English Language Communicative Needs Perceived by Information and Technology Professionals: Target Situation Needs Analysis

THESIS

Submitted in Partial Fulfillment of the Requirements for the Degree of

Sarjana Pendidikan

Mustikasari

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English language teaching has become very important because of the global status of English (Mackey, 2002 as cited in Boroujeni and Fard, 2013, p.35). Needs analysis has a vital role in the process of designing and carrying out any language course whether it is English for Specific Purposes (ESP) or general English course (Songhori, 2008, p.2). The purpose of this study was to investigate the English language communicative needs of Information and Technology (IT) professionals in order to provide empirical data serving the ESP context of IT education in Satya Wacana Christian University (SWCU). The study used the framework of needs analysis to investigate the extent of English use in the careers of IT professionals, the required level of the reading, writing, listening and speaking skills in different activities, and the perception of IT professionals towards their English language preparation during their previous college study. The participants were five graduate students from Information and Technology program study of IT faculty at SWCU. Through interview, the findings of the study indicated that the English language was used extensively at the workplace and played an important role in the careers of IT professionals. The findings also indicated that the receptive skills (e.g. reading and listening) were perceived as more important than the productive skills (speaking and writing). Finally, the findings revealed that the English language courses that IT professionals took at the college level were inadequate in relating the English language use to their IT needs.

Keywords: ESP, needs analysis, target situation analysis, IT professional
English Language Communicative Needs Perceived by Information and Technology Professionals: Target Situation Needs Analysis

Mustikasari

ABSTRACT

English language teaching has become very important because of the global status of English (Mackey, 2002 as cited in Boroujeni and Fard, 2013, p.35). Needs analysis has a vital role in the process of designing and carrying out any language course whether it is English for Specific Purposes (ESP) or general English course (Songhori, 2008, p.2). The purpose of this study was to investigate the English language communicative needs of Information and Technology (IT) professionals in order to provide empirical data serving the ESP context of IT education in Satya Wacana Christian University (SWCU). The study used the framework of needs analysis to investigate the extent of English use in the careers of IT professionals, the required level of the reading, writing, listening and speaking skills in different activities, and the perception of IT professionals towards their English language preparation during their previous college study. The participants were five graduate students from Information and Technology program study of IT faculty at SWCU. Through interview, the findings of the study indicated that the English language was used extensively at the workplace and played an important role in the careers of IT professionals. The findings also indicated that the receptive skills (e.g. reading and listening) were perceived as more important than the productive skills (speaking and writing). Finally, the findings revealed that the English language courses that IT professionals took at the college level were inadequate in relating the English language use to their IT needs.

Keywords: ESP, needs analysis, target situation analysis, IT professional

A. INTRODUCTION

As one implication of the global use of English in many fields such as politics, business, medical, science, and information technology, there is an increase of needs in learning English for Specific Purposes or ESP. Through this ESP, one can learn, for example, the specific terms used in Information Technology and also about procedures of doing things in that field. This ESP is seen as a way to cover the frequent use of English for the technical language in many specific fields. This is in
line with Douglas' (2000) opinion that the use of language for specific purpose is due to the technical language that is used in any academic, professional, or occupational field.

Although ESP ideally accommodates the needs of English learning for certain purposes, the practice may not always work the same as the ideal. The study about ESP present situation analysis of IT students in SWCU showed that this problem appeared because learners often face some obstacles in learning English since the language is just taught in education institutions and they have limited time and place to use the language. Another reason can be about the teaching of ESP that tends to be general English. IT students, in this case, have their own background in IT, so they are expected to learn English related to their major. General English may unlikely fulfill the specific need. Their IT major should also be brought into consideration of their English learning process (Ilma, 2014, p. 2). Moreover, students have different background, and subsequently, they have different language needs. This is in line with Hutchinson and Waters (1987) who argue that “learners were seen to have different needs and interest, which would have important influence on their motivation to learn and therefore on the effectiveness of their learning” (p.8). Thus, the purposes of English course for students with specialist language have to be well-designed and provide advantages to students to solve their difficulties in learning English.

