Google spreadsheet in designed activities for learning English for Polytechnic students

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ABSTRACT

Using communication technology and internet is common activity for today's teaching and learning, included in English subject for polytechnic students. Google Spreadsheet is one of the communication technology with internet medium that can be used in designed activities to learn English. This study aimed to know students' perception towards the use of Google Spreadsheet in designed activities for learning English for polytechnic students at Politeknik Negeri Lampung. Furthermore, this research used descriptive qualitative design. There were 137 samples of the research. They were students who took Basic English in their first year in academic year of 2023/2024. The students were taught by using Google Spreadsheet and given online questionnaire with 15 closed-ended questions and an open-ended question. The result showed that 91.3% students had positive perception towards the use of Google Spreadsheet in designed activities to learn English. Students could feel more-interestingly- different ways in learning English, for instance they could understand the materials easily, make sentences easily based on the examples, learn the vocabulary based on the context given, be more confident, look and check each other's answers among students, and access the task using Google Spreadsheet everywhere and ever time. However, there were some notes from the students such as less interesting appearance and answers that could be easily changed or cheated by other students. Thus, Google Spreadsheet is a beneficial choice medium in teaching and learning English with designed activities even though there are some notes to consider.

Keywords: *Google Spreadsheet, students' perception, designed activities, English teaching and learning*

I. INTRODUCTION

Talking about education, digital technologies and digital classrooms has been the most significant and dynamic issues recently (Khin, 2021). The teacher or lecturer needs to benefit the digital technology during process of teaching and learning to enhance the students' motivation to learn. Moreover, besides considering students' interest, learning practice and the content need to use technology too (Emelyanova and Veronina, 2017). Thus, the students should be involved in the online methods collaborated with face-to-face method by the use of technology.

An example of digital technology that can be used in teaching learning process is Spreadsheet. Its use is in processing learning results in Curriculum 2013 (Khusnuddin, 2018). Moreover, some studies showed the uses of Spreadsheet were for teaching and learning of mathematics (Agyei, 2013; Benning and Agyei, 2016; Bina, et.a.l, 2022), for making Dashboard on iFacility official site (Handayani, et.al.,

2017), and for teaching statistics (Chaamwe and Shumba, 2016). Also, spreadsheet offers concrete ways to explore abstract concepts in mathematics and other subjects (Chaamwe and Shumba, 2016). Therefore, this application also can be used to teach English with designed activities, for there is no study related to the use of Spreadsheet to teach English mastery, especially for polytechnic students.

Ravagan et.al (2021) suggested to make spreadsheets readable and visible to reduce extra effort to comprehend the task with the context. Furthermore, it is because its users routinely read others' spreadsheets (Ravagan, et.al., 2021). Thus, the teacher or lecturer needs to designed activities which use spreadsheet that can be understood by the students easily. In this case, the reseracher in this study used SLT, that was an effective instruction paradigm for English teaching in terms of providing vocabularies and sentence patterns with their frequent situations through learning materials (Huang, A.F.M, et.al, 2023). Therefore, this study has a research question about the student's perception towards the use of Google Spreadsheet after they are taught with this application.

II. METHOD

This study was to know students' perception towards the use of Google Spreadsheet in designed activities for learning English for polytechnic students at Politeknik Negeri Lampung. Moreover, this research used descriptive qualitative design. There were 137 samples of the research. They were students who took Basic English in their first year in academic year of 2023/2024.

The students were taught by using Google Spreadsheet. Furthermore, the participants were fulfilled the criteria as a study by Ravagan, et.al. (2021): 1) Ecological validity: Students got a spreadsheet to fill in at each student's part (there was student's name in a column) from the lecturer that they needed to work on; 2) Minimal prior comprehension: Students had not seen and understood the spreadsheet, or a similar one, before, but they knew because they had to do something with it; 3) Need for comprehension: Students had to comprehend what to do before they could use the spreadsheet; 4) Data sensitivity: Students could bring the spreadsheet to the study; 5) English knowledge: Students had a working knowledge of English.

