
Learning Situational Analysis for Mechanical Engineering Students

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ABSTRACT

This research focuses on identifying the educational requirements of students in the Mechanical Engineering Department at SMKN 2 Sawahlunto in the context of their English language studies. The approach is aligned with the concept of Teaching English for Specific Purposes. The research methodology employed is descriptive and qualitative, relying on questionnaires as the primary data source, with students majoring in mechanical engineering in the twelfth grade serving as informants. The analysis delves into the underlying motivations driving students to pursue English language education within the mechanical engineering department. One of the key indicators considered is the rationale behind their decision. The findings of this study reveal that twelfth-grade students in the mechanical engineering department opt for English language education primarily because they recognize the value of applying the principles of Teaching English for Specific Purposes. Through this specialized English language education, students gain the knowledge and skills required to use English effectively in the context of mechanical engineering. This equips them with the ability to apply English within the realm of machinery and adequately prepares them for their future careers. In light of the research outcomes, it can be concluded that a lack of practical exposure and practice hinders students from confidently using English in real-world situations. This, in turn, affects their ability to communicate effectively in the English language, especially within the mechanical engineering field.

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I. INTRODUCTION

Vocational high school development is to prepare pupils for employment as soon as they graduate. Vocational high school expects its newly graduated students to be experts in their fields. The globalization of English has prompted vocational high schools to prepare their graduates to have not only particular skills of their expertise but also good English mastery.

English is a crucial skill for vocational high school students because it helps them for preparing themselves to find employment after they graduate. Therefore, vocational high school and general schools that use the different English learning materials and different English course books was used by the teacher at vocational high school and general school. In vocational high

school used a specific course book as a material in learning, other hand at general school used a general course book.

Related to explanation above, students need to learn not merely about general English anymore but also to understand the English language relevant to their major study at the vocational school level. It is important to understand English language specifically because in this era many of books, journals, and any others sources are written in English. In addition, having a deep understanding of ESP could help students to improve their own quality of pursuing their targeted career. ESP very needed in vocational high school, especially in teaching and learning process which used in meeting, presentation, or communication to each others. Therefore, the teacher should to know about the students need analysis at first.

Need analysis is considered a tool or process that is used to find out what the needs of the students or learners are in a given study. Information obtained from need analysis will eventually be used as a guide in making design decisions in the evaluation of teaching and learning activities in the classroom(Perpisa, 2018). Based on the researcher experience when do pre-observation at the vocational high school at SMKN 2 Sawahlunto, there were some departments: mechanical Engineering, mining geology engineering, automotive engineering, building engineering, electrical engineering. The researcher got some phenomena, especially for students of mechanical engineering. At this department used English course book is specific for vocational high school. However, in learning process the students did not applied the materials properly. The books that their used is not have specific content about mechanical engineering, for example: text in their books course is not using materials of engineering just focus on English for general that makes the students need for mechanical engineering not properly. When they had a practicing in the workshop, most students will not be able to used the correct meaning in English based on their materials is about engineering. Therefore, in this case the students should have more practicing in English when learning process to applied in the workshop correctly.

Based on pre-observation above, the researcher becomes interesting to do need analysis in English for Specific Purpose subject, need analysis in English specific purpose have three components are used here, Target situational analysis(TSA), is only focuses to identifying the learners language requirements in the occupational or academic setting. Present situational analysis(PSA), is looking into graduates strengths and weakness in their present work in regard to their English competence. Learning situational analysis is focuses on what learners want to learn and why do they want to learn.

II. METHODS

Based on the purpose of this research, the researcher uses qualitative research as the research design. That is because the researcher wants to find out about the learning situational analysis for the mechanical engineering students. Qualitative research has the purpose to explore deeply to get information about what and why it happened. Stated that qualitative research seeks to investigate deeply into research to get an understanding of what happened and why it happened. It means qualitative research is very used full to investigate the problems occurred that will be analyzed (Gay et al., 2012). Therefore, the researcher chooses this design as the design of this research because the researcher can find out deeply about the learners need in learning situational analysis for the mechanical engineering. The learning situation that will analyze is based on the learning needs in English for Specific Purpose at SMK N 2 Sawahlunto.

