

THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGY AND LOCAL LANGUAGES OF PAPUA IN ENGLISH LANGUAGE TEACHING TO IMPROVE STUDENTS' VOCABULARY

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Abstract: This research was conducted to examine the effectiveness of the use of Information and Communication Technology (ICT) especially *PicLits* and *Kahoot!* and local languages of Papua in English Language Teaching (ELT) to improve students' vocabulary. Method of the research was action research which consisted of two cycles. The data of the research was collected from 72 students of Informatics Engineering, University of Science and Technology, Jayapura (USTJ). The results of the research showed that the use of ICT in ELT was effective in improving students' vocabulary, while the use of local languages of Papua was not effective. The main score of pre-test was 32. There were only 7 (10%) students who achieved passing grade in the test. The mean score of students improved to 67 in post-test and there were 57 (79%) students who passed the passing grade in the test. The data also implied that the use of ICT in the English Language Teaching (ELT) made students interested in learning, motivated, active and participative in the class.

Keywords: ict, elt, vocabulary

INTRODUCTION

The use of technology has been used to help and improve language learning. It is also used as a tool to help teachers facilitate language learning for their learners. (Ahmadi, 2018). In addition, the use of technology has made the process of teaching and learning all more enjoyable. (R.Raja, 2018). This study focuses on investigating the effectiveness of the use of technology in English Language teaching at University of Science and Technology, Jayapura (USTJ) in Informatics Engineering study program. The problem faced by the students is English is considered as a boring subject because the lecture method used in teaching is less attractive. Therefore, students have lack of participation in English class. They are also likely to take English as a difficult subject to learn especially English vocabulary. The students faced difficulties in understanding and using the words and meaning. Hence, they have insufficient vocabulary. The researcher uses Information and Communication Technology (ICT) particularly *PicLits* and *Kahoot!* application in English Language Teaching (ELT) to ascertain whether this method can be used to improve students' vocabulary or not. Besides, the researcher also used local languages of Papua in investigating the use of it.

One of the methods that can be used in English Language Teaching is the use of Information and Communication Technology (ICT). ICT based learning is a learning concept using computers and multimedia. Learning with ICT refers to the use of ICT, like multimedia, the Internet or the Web, as a means of enhancing instruction or as a substitute for other media without changing the views on teaching and learning approaches and methods. ICT includes all technical equipment; hardware, software and network connectivity used to process and deliver information (Pelgrum dan Law. 2003).

The use of ICT in English Language Teaching (ELT) aims to facilitate, improve and maximize the teaching and learning process in the classroom. The use of ICT in ELT is a challenge for lecturers to teach in the class because they have to combine ICT and English so that the research related to this topic is necessary. By using ICT in English Language Teaching, it is expected that the teaching and learning process in the classroom can be carried out more easily, innovatively, actively, collaboratively and creatively in accordance with the purpose of using ICT in teaching (Patil,2012).

In the present study, ICT refers to the use of website and program in English Language Teaching. These applications used in the present study in order to examine the effectiveness of the use of ICT in English Language Teaching (ELT). The applications used in the study were Piclits and Kahoot. PicLits is a creative site featuring attractive photographs to inspire students to match them with words selected from the word bank or added free style Sah, Siti & Subramaniam, Mohanavadivu & Yunus, Melor & Shah, Parilah. (2018). While *Kahoot!* is a game-based learning platform used to review students' knowledge, for formative assessment or as a break from traditional classroom activities. The two of these learning applications used as tool in teaching in this study.

Besides, the researcher also used local languages of Papua as one of variables in this research. Local languages of Papua used in this research because most of the students in informatics engineering are Papuan (54%). Based on the observation, those students tend be passive listeners and rarely participate in the learning process during the class.