The following is the picture of designed activities in teaching and learning English by using Google Spreadsheet for polytechnic students applied in this research.
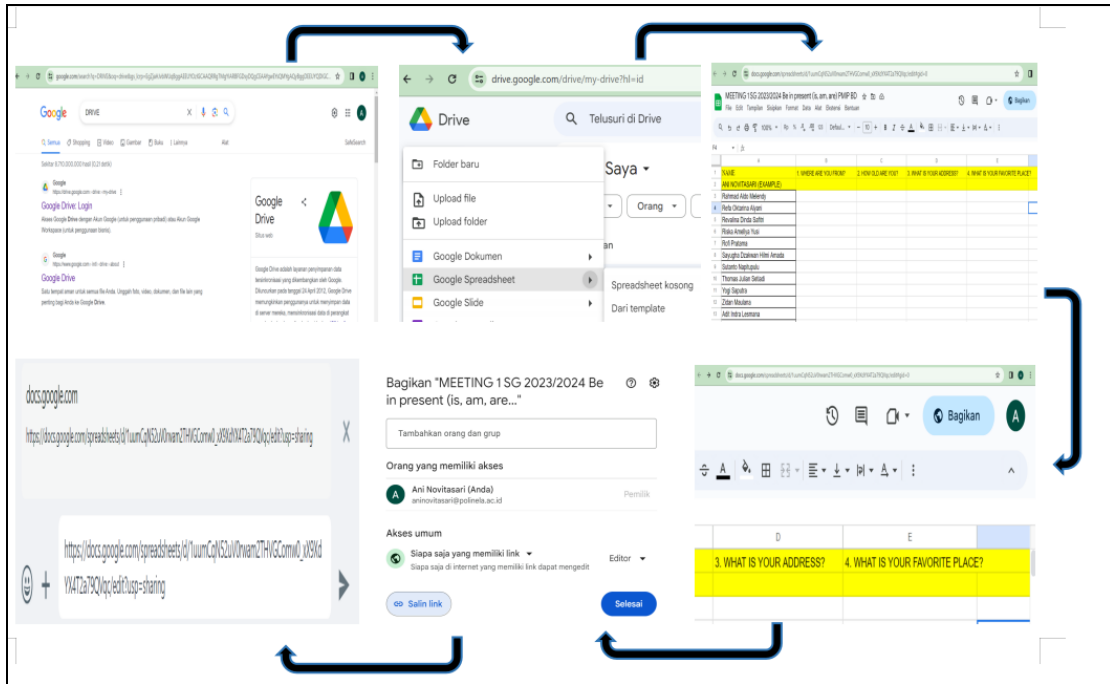
Picture 1. Process of Making Google Spreadsheet in Designed-learning Activities

From the picture above, the process was started by opening Google Drive, then making Google Spreadsheet. After that, the lecturer filled the column with the student's names and the questions that the students had to answer by filling the column based on each student's name. And then, the lecturer shared the Spreadsheet by clicking 'BAGIKAN' or 'SHARE' the link which was set in which the students were as 'EDITOR' and the link could be seen by the students who later were sent the link through WhatsApp group. After getting the link, the students opened the link and filled the column that they had to fill based on each student's name.

After getting the treatment of the use of Google Spreadsheet, the students were given online questionnaire with 15 closed-ended questions and an open-ended question to know their perception towards the use of Google Spreadsheet in learning English. Then, close-ended questions used Likert scale 1 to 4 in which 1 showed SD (Strongly Disagree) and 4 showed SA (Strongly Agree).

The following is the flow chart of the research stages.

Stage 1	• Establishing research aim
Stage 2	• Defining research questions
Stage 3	• Deciding research subject/ sample
Stage 4	• Identifying relevant study
Stage 5	• Composing instrument to gather the data
Stage 6	• Conducting the teaching and learning process by using the treatment of medium
Stage 7	• Giving the instrument to gather the data
Stage 8	• Processing the data gathered
Stage 9	• Drawing conclusion

Picture 2. Flow Chart of the Research Stages

The data gathered from fifteen close-ended questions were analyzed and showed the percentages. The descriptions were also given to enrich the data from an open-ended question.

