

## Empowering Digital Tools Based On Call (Computer-Assisted Language Learning) For Teaching Esp: Best Practices At Polytechnics

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**ABSTRACT:** During pandemic of Covid19, both teachers and students are stressful because they have to do all activities through online. The teachers must work harder to prepare digital teaching aids to make students interested and then comprehend the material. The research is to find out which digital tools may help both English teachers and students, especially at **Politeknik Negeri Jakarta** (PNJ). In learning technical English vocabularies. As students of polytechnics, in certain semesters students must learn ESP (English for Specific Purposes). In practice, they find some obstacles in memorizing technical vocabularies which are very important in order to read and understand manual books for laboratory and workshop. During pandemic, most time of study are at home, so it is not easy for teachers to teach them. The modern teaching tools are using digital tools. The research made a kind of software which could be used for practicing their vocabulary memory as well as teaching them grammar, so they will be more skillful and knowledgeable. This software was made by using the program of Rapid E-Learning Suite Version 5. The software contains some exercises on reading text and reading comprehension questions and presented with the multiple answers. is handy and flexible which was flexible because students could bring it anywhere and be studied anytime. In other words, they have flexibility to learn and practice technical English vocabularies. The tool consists of 3 (three) sections of exercises. At the end of each exercise, the students are evaluated automatically by looking at the scoring system. These will motivate them to get good score. The most important thing is that by using this tool the students can practice technical English vocabulary and grammar both in classroom or at home.

**KEYWORDS:** ESP, English vocabularies and grammar, digital tools, EFL

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### I. INTRODUCTION

At Politeknik Negeri Jakarta (PNJ), students must know and comprehend some technical terminologies used in the workshop or laboratories. Teaching ESP for students at PNJ should be given to make students ready to work when graduating, so the knowledge of technical English will be applicable to industrial needs. Technical English that the students learn are related with technical vocabularies. In learning technical English, there are some words or vocabularies that students often use in the workshop or laboratories, especially in the department of Electronic and Electrical Engineering. Although this subject is given once a week for about two (2) or three (3) hours, this still encourages students to learn English enthusiastically. They are really aware that English is very crucial for communicating and working.

In Electrical and Electronics Engineering Department, English subject is given to the students in four semesters. It is divided into General English and Technical English. General English is given in semester 6, meanwhile Technical English is given in semester 4 and 5. This division is based on the curriculum applied in Electrical Engineering Department. due to the needs of students that they have to know the objects or process or experiments that are related with the technical terms, so technical English is given in semester 3 and 4. Students get English for Specific Purposes (ESP). This is aimed to make students familiar with objects or experiments done in the workshop. When they move to semester 5 and 6, they need ESP related with industrial work. According to Hutchinson (1987:19), ESP is an approach to a language teaching in which all decisions as to content and method are based on the learners' reason for learning. He adds that ESP is made to meet specific needs of the learners. These are in line with the needs of students of PNJ who learn specific vocabularies.

It is already proved that multimedia technology eases people to do their papers, reports, study and many more. Related with that, Computer Assisted Language Learning (CALL) will make both language teachers and students study the language and improve their skills in more enjoyable environment. Based on the explanation above-mentioned, it is important to make the exercise model for English technical vocabularies and grammar which are related with objects,

Process and experiments done in workshop or laboratories. This model will help students, especially students of engineering, not only for students of polytechnics but also technical students in general, so that they can learn and understand technical terminologies easily. The need of this model is becoming primary since English subject is taught as primary subject at polytechnic. It is not easy for most EFL students to learn ESP effectively. By using this tool model, EFL students are assisted to study in more and flexible way. Actually, it can be said that there are so many digital tools found in online sources, but there is no model for engineering. It means that EFL learners in Indonesia find difficulties to learn vocabularies. The outcome of this research is very fruitful to fulfill such needs. It is a kind of a software which is useable and portable to be carried out everywhere. By making use of technology development, like computer, learners find the solution to their problem. They are easily able to open and practice the vocabularies, like an old saying says *practice makes perfect*.

## II. THEORETICAL FRAMEWORK

There are so many ways to learn English vocabularies in order to make learners easy to remember. Among others are repetition exercises, using picture dictionary, using definitions or descriptions, and using real objects (Hutchinson and Allan, 1987). These old ways are mostly used by language teachers to teach their students in order to comprehend the topics taught. These also depend on the creativity of teachers to make teaching aids. Unfortunately, lecturers of English at State Polytechnics find difficulties to drill students on technical vocabularies. Those vocabularies are related with technical workshop and laboratories (Louis, 1985). These vocabularies are rarely used in daily conversation or sometimes they have different meaning if we see in general dictionary. For example, there is an object in the workshop called *bench*, it may mean *long wooden seat placed in public garden* (Oxford Dictionary, fourth edition). Meanwhile in technical terminology (English for Engineering Dictionary, 1987), or it means *work table used in the workshop or laboratory*. These meanings may make students confused. Therefore students need to be taught meaning of words related with engineering. Other words related with technical terminology are connected with the topics, such as: *Describing tools and instruments, Describing Process, Reading Math and Formulae, Reading Graphs and Table, Shapes and Angles, and Properties of Engineering Materials*.

