

# CLASSROOM OBSERVATION IN ESP: A CASE STUDY OF MECHANICAL ENGINEERING STUDENTS' EFL COURSE

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**Abstract:** As the students of Mechanical Engineering, learning English as one of compulsory subjects in their Bachelor Degree is aimed to strengthen their English mastery especially related to their major. The research method is applied qualitative descriptive method with a case study design. There were two English lecturers of Mechanical Engineering major (coined as L1 and L2) involved as research subjects of this study. In collecting the data, the writer used observation sheet, documents of syllabus and semi-structured interview. These data were descriptively analyzed and reported to answer to the issues revealed as the background of the study. The classroom observation indicated that: 1) Both lecturers did not fully implement in their English classes; 2) All the elements of ESP, namely: needs analysis, syllabus design, teaching materials, learning activities, and evaluation needed to be developed and improved by these two lecturers; 3) There were several possible causes that made ESP implementation of these two lecturers became ineffective; a) the policy of the institution which managed English course of all non-English majors in integrated including syllabus design and text-book used, b) this policy made the lecturers difficult to modify their teaching activities and evaluation since the text-book used was not appropriate with students' needs in this major, c) limited English prior knowledge of the students which made the lecturers hard to come to specific English without firstly equip the students with general English.

**Keywords:** classroom, English, ESP, Mechanical Engineering, observation.

**Abstrak:** Penelitian ini menjelaskan observasi kelas yang digunakan untuk mengukur implementasi pengajaran bahasa Inggris bertujuan khusus pada kelas bahasa Inggris Teknik Mesin. Dua orang dosen bahasa Inggris pada jurusan ini diobservasi penulis pada saat mengajar mata kuliah bahasa Inggris. Observasi kelas, dokumen dan semi-struktur wawancara digunakan sebagai instrument pengumpul data. Data kemudian dianalisa dan dilaporkan secara deskriptif. Hasil observasi kelas menunjukkan: 1) Kedua dosen tersebut tidak mengimplementasikan pengajaran bahasa Inggris bertujuan khusus; 2) Semua elemen pada bahasa Inggris bertujuan khusus yaitu analisis kebutuhan, disain silabus, materi pengajaran, aktivitas pembelajaran dan evaluasi pembelajaran perlu dikembangkan dan ditingkatkan oleh kedua dosen ini, 3) Ada beberapa hal yang menyebabkan ketidakefektifan implementasi pengajaran bahasa Inggris bertujuan khusus, yaitu: a) bahasa Inggris semua jurusan diatur secara terintegrasi oleh institusi berikut silabus and buku teks yang digunakan, b) ketidakluluasaan dosen untuk memodifikasi dan mengembangkan kegiatan dan penilaian pembelajaran karena buku teks yang digunakan tidak sesuai dengan jurusan, c) keterbatasan penguasaan bahasa Inggris mahasiswa sehingga dosen tidak dapat

*langsung mengajarkan bahasa Inggris khusus sebelum memperkenalkan bahasa Inggris umum kepada mereka.*

***Kata kunci:*** *observasi kelas, bahasa Inggris bertujuan khusus, bahasa Inggris untuk jurusan Teknik Mesin*

## **I. INTRODUCTION**

As the students of Mechanical Engineering, learning English as one of compulsory subjects in their Bachelor Degree is aimed to strengthen their English mastery especially related to their major. English at this stage is expected to support these students' competence after they graduate from their major in which in this globalization era the mastery of this language becomes one of important aspects for the students to compete in the market job. (Meiristiani & Ekawati, 2018) argued that in Mechanical Engineering major, English is a crucial subject where the students do not only extremely need to improve four language skills; reading, listening, writing, speaking, but also other linguistic proficiency including grammar, pronunciation, and vocabularies related to Mechanical Engineering. Their research study to 40 Mechanical Engineering students found that these students countered several problems in their English learning such as lack of confidence in terms of spoken and written English, limited knowledge of pronunciation, grammar and

vocabulary since they were not accustomed to read and write English texts.

(Shrestha et al., 2016) said that Engineering students are required to have good proficiency of English since in their field, many literatures, modules and academic research are written in English, hence these students will obviously face problems to understand the ideas of those sources if they are not fluent in English. These ideas clearly explain that Mechanical Engineering students are fulfilled with English in their major in order to help them grasp the knowledge during their study and to equip them with English competence which supports their future career after they graduate. In terms of speaking, (Zaitun & Salsabila, 2022) stated that the main purpose of people to learn a language is have the ability to use that language. Thus, English learning of Mechanical Engineering students should also focus on making these students able to use English related to their major. To respond to this, (Akmal et al., 2020) conducted an analysis study to Mechanical Engineering students to investigate what aspects of English learning that these students needed. Their research findings revealed that the most skill needed

by the students was listening skill. Therefore, their research study suggested teacher of English for specific purposes in general, and for Mechanical Engineering in particular, to give more varied activities and exercises on listening subject in order to facilitate the students to be balanced in 4 skills of language learning.

