CHAPTER 4

RESULTS OF THE STUDY

This research explored the difficulties that Thai medical technologists faced in the workplace due to English language skills deficits. Data collection activities for this study included two components: the administration of a questionnaire and a series of interviews. The questionnaire provided insights into the English language challenges faced by the majority of respondents and the interviews yielded information about respondents' preferences for the development of an English language skills course and their motivations for increasing their English language proficiency. Topics covered included the identification of particularly challenging English language skills, workplace situations in which lack of English proficiency creates difficulties and preferences regarding English language training. In this chapter, results from questionnaires and interviews are presented. It firstly demonstrates the basic demographic information. Then, the second section presents issues surrounding English language skills deficits among medical technologists in Thailand and the third section presents problems and needs in workplace situations in which these deficits create challenges. The final section is suggestions which is collected from open-ended questions.

4.1 Demographic Information

This part displays demographic information of respondents; including gender, age, education and working experience.

Basic demographic information was collected to characterize the study sample and to identify any demographic issues that might haveinfluenced the results.
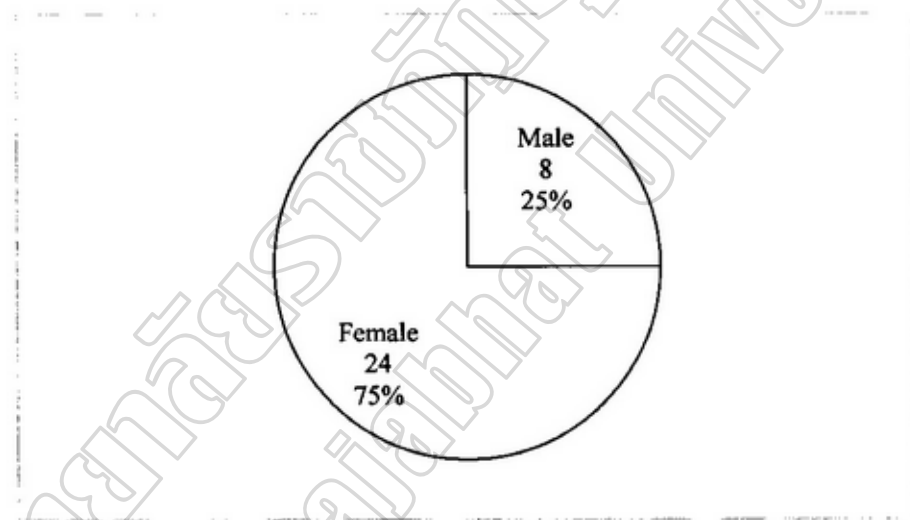

Figure 4.1 Gender of Respondents

A total of 32 medical technologists completed the questionnaire. As can be seen in Figure 4.1,this sample was skewed toward women, who comprised 75% of the respondents.
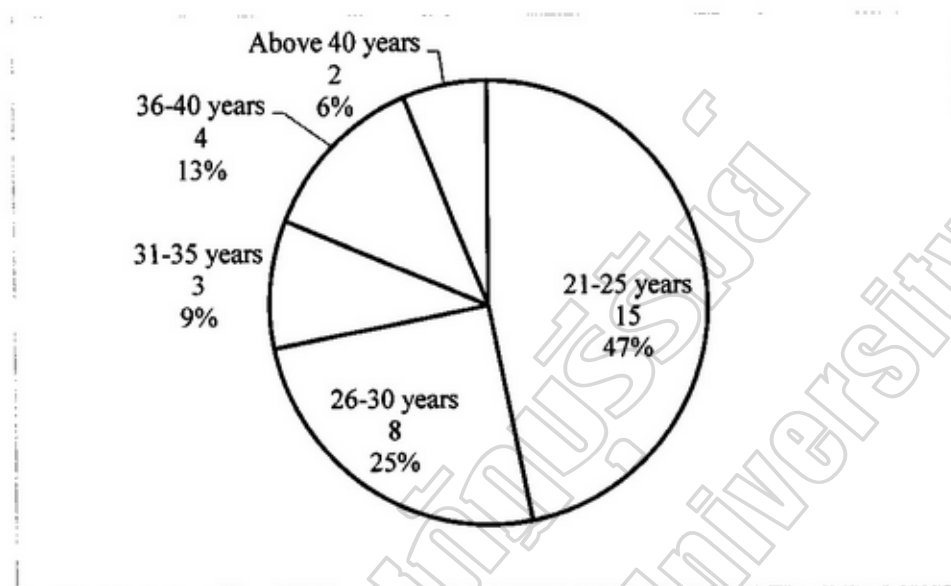
Figure 4.2 Age of Respondents