Some studies have been done related to the use of ICT especially Piclits and Kahoot. Sah, Siti & Subramaniam, Mohanavadivu & Yunus, Melor & Shah, Parilah. (2018) investigate the student's acceptance of using Piclits as as a digital tool to help them enhance their writing skill. Besides, Wang, Alf Inge & Tahir, Rabail. (2020) discuss about the effect of using *Kahoot!* for learning. The result of their study showed that *Kahoot!* can have a positive effect on learning performance, classroom dynamics, students' and teachers' attitudes, and students' anxiety. Hidayati, (2016) also wrote about integrating ICT in English Language Teaching and Learning in Indonesia. She found out that the integration of ICT will enable teachers to vary teaching and

learning activities, to gradually change the teaching style to be more student-centred, to train students to have more active role in learning, and to access a huge range of authentic learning materials. Mailizar and Lianghuo Fan (2020) reported ‘Indonesian Teachers’ Knowledge of ICT and the Use of ICT in Secondary Mathematics Teaching’. The result of the research showed that Indonesian secondary mathematics teachers have a largely inadequate knowledge of ICT and knowledge of ICT use in teaching.

Because of that, the researcher wanted to ascertain the effectiveness of the use of ICT and local languages of Papua in English Language Teaching (ELT) to improve English vocabulary of Informatics Engineering Students at University of Science and Technology, Jayapura.

METHOD

This research aims to investigate the effectiveness of the use Information and Communication Technology especially *PicLits* and *Kahoot!* application in English Language Teaching. This research conducted at University of Science and Technology, Jayapura (USTJ). The subject of the study was 72 Students of Informatics Engineering study program. The method of the research was Classroom Action Research (CAR) approach. It is a method of simultaneously inquiring about problems and taking action to solve them. It is a continuous, intentional, recursive, and dynamic process of inquiry in which the teacher takes an action to enhance teaching/learning in a particular classroom context purposefully and ethnically (Pine, 2009). Besides, Classroom Action research is a very effective way to improve teaching and learning process (Dewi, 2017). Classroom Action research consists of two cycles which involves four broad phases in a cycle of research. Four phases are planning, action, observation, and reflection (Burns, 2010). The cycles of Classroom Action Research can be seen in the figure below:

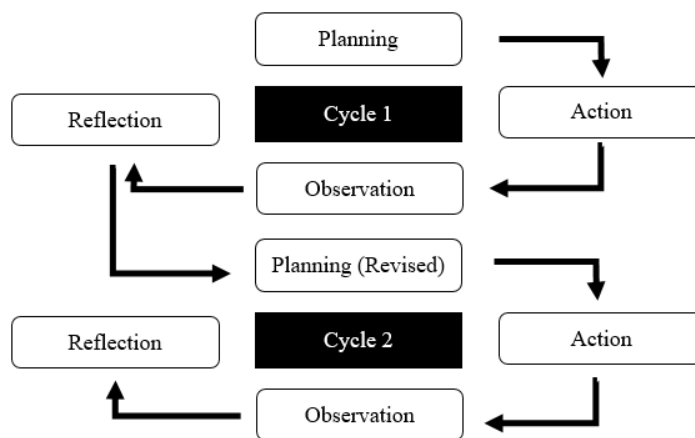


Figure 1. Cycles of Classroom Action Research Model

The procedure of the research was performed by administrating two cycles. Each cycle consisted of four phases as in figure 1.

Before starting the first cycle, the researcher conducted preliminary observation. After that, the researcher continued to perform cycle 1. There were two cycles performed in this study. Each of the cycle consisted of three meetings. The first meeting of cycle 1 was pre-test. The second and third meeting were used to teach English Vocabulary by using *Piclits*. Cycle 1 test performed after treatment in the third meeting of cycle 1. The first and second meeting of cycle 2 were used to teach English vocabulary used *Piclits*, *Kahoot!* and local languages of Papua (Ngalum, Lani, and Nduga). The third meeting was post-test.

The data of the research were obtained from pre-test, cycle 1 test, post-test, questionnaire, observation and field notes. These data analyzed then concluded as the result of the research. Pre-test was conducted before treatment performed, to know the skill of students' vocabulary. Test of cycle 1 was conducted after treatment in cycle 1. Post-test was conducted in the last meeting of cycle 2. It was performed to see whether the vocabulary performance of students improved or not after treatment. After performing cycle 1 and 2, questionnaire was given to the students in order to know their response towards the use of ICT, local languages in ELT. Observation and field notes was performed to observe and record all the activities during the cycle 1 and 2 was performed.

