75%	Positive
4	ChatGPT quickly gives results about a wide variety of academic topics	1	1	10	20	6	75%	Positive
5	ChatGPT can provide a learning framework for topics of the courses	0	3	10	18	7	75%	Positive
The overall mean score							76%	Positive

The first indicator is ChatGPT usage for high education. As we can see in the table above, the students have positive perception, means that they agree that ChatGPT has role in high education. 76% of students agree that ChatGPT has role for conducting assignments, as learning assistant, as text organization, for a quick result and to provide learning framework in helping the students in high education.

B. Potential of ChatGPT for student's language skills and soft skills

The explanation of second indicator of this research is presented in the table below:

Table 4. The Average Score of Potential of ChatGPT for student's language skills and soft skills

No	Item	Frequency					Percentages	Category
		SA	A	N	D	SD		
1	ChatGPT helps me improve my reading skill	1	3	14	16	4	70%	Positive
2	ChatGPT helps me improve my writing skill	3	2	16	11	6	67%	Pure
3	ChatGPT helps increase my grammar and vocabulary mastery	1	3	11	18	5	72%	Positive
4	ChatGPT helps me boost my critical thinking skill	2	5	10	14	7	70%	Positive
5	ChatGPT helps me raise my problem-solving skill	1	4	9	18	6	72%	Positive
The overall mean score							70%	Positive

The second indicator in table 4 is Potential of ChatGPT for student's language skills and soft skills (critical thinking, problem solving). From the table above, we can see that the students have positive perception, means that they agree that ChatGPT has potential for students' language skills and soft skills. 70% of students agree that ChatGPT has role for their reading, writing, grammar, vocabulary, thinking skill and problem-solving skill. They agree that ChatGPT can help them improve those skills.

C. Average Score of Challenge and Problem of ChatGPT.

The explanation of third indicator of this research is presented in the table below:

Table 5. The Average Score of Challenge and Problem of ChatGPT

No	Item	Frequency					Percentages	Category
		SA	A	N	D	SD		
1	ChatGPT sometimes misinterprets the given questions	1	5	14	14	4	67%	Pure
2	ChatGPT sometimes gives biased information	0	5	12	19	2	69%	Pure
3	It's hard to find the credible sources in ChatGPT's feedback	1	4	11	11	11	74%	Positive
4	ChatGPT has limited information of the world's events beyond 2021	1	6	17	8	6	66%	Pure
5	Students can easily use ChatGPT inappropriately and get away with it	0	2	16	13	7	73%	Positive
The overall mean score							70%	Positive

In table 5 the third indicator is Challenge and Problem of ChatGPT. As we can see in the table above, the students have positive perception, means that they agree that ChatGPT has some Challenges and Problems. 70% of the students agree that when using ChatGPT, sometimes it misinterprets questions, gives biased information, hard to find credible sources, limited information and ease to use inappropriately by students.

D. Average Score of Student's personal perception on ChatGPT

The explanation of fourth indicator of this research is presented in the table below:

Table 6. The Average Score of Student's personal perception on ChatGPT.

No	Item	Frequency					Percentages	Category
		SA	A	N	D	SD		
1	I find some less accurate feedback from ChatGPT	0	3	17	14	4	70%	Positive
2	I find some words that hard to understand from ChatGPT	0	8	18	8	4	64%	Pure
3	I find some incomplete feedback from ChatGPT	0	5	20	9	4	66%	Pure
4	I feel that ChatGPT sometimes gives unmeaningful feedback	1	11	17	7	2	58%	Pure
5	ChatGPT is not always the main source, it requires the students 'knowledge	0	2	13	11	12	77%	Positive
The overall mean score							67%	Pure

For table 6 there is Student's personal perception on ChatGPT as the fourth indicator. From the table above, we can see that 67% of the students have pure perception, means that they are neutral in finding some less accurate feedback from ChatGPT, hard-to-understand words, incomplete feedback, unmeaningful feedback, and the requirement of their knowledge before using ChatGPT.

