English Communication Skills Needs Analysis
of Health Technology Students

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Abstract

Even though students in Thailand typically receive education on English language in general context, believe that it will help them at work, students cannot use English well in their own field. This research study aimed to investigate the needs of English communication skills among health technology students. Moreover, this study also attempted to identify which English communication skills health technology students need the most. The participants were 119 full-time students of Health Technology Department, Navamindradhiraj University who currently enroll in either Medical Instruments and Operating Room Technology program (MIORT) or Occupational Health and Hospital Safety program (OHHS). The instrument used was a structured questionnaire developed from another related study together with questions researcher deemed appropriate. The questionnaire was divided into four parts and was in the form of closed-ended questions, open-ended questions, and five-point Likert scale. The findings showed that, in general, most health technology students thought their English proficiency was fair. When it came to students' needs of English communication skills, all three types of tasks; tasks require only listening and speaking skills, tasks require only reading and writing skills, and tasks require all four skills; had students display high level of needs in almost every task. In conclusion, English for specific purposes (ESP) courses should be developed and tailored to students' needs. Furthermore, to sharpen their real-life communication skills, integrated skill teaching method as well as integrated skill classroom materials should also be employed.

Keywords: English communication skills, needs analysis, health technology

1.   Introduction

Most universities in Thailand offer general education courses in various disciplines, such as sciences, mathematics, social sciences, arts and humanities, and foreign languages including English and third languages, to their students in order to develop desirable characteristics including academic-related and non-academic attributes. Education First (2020) or EF, a worldwide education organization, shows that Thailand is ranked at number 89 of 100 countries in its English Proficiency Index with EF EPI score of 419, which means very low proficiency. Hence, English is one of the subjects that academic institutions put emphasis on for a very long time. Even though students typically receive education on English language in general context, believe that it will help them at work, students cannot use English well in their own field. For instance, health technology students of Navamindradhiraj University who already completed general education English courses are not able to communicate with foreign patients at the hospital.

This study aims to answer the following questions: (1) What are important English communication skills for health technology students? and (2) Which English communication skills do health technology students need the most? ***English communication skills*** are abilities to use English language, including listening, speaking, reading, and writing, to communicate with other people in working environment especially in a hospital or medical-related settings, and ***health technology students*** are students of Health Technology Department, Navamindradhiraj University who enroll full-time in either Medical Instruments and Operating Room Technology program (MIORT) or Occupational Health and Hospital Safety program (OHHS). Therefore, this paper is limited to full-time students of Health Technology Department, Navamindradhiraj University who are currently studying in either MIORT program or OHHS program. The objectives of the study are: (1) To investigate the needs of English communication skills among health technology students and (2) To identify which English communication skills health technology students need the most.

Needs Analysis

Needs analysis can be seen using in many contexts to find the gaps between what is done and what should be done. (Needs analysis, n.d.) In educational situations, the forementioned gaps, or differences, can be regarded as the skills, knowledge, or abilities students possess and what students should have. In order to create a well-designed course for students, especially English for specific purposes (ESP) or any language courses, the development of the curriculum should be on the basis of students' needs analysis. (Richards, 2001)

Bouchrika (2021) agrees with Bleich (2018) as for the methods to conduct needs analysis. These methods, or tools, vary from setting to setting. Combining a few of them to provide optimum outcomes or using one solely, the choice is yours. The methods are: (1) ***Questionnaires*** can be used to present the basic information, but it is quite undependable, (2) ***Observation*** takes more time, but can deliver great information when conducting on a regular basis, (3) ***Interviews*** should be done with superiors such as teachers and advisors to gain insight and perception, (4) ***Examining work*** is a way to see whether the works produced by students reflect the expected skills, knowledge,

and abilities, (5) *Assessments* are series of tests to evaluate the knowledge of students, and (6) *Competitive analysis* goes over what and how other competitors do.

