

STUDENTS' COMPREHENSION IN UNDERSTANDING ENGINEERING ENGLISH THROUGH READING INSTRUCTION

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ABSTRAK

English is an important language to communicate for any levels of students. Unfortunately, although the students get this language from early, they still cannot master it well. They are not good in passing many skills of English, just like the speaking skill, writing skill, reading skill, and also listening skill. As a matter of the fact above, it makes the teachers have an additional duty to give a better method in teaching them in order that they can accept the lesson well and get a better result at the end. That is why the researcher is interested in conducting a method, reading instruction, to be implemented in Engineering Department of ITN Malang in the first semester. Here, the researcher faces a problem, that is "how can reading instruction increase students' comprehension in understanding English Engineering". This study is intended to see how the reading instruction can increase students' comprehension in understanding English Engineering. The researcher uses two types of reading instruction, those are: direct and indirect instruction. Getting the data, the researcher uses a class action research because he takes the data by himself. He teaches the students by the help of a collaborator. To get the data, the researcher uses an interview, observation, test, questionnaire, and also documentation as the instruments. Here, the researcher conducts two cycles, in which every cycle consists of four steps, those are: planning, acting, observing and evaluating, and also reflecting. During the two cycles conducted, the students get improvement. At the first cycle, the students get a mean as 77.75. Meanwhile at the second cycle, they get the mean as 88.67. From this result, it is shown that the method is successful. Some suggestions are extended for the other researchers. The other researchers are suggested to apply this method to other skill of English, just like at speaking subject or take the different subject of the study for the next research.

Key words: English engineering, reading instruction.

National Institute of Technology Malang (ITN Malang) is one of the private colleges in Malang which has two faculties and sixteen departments. At all departments, English subject is taught in one semester, which is offered in the first or second semester. The objective of English subject is to develop the students' vocabulary enrichment included reading proficiency and their general reading skills.

According to theories of reading, the reader should be given a fundamental and active responsibility for interpretation of meaning. In other words, reading is an active process of constructing meaning from language presentation by graphic symbols (letters) systematically arranged. The meaning abstracted from the text is an outcome of the interaction between the printed page and the reader's cognitive processing capacities. (Harris, Albert J, 1975)

Unfortunately, some researchers have proved that the English reading skill of the most Indonesian students is still far from sufficient. Such a condition leads the researcher to have an opinion that it is necessary to analyze the competence of the learners taking reading class

and improving their vocabulary at ITN Malang. This study focuses on one of the factors, namely, teaching method as implemented in teaching techniques. Alexander (1988) states that the teaching qualities, particularly the approach, method, and techniques used in teaching process, are important. Therefore, the researcher intends to study the teaching method to improve the students' comprehension in understanding English Engineering. The researcher faces a problem, that is "how can reading instruction increase students' comprehension in understanding the English Engineering". So, this present study is intended to see how the reading instruction can increase students' comprehension in understanding English Engineering.

Based on the background of the study, the problem can be formulated as follows:

How can the reading instruction increase students' comprehension in understanding English Engineering?

This present study is intended to see how the reading instruction can increase students' comprehension in understanding Engineering English.

The Definition of Reading

Some students still think that reading some texts is not an easy job. As Charles Scribner, Jr said reading is a means of thinking with another person's mind; it forces you to stretch your own. Further, it is also said that reading makes a full man; conference a ready man; and writing an exact man. And therefore, if a man writes little, he had needed have a great memory; if he confers little, he had needed have a present wit; and if he read little, he had needed have much cunning, to seem to know that he doth not."(Francis Bacon, "Of Studies," 1625).

So, I can conclude that in reading, the reader tries to understand the other person's idea and also shares his idea in time. Here, he needs to give his prior knowledge to connect his own idea and the writer's idea.

