

CHAPTER 1

INTRODUCTION

This chapter presents the general description of the research. It covers background of the research, research questions, aims of the research, significance of the research, research methodology, clarification of terms, and organization of paper.

1.1 Background of the Research

Nowadays, due to the broader use of English as an international communication language, the teaching of English for Specific Purposes (ESP) has grown to become one of the most pivotal areas of English Language Teaching (ELT). ESP has attracted more attention within the teaching of English as a foreign or second language (Baleghizadeh & Rahimi, 2011). For Hutchinson and Waters (1987) ESP is seen as an approach rather than a product – meaning that ESP does not involve a particular kind of language, teaching material or methodology. As the name suggests, the P in ESP is always a professional purpose – “a set of skills that learners currently need in their work or will need in learners’ professional careers” (Day & Krzanowski, 2011, p. 5). In the light of this, ESP aims to speed learners through to target situation which is entering target discourse communities, including academic, professional, and workplace (Basturkmen, 2006).

The need to develop an ESP course for engineering is important, especially by following the path of global demand which is more increased in the new millennium. As engineers are viewed as a change of economy of one nation (Leon, 2011), today’s engineers are highly urged to increase the range of English skills to maintain relevance with the global environment (Riemer, 2002). These engineers, according to Orr (2012) have the largest professional engineering organizations using English as their primary language in which most of the world's engineering publications are written in English and nearly all cooperative ventures with multinational participation choose English for their common language of communication. In this regard, competitive demands of government,

industry and corporations, both national and international, for economic and technological progress, require a language that is effective and understandable within the economy and technology (Ellis & Johnson, as cited in Hossain, 2013). By considering English as a lingua franca in engineering education (Björkman, 2008), it can be inferred that the urge of possessing a good English proficiency should be more accentuated for engineering students in the ways of preparing their readiness prior to the entry of global job market, especially after the arrival of ASEAN Economic Community (AEC) at 17th the ASEAN Summit in Singapore in November 2007 (Hidayat, as cited in Araminta & Halimi, 2015).

In fact, Indonesian engineers have not seemingly met the global demand due to the fact that only 124 Indonesian engineers were acknowledged and recognized by ASEAN in 2014 (Tempo.co online newspaper, 2014). One of the culprits is the poor English proficiency of Indonesian engineers as has been supported by the fact found by Education First (as cited in Araminta & Halimi, 2015) on the English Language Proficiency Index (English Proficiency Index) that Indonesia has been ranked 27th among the countries in Asia with a score of 53.31 and has been categorized as having low proficiency in English. The struggle to face the global job market has been further depicted in the current situation in which most of engineering fresh graduates in Bandung find an additional English course for the sake of job-looking provoked by their weak English proficiency background gained in the university.

With regard to the above problem, some specific studies of English for Specific Purposes in other countries, include Indonesia, have concerned on needs analysis of teaching ESP course for engineering students. Kim (2013) has conducted the needs analysis for ESP development for engineering students in Korea whose results has revealed that English skill of engineering students and staffs in a real workload, especially on speaking, is still needed to develop in a bigger proportion rather than other skills such as listening, reading, and writing. Another study conducted by Hossain (2013) focusing on the needs of engineering students in Bangladesh, in terms of analyzing the existing teacher content and pedagogical knowledge and suggesting to compromise with the learners demands, particularly context situations and other barriers, has shown the fact that the lack

of engineering students-speaking ability leads to develop their business communication skill for use in their future job. In Indonesia itself, similar study has been conducted by Marwan (2009) and Araminta and Halimi (2015). Marwan (2009) has investigated the challenges of teaching ESP for vocational higher institution. Another study by Araminta and Halimi (2015) has more focused on analyzing the English needs of undergraduate engineering students of Universitas Indonesia, revealing the findings that students' needs of English language learning are considered not as high as their needs of English language use.

Despite the fact that those studies have examined the needs analysis of ESP course for engineering, the studies lack of providing learning needs in the form of effective ways of learning English to meet the target needs of engineering students in which Hutchinson and Waters (1987) have claimed that it is important to investigate learning needs of learners as the starting point to make the route in reaching the destination which is the target needs. This gap becomes one of the backgrounds of the research.

Therefore, it is pivotal to conduct a specific research in finding out the needs of ESP course development for engineering students in Indonesia. This research is aimed to investigate the target needs in terms of necessities and lacks in the relevance to engineering work context. Besides, this research is aimed to find out the learning needs with regard to the route how engineering students meet the target needs through effective ways of learning.

1.2 Research Questions

This research is geared towards answering the following questions.

1. What are the needs of learning English for undergraduate engineering students in terms of necessities and lacks?
2. What are the learning needs related to engineering context of needs in which the learning takes place?

1.3 Aims of the Research

This research aims at as follows.

1. Finding out the needs of learning English for undergraduate engineering students.
2. Finding out learning needs related to engineering context of needs in which the learning takes place.

1.4 Scope of the Research

This research focuses on finding out the needs of learning English for undergraduate engineering students and learning needs of learning English for undergraduate engineering students in accordance with engineering context of needs in Technical Faculty, in one of universities in Bandung, West Java. The needs in this research is restricted into necessities and lacks (Hutchinson & Waters, 1987). Hutchinson (1987) defines necessities as kind of need decided by the demands of target situation, while lacks are which of necessities the learner lacks. To support the achievement of the needs, learning needs related to engineering context of needs in which the learning take place are further investigated in this research.