Due to the importance of need analysis, every faculty in higher education which offers ESP courses for non-English-major students needs to conduct such an analysis for better and appropriate result in English learning. One faculty offering ESP is the Faculty of Information and Technology (IT Faculty) of Satya Wacana Christian University (SWCU). In this faculty, the students learn English as a
compulsory course. There are two kinds of English course that they should take during majoring IT in SWCU: *Bahasa Inggris Dasar* (General English) and *Bahasa Inggris Profesi* (Professional English). The latter is considered ESP.

The purpose of these courses is to provide students with an English language knowledge that enables them to join the workforce. Therefore, teaching English for IT purposes in SWCU is far from satisfactory in terms of customizing ESP courses by using the language situation at the work place as the input to feed ESP courses. When the specific language needs are not defined based on language use, learners will end up disappointed with the language proficiency level that they achieve once they join the workforce.

The IT workplace relies on these programs to qualify IT graduate students in terms of their language proficiency. However, customizing ESP programs to suit the IT work environment falls short in defining the ESP objectives since there has never been a study conducted to define the English needs of IT professionals of SWCU that might serve as the basis for an ESP curriculum. According to Ilma (2014), at present, the lecturers introduce the ESP program for the English language courses simply by selecting materials from available commercial texts for teaching English for IT purposes along with material designed for teaching English for general use or collecting different materials in a handout (p. 13). Therefore, the purpose of this study is to investigate the English language communicative needs of IT professionals in order to provide empirical data serving the ESP context of IT education in SWCU.

Hence, the research questions that need to be answered are
1. To what extent is the English language used in the careers of IT professionals at IT workplace area?

2. What level of the reading, writing, listening and speaking skills of the English are required in the workplace and for performing what kind of tasks?

3. Do graduates of IT from IT Program Study in SWCU feel that they were prepared in terms of their English language ability to meet their current communication needs?

1. THEORETICAL BACKGROUND

English for Specific Purposes (ESP) is a branch of applied linguistics that focuses on relating the teaching and learning process to learners’ needs (Alharby, 2005, p. 26). Alharby added that the ESP approach uses the needs analysis framework as the main tool to define learners’ needs in a specific field because the awareness is more recognizable in a specific target situation representing a “real-life-situation”.

English for Specific Purpose or ESP is also defined as “an approach which all determination as to content and method are based for the learner’s reason to learning” (Hutchinson and Waters, 1987, p.19). From its concept, ESP is performing as an access for learners that have different motivation to learn the language for varying purposes and contexts.

The ESP approach represents a shift in focus from register analysis to needs analysis. Register analysis is based on the principle that different groups of learners require different lexical and grammatical rules to learn English (Hutchinson & Waters, 1987). For example, English for engineers requires a special register that includes the most common grammatical and lexical features used in their field. The
notion of ESP concerns about learning English that focuses on students’ needs. It is important due to the very different nature of ESP from general English.

Alharby stated that in needs analysis, the goal of language teaching is seen through the communicative competence that can best serve the needs of the learner (2005, p. 29). He added that needs analysis has an association with the notional-functional approach where activities are aimed at achieving two goals. First, the meanings and concepts the learner needs in order to communicate (e.g. time, quantity, duration, location). Second, the language needed to express different functions or speech acts (e.g. requesting, suggesting, promising, describing) in language situations (Richards, Platt, and Weber, 1985, p. 196, as cited in Alhaby, 2005, p. 29). Ellis (1997, as cited in Alhaby, 2005, p. 31) indicates that one of the goals of Second Language Acquisition is to improve language teaching. The area of language use in SLA provides the theoretical basis for the ESP process.