John M. Davies (*Communication for Engineering Students, 1996*) says that multimedia will help someone learn English faster, so she/he easily understands difficult words. Moreover, he says that this is one of the effective ways to help teachers teach and explain English subject to their student. Computer Assisted Language Learning (CALL) has been popular among language researchers since 1990s. The similar research was done by two researchers from China, Ming-Tsan Lu and Chi Ying Wu who made the paper and product entitled: "The Effects of CALL in grammar classroom" (2009). They invented this software to facilitate for English teachers to teach grammar more enjoyable and fun. L2 students will not get frustrated when learning grammar of English. Another researcher, Beatty (2017) says that CALL has also the power to transform language learning through the pioneering application of innovative research and practices. In developing the digital tools, a kind of software is used, such as: Rapid E-Learning and Flash CS3. Rapid E-Learning is often used to make programs, in this case for making questions for English exercises. This program was launched in 2009 is used for making interactive learning. It is also used to integrate multimedia, interactive quiz, dynamic screen casts, and streaming video with text. Meanwhile Flash CS3 is used for a kind of animation program and to produce sound in order to make the tool more attractive to see and make other web components to be easily integrated to the video application.

## III. RESULT AND DISCUSSIONS

During pandemic of Covid-19, teachers of English must be ready to teach online. It means that they must be able to make a kind of software which would motivate new students at polytechnics to learn technical vocabularies in engineering and grammar easier because sometimes students face difficulties when working with technical objects in the workshop. This research was done via online. The teacher and students were at their own homes. The module of the lesson was already uploaded in E-Learning PNJ which can be seen or downloaded by each students. This tool consists of three (3) kinds of exercises. As a learner opens the menu of software, there is a display of subject title. Then for the next display, a learner can type his/her name and student number to start the exercise program. The first module contains 50 multiple-choice questions which a learner can answer A, B, C or D by clicking the letter for the correct answer. If the answer is correct, there will be the blue-color sign and the clapping-hand sound, meanwhile the red-color sign and the sound of *sorry* for the false answer. The sound is given here to give positive impact to the learner's emotion. Although she/he makes mistakes for the answer, she/he will be entertained by the sound. This way will motivate students to learn. In other words, this exercise model will make student study vocabularies naturally without being pressure because she/he can study vocabularies more fun. At the end of this exercise, there will be evaluation what score she/he gets after doing each exercise.

For the second part of this tool exercise, a learner is given incomplete picture of cathode. In this exercise, the students must complete them. Before doing it, a teacher explains about what it is and also the functions. The students will have time and then they are given the picture to complete it in their own laptop or personal computer at home. The evaluation and scoring system are similar with the first exercise. The last part of tool exercise is a kind of incomplete paragraph. An EFL learner must complete it by choosing with the words given. A learner must be very careful to choose the appropriate word, whether it is a verb, a noun, or an adjective in order to make this text perfect. As usual, there will be evaluation at last, similar with the first and the second ones. By using this kind of exercise, a learner can practice and memorize technical words without pressure. This will also give positive impression to the learners of English that understanding vocabularies is not difficult as they think. When students have finished all the exercises in this program, the score will be shown in the screen. Besides the score which is announced, there is a description how many correct and false answer that students get. Moreover, students will know in what rank they get. They can repeat this exercise model independently till they are satisfied with the score.

#### IV. CONCLUSION

This interactive model for practicing technical vocabularies and grammar has been implemented at Politeknik Negeri Jakarta. From the try-out practices, most EFL students got improved in reading skill, especially related with guessing the meaning of difficult vocabularies. Furthermore, students get better enthusiasm in learning technical English than using the old ways of teaching, such as: repetition and memorizing. This has shown that mental attitude students are getting improved positively. This digital tool has shown that it motivates both teachers and students to practice more often. It can be done in the classroom or outside classroom independently. So learning a foreign language will be fun and enjoyable. It is also hoped that the digital tool will give fruitful contribution in educational system in general, especially in Indonesia where English is still considered as a foreign language. Since this exercise model is relatively new in Indonesia, it will be sold commercially in the future.

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