Regarding English learning in Mechanical Engineering, many prior studies were conducted with various purposes including for example, (Tasić, 2009) who investigated why most of Mechanical Engineering students considered English as the most important foreign language they learned over the others foreign languages and how much English these students needed both in general and specific English; (Ratna Pertiwi et al., 2019) who explored Mechanical Engineering students' needs in terms of four language skills and effective teaching methods applied by their English lecturers; (Ester & Siagian, 2018) who analysed Mechanical Engineering students' needs in terms of topics, tasks, teaching materials and course objectives relevant to their major; (Ronaldo & Zaim, 2021) who researched Mechanical Engineering students' needs of English based on three scopes, i.e., Present Situation Analysis (PSA), Target Situation Analysis (TSA), and Learning Needs Analysis (LNA). Among those studies and other more, previous research mostly focused on the

analysis of Mechanical Engineering students' needs of English from the perspectives of the students as the objects of the learning process. However, the studies which scrutinized English learning from teachers' sides were still very limited in number. Thus, this study was aimed to fill this gap by proposing an idea to English teachers of Mechanical Engineering English classes to evaluate the effectiveness of the instructional process through classroom observation. As (Merç, 2015) argued that "... classroom observation is an operative gismo of learning how instructional methods are implemented, how teaching spaces are structured, and how learners react to the classroom setting".

According to (Devos, 2014), the ability of language teachers to observe their classes critically and effectively is crucial to support professionalism in teaching since teachers will also become a life-long learner. (Borg, n.d.) confirmed that classroom observation, in common, used as one of the methods to assess teaching quality. (Alshehri, 2019) explained that classroom observation provides positive impacts on teachers' teaching skills improvement in terms of lesson planning and delivery such as in managing pace of the lesson and providing activities related to the lesson learned. (Zaare, 2013) found in her study that through classroom observation and the feedback given to the teachers after the

observation made the observed teachers to have self-awareness and be reflective teachers. These several ideas showed that classroom observation in teachers' instructional activities is one of crucial aspects contributing to teachers' professional development where teachers might develop and do reflection related to all activities they carry out from the beginning of teaching to the end. Teachers will be aware of what to improve from their instruction, hence teaching and learning process will be meaningful.

In the context of English teaching in Mechanical Engineering major, especially in Indonesia, English is offered as one of compulsory subjects to the students. Mostly, this major only puts English into two or three credits along Bachelor Degree program. Thus, in order to achieve the goals of this subject, teachers are required to design the syllabus, learning materials, activities, assignments, assessment and evaluation appropriately related the needs of the students. English should be taught in specific (ESP—English for specific purposes) and not in general (GE—General English). However, it was found that most of the teachers still focus on teaching English with the objectives of having the students able to be skilful in grammar and four language skills, namely: reading, listening, speaking and writing. The students are only introduced English as common

other English classrooms. As (Izidi, 2017) found in Algerian higher institutions that offer ESP programs, most of ESP practitioners ignored their students' needs and interests. They did not sufficiently equip the students with a well related balanced ESP materials. Substantively, the teachers only taught grammar and morphosyntactic of English language facets. In Indonesia, (Sari et al., 2020) also found in their research work that in Engineering Faculty, ESP contents were not completely implemented. The teachers explained that it happened because they faced problems in designing ESP course which consists of five stages; needs analysis, syllabus, materials, teaching and evaluation. Each of these stages had equal burdensome.

In relation to issues found in the instruction process of English in Mechanical Engineering course and the merits of having classroom observation, this study was led by the problem of the research as follows: 1) How did English lecturers of Mechanical Engineering major conduct their instructional process in terms of ESP implementation? 2) To what extent did they need to improve? 3) What were the reasons that might cause the limitations found in their instructional process? Based on these three problems, the purposes of this research study were: 1) to find out the implementation of ESP in Mechanical Engineering classes; 2) to report the aspects

that these lecturers need to improve based on classroom observation done by the writer; 3) to present several possible causes which made those limitations. This research was worth to do to give insights to ESP teachers to regularly reflect on their teachings so that they will professionally improve and hence, the objective of English instruction will also be achieved.

## II. METHOD

This research applied qualitative descriptive method with a case study design. There were two English lecturers of Mechanical Engineering major (coined as L1 and L2) involved as research subjects of this study. In collecting the data, the writer used observation sheet, documents of syllabus and semi-structured interview. As the aims of the study were to present the results of classroom observation the writer conducted in those two lecturers' English courses, the observation sheet comprising five elements of ESP implementation, namely: needs analysis, syllabus, teaching materials, teaching activities and evaluation as figured out in the following Table 1:

**Table 1. Observation Sheet**

<i>ESP Scope</i>	<i>Elements Assessed</i>
<i>Needs Analysis</i>	Did English instruction reflect ESP?