The Type of Reading Instruction

In giving the instruction in reading, the teacher may use several types of it. There are 5 types that can be used. Usually, because the students have different ability, so the teacher may try to combine several types in time. Those types are: direct, indirect, interactive, independent, and experimental instruction. From those five types, the researcher will use direct and indirect instruction. The class will be started by teacher-centered and ended by student-centered. In direct instruction, the students are guided for word recognition, basic comprehension skill, locational skill, and rate of reading. While in the indirect instruction, the students are guided for

Reading Level

Some students in the class will have different ability on their reading level. As stated on <http://www.willapabay.org/~thelewis5/section3.htm>, there are 3 reading level as, those are: **Independent Reading Level.** It is also called as an easy reading. In oral reading, a child would have one or less word calling errors in 100 words of text, with 100 percent accuracy on comprehension questions about the story. A student could read it alone with ease; **Instructional Reading Level.** This is the best level for learning new vocabulary. It requires the assistance of a teacher or tutor. The word error range allowed while reading orally to the teacher is from 2 to 5 word calling errors per

100 words of text (95% accuracy or better), with at least 80 percent comprehension on simple recall questions about the story. This is where the best progress is made in reading. Children who are forced or permitted to attempt reading beyond the 5-word error limit soon begin to feel frustration when in an instructional setting; and the last is **Frustration Reading Level.** This is too hard for the reader. Word errors are over 5 per 100 words of text. Comprehension questions are below 70 percent accuracy. Unfortunately, teachers sometimes allow this to happen, especially when the words missed are basic vocabulary sight words, such as "was" for "saw" and "what/that." The practice of having young children work in frustration level reading materials is not professionally sound. It is, however, all too often observed in the classrooms of well-meaning teachers. From the three types, I can conclude that the students' type of reading is divided into three, starting from the easy one up to the hardest one. The usage is matched with the ability of the students themselves.

Engineering English

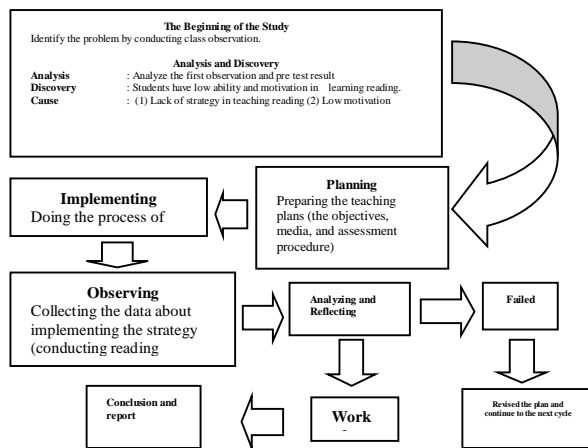
Engineering English is the texts referring to terms used by the students in Engineering. The students usually use reading text in the engineering area. It can be in industrial engineering, mechanical engineering, electrical engineering, and civil engineering.

The Criteria of Success

In this study, the researcher takes 2 things as the criteria of success. First, the method should attract the students' attention for being interested and active in the class. Second, the method should be able to improve students' comprehension in understanding Engineering English from the reading text.

The Characteristic of the Classroom Action Research

CAR is different with other research. It has some characteristics. According to Hitchcock and Huge, there are two characteristic of CAR, those are: (1) changing that hoped from the action and (2) the collaboration from the researcher and the students.



(Adapted from Kemmis and Mc Taggart, 1988)

Figure 1. The Acting Procedure

FINDING

After conducting the research, the researcher found that reading instruction can help increasing students' comprehension in understanding English Engineering. At the preliminary study, from all students as the subject of the study, they were almost found did not understand the text they had read as the test. They also had no any good motivation in trying to understand the reading text. In this study, the researcher used 2 cycles, in which there were 4 steps on each. The first cycle consisted of 8 meetings. The first until the forth meeting was used for giving direct instruction. And the fifth until the eighth meeting was used for indirect instruction. After that, the students were tested to read a selected text which had the same level as the text given at preliminary study. They were given some questions about the text and were asked to retell the content of it. The result showed improvement. It students got a mean 77.75. After that, the researcher tried to do the same step at the second cycle. And it shows a higher result. The students got a mean 88.67.

CONCLUSION

Before conducting the reading instruction method, the students ITN Malang has a lack of comprehension in understanding Engineering English. It makes them hard to understand the content of the text they have read before. The students get some difficulties in retelling the content of the reading text. It proved when the researcher conducted the pre-observation; he saw that mostly the students were not interested in English class. Further, when the researcher conducted the trial test, he found that even in one reading text that consists of 500 words, most of them could not catch the content of the text. That is really bad result. After that, the researcher implemented reading instruction as a method in reading class. This method is implemented in the research in two cycles which have 8 meetings for each. During joining the method, the students looked interested. There were some improvements that appeared in the class. The students were actively following the reading class. This method was created to stimulate the students to be active in reading. That method worked well. It can be shown by the students' result. They were passing the researcher's target in comprehending the reading text through reading instruction.

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