Respondents spanned a wide range of ages, though the largest proportion (47%) were young adults between the ages of 21 and 25. An additional 25% were 26 to 30 years of age, 13% were 36 to 40 years old, 9% were 31 to 33 and just 6% were over 40. Nearly three-quarters of those in the samples were 30 years of age or younger (see Figure 4.2)
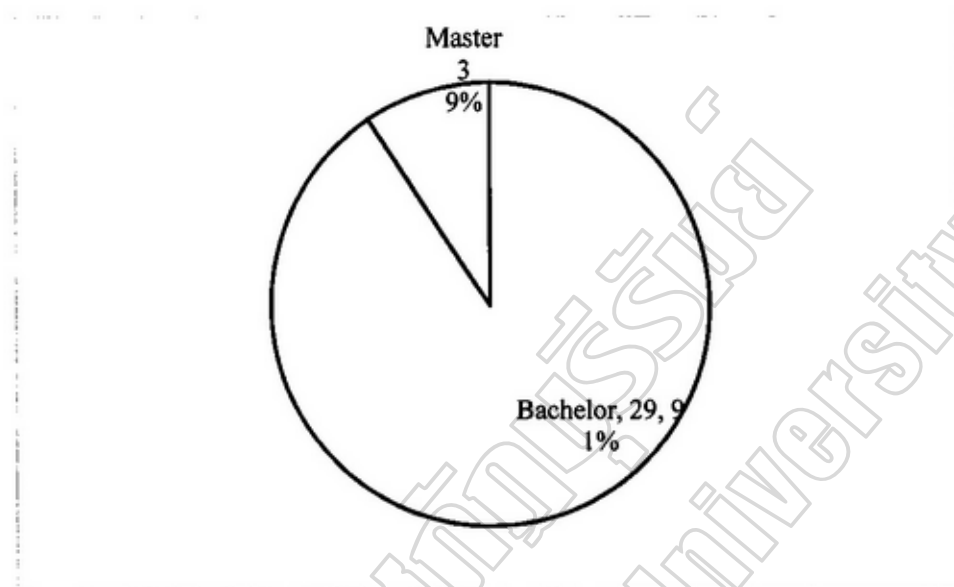
Figure 4.3 Education Level of Respondents

When asked about their education levels, a large majority of respondents (91%) said that they had completed bachelor's degrees (see Figure 4.3), which is unsurprising, given that this is a minimal educational requirement for medical technologists in Thailand. Those who had completed master's degrees comprised just 9% of the sample.
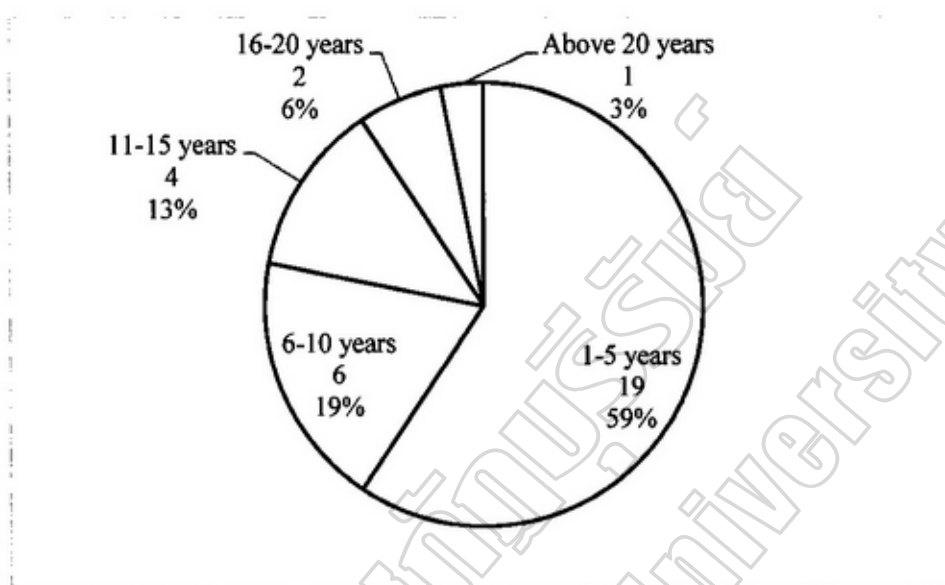
Figure 4.4 Years of Working Experience