McCawley (2009) suggests seven elements of needs analysis (also called needs assessment) as follows: (1) Identifying objectives of the needs analysis, (2) Choosing target audience, (3) Collecting data, (4) Sampling participants who represent the population, (5) Choosing instruments and techniques to collect data, (6) Analyzing the data, and (7) Making a decision based on the collected information. If these components are deliberately performed, a needs analysis plan can present the following results:

- *Impact*: How curriculum or course can impact the audience
- *Approaches*: The approach that is most effective in curriculum development
- *Awareness*: Knowledge gaps in an existing course
- *Outcomes*: Data about the current situation
- *Demand*: What students want for future course or curriculum
- *Credibility*: Being acknowledged as a credible program that tunes in to voice of the customer

English Communication Skills

English language, as we all know, plays an important role when it comes to an international communication. Yadav (2018) collectively points out that English is spoken by approximately 1,121 million people around the world, and it is as well the most widely-spoken language. From the figure of 1,121 million, 378 million people are native speakers, and 743 million are non-native speakers. Moreover, there are 118 countries where people use English as an established language, and 59 countries where English has official status. Non-native English speakers, people who speak English as their foreign language, mostly use English to communicate with other non-native English speakers. To communicate effectively between people with different mother tongue, English as a lingua franca (ELF) steps in. (Chong, 2016) The word *lingua franca*, also known as a bridge language or common language, is used to describe a language which enables communication between people who do not share the same native language.

National University (2018) states that for anyone, both native and non-native, who wants to master communication in English, there are four skills to be familiarized with: listening, speaking, reading, and writing. It appears that not everybody is well-rounded about language used in communication. People who are good at speaking might not be good at writing, and vice versa. Hence, regular practice of these four skills can help enhance your communication competence.

Canale and Swain (1980) and Canale (1983) proposes the theoretical framework which includes four main components of communicative competence as follows: (1) *Grammatical competence* deals with an ability to understand and express correct grammar utterances, (2) *Sociolinguistic competence* deals with an ability to appropriately produce sociolinguistic

utterances based on rules and norms, (3) ***Discourse competence*** deals with an ability to produce utterances with coherence in meaning and cohesion in form, and (4) ***Strategic competence*** deals with an ability to solve problems during communication. These four competencies as defined by Canale and Swain are recognized and adopted by many educators in English as a foreign language (EFL) and English as a second language (ESL) field since these communication strategies provide a rudimentary stage for their language and pedagogy research in English language teaching (ELT).

The theory and concept of needs analysis and English communication skills explored in this section reveal that needs analysis is a crucial step to take in order to produce and develop proper ESP courses and curriculum. After reviewing the literature, the researcher has a better understanding of the process to conduct needs analysis in ELT which will be covered in the next section.

2.   Research Methodology

Subjects

The population of this study was 170 full-time students of Health Technology Department, Navamindradhiraj University. The sample group was 119 students and was drawn based on Krejcie and Morgan's (1970) table for determining sample size.

Materials

A structured questionnaire based on the questionnaire used in the study of "ESP Target Situation Needs Analysis: The English Language Communicative Needs as Perceived by Health Professionals in the Riyadh Area" (Alharby, 2005) was used as a research instrument for this study.

The questionnaire was in both English and Thai in order to avoid any misunderstandings caused by language barrier respondents may have.

The questionnaire consisted of four parts:

Part I: Demographic information

Part II: Respondents' current English communication skills

Part III: Health technology students' needs of English communication skills

Part IV: Suggestions

For part II and III, the criteria of the opinion rates is demonstrated as follows:

Response	Rate	Mean range
Excellent / Very high	5	4.21-5.00

Good / High	4	3.41-4.20
Fair / Moderate	3	2.61-3.40
Poor / Low	2	1.81-2.60
Very poor / Very low	1	1.00-1.80

Lastly, the questionnaire was sent to three experts in the field of the study to be evaluated using the Index of Item-Objective Congruence (IOC) based on the score range from +1 to -1. These experts were (1) Head of General Education Department, (2) Lecturer of Health Technology Department, and (3) Lecturer of Bachelor of Science Program in Medical Instruments and Operating Room Technology, all from Navamindradhiraj University. The items with the score lower than 0.6 were revised before launching the questionnaire to the respondents.

Data Collection

The questionnaire was distributed to the students of Health Technology Department, Navamindradhiraj University in November 2020 via online platform. The total number of the questionnaire returned was 119 sets.

Data Analysis

The quantitative data was analyzed using the Statistical Package for the Social Sciences (SPSS). The findings from the study were described by descriptive statistics, including mean and standard deviation.