All data obtained in the research were analyzed using quantitative and qualitative approach. The quantitative data were the result of pre-test, test of cycle 1, and post-test whereas qualitative data were obtained from questionnaire, observation and field notes. The result of the research presented in quantitative and concluded qualitatively. In scoring of quantitative data, the researcher used formula:

$$S = \frac{B \times 100}{n} \quad (\text{Arikunto, 2011})$$

Notes:

S : Score

B : Total of Correct Answer

n : Number of Question

After determining the students' score, the researcher calculated mean score by using the following formula:

$$\text{Mean Score} = \frac{\sum X}{N} \quad (\text{Arikunto, 2011})$$

Notes:

$\sum X$: Total of Score

N : Number of Students

The rating scale of the students' achievement on the test was determined based on the following rules (Aqib, 2009):

Table 1. Category of Students' Mean Score

| Score | Category |
|----------|-----------|
| 86 – 100 | Very high |
| 71 – 85 | High |
| 56 – 70 | Average |
| 41 – 55 | Low |
| 0 – 40 | Very low |

The last, the researcher calculated the class percentage which achieved passing grade. It was 56 adapted from the scoring system of higher education especially in University of Science and Technology, Jayapura, if score of students achieved 56 – 69 or C, they are considered pass the subject. The formula was:

$$P = \frac{F}{N} \times 100 \quad (\text{Sudijono, 2014})$$

Notes:

P : The Class Percentage

F : Number of Students achieved passing grade

N : Total Number of Students

FINDING AND DISCUSSION

The research aimed to examine the effectiveness of the use of Information and Communication Technology (ICT) and local languages of Papua in English Language Teaching (ELT) to improve students’ vocabulary. The method of the research was action research design with Classroom Action Research (CAR) approach. It consisted of two cycles and four phases.

Based on the data obtained from each cycle, it showed that the use of ICT in English Language Teaching (ELT) was effective in improving students’ vocabulary. It can be seen from the score obtained by the students in pre-test, cycle 1 test, and post-test. The mean score and the percentage of students achieved passing grade can be seen in the chart below:

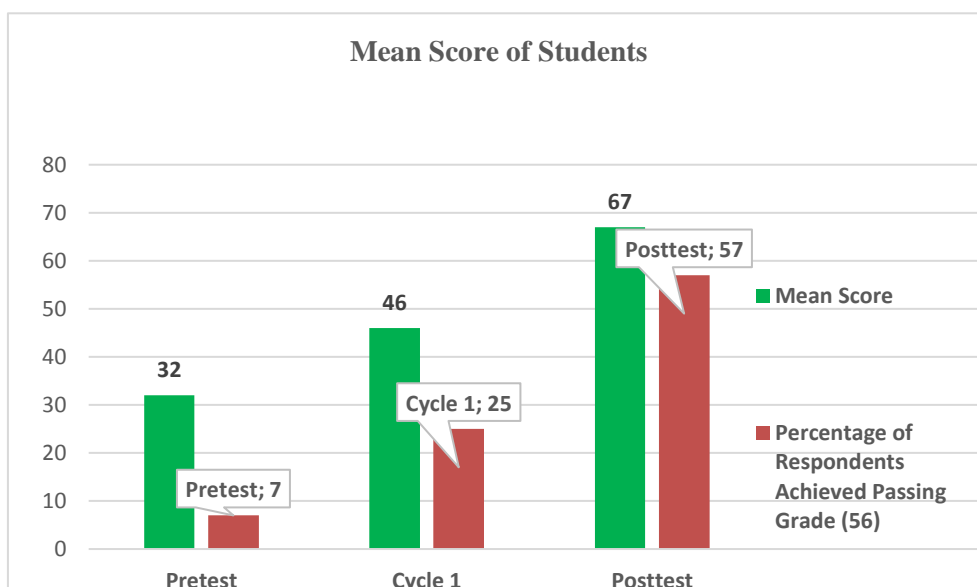


Chart 1. Students’ Mean Score in Pre-test, Cycle 1 Test, and Post-test

Pre-test was performed in the first cycle. The result of the test showed that mean score of the Students was 32. There were only 7(10%) from total 72 students who achieved passing grade. There were 65 (90%) failed to pass the passing grade. The score of pre-test was achieved by students before treatment performed. Based on rating scale, the mean score categorized very low.