Most of the respondents had been in the profession for a relatively short time, with 59% saying that they had worked as medical technologists for just 1 to 5 years and 19% for 6 to 10 years. Only 13% had worked in the profession for 11 to 15 years, 6% for 16 to 20 years and 3% for more than 20 years (see Figure 4.4). Overall, nearly 80% had worked in the profession for 10 years or less, which is to be expected given that the sample was skewed toward a relatively youthful age range.

4.2 English Language Skills

Subjects were also asked about various aspects of their English language skills. The majority rated their listening, speaking, reading, writing and translation skills as fair to good, while very few considered their skills to be excellent or poor (see Table 4.1).

Table 4.1

Respondents' English Language Skills

Level	Skills				
	Listening (N=32)	Speaking (N=32)	Reading (N=32)	Writing (N=32)	Translation (N=32)
Excellent	1 (3%)	1 (3%)	2 (6%)	1 (3%)	2 (6%)
Good	13 (41%)	10 (31%)	18 (56%)	12 (37.5%)	11 (34%)
Fair	16 (50%)	18 (57%)	11 (34%)	14 (43.5%)	16 (50%)
Poor	2 (6%)	3 (9%)	1 (3%)	5 (16%)	3 (9%)

Subjects tended to rate their reading skills the highest, whereas skills such as speaking skills were rated by the majority as fair to poor. Self-ratings suggest that many respondents also struggle with writing, listening and translation. Few rated their skills as poor, which indicates that the respondents do have some English language ability in each of the skills categories. Moreover, most respondents rated their listening (50%), speaking (57%), writing (43.5%) and translation (50%) skills as fair. Only reading skills that most respondents rated it as good (56%).

However, even fewer rated any of their skills as excellent, which suggests that there is significant room for improvement.
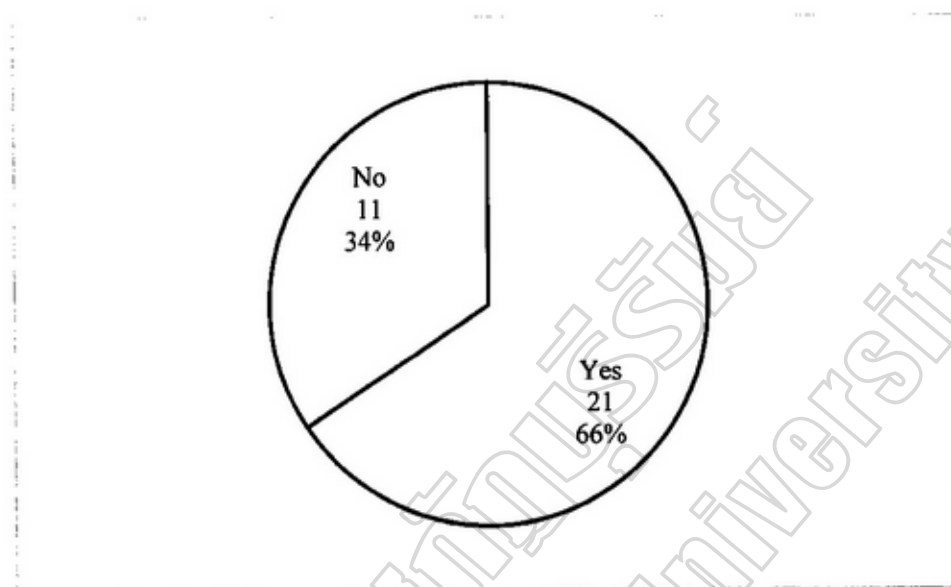
Figure 4.5 Percentage of Respondents who Worked to Improve their English Language Skills after Graduating

As shown in Figure 4.5, despite the fact that many respondents had obvious English language skills deficits according to their own self-assessments, only about two-thirds (66%) said that they continued to improve their English language skills after graduation .