III. RESULT AND DISCUSSION

Referring data analysis above, the researcher found five aspects that the reason of learners taking the course for mechanical engineering students at SMK N 2 Sawahlunto. The researcher found that the students needs in English still unfulfill with the material that that they have in learning process at vocational high school. That can be the reason of students to learn in English.

The first finding showed the reason of learners taking the course based on compulsory and optional. Based on the data above, the students reason in learn English, There were some reasons based on compulsory and optional by students. First, the students learn English because the compulsory subject from school. The second, students learn English because compulsory subject that should learn for mechanical engineering students. And the third, was to followed English courses for mechanical engineering students was not important. In fact, students of mechanical engineering more interest to practiced in field when workshop activity. The last, students as a society were not important to learn in English, for mechanical engineering students as a society, they do not used English for communication out of school.

Second finding showed the reason of learners taking the course was based on apparent need. Before knowing the apparent need of students, first the teacher should know the students interest in learn English that can found based on their learning background as mechanical engineering students. Based on the data analysis above, the students that being the respondents in this research have low interest in learn English when they was at school, but the materials that the students got did not fulfill based on their need for mechanical engineering students so far. After knowing the students apparent need for mechanical engineering, the teachers should used English for engineering materials based on theory and example that could be as a key for teachers to make easier of students for practice at workshop activity. And then students of mechanical engineering had low practice and communication in English. They were as mechanical engineering answered that was not important to applied.

Third finding was about status and promotion involved. Based on the data analysis above, the students wanted to learn in English for increase their social status from their society. They were as mechanical engineering students mastered in English got special place from society where their lived. And then, they were as mechanical engineering do not want promotion from school to learn in English. English for mechanical engineering was be compulsory subject that should they learn.

The fourth finding showed that the reason of learners taking the course, based on learners achieve. Based on the data analysis above, the researcher found that most of students want to learn English based on their goals. The goals were identified with their need in learning process. The students need in learn English for communication in foreign language, to understanding of terms in English materials based on their needs for mechanical engineering, and then to understanding of vocabulary in English to applied at workshop activity based on materials of engineering.

And the last finding was about the reason of students taking the course was English improved or spare time. Based on the data analysis above, the researcher found that, a few of students in learn English to improve their ability in used English in class or out of class. In fact, most of students of mechanical engineering were not interest used English in learning process.

Interpretation

Based on research finding above, the researcher made interpretation based on research question. The research question was “Why the mechanical engineering students need to learn in English?”. From the research question, this research wanted to know the reason of students for mechanical engineering to learn in English. To find out the result, there were five aspects that explained research question. There were compulsory and optional, apparent need, status and promotion involved, learners achieve, English improved or spare time.

Related from aspects of indicators from learning situational analysis, the researcher found the reason in learning English were based on their apparent need to increase their ability in English. In fact, most of students for mechanical engineering got materials of learning do not based on their need. They do not practice in communication used English, the course books was not related for engineering, teachers used English gave learning materials do not based on theory and example for students. It support by (Haseli Songhori, 2008) who said that the differences of ESP from general English is not such of necessity but rather than the consciousness of the needs. It means that if the teacher knows what the needs of the learner and why the learners learn English, means the consciousness of the needs is here and the goals of the learning will be reached.

IV. CONCLUSION

The vocational high school should to know why students need to learn English based on learning situation of English subject. Learning situational analysis is an umbrella term to find out of students need learning English. Therefore, the researcher interested to find out of that part. To explain that, the researcher conducted a study about learning situational analysis that is focused on the reason of learners taking the course for mechanical engineering students. Then, this research was descriptive qualitative research that was done at SMK N 2 Sawahlunto.

To collect the data, the researcher used questionnaire as instrument. The researcher distributed the questionnaire to all students twelve grade at first semester academic year 2023/2024. The result of questionnaire gave explanation about the reason of learners in learn English for mechanical engineering students. The researcher concluded this research was students reason in learn English believed that they want to learn in English based on their apparent need from situational condition

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