

CHAPTER 5

CONCLUSION AND DISCUSSION

This chapter discusses the finding of the study reported in Chapter Four with reference to the research questions presented in Chapter One. A few important and interesting issues that emerged from the findings are highlighted and discussed. The first section reports the summary of the main study as it pertains to each research question. Next, the discussion of the findings will be presented. Then, the research recommendation will be discussed. The last section provides suggestions for further research.

5.1 Summary of the Findings

This study sought to identify the English language skills deficits of Thai medical technologists and to assess their needs and preferences for an EMTP training course.

A questionnaire was administered to 32 Thai medical technologists to identify the challenges they face as a result of English language skills deficits and the workplace situations that present the greatest and most frequent difficulties. Respondents were also interviewed to determine their motivations and preferences regarding EMTP training.

This research found that English language skills are critical to the work of medical technologists in Thailand, and that these skills are required in a broad array of situations that medical technologists face on a regular basis in the workplace. Lack of English language proficiency creates a number of problems for those working in the

profession, and these problems affect all aspects of their work. Limited English grammar and vocabulary are particularly challenging issues in general. However, a variety of English language skills including listening, speaking, reading, writing, interpreting and translating are all problematic for the respondents at least some of the time, and these problems increase with the length and complexity of documents and social interactions (it is easier for the respondents to take a phone message or greet someone in English than to participate in an international conference or write a journal article).

The problems faced by Thai medical technologists due to English language skill deficits are varied and encompass a broad range of work situations. However, a number of situations are particularly challenging for them. Deficits in English listening skills are most likely to be problematic when attending seminars, training sessions, presentations, discussions and meetings that include foreign speakers or are presented in English; when acquiring new medical knowledge using VCDs or CDs; and during phone calls with foreign patients or doctors. Deficits in English speaking skills present the most difficulties when conversing with others during meetings that include foreign guests; speaking to foreign doctors or patients; making presentations in English; and speaking during seminars, training sessions or discussions that are conducted in English. Writing is particularly challenging for Thai medical technologists when they must produce documents of greater length and complexity such as medical or journal articles, recommendation letters, government documents, minutes and agendas, proposals or reports. Translation is also quite difficult for the respondents when dealing with government documents.

Although the Thai medical technologists who participated in this study have a strong desire to improve their English language skills, many have never taken any ESP or general English language skills courses. However, they would be interested in completing English language courses if they were offered. Thus, there is both a need and a demand for this training, but providing it could be challenging, given the varied preferences of potential students in terms of class days and times, skill priorities and duration of study. However, this challenge could be met by offering customizable online courses developed with the aid of software such as Moodle. These classes could be offered as standalone Internet-based modules or combined classroom and independent study courses, depending on the available resources and the preferences of students.

5.2 Discussion of the Findings

A needs assessment is a process undertaken to identify gaps between the ideal and the actual in a particular situation (Royse. et al. 2009). The present study focused on assessing the English language skills deficits of medical technologists in Thailand and their requirements and preferences regarding English language skills training. The sections that follow examine the findings from this needs assessment in relation to insights gained from past studies.

5.2.1 English Language Skills Deficits and Workplace Challenges

Participants in this study rated vocabulary, listening and interpreting as the most important English language skills for their profession and they noted various challenges

that arise as a result of poor English language proficiency. Overall, their responses indicate that speaking, listening comprehension and translation are especially problematic for many of them. When asked about particular aspects of the English language that have been presenting challenges in the workplace, the majority cited grammar and vocabulary as problematic; more than half have experienced difficulties with pronunciation; and half find speaking, writing and listening comprehension particularly challenging. The fact that they experience difficulties more frequently in situations that require both medical knowledge and English language skills (such as understanding patient complaints and presenting results) than those requiring only basic English language skills (such as making introductions and taking phone messages) indicates a need for targeted EMP training in addition to more general English language skills training.

Ferguson's (2013) assertion that reading medical information, writing papers and reports, participating in conferences and studying at international institutions may all prove challenging for non-native English speakers was generally supported by this research. Participants in the current study found reading in English challenging in some cases, and the degree of difficulty they experienced typically rose along with the complexity or length of the document. However, reading was less problematic for the Thai medical technologists than other English language skills; only 7 cited problems with reading comprehension and 5 noted that slow reading speed was a problem (although respondents sometimes experienced reading difficulties when searching for information on the Internet). Vocabulary, grammar and pronunciation were cited by far more of the respondents as particularly challenging in the workplace than reading English. The desire

to develop better language skills to support conference participation was cited as a motivating factor by approximately one-third of participants in this research, but their answers indicate that most are more focused on the requirements and challenges associated with day-to-day situations they face in the workplace rather than less frequent career activities. Studying at international universities where courses are often taught in English was also mentioned as a motivating factor for improving English language skills during the interviews.