E. Average Score of Reason for using ChatGPT

The explanation of fifth indicator of this research is presented in the table below:

Table 7. The Average Score of Reason for using ChatGPT

No	Item	Frequency					Percentages	Category
		SA	A	N	D	SD		
1	ChatGPT can improve the students' learning interest	1	6	10	15	6	70%	Positive
2	ChatGPT can be used as a grammar checker	0	5	9	19	5	72%	Positive
3	ChatGPT can be used as a paraphraser	1	3	8	15	11	76%	Positive
4	I can use ChatGPT whenever and wherever I am	0	2	5	9	22	86%	Very Positive
5	ChatGPT has access to a wide range of information	0	3	10	11	14	78%	Positive
The overall mean score							77%	Positive

Table 7 is the fifth indicator, that is Reason for using ChatGPT. As we can see from the table above, 77% of the students have positive perception, means that they agree that their learning interest can improve by using ChatGPT. Also, they are sure that ChatGPT can be used for grammar checker, paraphraser, able to access wide information, and the most important thing is ChatGPT can be used anywhere and anytime.

F. Average Score of Prospect and opportunity of ChatGPT

The explanation of sixth indicator of this research is presented in the table below:

Table 8. The Average Score of Prospect, and opportunity of ChatGPT

No	Item	Frequency					%	Category
		SA	A	N	D	SD		
1	ChatGPT helps provide academic advice like career planning as a virtual counselor for students	0	4	17	11	6	70%	Positive
2	ChatGPT can be used for understanding and innovating teaching strategies	0	3	11	20	4	73%	Positive
3	ChatGPT provides educational resources for preparing teaching materials	0	2	17	12	7	72%	Positive
4	ChatGPT can be used for global collaboration to support multilingual communication for academicians around the world	0	4	14	15	5	71%	Positive
5	ChatGPT helps teachers differentiate between digital and human-written text	0	3	12	15	8	74%	Positive
The overall mean score							72%	Positive

The last indicator from table 8 is "Prospect and opportunity of ChatGPT". The above showed that 72% of the students have positive perception, means, they agree that ChatGPT helps provide academic advice as virtual counsellor, innovates teaching strategy, provides educational resources, able to use for global collaboration and can help students differentiate between digital and human-written text.

From the results of the six indicators, almost every item scored above 70% on average, which means that students agreed with the statements in this research. According to the score interpretation criterion, most of the category of the six indicators is positive. Means, that each statement in the instrument represented the perceptions of the English Student. Most of the students agreed that ChatGPT has many roles for students learning process. Students got many benefits and advantages from ChatGPT such as improve their reading and writing skill, grammar and vocabulary skill, as well as problem-solving and critical-thinking skill. The students also agreed that ChatGPT has many features to help them in learning process, such as paraphraser, grammar checker, text organizer, and many more.

The finding of this research showed shows that more than half items are agreed by participants that ChatGPT has role in students' teaching and learning process. This result was in line with Mensah (2023) that mentioned students generally have more positive response. The participants reported their highest positive response in item 2 by question "ChatGPT can be used as a students' learning assistant", and item 25 by question "ChatGPT has access to a wide range of information". How students' perceptions of ChatGPT usage for teaching and learning were measured accurately by each indicator from the questionnaire.

From the result of this study, we can learn that our education needs to follow the technological advancements. This is showed by the first indicator, "ChatGPT usage for high education". The students have positive perception that means they agree that ChatGPT has role in high education. The students agree that ChatGPT has role for conducting assignment, as learning assistant, as text organizer, quick result and to learning framework provider in helping the students in high education. The next indicator, "Potential of ChatGPT for student's language skills and soft skills (critical thinking, problem solving)", shows that the students have positive perception, the students agree that ChatGPT has role for their reading, writing, grammar, vocabulary, thinking skill and problem-solving skill. They agree that ChatGPT can help them improve those skills. This is showed us that beside good for English skill progress, ChatGPT also worth to be used to improve our logical thinking skill.