Table 4.2

Frequency of Using English Language Skills at Work

	Skills				
Level	**Listening** (N=32)	**Speaking** (N=32)	**Reading** (N=32)	**Writing** (N=32)	**Translation** (N=32)
Always	4 (13%)	2 (6%)	5 (16%)	2 (6%)	2 (6%)
Often	11 (34%)	5 (16%)	7 (22%)	10 (31%)	12 (37%)
Sometimes	14 (44%)	14 (44%)	10 (31%)	14 (44%)	14 (44%)
Rarely	3 (9%)	8 (25%)	9 (28%)	6 (19%)	4 (13%)
Never	-	3 (9%)	1 (3%)	-	-

As shown in Table 4.2, when asked how frequently they typically use English at work, the majority of respondents said that these language skills were required sometimes or often. All of the respondents said that listening, writing and translation skills were required at least occasionally and very few said that they never had to speak or read using the English language. Some respondents said that they used all of the skills consistently in their jobs. Overall, the responses to this question indicate that there is high demand for English language skills within this profession.

Table 4.3

The Importance of English Language Skills

English Skills	$\overline{X}$	S.D.	Meaning
1.Vocabulary	4.56	.56	Very important
2.Grammar	3.44	.56	Important
3.Reading	4.13	.55	Important
4.Listening	4.25	.80	Very important
5.Speaking	4.16	.81	Important
6.Writing	3.75	.84	Important
7.Spelling	3.88	.91	Important
8.Translating	4.19	.82	Important
9.Interpreting	4.31	.82	Very important
Total	**4.07**	**.33**	**Important**

As shown in Table 4.3, respondents were asked to rate the importance of various English language skills in their professions using a Likert scale with values ranging from 1 to 5 and their scores were averaged to yield mean scores for each skill.

An average score in the range of 4.20 to 5.00 indicated that a particular skill is very important, a score of 3.40 to 4.19 indicated that it is just important, a score of 2.60 to 3.39 indicated only moderate importance, a score of 1.80 to 2.59 indicated slight importance and a score of 1.00 to 1.79 indicated that the skill is not important at all.

Based on these average scores, three English language skills were found to be very important: vocabulary, listening and interpreting. Of these, vocabulary is considered to be the most important, on average. Other English language skills including grammar, reading, speaking, writing, spelling and translating all scored in the important range, with reading, speaking and translating at the high end of this range. No English language skill received a rating below the 3.40 importance threshold, which indicates that all are critical to the medical technologist profession in Thailand.

4.3 Problems and Needs

A number of additional Likert-scale questions were included to assess the problems and needs associated with English language skill requirements. These questions used a similar ranking system, with mean scores potentially ranging from 1 to 5. A score of 4.20 to 5.00 indicated that a particular issue is mostly problematic, a score of 3.40 to 4.19 indicated that it is moderately problematic, a score of 2.60 to 3.39 indicated that it is a problem sometimes, a score of 1.80 to 2.59 indicated that it is slightly problematic and a score of1.00 to 1.79 indicated that it is not a problem at all.(Yilmaz, Altinkurt&Kalfa. 2013; Vagias. 2006).

Table 4.4

Problems with English Listening Comprehension

English Listening Skills	$\overline{X}$	S.D.	Meaning
1. Listen to a foreign patient's general information (face-to-face conversation)	3.09	.89	Sometimes problem
2. Listen to a seminar or a meeting with a foreign speaker	3.97	1.0	Moderate problem
3. Listen to a foreign patient or doctor via telephone	3.63	1.07	Moderate problem
4. Listen to an internal meeting	3.13	1.16	Sometimes problem
5. Listen to a doctor's orders	2.50	.92	Slightly problem
6. Listen to seminars, discussions or training in English	3.88	1.16	Moderate problem
7. Listen to an English presentation	3.66	1.15	Moderate problem
8. Listen to an explanation about medical equipment	2.94	.98	Sometimes problem
9. Listen to a question or problem related to work	2.97	.93	Sometimes problem
10. Listen to a complaint from a foreign patient	3.34	1.04	Sometimes problem
11. Listen to new medical knowledge via VCD or CD	3.44	1.19	Moderate problem
Total	**3.32**	**.54**	**Sometimes problem**

The first question focused on situations in which English listening skills are required (see Table 4.4). The overall score indicated that English listening comprehension is sometimes problem for respondents ($\overline{X}$ = 3.32).