In conclusion, the impact of the communicative competence theory and the social function of language on the ESP field demanded a shift in focus from the language system to language use. This shift in focus paved the way for needs analysis to emerge as a main source for providing empirical data to design activities for a certain group of learners based on their language use. The outcome of this shift provides data to develop second language communicative competence in a specific field.

2. NEED ANALYSIS

Needs are often described in terms of a linguistic deficiency, that is, as describing the differences between what a learner can presently do in a language and
what he or she should be able to do (Richards, 2001, p. 54). While Hutchinson and Water (1987, pp. 56-57) described needs as necessities, wants, and lacks. *Necessities* refer to the type of need that likely a demand for the target situation, while *lack* is the gap between the target proficiency and what learners know already (Hutchinson and Water, 1987), on the other hand *wants* refer to personal interest in language learning (Tesfaye, 2003, p. 16).

According to Richards (2001, p. 51) need analysis is procedures used to collect information about learners’ needs. Similarly, Richterich (1983 cited in Rajabi and Azarpour, 2011) defines need analysis as procedure that “consists primarily of compiling information both on the individuals or groups of individuals who are to learn a language and on the use which they are expected to make of it.” (p. 21).

Dudley-Evan and St. John (1998) stated the three aims of need analysis:

First, needs analysis aims to know learners as people, as language users and as language learners. Second, needs analysis study also aims to know how language learning and skills learning can be maximized for a given learner group. Third, needs analysis study aims to know the target situations and learning environment so that data can appropriately be interpreted. (p. 126)

Hence, a need analysis is seen as crucial thing for both educators and learners in order to make sure that the course is suitable based on course’s efficiency and effectiveness. Richterich and Chanceril (1978, cited in Richards, 2001) urged that “learners, teachers and employers could be involved in determining learners’ need” (p. 33).
3. NEEDS ANALYSIS MODELS

There are two main approaches used in order to carry out a need analysis, they are Target Situation Analysis (TSA) and Present Situation Analysis (PSA).

3. a. Target Situational Analysis (TSA)

The Target-Situation Analysis model started with Munby’s (1978) model of the Communication Needs Process. In Munby’s CNP, the target needs and target level performance are established by investigating the target situation, and his overall model clearly establishes the place of needs analysis as central to ESP (Songhori, 2008, p. 4). TSA also can be defined as study to seek out all information about component condition in target language that being trained in the language learning. According to Dudley-Evan and St. John (1998) TSA “includes objective perceive and product-oriented needs” (p. 124). Robinson (1991, p. 8) described TSA as a need analysis that focuses on students’ needs at the end of language course.

3. b. Present Situational Analysis (PSA)

PSA can be defined as a study to see current condition of the learners in beginning of the language course. Robinson (1991, p. 9) described PSA as a complement to TSA. The PSA will display the learners’ levels of ability, the language-teaching establishment, the learners’ attitude toward the language learning and students’ strangeness and weakness.

The Target-Situation Analysis and the Present-Situation Analysis are the two main approaches in needs analysis studies. Researcher will continue to use one of these models as their theoretical base depending on the circumstances of the conducted research. This study will adapt a similar theoretical base to the Target-
Situation Analysis approach since it is more appropriate for the objectives of the study.

B. THE STUDY

This section presented context of the study, participants, instruments, data collection procedure and data analysis procedure.

1. Context of the Study

This study attempted to investigate the English language communicative needs of IT professionals in SWCU by investigating their language use in the workplace in order to provide empirical data serving in ESP context. This study was done in Salatiga. This study focused on the workplace expectation in Information Technology (IT) area.

2. Participants

Since the goal of this study was to provide empirical data for the English language future communicative needs of IT students in IT fields, the sample population focused on five Information Technology (IT) professionals in the workplace who had graduated from IT Program study of IT Faculty in Satya Wacana Christian University.

3. Instruments

This study used interview as the instrument to get the primary data. The interview instrument was in Bahasa Indonesia. The interview instrument used semi-structured technique due to its flexibility and to “give the interviewee a degree of power and control over the course of the interview.” (Nunan, 1992, p. 150). The
interview was used to get data from the participants about the target situations in IT work area.