In using ChatGPT, students need to be careful and know when to stop. Because the third indicator, "Challenge and Problem of ChatGPT", students shows that when using ChatGPT, sometimes it misinterprets the questions, gives biased information, hard to find credible sources, limited information and easy to use inappropriately by students. Therefore, students should review the potential dangers before using ChatGPT. The fourth indicator is "student's personal perception on ChatGPT". The students have pure perception, means that they are neutral in finding some less accurate feedback from ChatGPT,

hard-to-understand words, incomplete feedback, unmeaningful feedback and the requirement of their knowledge before using ChatGPT. So, with that, students should not hesitate and free in choosing ChatGPT as their learning tool. The fifth indicator is Reason for using ChatGPT. Students sure that there are many reasons from ChatGPT to be used by the students in their teaching and learning process. Such as grammar checker, paraphraser, able to access for wide information, and the most important thing is ChatGPT can be used anywhere and anytime and we can see that ChatGPT fulfilled the students' needs by becoming the multitasking tool.

The students got the benefit from ChatGPT and based on Salah (2023) most of the respondents had positive responses in perceiving ChatGPT as an accessible beneficial tool for student's confidence and connection to technology, and also the writer specifically has the same results that ChatGPT can be used anytime and anywhere to help students gain their confidence. In the next future, ChatGPT can be a tool for students that has long-term benefits by facilitate their learning process. Because the last indicator, "Prospect, and opportunity of ChatGPT", showed that students sure ChatGPT helps provide academic advice as virtual counsellor, innovates teaching strategy, provides educational resources, able to use for global collaboration and can help students differentiate between digital and human-written text.

Among the 6 elements or research indicators, the highest score came from the 5th indicator "the Reason for using ChatGPT" in which 77% of the students have positive perception. which can occur because students as the participant of this research are at a high level of education. It related to the indicator 3, "ChatGPT usage for high education", that has the second highest score in which they are in the academic environment of a university and use ChatGPT as a tool to help them in the process of teaching and learning such as for conducting assignments, as learning assistant, as text organizer and as learning framework provider. The finding shows that the 4th indicator "Students' personal perception on ChatGPT" is the lowest score in this research in which 67% of the students have pure perception which it assumes that they are more often find useful feedback like in indicator 5 and 6 and rarely find the unmeaningful and incomplete feedback from ChatGPT.

There are also three indicators that have almost the same score. They are indicator 2, the Potential of ChatGPT for students' language skills and soft skills, indicator 3, the Challenge and problem of ChatGPT and indicator 6, the Prospect and opportunity of ChatGPT, which the students have positive perception and agree with the statements of those three indicators. The finding of the research shows that five indicators are categorized into positive perception and one indicator is categorized into pure perception. It shows that the tendency of students in using ChatGPT is because there are many benefits they get in the learning process or in making written or oral assignments.

ChatGPT also helps students as a paraphraser, grammar checker, and text organizer in the writing process and other literature assignments.

From the explanation of each indicator above, most of the indicators are categorized into positive perception, which can occur because the technological advances that currently happening are utilized well by the students in high education of English Department at Riau University. The students showed positive responses and also showed clearly that they get many advantages and benefits from ChatGPT for their teaching and learning process. The finding relates to Shoufan (2023), students conveyed a high interest, impression, and enthusiasm of ChatGPT. The enhancement of Artificial Intelligence in chatbots such as ChatGPT is very useful for college students because the speed, accuracy, and up-to-date answer are the feedback is needed by the academicians of a university.

The finding also showed that the students feel motivated helps by ChatGPT's capabilities that make it easier for students to learn and increase student interest and comfort in their teaching and learning process. It is related to Kaid et al. (2023), who stated ChatGPT is inspiring and motivates the students in writing tasks, works, or assignment and also increases students to learning independence, confidence, and enjoyment while learning English.

CONCLUSION

Since the majority of English-speaking students are already familiar with ChatGPT, we can conclude that education must keep up with technological developments. Enhancing technology is crucial for a university's sustainability since it may one day be a tool that helps students learn more effectively and yield long-term advantages. Artificial intelligence (AI)-based technology, like ChatGPT, helps students distinguish between digital and human-written material, innovates teaching strategies, offers educational resources, and facilitates global cooperation. From the explanation in finding and discussion, we can conclude that besides giving benefits in task organizer, ChatGPT also gives students the comfortability, enjoyment, and confidence in conducting their activities in the teaching and learning process.

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