Although no situation scored in the always problematic range, a number of situations are considered to be moderately problematic, including listening to seminars or meetings with foreign speakers ($\overline{X}$ = 3.97), listening to discussions or training sessions with foreign speakers ($\overline{X}$ = 3.88), listening to presentations in English ($\overline{X}$ = 3.66), listening to a foreign patient or doctor speaking on the telephone ($\overline{X}$ = 3.63) and attempting to acquire new medical knowledge via VCDs or CDs ($\overline{X}$ = 3.44). Of these situations, seminars, meetings, discussions and training sessions are considered to be the most problematic. A number of additional situations are considered to be a problem some of the time. These include listening to foreign patients when gathering general information ($\overline{X}$ = 3.09), attending internal meetings ($\overline{X}$ = 3.13), listening to explanations for medical equipment ($\overline{X}$ = 2.94), comprehending questions or problems related to work ($\overline{X}$ = 2.97) and understanding complaints made by foreign patients ($\overline{X}$ = 3.34). Listening to doctors' orders ($\overline{X}$ = 2.50) is only slightly problematic for the respondents, on average. However, there are no situations in which listening does not present any problems for them. Thus, listening can be considered a particular English language skill deficit that negatively affects the work of Thai medical technologists. Overall, the results from Table 4.4 indicated that there are 1 slightly problems, 5 sometime problems and 5 moderate problems of English listening comprehension.

Table 4.5

Problems withSpeaking English

English Speaking Skills	$\overline{X}$	S.D.	Meaning
1 Speaking with colleagues and patients	3.03	.82	Sometimes problem
2 Conversing with a speaker or participant during a meeting with a foreign guest	3.66	.97	Moderate problem
3 Giving information or directions and coordinating in English	3.31	1.0	Sometimes problem
4 Speaking with foreigners such as doctors or patients	3.44	1.11	Moderate problem
5 Internal meetings	3.16	1.19	Sometimes problem
6 English presentations	3.56	1.11	Moderate problem
7 Discussions, seminars and participating in medical training or meetings in English	3.66	1.18	Moderate problem
8 Teaching and mentoring a new medical laboratory technologist in English	3.06	1.08	Sometimes problem
Total	**3.32**	**.54**	**Sometimes problem**

Situations in which English speaking skills are required present even more

difficulties, on average (see Table 4.5). The overall results indicated that English

speaking skill is sometimes problem for respondents. Furthermore, speaking in English

during meetings with a foreign guest ($\overline{X}$ = 3.66); participating in training, seminars and

discussions ($\overline{X}$ = 3.66); making presentations in English ($\overline{X}$ = 3.56); and conversing

with foreign doctors or patients ($\overline{X}$ = 3.44) are all moderately problematic for the respondents. Conversing with colleagues ($\overline{X}$ = 3.03),teaching and mentoring new medical laboratory technologists in English ($\overline{X}$ = 3.06), speaking at internal meetings ($\overline{X}$ = 3.16) and providing information and directions or coordinating in English ($\overline{X}$ = 3.31) are also problematic some of the time. Although no English speaking situations are problematic in every case, none are only slightly problematic or unproblematic. Thus, speaking English also presents challenges in a variety of day-to-day work situations for Thai medical technologists and can be considered another skill for which there is an unmet training need. Generally, the outcome from Table 4.5 revealed that there are 4 sometimes problems and 4 moderate problems of English speaking.