Writing in English was cited by a number of respondents as a particularly challenging issue. Prior research has found key differences in linguistic conventions between English and Thai writing (Kanoksilapatham, 2007), which are likely to affect English writing proficiency among Thai medical technologists. This was supported by the current study, which found that all aspects of writing in English are somewhat problematic for the respondents. Although producing short pieces of English writing such as notes appear to cause only occasional difficulties, writing longer documents such as medical journal articles, recommendation letters, government documents, minutes and agendas, proposals and reports in English were all identified as particularly challenging. This indicates a need for training that can help medical technologists in Thailand develop the skills required to bridge the gap between Thai and English linguistic conventions so that they can easily produce longer pieces of high-quality writing in English.

Vocabulary is particularly critical in medical fields where there are many specialized terms. Medical professionals must have the English language skills required to speak clearly with colleagues and laypeople, and most medical research is published in

English (Ferguson. 2013). This means that medical technologists must have strong EMTP reading comprehension skills to keep their knowledge up to date and to publish their own articles and reports, and vocabulary is a key aspect of this skill set. The respondents in the current study emphasized the need for English vocabulary training, citing vocabulary as one of their top areas of weakness. However, English grammar and pronunciation were also cited by many of the respondents as skill deficits that are currently presenting challenges for them in the workplace.

5.2.2 English Language Training Preferences

Most of the study participants feel that English language skills are critical to their profession and that their EMTP skills and general English language skills are in need of improvement. Although the majority of respondents had never been offered any English language training in the workplace, they expressed interest in completing an English language skills course if it were made available.

The current English language proficiency of prospective students is an important factor to take into account when developing ESP courses (Barnard & Zemach. 2003). However, the subjective preferences of students have also been identified as important criteria for designing language learning courses (Hutchinson & Waters. 2009 ; cited in Laborda. 2011). To meet this need for student input on ESP course design, participants in the current study were asked to provide suggestions for a workplace-based English language skills training course. A large majority of the respondents emphasized the need to develop vocabulary, writing skills and basic conversational skills, which would be

useful not only for their profession but also in other contexts such as foreign travel and pursuing further postsecondary education. It should be noted that ESP courses require field knowledge as well as English language knowledge because they must focus on the contexts in which the English language skills will be applied (Barnard & Zemach, 2003). A subset of respondents in the current study noted the need for EMTP-focused skills such as writing government documents and reports and participating effectively in international conferences. This is in keeping with prior research examining the needs of ESP students in Thailand, which found that it is not sufficient to cover only on general reading and writing skills; an ideal course will include skills training focused on reading textbooks, writing reports and speaking about problems related to the field in which the students specialize (Kaewpet, 2009).

ESP courses may be based on either individual or organizational needs (Gupta, et al. 2007). The current study sought to gather input that could be used to develop English language skills courses based on individual needs, though raising the English proficiency of Thai medical technologists would likely benefit their organizations as well as improving their job performance and career prospects. Developing courses based on individual needs requires tailoring the training to individual requirements, and the findings from the current study suggest that this may be difficult, given that preferences and needs were found to be quite diverse among those surveyed. In addition to differing preferences regarding particular training needs and course duration, this research found that the availability of potential EMTP students varies widely, which could be an obstacle to providing English language skills training to all those in the medical technologist

profession who want it. However, there are online content management and course development systems such as Moodle that have proven effective for providing training online or combined online and in-person training in contexts where time and resources are limited (Iwata, et al. 2013). Using such a system would enable Thai medical technologists to engage in English language skills training at the times most convenient to them and allow some degree of customization so that they could focus on the skills they most need to acquire.

Another challenge that has been identified with regard to ESP training is determining whether teachers should be selected based on English language teaching experience or subject specialization (Ahmadi & Sajjadi, 2009). This is a particularly important issue with EMTP due to the specialized vocabulary used within the medical profession. The fact that many of the respondents in the current study encountered more difficulties when using English language skills in combination with technical knowledge in a variety of work situations suggests that a medical professional may be a better EMTP teacher than a standard English language teacher with no medical background.

