Title Technology-Integrated ESP (English for Specific Purposes) Instructions: The Engineering Students’ Perspectives Author Karmila Machmud Universitas Negeri Gorontalo, Indonesia Bio-Profile: Karmila Machmud, Ph.D is an active faculty member in English Department of Universitas Negeri Gorontalo, Indonesia. She earned her master’s degree in applied linguistics from Sydney University, Australia, and doctorate degree in Curriculum and Instruction from Ohio University, USA. Her research interests are EFL instructions and technology in EFL instructions.

Abstract The goal of this study is to investigate the engineering students’ perspectives towards English as a Foreign Language teaching in Engineering Department and the importance of the integration of technology in English Instructions to support their field of study. The engineering students have specific needs and purposes, and these should be addressed with an accurate and effective approach.

Studies on the use of technology in language learning suggested that technology can help facilitate the teaching and learning English especially for specific purposes Thus, integrating the use of technology in English instructions will address the Engineering students’ need of specific English proficiency in their field of study. Affiliation Address: Universitas Negeri Gorontalo Jl. Jend. Sudirman no.6

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Introduction

The goal of this study is to investigate the engineering students’ perspectives towards the importance of English Instructions to support their field of study. This study is conducted in Universitas Negeri Gorontalo, Indonesia, where, despite the difficulties of teaching English subject to students other than English major students, it is inevitable to ignore the fact that English subject is compulsory in its higher education Institutions.

The challenge to teach English to engineering students emerged from their specific needs and purposes in learning English; thus, the pedagogical and instructional process should address these particular conditions with an accurate and effective approach. Studies on the use of technology in language learning suggested that technology could help facilitate the teaching and learning English (Kessler, 2005, 2007; Warschauer & Healey, 1998; Fotos & Browne, 2004; Hegelmeimer, 2006), and this also applies to the teaching English for specific purposes.

In this case, integrating the use of technology in English instructions will also facilitate the English teachers in addressing the Engineering students’ need of specific English proficiency in their field of study. Thus, this study is conducted to investigate the engineering students’ specific needs and purposes of learning English in higher education context.

This study also portrayed the possibilities of using technology to enhance the English teaching and learning process through the students’ perspectives. Literature Review Understanding the need of engineering students in learning English is significant in planning the competencies and performances that should be taught in English Instructions as a specific purpose.

English skills are needed by the engineering students to keep up with the recent development in engineering field. It might enable the future engineers to increase their competences in engineering areas, which is in turn will widen their opportunity to compete in the international job market. For many years we believe that engineering students needs reading skills more than speaking skills.

Study shows that reading skills have gained a special attention in teaching and learning English for a specific purpose including in engineering field of study (Gupta, 2013). Engineering students are lack in vocabulary, speaking, and writing. With the fast growing of information and technology in many fields; and with the change of the
English skill need in engineering workplace, it is important to re-evaluate the 68
engineering students’ need of what skill that would be the most important based on their perspectives.

Hucking and Olsen (cited in Gupta 2013) argues: “scientists and engineers may be technically brilliant and creative, but unless they can convince coworkers, clients, and supervisors of their worth, their technical skills will be unnoticed, unappreciated, and unused. [...] from this perspective, communication skills are not just handy: they are critical tools for success, even survival, in “real world” environment” This means that in order to be accepted, noticed, and used by international job market, engineering students should be equipped with the communication skill (Patil, 2014; Riemer, 2002).

Methodology An online survey has been sent to Engineering students, and 96 engineering students from various departments in Universitas Gorontalo filled in the survey. The survey is used to gain the data to investigate which skills that mostly needed to support their study and their future career, and their perspectives towards the use of technology that would effectively helped them to achieve this goal.

This survey was followed by in-depth interviews with two faculty members of Engineering Department, Universitas Negeri Gorontalo. Each interview was conducted for 20 to 30 minutes. The interview then transcribed verbatim. The data then interpreted and cross-analyzed with the result from the online survey to answer the research question.

Findings and Discussion This study found that the majority of the respondents preferred speaking skill as the most needed English skills, which is important for their future carrier. 69
Figure 1. Students’ responds on what skill that is important for their future carrier. The above figure shows that 80% of the total respondents believe that Speaking is the most important skill needed for their future carrier.

In an in-depth interview, the faculty members argue that they wish that they students had rich technical vocabularies that will help students understand the textbook in English that is often used in teaching and learning process. With that being mentioned, it is necessary to equipped students with technical vocabularies, it means that vocabulary teaching should be given more attention.

In contrast, the respondent of this research did not have similar opinion with the faculty member. They answers shows that vocabulary is the last three subjects they consider important; while speaking has the highest percentage of the answers. Figure 2. Students’ responds on what subject that would help in teaching and learning process.

As shown in figure 2, there are 75% of the total respondents believe that speaking subject is the most important subject to support their learning process in their major. Vocabulary, on the other hand, get only 19% responses of the total respondent, even though vocabulary is considered more important to support the teaching and learning process based on the arguments of the faculty members.

The students’ responds as the results of this research are in line with the arguments of Patil (2014), Riemer (2002), and Gupta (2013) about the importance of speaking English to support future engineers to fulfill the demand of international job market. Jansen (2000, as cited in Riemer, 2002, p.91) stated that employers demand “… a number of new competencies, with an emphasis on an increased ability to communicate … and a good foreign language skills”.

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The use of technology integrated in language learning is one significant way to be considered to address the need of both teachers and students in engineering department. Integrating CALL (Computer Assisted Language Learning) in language instruction is not aimed at just developing students with computer skills, instead, the objective of integrating CALL in the curriculum of language teaching is “associated with self-contained, programmed applications such as tutorials, tools, simulations, instructional games, tests, and so on” (Kern and Warschauer, 2000, p. 1).

Students who are the respondents of this research are aware of the importance of integrating the use of technology into the teaching and learning process in their department. The next figure shows their opinion on this. Figure 3. Students’ opinion on the importance of the use of technology in English Instructions. The figure shows the students’ responds on the survey question: “if the English teacher used technology in teaching and learning process, do you think you will learn better in mastering English?” As predicted, the majority of the respondents answered ‘yes’, it is 84 respondents, or 88.42% from the total respondents. However, there are 4 respondents who answered ‘no’.

We need to conduct further investigation on this through in-depth interview. Conclusion
This study found that English is needed for technical communication, thus the most needed subject is speaking. To meet the demand of work places and international employer, students must be able to learn to communicate in English.

This means that speaking subject should have more emphasize in EFL curriculum for engineering students. Considering the highest percentage of the respondents believe that the use of technology will help them to learn better in mastering English, it is important for English 71


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