After Pre-test, treatment conducted in two meetings. The material of English vocabulary was presented in *Piclits* then taught to the Students. Based on the observation, in the beginning of the class, the students did not know the material made from what program. The Students did pay attention to the explanation that was given during the treatment performed. However, there were only little students who participated in the class. After treatment conducted in the third meeting, test of cycle 1 performed. This test was conducted in order to know the improvement was made

by the students after treatment. The result of cycle 1 test showed that there was improvement of the score from the pre-test. Mean score of the cycle 1 test was 46. There were 25 (35%) students passed the passing grade, while 47 (65%) students who failed. Based on the rating scale, the mean score of the test was considered low. Even so, there was the improvement of mean score and the percentage of the students who achieved the passing grade compared with the result of pre-test. However, the result of the cycle 1 test still was considered low and have not achieved a satisfactory outcome so the researcher continued to performed cycle 2.

Cycle 2 was conducted in three meetings. The first and second was treatment and the last day was post-test. The treatment performed in the cycle 2 was the revised plan from treatment cycle 1. It was the use of *Piclits* and *Kahoot!* combined with local languages of Papua in teaching English vocabulary to the students. The teaching material that was delivered during the treatment presented using those applications. Local languages of Papua consist of Ngalum, Lani, Nduga inserted to the material teaching as three local languages of Papua that used to examine whether it effected to improve the students' vocabulary or not. Moreover, the participation of the students taken in consideration as well. After treatment in cycle 2, the post-test performed. The result of post-test showed that the mean score of students was 67. Based on the rating scale, it was considered average score. There were 57 (79%) students who achieved passing grade, while 15 (21%) students who did not pass the passing grade. After performing all the tests and tabulating the data, it can be seen (as in chart 1) that there was improvement of mean score and the percentage of students who achieved the passing grade. In pre-test, mean score of the students in doing the test was only 32 became 46 in cycle 1 test and 67 in post-test. Besides, there was also improvement of students' number who passed the passing grade. Pre-test was 7 students or 10%, cycle 1 was 25 (30%) and post-test was 57 or 79% of students who achieved the passing grade. It was more than 50% of students. The improvement of students' score and number of students who passed the passing grade was quite high and satisfied. Because of that, the cycle was stop in cycle 2. The researcher proceeded to analyzed the qualitative data and conclude the result.

Based on the result of the questionnaire, the use of ICT especially *Piclits* and *Kahoot!* in English Language Teaching was obtained positive response from the students. There were 71 (99%) of students who were interested in this method, 70 (97%) answered that the method was helpful in improving their vocabulary. There were 65 (90%) answered that the method increased interest and enthusiasm in learning English. However, the response of students in the use of ICT combined with local languages of Papua in teaching English was not satisfied. The use of this method was not effective. It was because 42% of total number of students could not speak their native language at all. 24 % of students was passive speakers and 33% of students was active

speakers. Even so, there was interesting facts found by the researcher during the observation. The participation of the students who mastered Ngalum, Lani, and Nduga language was improved. Before the treatment performed in cycle 2, they were passive students and they become more participative during the treatment in cycle 2.

Overall, the data showed that the use of ICT especially *Piclits* and *Kahoot!* in English Language Teaching (ELT) proved to be effective in improving students' vocabulary. It can be seen from the result of pre-test, cycle 1 test and post-test. Besides, the result of questionnaire and observation also showed positive response from the students. Although the use of local languages of Papua was not effective in teaching English vocabulary, those who mastered the languages showed to be more participative in the class during the treatment.

CONCLUSION

Based on the result of the research, the researcher concluded that the use Information and Communication Technology (ICT) in English Language Teaching (ELT) was effective to improve students' vocabulary. Furthermore, the result of the questionnaire and observation showed positive response of the students towards the use of ICT in ELT. The students were interested and motivated in learning English vocabulary using ICT. Although the result was not significant and found not effective used in English teaching because half of the students did not master their local languages, the use of local languages of Papua was effective to increase participation of the students who mastered the languages.

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