There is also evidence that autonomous learning should be encouraged in EMTP courses by setting high performance standards right from the start of a training program so that students do not succeed immediately and subsequently lose their motivation to learn (Malcolm, 2011). However, the fact that differing levels of motivation were identified by the researcher suggests that autonomous learning is not the only motivational factor involved English language skills acquisition. The findings from the interviews conducted for the current study indicate that the reasons why Thai medical

technologists want to improve their English language proficiency are diverse, and although career issues are an important element for many of them, some are also motivated by other factors such as the desire to travel or to develop self-competence in a second language. Thus, to increase interest and motivation for all learners, an EMTP course should tap into various motivational factors rather than focusing solely on career-based material. This strategy is supported by the assertion of Barnard and Zemach (2003) that it is not necessary to limit the focus of an ESP course to a particular subject area because students will be better able to improve their fluency by applying the language within a broader range of contexts. Moreover, this broader focus is also more likely to maintain student interest. Therefore, EMTP course designers will ideally follow Ferguson's (2013) suggestion to include material based on social contexts within EMTP courses rather than focusing solely on medical terms and constructions.

5.3 Implication of the Findings

There are a number of recommendations that can be made based on the findings from this study.

1. There is a need to offer workplace-based training courses to remedy the English language skills deficits of Thai medical technologists. There is a high demand for English language skills training among this professional group, and providing this training would drastically reduce the difficulties they face in a wide variety of workplace situations, which would in turn reduce their stress, enhance the quality of care they can provide to patients, improve their ability to function effectively in various work-related contexts and

increase the quality of the documentation they produce. However, course offerings will need to be developed with a focus on customization because areas of weakness in English language skills, training preferences and motivation vary from one prospective student to the next. Therefore, English language skills training options should be designed for flexibility in terms of timing, access, duration and focal skills, though all courses should cover areas of particular difficulty such as vocabulary and grammar. These courses should have an EMTP focus, but also incorporate English for use in social contexts outside of the workplace to increase fluency and interest.

2. There is a need to develop specialized courses to improve particular career-related skills. Some medical technologists in Thailand would like to improve not only their general English language skills to meet the challenges of dealing with foreign patients, colleagues and documentation, but also acquire the ESP skills they need to participate more effectively in career-related activities such as conferences and journal article writing. Therefore, it would be useful to develop shorter courses or individual course modules that target particular career-related skills and activities.

3. It would be useful to conduct a more in-depth needs assessment to guide the development of English language skills courses for Thai medical technologists. Although general deficits in English vocabulary and grammar have been identified, it is unknown which aspects of vocabulary or grammars are the most problematic. Furthermore, although this research has identified situations and activities that tend to be especially difficult for Thai medical technologists working with the English language, it did not provide specific information regarding why these activities are so challenging.

Identifying the aspects of report writing, speaking at meetings or translating government documents that present the most difficulties could inform the development of more useful and effective EMTP course modules.

5.4 Recommendations for Future Research

There are a number of studies that could be conducted to build upon the findings of this research. Replicating this research on a larger scale would be useful for ensuring that the findings of this small-scale inquiry reflect the English language challenges of Thai medical technologists in general. It would also be worthwhile to break out the results by age to determine whether or not those of different age groups have different English language training needs.

To inform the development of specific English language course modules, it would also be beneficial to determine which aspects of particular workplace activities are most challenging for Thai medical technologists. Therefore, small-scale studies of especially difficult activities such as participating in conferences, writing journal articles or making presentations would help to improve targeted EMTP course offerings.

It would also be useful to conduct English language needs assessments for a wider range of professions. Many professions place significant linguistic demands on those who work within them, and most require some degree of English proficiency in the modern globalised information economy. Conducting similar research for other professions could help to determine where there is the greatest need to develop workplace-based ESP courses. It would also enable workplaces and industry associations to design English

language skills courses that meet the needs of particular professions and individual workplaces. However, conducting this research could also provide additional benefits in terms of efficiencies and cost savings. There are likely to be overlapping needs for general English language skills training, and organizations, industry associations and government agencies could pool their resources to develop course modules that will be useful to those in a variety of industries and professions. This would help to enhance the competitiveness of Thailand's industries and the capabilities and career prospects of its individual workers while saving resources and cutting costs associated with course development and administration.