III. RESULTS AND DISCUSSION

Based on the data gathered from 15 close-ended questions, the result is showed by the diagram below.
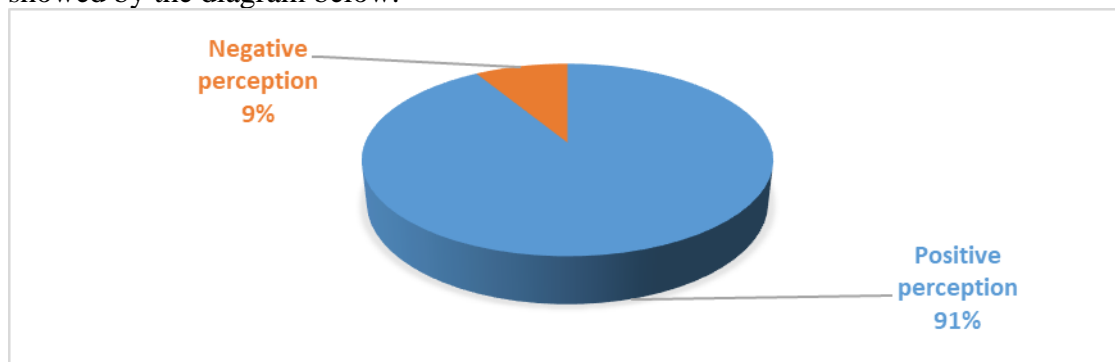
Picture 3. Diagram of Student's Perception Results

The following is the table of students' percentage perception of each close-ended questions.

Table 1. Percentage of Student's Perception Result from Close-ended Questions

No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
*A	8.0	12.4	12.4	5.8	8.0	11.7	4.4	8.8	7.3	6.6	11.7	10.9	8.8	8.0	5.1
**B	92.0	87.6	87.6	94.2	92.0	88.3	95.6	91.2	92.7	93.4	88.3	89.1	91.2	92.0	94.9

* A means for negative perception percentage
** B means for positive perception percentage

Based on the table above, it can be see that 92% students agreed that Spreadsheets were easy to use in learning English, but there were only 8% who disagreed. Then, 87.6% students agreed that Spreadsheets were easy to use for studying vocabulary used directly in English conversations (vocabulary in use), and 87.6% students too who had perception that Spreadsheets were easy to use for studying grammar used directly in English conversations (grammar in use). Moreover, 94.2% students agreed that Spreadsheets could be accessed anywhere and anytime to study English. Furthermore, there were 92% students thought that examples, exercises, or English language task instructions in Spreadsheets were easy to understand. Next, there were 88.3% students felt that Spreadsheets were interesting in English language learning, and 95.6% felt that Spreadsheets were beneficial for learning in the classroom. Then, from question number 8, it showed that Spreadsheets were easy to use with devices and the internet. Also, Spreadsheets made easy to learn English vocabulary (92.7%) and to learn English grammar (93.4%). Furthermore, related to common conversations, the students were interested in learning to use Spreadsheets because Spreadsheets made them easy to understand the use of English vocabulary (88.3%) and English grammar (89.1%). And then, from question number 13, it can be known that learning using Spreadsheets gave 91.2% students opportunity to be more

active in learning because all of them had to fill the column which were their parts to fill. Moreover, learning using Spreadsheets helped 92% students gain a deeper understanding of the material. And from the last question, learning using Spreadsheets motivated 94.4% students to complete their tasks more promptly.

The study from Ravagan, et.al. (2021) was in contrary with the result of this study. They conducted a research for 15 spreadsheet users who read others' spreadsheets as part of their work. Their result showed that 50% of participants who reported feeling overwhelmed. Then, 80% participants decided to go back to the spreadsheet's author for clarifications. However, related to this research, it is found that the lecturer designed examples, exercises, or English language task instructions in Spreadsheets which were easy to understand by the students. The lecturer gave clear instruction about what to do by the students before they could fill in the sheets. It is why the students also perceived that Google Spreadsheet were easy to use in learning English, and they were interested in using it.