Table 4.6

Problems Reading in English

English Reading Skills	$\overline{X}$	S.D.	Meaning
1 Government document	3.16	1.11	Sometimes problem
2 Textbook/machine or equipment manual	3.00	.98	Sometimes problem
3 Email	2.66	.97	Sometimes problem
4 Newspaper/medical press or journal	2.91	.93	Sometimes problem
5 Internet	2.69	.97	Sometimes problem
6 Technical and medical vocabulary	2.97	.90	Sometimes problem
7 Academic article	3.13	.94	Sometimes problem
8 Computer instructions	2.88	.75	Sometimes problem
9 Medical laboratory procedure	2.72	.85	Sometimes problem
10 Report	3.09	.96	Sometimes problem
11 Medical abbreviations	3.22	1.18	Sometimes problem
Total	**2.95**	**.53**	**Sometimes problem**

Respondents tended to be stronger in reading English than speaking it (see Table 4.6). All situations in which respondents have to read in English are problematic some of the time ($\overline{X}$ = 2.95), but none are consistently or even moderately problematic, on average, which indicates that reading English presents fewer challenges for Thai medical technologists than speaking it. Average scores within the sometimes problematic range

indicate that respondents are least comfortable reading medical abbreviations ($\overline{X}$ = 3.22), government documents ($\overline{X}$ = 3.16), academic articles ($\overline{X}$ = 3.13), reports and textbooks or manuals in English ($\overline{X}$ = 3.00) and more comfortable reading emails ($\overline{X}$ = 2.66), other Internet documents ($\overline{X}$ = 2.69) and descriptions of medical laboratory procedures ($\overline{X}$ = 2.72). Essentially, reading appears to become slightly more challenging for the respondents as the material's overall length and complexity rises. Therefore, it can be concluded that the respondents sometime have problem with reading English (all 11 questions).

Table 4.7

Problems Writing in English

English Writing Skills	$\bar{X}$	S.D.	Meaning
1 Writing laboratory order form/note	2.47	1.05	Slightly problem
2 Writing report about unusual/abnormal lab results	2.47	1.08	Slightly problem
3 Writing medical article/journal	3.81	1.18	Moderate problem
4 Writing recommendation letter	3.66	1.04	Moderate problem
5 Writing application	3.00	.96	Sometime problem
6 Writing portfolio	3.19	.90	Sometime problem
7 Writing government document	3.91	1.03	Moderate problem
8 Writing minutes and agenda	3.97	1.00	Moderate problem
9 Writing email	3.16	.88	Sometime problem
10 Writing proposal	3.91	1.06	Moderate problem
11 Writing report	3.91	1.09	Moderate problem
Total	**3.40**	**.65**	**Moderate problem**

There was a wider range of mean scores for English writing skills, which tended

to vary more significantly from one situation to the next than those for speaking and

reading (see Table 4.7). The overall scores indicated that writing skill is moderate

problem for respondents ($\overline{X}$ = 3.40).Writing minutes and agendas ($\overline{X}$ = 3.97),

government documents ($\overline{X}$ = 3.91), proposals and reports in English ($\overline{X}$ = 3.91),

writing medical articles ($\overline{X}$ = 3.81), recommendation letters ($\overline{X}$ = 3.66) are all

moderately problematic for the Thai medical technologists surveyed, while writing

applications ($\overline{X}$ = 3.00),emails ($\overline{X}$ = 3.16) and portfolios ($\overline{X}$ = 3.19) present problems

some of the time. However, writing reports about unusual or abnormal lab results

($\overline{X}$ = 2.47) and writing laboratory order forms and notes ($\overline{X}$ = 2.47) are only slightly

problematic for the respondents. Overall, the results suggest that writing in English is

more challenging in particular situations, and that longer and more formal documents

such as journal articles and proposals present more difficulties than shorter and less

formal documents such as laboratory notes and emails. Out of 11 questions, there are 2

slightly problems, 3 sometimes problems and 6 moderate problems with English writing

skill.