<i>Syllabus Design</i>	Did syllabus design cover students' needs?
<i>Teaching Materials</i>	Did the materials used support students' needs?
<i>Teaching Activities</i>	Did the activities held develop students' proficiency?
<i>Evaluation</i>	Did the assessment do fulfil the objective of the learning as needed by the students?

## III. RESULTS AND DISCUSSION

### Results

Based on the observation classroom conducted by the writer for 3 meetings for each of the lecturer's English class, the following Table 2 presents the results of that observation:

**Table 2. Classroom Observation Results**

<i>ESP Observed</i>	<b>L1</b>	<b>L2</b>
<i>Did English instruction reflect ESP?</i>	NO	50%
<i>Did syllabus design cover students' needs?</i>	NO	50%
<i>Did the materials used support students' needs?</i>	NO	NO
<i>Did the activities held</i>	50%	50%

<i>develop students' proficiency?</i>		
<i>Did the assessment do fulfil the objective of the learning as needed by the students?</i>	NO	NO

## Discussion

This research work was conducted through classroom observation by the writer with three purposes as aforementioned previously. Referring to the findings presented above, each of the purpose can be described as follows:

### The implementation of ESP

As it can be clearly seen from Table 2 above that the two lecturers did not fully implement ESP in their classes. ESP instruction was only 50% reflected in L2's class as well as his syllabus design. Both L1 and L2 conducted 50% activities which reflected ESP. Based on the results of semi-structured interview, L1 explained that English subject is included to Integrated subject managed by the university team teaching. Thus, both the lesson plan and text-book used also formulated by team teaching which focused English instruction as General English, not ESP. All students of non-English majors that have to take this

subject in one semester were taught by using same text-book and referred to the same syllabus. Meanwhile, L2 was creative enough to modify the syllabus by inserting around 50% discussion related to English for Mechanical Engineering.

### The aspects these two lecturers need to improve

Since the findings showed that these two lecturers did not fully implement ESP in their English classes, this study deduced that both of them needed to improve the five elements of ESP, i.e., needs analysis, syllabus design, teaching materials, learning activities, and assessment. The absence of applying ESP in this specific major will make the learning ineffective. The students needed to be equipped by English knowledge that can support their future career after graduate. In the interview, L1 admitted that her English instruction really needed to be improved by saying: *"Yes, I realized that my teaching does not apply English related to students' needs, hopefully I could develop and modify my syllabus in the next course."* L2 also said the same thing: *"Well, even I have modified the syllabus a little bit but I still need to improve it more and then apply what I have put on the lesson plan into the materials, activities, and also the evaluation."*

Several reasons which caused ESP was not fully implemented

There were several possible causes which made ESP did not fully implement by these two lecturers. The writer found from the interview that those possible reasons were: a) The policy of the institution in which English for all non-English majors were managed by university team teaching, hence the lecturers were still in doubt to modify the syllabus and lesson plan since the text-book used was not specifically appropriate with Mechanical Engineering major; b) Even all English lecturers were given freedom to be creatively designed their teaching activities but the materials discussed in the text book did not support this idea. Giving the activities related to the students' majors would then create other problems in which the students did not discuss each topic stated in the text-book specifically according to their major; c) students' prior knowledge of English were also limited, so that introducing them with general English first and then followed by specific English would consume more time and it would not sufficient with the allocated teaching time for English course.

The findings of this study were in line with what (Sari et al., 2020) in her research which found that Mechanical Engineering students preferred to learn English that could support their future career. (Beshaj, 2015)

also argued that English used as international communication cannot be restricted to daily language in general, some people need this language for different functions either formal, informal, written or verbal. Thus, learning English related to the professions of the learners specifically (ESP) was urgently needed.

#### **IV. CONCLUSION**

This classroom observation was guided by three problems found by the writer. The findings of those problems revealed that: 1) the two English lecturers at Mechanical Engineering major, as the subjects of this study, did not fully implement ESP in their English classes; 2) by referring to the first finding, it was found that these two lecturers needed to improve their instructional process of ESP in terms of needs analysis, syllabus design, teaching materials, learning activities and evaluation; 3) based on the feedback of classroom observation conducted by the writer, it was found from the interview that there were 3 majors causes of which might cause the ineffective of ESP in their classes, namely: a) the policy of the institution in which English subject of all non-English major was managed in integrated by team teaching of the institution including syllabus design and text-book in which the focus was on general

English, b) it was difficult for the lecturers to modify the syllabus and the lesson plan since the text-book used was not specifically related to students' major, and c) lack of English knowledge of the students which made the lecturers difficult to give them specific English without firstly introducing the students with general English.

With respect to the findings, this research work suggested institution to give freedom to all English lecturers of all majors to manage their own syllabus, teaching materials, and evaluation based on their students' needs so that the learning will be more meaningful and fulfill students' performance of English in their future career.

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