4. Data Collection Procedure

The data was collected through convenient sampling due to availability and time constraint of the research and the participants. Convenience sampling is a technique where the researcher chooses or uses the participants based on their availability. In the other words, the participants are willing to participate in this study and easy to access (Teddlie & Yu, 2007). The number of participants obtained was nine participants and the number of participants available was five participants. The researcher contacted the selected graduate students to ask their permission to do the interview. Then, the researcher decided the time to do interview with the participants in different places and time. All the interview processes were recorded.

5. Data Analysis Procedure

After collecting the data, it was analyzed using the following procedures. First, the data from the interview with the participants were transcribed in English then grouped based on the research questions. Second, the data were analyzed in order to know the reality of the workplace situation. Finally, the data from interviews could reveal empirical data for the English language future communicative needs of IT students in IT fields based on the investigation of the English language communicative needs of IT professionals.
C. DISCUSSION

This chapter presented the analysis of collected data from the participants. The data presented here were the research finding on the target situations in IT work, specifically on how English language and skills were used in the target situation (Dudley-Evan and St. John, 1998, p. 125). The first part introduces the participants’ profile and their work descriptions in IT fields. The second part of this chapter discusses the findings of the research questions and draws implications.

1. The Participants’ Profile

This section describes the participants’ workplace, the length of working and also their work descriptions in IT job fields.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Work place</th>
<th>Length of work</th>
<th>Work description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IT Faculty of Satya Wacana Christian University</td>
<td>About 4 years</td>
<td>Teaching IT courses such as Programming, Math, and Logic</td>
</tr>
<tr>
<td>2</td>
<td>Garment Company</td>
<td>About 2 years</td>
<td>Dealing with networking, software development, and also as a web developer in the company</td>
</tr>
<tr>
<td>3</td>
<td>Library of Satya Wacana Christian University</td>
<td>About 2.5 years</td>
<td>Being responsible for the software development and things relate to this</td>
</tr>
<tr>
<td>4</td>
<td>National Hospital</td>
<td>About 1 year</td>
<td>Being responsible for IT trouble shooting and the installation of medical equipments on IT based</td>
</tr>
<tr>
<td>5</td>
<td>Automotive Company</td>
<td>About 1 year</td>
<td>Being responsible for brand building and development of all the company products</td>
</tr>
</tbody>
</table>

From the table above, the participants worked in IT related areas such as an IT lecturer, IT staff, programmer, IT infrastructure, and brand building and development.
They had been working for about one until four years. Their work descriptions were teaching IT courses, taking care of networking and software, and developing web.

2. The Extent of English Use in the Workplace

The first research question is, to what extent is the English language used in the careers of IT professionals at IT workplace area?

To answer this question, the participants were asked about their perceived percentage of using English in the workplace and about their perceived importance of having a high level of English proficiency to perform the job. In regard to the importance of English language situations, the participants were asked about the use of English in IT workplace. This is suggested by Hutchinson and Waters (1987) that the analysis of target situation needs is “in essence a matter of asking questions about the target situation and the attitudes towards that situation of various participants in the learning process” (p. 59).

Most participants reported that they used English in high percentage at the workplace. All the participants confirmed that in their occupations they needed English for different purposes, as illustrated in Table 2:

Table 2 The Necessities of Using English in IT Work Situation

<table>
<thead>
<tr>
<th>Participant</th>
<th>The necessities of using English in IT work situation</th>
<th>English Skill Required</th>
</tr>
</thead>
</table>
| 1           | • Reading teaching materials that most of them were in English  
              • Communicating with native guests, colleagues, sometimes students | Reading and Speaking |
| 2           | • Reading references in English for solving problems in work situation  
              • Listening to manuals in English for solving problems in work | Reading, Speaking, and Listening |
From Table 2, it may be concluded that the situations in IT workplace which need English were various, for example, reading references, teaching, communicating with native persons and also problem solving either by reading or listening to manuals or online references. The results show that while the need of English use varies somewhat by profession, there was an agreement among all participants that the English language is used extensively in the workplace and plays an important role in all of the participants’ professional lives.