Table 4.8

Problems Translating English

English Writing Skills	$\overline{X}$	S.D.	Meaning
1 Translating government documents	3.69	1.09	Moderate problem
2 Translating medical articles	3.31	1.06	Sometimes problem
3 Translating medical laboratory rules and procedures	2.88	.94	Sometimes problem
Total	**3.30**	**.78**	**Sometimes problem**

Overall results showed that English translation is somewhat challenging for the respondents ($\overline{X}$ = 3.30), with government documents presenting moderate problems ($\overline{X}$ = 3.69) and medical articles ($\overline{X}$ = 3.31) and laboratory rules and procedures ($\overline{X}$ = 2.88) being problematic some of the time (see Table 4.8). Medical articles and laboratory rules and procedures require stronger EMP skills, whereas government documents draw more heavily upon general English language skills, so this finding suggests that translation-specific EMP skills may be more developed among the Thai medical technologists than non-medically focused translation skills. From table 4.8, there are 2 sometimes problems and 1 moderate problem with English translating skills.
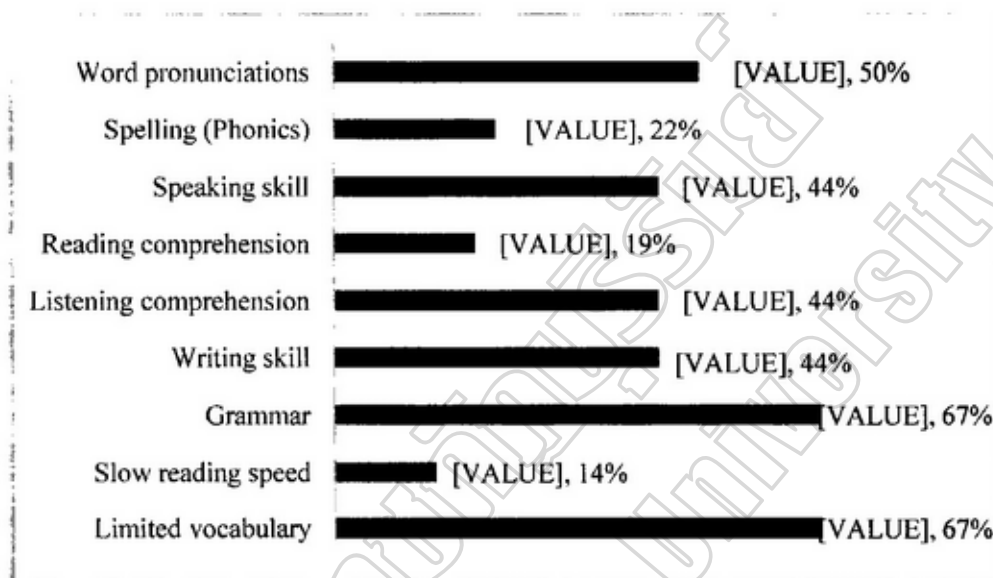
Word pronunciations — [VALUE], 50%
Spelling (Phonics) — [VALUE], 22%
Speaking skill — [VALUE], 44%
Reading comprehension — [VALUE], 19%
Listening comprehension — [VALUE], 44%
Writing skill — [VALUE], 44%
Grammar — [VALUE], 67%
Slow reading speed — [VALUE], 14%
Limited vocabulary — [VALUE], 67%

Figure 4.6 English Language Skill Deficits that Create Problems in the Workplace

When respondents were asked which English language skills were currently presenting problems for them at work, a broad range of key skills were identified as challenging (see Figure 4.6). A large proportion of respondents (67%) have difficulty with English grammar and vocabulary, while 50% also find pronunciation difficult and 44% have trouble with speaking, writing and listening comprehension. Spelling, reading comprehension and reading speed, cited as challenging by 22%, 19% and 14% respondents respectively, are less problematic for the group as a whole. Examined collectively, the responses to this question indicate that Thai medical technologists face a variety of problems in their jobs on a daily basis due to inadequate English language skills and that skills training requirements vary from one individual to the next, though

the majority would benefit from a course that emphasizes English vocabulary and grammar.

Respondents were also asked how frequently they face various situations in which English language skills are critical to their work. This question used a Likert scale ranging from 1 to 5, with an average score range of 4.20 to 5.00 indicating always, 3.40 to 4.19 indicating often, 2.60 to 3.39 indicating some of the time, 1.80 to 2.59 indicating occasionally and 1.00 to 1.79 indicating that using English is not a problem in that particular situation(Yilmaz, Altinkurt&Kalfa. 2013; Vagias. 2006).