Poudel in his study (2022) concluded that ICTs were useful in teaching and learning English such as for accessing learning resources, preparing and presenting lessons, making more frequent interactions, increasing exposure to English, and conducting collaborative learning activities. Moreover, Google Spreadsheet as one of the ICTs had the same benefits in this research win which the students perceived that they could use it to help them study vocabulary and grammar in English conversations or sentences that the examples given in the columns of the Spreadsheet. They had to fulfill their own column (which was prepared by the lecturer before the students fill the columns of Spreadsheet), so each student had the same opportunity to do the task, and all of the students had to finish their task to fill the columns. If there was student, for example, who did not fulfill the column or took long time to finish it, other students could know, so everyone was motivated to be active to complete the task promptly. The following pictures are examples of the student's activities.

Picture 4. Student's for-Having-Conversation-Activity Example in Spreadsheet

Picture 5. Student's Vocabulary-and-Grammar-Activity Example in Spreadsheet

Picture 6. Student's Vocabulary-and-Grammar-Activity as Well for-Having-Conversation-Activity Example in Spreadsheet

In additional, based on the result, it showed that the students perceived that they could understand the English material deeply by learning through the designed activities using Google Spreadsheet by the lecturer. Some studies showed the uses of Spreadsheet were effective for teaching and learning of mathematics (Agyei, 2013; Benning and Agyei, 2016; Bina, et.a.l, 2022) and for teaching statistics (Chaamwe and Shumba, 2016). It shows that using Google Spreadsheet is effective to teach many subject areas. Moreover, it was due to the lecturer's role also. Teacher's great interest in the higher educational reform would lead with great impact on creating digital classrooms and integrating technology in traditional classrooms (Khin, 2021). Spreadsheet use was effective in guiding the lesson development and delivery (Benning and Agyei, 2016). Also, it was because the contents of the Spreadsheet made by the lecturer were based on what the students' need, that was understanding English material. It was in line with study by Handayani, et.al. (2017) which said that Google Spreadsheet could be used based on the user's need. Therefore, by designing the English activities creatively by the lecturer using Google Spreadsheet, it could help the class could be conducted by the lecturer, and the students could understand the material well.

Furthermore, the result in this study showed that 91.2% students felt that they were easy to use Spreadsheet by using their devices and internet. It is supported by the study saying that more than 75% of the respondents self-reported that they were adept with applications in smart phones spreadsheets (Reyes, et.al., 2022). In this study, because the lecturer asked the students to use their mobile phone or any other devices

to open and fill in the Spreadsheet, it was easy by the students to do so both in the classroom and out of the class.

In addition, based on the answers from open-ended question, it was gotten that using Google Spreadsheet in teaching learning English was interesting and practise or simple, for the students could understand the material from the examples given easily, they could practice making the sentences directly, they could understanding English vocabulary in use easily from the information given by the lecturer in the Spreadsheet, they could increase their confidence because they could look each other's answers, they could access wherever and whenever (as long as the lecturer opened the link access) and they were motivated and active to finish their task together with friends. However, based on the close-ended question, some students perceived that using Google Spreadsheet was less interesting from the appearance, for the other students could look and cheat their friends' answers, even change the other students' answers. Then, some students also perceived that it was less interesting because of no pictures and interesting features. Thus, the students of polytechnic has positive perspective towards the use of Google Spreadsheet in teaching learning English although there were some notes as negative perception from some students.

IV. CONCLUSION

By learning using Google Spreadsheet, students could feel more-interestingly-different ways in learning English, for instance they could understand the materials easily, make sentences easily based on the examples, learn the vocabulary based on the context given, be more confident, look and check each other's answers among students, and access the task using Google Spreadsheet everywhere and ever time. However, there were some notes from the students such as less interesting appearance and answers that could be easily changed or cheated by other students. Thus, Google Spreadsheet is a beneficial choice medium in teaching and learning English with designed activities even though there are some notes to consider.

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