3. Results

Demographic Information

The first part of the questionnaire described demographic information of the respondents. Out of 119 respondents, the majority were female at 84.9%, and the rest were male at 15.1%. 47 respondents (39.5%) were from Occupational Health and Hospital Safety program (OHHS) and 72 respondents (60.5%) were from Medical Instruments and Operating Room Technology program (MIORT).

Respondents' Current English Communication Skills

The second part of the questionnaire was about respondents' current English communication skills including listening, speaking, reading, and writing. Most of the respondents thought that their communication skills in English were fair in all aspects, as shown in Table 1.

Table 1: Respondents' current English communication skills

	Mean	*S.D.*	*Degree*
Listening skills	2.9	0.83	Fair
Speaking skills	2.67	0.93	Fair
Reading skills	3.37	0.87	Fair
Writing skills	2.71	0.89	Fair

Health Technology Students' Needs of English Communication Skills

The third part presented opinions of health technology students on needs of English communication skills. This section of the questionnaire set forth some certain tasks which can be found in working environment such as healthcare facilities. Each task indicated required skills to perform the duty and was separated into tasks require only listening and speaking skills, tasks require only reading and writing skills, and tasks require all four skills. Table 2 showed that students of health technology department had high needs in most tasks regarding English communication skills. However, some tasks; namely writing letters and writing memos; had moderate level of needs.

Table 2: Health technology students' needs of English communication skills

	Mean	*S.D.*	*Degree*
Dealing with patients			
Listening skills	3.62	1.07	High
Speaking skills	3.59	1.09	High
Dealing with colleagues			
Listening skills	3.76	1.01	High
Speaking skills	3.63	1.02	High
Phone conversations			
Listening skills	3.55	1.14	High
Speaking skills	3.56	1.05	High
Letters			
Reading skills	3.56	1.03	High
Writing skills	3.35	1.11	Moderate
Memos			

Reading skills	3.59	1.02	High
Writing skills	3.39	1.17	Moderate
Emails and faxes			
Reading skills	3.62	1.04	High
Writing skills	3.43	1.18	High
Research			
Reading skills	3.73	1.18	High
Writing skills	3.61	1.27	High
Forms/Applications			
Reading skills	3.81	0.99	High
Writing skills	3.67	1.08	High

(table continues)

Table 2: (continued)

	Mean	*S.D.*	*Degree*
Reports			
Reading skills	3.65	1.07	High
Writing skills	3.53	1.21	High
Using computers			
Reading skills	3.85	1.0	High
Writing skills	3.72	1.06	High
Using medical instruments and instruments of occupational health and hospital safety			
Reading skills	4.0	1.02	High
Writing skills	3.77	1.16	High
Meetings			
Listening skills	3.74	1.05	High
Speaking skills	3.58	1.14	High
Reading skills	3.72	1.05	High
Writing skills	3.5	1.17	High

Instructions/Explanations			
Listening skills	3.71	1.05	High
Speaking skills	3.5	1.08	High
Reading skills	3.67	1.02	High
Writing skills	3.48	1.12	High
Presentations			
Listening skills	3.65	1.1	High
Speaking skills	3.64	1.17	High
Reading skills	3.63	1.02	High
Writing skills	3.43	1.15	High

Suggestions

One respondent suggested that English courses should focus on communication especially daily conversation. In addition, another respondent indicated the needs of English courses for work.

4.   Discussion and Conclusion

Discussion

From the findings, the overall degree of needs of all tasks were at high, except for writing letters and memos at moderate. This can be implied that most students need to improve all English communication skills according to the competencies in their field of work and study. Besides, the overall high level of needs might happen as a result of academic insecurities. They believe that they lack skills, knowledge, and abilities to perform those tasks using English language. Even though they did well in general English classes taken in the first year of study, they still do not have confidence doing them in real life with real people.

Conclusion

English for specific purposes (ESP) courses should be developed and tailored to students' needs. Since health technology department offers a unique academic nature of program, developing the course must be carried out with elements of their work environment. Common office work tasks are not enough to boost confidence of the students. Furthermore, to sharpen their real-life communication skills, integrated skill teaching method as well as integrated skill classroom materials should also be employed.

Recommendation

Based on the discussion and conclusion of this study, future research should be conducted at different universities with similar programs of study and with other groups of students from different programs of study. Moreover, future research should obtain information from teachers of Occupational Health and Hospital Safety program (OHHS) and Medical Instruments and Operating Room Technology program (MIORT) as well as its graduates.

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