When participants were asked about the importance of having a high level of English proficiency to perform the job, the majority of the participants asserted that it was very important to have a high level of English proficiency to perform a job. However, professions including IT staff at library and IT infrastructure at the hospital

<table>
<thead>
<tr>
<th>3</th>
<th>Reading references in English for solving problems in work situation</th>
<th>Reading, Listening, and Writing (occasional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Reading references in English for solving problems in work situation</td>
<td>Reading and Listening</td>
</tr>
<tr>
<td>5</td>
<td>Reading references in English for solving problems in work situation</td>
<td>Reading, Listening, and Speaking</td>
</tr>
<tr>
<td></td>
<td>Listening to manuals in English for solving problems in work situation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communicating with his supervisor who was a native speaker of English,</td>
<td></td>
</tr>
</tbody>
</table>
did not indicate the need of communicating in English in their workplace. One way to explain their response is that they might be performing a mechanical job that required little verbal communication.

The data show that all the participants were using reading skill to support their work and only one was using writing skill. It suggested that the participants consider reading skills to be more important than writing skills. Although this would suggest that English programs designed to prepare IT students need to intensify the focus on receptive skills, there is no indication that the differences between receptive skills (reading and listening) and productive skills (speaking and writing) are so great. Therefore, it is hard to make a strong judgment in this regard. Not all activities required a high knowledge of the English language, however. Thus, it is suggested that the activities in English program should reflect situations similar to what the IT students will encounter in their future careers. This is in line with Dudley-Evans and St. John (1998) that what learners should be taught are skills that enable them to reach the target, the process of learning and motivation should be considered as well as the fact that different learners learn in different ways.

In conclusion, the results were consistent in pointing out the high usage of English language in IT professions. This implies that effective English language instruction is greatly needed to perform the job effectively and therefore plays an important role in the careers of IT professionals.

3. Level of English Skills Required at the Workplace

The second research questions is, what level of English reading, writing, listening and speaking skills of the English language are required in the workplace, and for performing what kind of tasks?
The data show that there is considerable agreement among the participants about the relative importance of proficiency in English reading, speaking, listening, and writing. Thus, for reading skill, all the participants stated the same point that they needed English to read references that is available in English. The following was an extract from the interview of a participant who used reading skill in his job.

“Sometimes when I develop applications I might find problems to get something done, application, for instance. I personally often use online references to get helped especially for coding. The most available and credible sources in the internet are in English.”  

(Participant 3)

For speaking skill, all the participants stated that the skill was used to communicate with different interlocutors such as colleagues, students, foreign clients, and foreign supervisor:

“... for example doing discussion in class, teaching use little English, then sometimes having a meeting using English. Also sometimes when there are corporation with sectors out of faculty or university from foreigners it usually needed English too.”  

(Participant 1)

“Speaking skill is very important for me since my supervisor is from Japan who cannot understand Indonesian well, so all the job reports should be in English.”  

(Participant 5)
Further, in listening skill, all participants pointed out that listening skill was used to comprehend things such as audio-visual manuals without caption or doing conversation with foreigners. The following were extracts of interview with the participants who used listening skill.

“...then listening, Because sometimes I also listen (and watch) tutorial by youtube without caption...”

(Participant 3)

“When my supervisor asks me to do something, he use English instead of Bahasa Indonesia due to he cannot speak Bahasa Indonesia fluently. So I have to understand what he commands.”

(Participant 2)

The last, in term of writing skill, the third participant was the only participant that stated that he used the writing skill. He used it to make direct communication by email, but he explained that it was only occasionally used.

“...writing skill is not really used (in work situation), I mean it is only occasional so I rarely use it except for crucial thing such as final (action) to (overseas) vendor.”