1.5 Significance of the Research

This research is expected to offer theoretical and practical, and professional benefits.

1. Theoretical benefits

The results of this research are expected to enrich the literature of needs for English for engineering related to the demands of target situation in Indonesia. The findings of this research may be used as one of the references for the next needs analysis in engineering field.

2. Practical benefits

The results of this research reveal needs of learning English for engineering in terms of necessities and learner's lacks. The findings of this research are expected to help ESP teachers to restrict the content of learning skill to learn in accordance

of learner's priority shown in the result of needs analysis in this research. In addition, the result of this research reveal the needs of learning needs related to engineering context of needs. The findings of this research are furthermore expected to give insight particularly to the ESP teachers for developing the practice of teaching ESP for undergraduate engineering students in accordance with the learner's needs and the demands of industry workplace.

3. Professional benefits

This research reveal the needs of learning English for engineering in terms of necessities and lacks. The priority of language skill for engineering is portrayed in the target situation analysis. The findings of this research are expected to give insight to higher educational institution to develop ESP course design for engineering.

1.6 Research Methodology

1.6.1 Research Design

This research generally is a cross-sectional survey research attempting to “measure community needs of educational services as they relate to programs, courses, school, facilities projects, involvement in the school, or community planning and examine current attitudes, beliefs, opinions, or practices” (Creswell (2012, p. 378). This research investigated the needs of English for engineering in terms of necessities and lacks and the learning needs taking place in the teaching and learning process. The categorization of the needs was based on Hutchinson and Waters' framework (1987). The results of recorded data was shown in data percentages.

1.6.2 Data Collection

The data of this research were collected from two different groups. First group is three English engineering lecturers from the same university. Second group is 90 engineering students from the Technical Faculty in one of universities in Bandung majoring various fields such as Mechanical Engineering, Food Technology, Informatics Engineering, Industrial Engineering, and Urban and Regional Planning.

The data from the first group were obtained by conducting structured interview providing a clear set of instructions for interviewers and providing reliable, comparable qualitative data (Cohen, 2007). The data from semi-structured interview were used to find out the necessities. The data from the second group were gained by conducting the questionnaire as the instrument of finding out lacks and learning needs. Questionnaire is a form used in a survey design that participants in a research complete and return to the researcher (Creswell, 2012). This instrument was preferred due to the generalization of the data from a sample to population (Creswell, 2003).

1.6.3 Data Analysis

Data analysis was divided into two main steps. First, the data from interview through several stages as follows (Hoyos & Barnes, 2012). Firstly, the data from the interview were prepared and then transcribed. The themes relating to one of categories as the main focus of this research, namely necessities, were then classified, categorized, and identified. The categorized-data were then connected and interrelated which were followed by interpreting the data to deal with the research questions. The data were then finally related to the theory in the relevance area.

Second, the data from questionnaire were analyzed through statistical analysis of questionnaires data which is then extended beyond simple descriptive analysis. This analysis indicates the means, standard deviations, and range of scores for these variables (Creswell, 2009, p. 152).

1.7 Clarification of Terms

To avoid misconception of some terms presented in this research, clarification has been explained as follows.

1. **Needs:** what the learner needs to do in the target situation including necessities, lacks, and wants (Hutchinson & Waters, 1987).
2. **Necessities:** the kind of need determined by the demands of the target situation – that is, what the learner must know in order to work effectively in the target situation (Hutchinson & Waters, 1987).

3. **Lacks:** the gap between necessities and present situation of English language ability of the learners (Dudley-Evan & St John, 1998).
4. **Learning needs:** language learning information describing effective ways of learning the skills and language in teaching and learning process (Dudley-Evan & St John, 1998).

1.8 Organization of Paper

This paper is organized into five chapters as follows.

Chapter 1 Introduction

This chapter presents background of the research discussing the recent burning issue regarding the topic of the research. To some extent, the research is formulated into research questions, aims of research, significance of the research, and research methodology.

Chapter II Literature Review

This chapter discusses the theories from the experts grounding the investigation of this research. This chapter contains the definition of English for Specific Purposes, teaching ESP, English for General Academic Purposes (EGAP) and English for Specific Academic Purposes (ESAP), language demands for global engineers, needs analysis, principles of conducting needs analysis, and review of the previous research.

Chapter III Research Methodology

This chapter presents further explanation of research methodology used in this research. It covers site and participant, research design, data collection technique, and data analysis.

Chapter IV Findings and Discussion

This chapter discusses the result of findings of the research obtained from the methodology.

Chapter V Conclusion

This chapter presents the conclusion of the research. Regarding this, suggestion presenting ideas and hints are presented for further development of the next research regarding needs analysis for ESP course development for engineering.

1.9 Concluding Remark

This chapter has discussed the principles underlying the study including background of the research, research questions, aims of the research, significance of the research, research methodology, clarification of terms, and organization of paper. The next chapter deals with literature review from some experts grounding the investigation of this research. It includes the elaboration of English for Specific Purposes, English for engineering, needs analysis, and some reviews of the previous research.