(Participant 3)

To sum up, skills used in target situation were reading, speaking, listening and writing skill. The most frequent used was reading skill meanwhile the least frequent used was writing skill. Since reading and listening are ranked more highly across
items, it can be concluded that proficiency in English receptive skills (reading and writing) are perceived as more important that productive skills (speaking and writing).

The study also looked at the specific English skill needed to perform specific IT tasks. The language skills i.e. reading, speaking, listening and writing skill needed in IT work situations were used depending on the situations. It was described as follows:

The symbols interpreted the difficulty level of English skill required in IT work situation. Symbol plus (+) was for more difficult and minus (-) was for less difficult.

<table>
<thead>
<tr>
<th>Task performed in work situation</th>
<th>Participant</th>
<th>Interlocutors</th>
<th>Genre</th>
<th>Difficulty level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading manuals</td>
<td>2, 3, and 4</td>
<td>• Expert (+)</td>
<td>Technical (+)</td>
<td>Difficult</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Native Speaker (+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading teaching materials</td>
<td>1</td>
<td>• Expert (+)</td>
<td>Technical (+)</td>
<td>Difficult</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Native Speaker (+)</td>
<td></td>
<td></td>
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<tr>
<td><strong>Listening</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Listening to manuals</td>
<td>2, 3, and 4</td>
<td>• Expert (+)</td>
<td>Technical (+)</td>
<td>Difficult</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>• Native Speaker (+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening to instructions</td>
<td>1, 2 and 5</td>
<td>• Expert (+)</td>
<td>Technical (+)</td>
<td>Difficult</td>
</tr>
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<td></td>
<td></td>
<td>• Native Speaker (+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening to explanation</td>
<td>1, 2, and 5</td>
<td>• Expert (+)</td>
<td>Technical (+)</td>
<td>Difficult</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Native Speaker (+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening to supervisor</td>
<td>2 and 5</td>
<td>• Expert (+)</td>
<td>Technical (+)</td>
<td>Difficult</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Native Speaker (+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening to colleagues</td>
<td>1, 3 and 5</td>
<td>• Expert (+)</td>
<td>Technical (+)</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Native Speaker (+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening to colleagues</td>
<td>1, 2 and 5</td>
<td>• Expert (+)</td>
<td>Technical (+)</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Native Speaker (+)</td>
<td></td>
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<tr>
<td>Activity</td>
<td>Level</td>
<td>Task Description</td>
<td></td>
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<tr>
<td><strong>Meetings</strong></td>
<td></td>
<td>• Novice (-) • Native Speaker (+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening to native guest</td>
<td>1</td>
<td>• Expert (+) • Native Speaker (+) • Non-native Speaker (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening to presentation</td>
<td>1, 2, 5</td>
<td>• Novice (-) • Native Speaker (+) • Non-native Speaker (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaking with supervisors</td>
<td>2, 5</td>
<td>• Expert (+) • Native Speaker (+) • Non-native Speaker (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaking in phone conversation</td>
<td>2</td>
<td>• Expert (+) • Native Speaker (+) • Non-native Speaker (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaking to colleagues</td>
<td>1, 2, 5</td>
<td>• Expert (+) • Native Speaker (+) • Non-native Speaker (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaking in meetings</td>
<td>2, 5</td>
<td>• Expert (+) • Novice (-) • Native Speaker (+) • Non-native Speaker (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaking in presentation</td>
<td>2, 5</td>
<td>• Expert (+) • Native Speaker (+) • Non-native Speaker (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaking with native guests</td>
<td>2</td>
<td>• Expert (+) • Native Speaker (+) • Non-native Speaker (-)</td>
<td></td>
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</tbody>
</table>

| Writing                        |       | • Novice (-) • Native Speaker (+)                                               |
| Writing emails and faxes       | 3     | • Expert (+) • Native Speaker (+)                                               |

From Table 3, it may be concluded that the difficulty level of task performed in IT work situations which need English were various. The results show that task which had the lowest level of difficulty for IT professionals was listening to presentation. In other words, the participants did not consider having a high level of English knowledge to be important when listening to presentation. Tasks which have
a high level of difficulty for IT professionals were reading manuals, listening manuals, listening and speaking to colleagues.

This implies that these tasks frequently involve native speakers so require a high level of proficiency in English. Thus, it suggests the potential importance of a listening and speaking course at the college level that contains dialogues representing interaction with colleagues.

In the tasks associated with reading and writing skills, the majority of the participants felt it was important to have a high level of proficiency in reading skills to conduct these tasks. This suggests that students in IT professions need to acquire a high level of the reading skills to be prepared for their professional lives. The data also suggest that the participants consider reading skills to be more important than writing skills based on the number of participants who needed the using of English to perform tasks.

The last task is associated with all four English language skills. The tasks in this group were concerned with “meetings,” “instructions and explanations,” and “presentations.” Results for this tasks were less clear cut. The vast majority of participants highly ranked the importance of having a high level of proficiency in the four skills to conduct these activities. However, in these activities comparing receptive skills with productive skills was not entirely consistent. Listening skills received the highest ranking among the four English language skills in all three activities. The other three skills were highly rated but had no considerable difference in importance when compared to each other.
In conclusion, participants considered all English language skills to be important to conduct their jobs effectively. Though receptive skills were viewed as more important than productive skills, the differences were so close that it is hard to prioritize any skill area over others. However, not all activities require a high knowledge of the English language. Therefore, activities in an English program should reflect situations similar to what the IT students will encounter in their future careers. For example, reading and writing courses should use authentic materials from the IT environment representing each profession instead of using generic materials covering the whole range of the IT field. Listening and speaking courses should contain dialogues instead of individual word repetition.

4. The Adequacy of English Preparation Program

This section will present the findings in respond to the third research question, i.e. do graduates of IT from IT Program Study in SWCU feel that they were prepared in terms of their English language ability to meet their current communication needs?

To answer this question, the participants were asked to explain their views about language skills in English courses and the English courses presented in IT Faculty in relation to their works’ need and how it support their work in IT fields.

First, in regard to the participants’ views about the language skills in the English preparation program materials, three of five participants who worked as an IT lecturer, a programmer, and IT infrastructure stated that the language skills in materials in IT Faculty generally could support their work because they felt it was sufficient and had no big problems using it in any situations and interlocutors.
“If it (the language skill in English courses that fulfill works’ needs) can be judged on a scale of 1 to 10, I would say 7 for this.”

(Participant 3)

“…generally yes (the language skills in the English material in IT Faculty) but I felt the material is enough provided sufficiently by the faculty (to support IT work situation).”

(Participant 4)

However, the participant 2 and 5 who worked as an IT staff and often used English with his native English speaker supervisor stated that the language skills in English courses were not really enough to support their job. They explained that speaking skill also needed to be learned more.

“It is not really enough for me, because I often do conversation with my native (English-speaker) supervisor so I think speaking skill need to be emphasized more in English courses (in IT Faculty).”

(Participant 2)

“… even I had taken English course (BID and BIP) when I was in college, now I am also taking an English courses outside my job because English conversation (speaking skill) is very important in my job but the faculty did not really provide it (when he was in college).”

(Participant 5)
Second, in terms of participants’ views about the English courses presented in IT Faculty, one of the five participants stated that the English courses offered in IT faculty were sufficient to support them in IT work situation

“It used to BID 1 and 2, then BIP 1 to...if I’m not mistaken to 6, but I don’t know the present curriculum, but I think the courses adequately support me.”

(Participant 4)

On the other hand, two of the five participants stated that the length of meeting hours in English courses needs to be added. Participant 2, who often used speaking skill in his work, stated that it was not really sufficient for him when he was taking English courses in IT Faculty.

“I am not sure it is sufficient and it needs more speaking practice in the activity (in the English class). The reason is that limited meeting hours (that limit the material given). I think it would be better if the meeting hours are extended.”

(Participant 2)

“I feel it is not enough yet. We only have 14 meetings and we don’t have additional tasks that I think it is important for English understanding in long term memory.”

(Participant 5)
To sum up, English courses in IT Faculty in relation to work situation adequately supported the participants. However, the length of meeting hours in English courses needs to be added in order to emphasize the activities and the tasks in English learning process.

Referring to the reality of work experienced by the participants, they viewed that the credits of English courses need to be added because two of them felt that the meeting hours for the English courses were not really sufficient to deliver all materials. As the result, the students were not really well supplied with English and it might influence their performance in their future occupation in IT work area. In short, the English language courses that they took at the college level were not helpful enough in relating English language use to their IT needs. The English language courses at the college level did not adequately define the eventual use of the English language for IT program students.

D. CONCLUSION

The aim of this study was to investigate the English language communicative needs of IT professionals in order to provide empirical data serving the ESP context of IT education in SWCU. The result was gained from the analysis of the needs based on the target situation. This study suggests that the English language is used extensively in the IT field in EFL and lingua franca contexts. It plays a crucial role as the main tool of communication to conduct a variety of different activities. Therefore, the criteria to define English language courses for IT purposes should be based on the target communicative situations representing the communicative use of language.
rather than formal linguistic categories representing the grammatical rules of language.

In term of the relative emphasis of the four English language skills in the introductory courses for IT purposes, it should be based on activities driven by the actual communicative situations demanded by the IT profession. Though this study suggests that receptive skills are perceived as more important than productive skills in a wide range of activities in the IT field, it is hard to recommend that English courses for IT purposes should emphasize reading and listening skills over writing and speaking skills because there is no indication that the differences between receptive and productive skills are very close. Further research in this regard is needed to support such claim.

There are three different kinds of needs in English learning process that need to be added. The first need is the need of providing more time to learn English in the English courses, the second need is the need of English language skills, and the third need is quantity of the use of English in English courses. Nevertheless, the limitation of the study is that this study cannot be generalized to all the IT contexts. This study used convenient sampling which has a limitation on the number of participants and the depth of the questions. Thus, the result could be different if the study is conducted with the larger number of participants with in-depth questions on specific task needed by IT professions. For that reason, it is suggested for further study to conduct needs analysis with a larger number of samples and ask specific tasks needed by IT professions to improve studies about ESP.
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REFERENCES


APPENDIC

Interview Questions

1. Anda bekerja di bidang apa sekarang?

2. Apakah dibutuhkan kemampuan bahasa Inggris dalam pekerjaan anda? Jika ada mohon dijelaskan.

3. Kemampuan bahasa Inggris apa yang lebih banyak digunakan dalam bidang pekerjaan anda? (membaca, menulis, mendengarkan atau berbicara)?

4. Kegiatan seperti apa yang membutuhkan kemampuan bahasa Inggris di dalam bidang pekerjaan anda?

5. Apakah mata kuliah *Bahasa Inggris Dasar* (BID) dan *Bahasa Inggris Profesi* (BIP) yang anda ambil selama masih menjalankan studi di Fakultas Teknik Informatika berguna dalam bidang pekerjaan anda sekarang?

6. Apa yang anda rasakan setelah menyelesaikan studi di FTI dengan dibekali kemampuan bahasa Inggris yang anda dapat di mata kuliah BID dan BIP?

7. Apakah materi yang diajarkan dalam mata kuliah BID dan BIP sudah relevan dengan aktifitas kegiatan yang ada di bidang pekerjaan anda?

8. Apakah anda merasa bahwa mata kuliah BID dan BIP di Fakultas Teknik Informatika sudah sesuai dengan bahasa Inggris dalam dunia kerja teknologi informatika?