Table 4.9

Frequency of Problems in Using the English Language by Situations

English language by situation	$\overline{X}$	S.D.	Meaning
1. Introductions (meeting/greeting)	2.41	1.04	Occasionally
2. Telephone and taking messages	2.56	.72	Occasionally
3. Making appointments	2.50	.80	Occasionally
4. Confirming appointments	2.50	.76	Occasionally
5. Amending appointments	2.47	.76	Occasionally
6. Understanding complaints/symptoms	2.78	.87	Sometimes
7. Realizing names of medicines	3.03	1.00	Sometimes
8. Presenting results	3.09	1.00	Sometimes
9. Attending meetings	3.03	1.03	Sometimes
10. Taking notes	3.03	1.00	Sometimes
11. Being an interpreter	3.16	1.11	Sometimes
12. Working with foreigners	3.06	1.11	Sometimes
13. Searching for information on the Internet	2.63	.87	Sometimes
Total	**2.79**	**.49**	**Sometimes**

Although no type of situation presents problems consistently or even often for the

Thai medical technologists surveyed, the overall results showed that English language by

situations aresometimes problem ($\overline{X}$ = 2.79) (see Table 4.9). Situations that create

challenges some of the time include acting as an interpreter ($\overline{X}$ = 3.16),presenting

results ($\overline{X}$ = 3.09), working with foreigners ($\overline{X}$ = 3.06), realizing the names of

medicines ($\overline{X}$ = 3.03), attending meetings ($\overline{X}$ = 3.03), taking notes ($\overline{X}$ = 3.03),

understanding patients' complaints or accounts of their symptoms ($\overline{X}$ = 2.78), and

searching for information in the Internet ($\overline{X}$ = 2.63). Of these, acting as an interpreter

appears to present the most frequent challenges, whereas conducting Internet searches

falls at the lower end of the challenge spectrum within this relatively narrow range.

A number of situations also present occasional challenges for respondents. These

include making introductions ($\overline{X}$ = 2.41), speaking on the telephone and taking phone

messages ($\overline{X}$ = 2.56), making appointments ($\overline{X}$ = 2.50), confirming appointments

($\overline{X}$ = 2.50) and amending appointments ($\overline{X}$ = 2.47). Telephone-related situations are

the most frequently problematic within the occasional range, on average, whereas making

introductions and greeting others are the least likely to present problems within this

range. Looking at the results collectively, they indicate that Thai medical technologists

have difficulties with English comprehension some of the time in a variety of situations,

and that the likelihood of encountering problems increases with the complexity of the

situation. Greeting someone or making an appointment, relatively simple situations,

present only occasional challenges, whereas attending a meeting where there are likely to

be many different speakers and acting as an interpreter are more likely to be challenging.

The latter situations place more demands on the individual and require greater English

proficiency because they are likely to incorporate a broader range of vocabulary and grammatical constructions, so there is a higher likelihood of encountering unknown words or grammatical rules.

In addition to completing the questionnaire, respondents were interviewed to provide further insights into their needs and preferences regarding English language skills training. A number of key themes emerged from these interviews. First, the majority of those interviewed (27) said that English language skills are critical to performing their work as medical technologists. Only 5 interviewees felt that although English is required, it is not particularly important to their jobs. Second, the majority of those interviewed (20) had never taken an English language skills course. When asked if they would be willing to take such a course if their workplace provided it, all 32 participants said that they would be interested in completing this training, which indicates that there is an unmet need for English language skills training among this professional group.

Third, the interviewees provided a number of reasons why they wanted to improve their English language skills, and some of these reasons went beyond current workplace requirements. Career-related reasons included the desire to obtain higher education qualifications such as a master's or Ph.D. degree (most of these postsecondary degrees are taught in English), to have a good career path in general because English language skills are important for working in medical fields, to be able to do business with foreigners (for example, importing medical equipment), to communicate more effectively with patients and coworkers and to better understand international medical information in reports and journals (which are typically published in English). However, participants

also cited a number of reasons that went beyond the requirements of their chosen profession, such as being ready for social changes and trends; personal preference; wanting to understand and converse with others when traveling abroad; wanting to be able to listen, speak, read and write more effectively in English in general; and the desire to develop self-competency in a foreign language.

Looking at the findings from the questionnaire and the interviews collectively, it appears that medical laboratory technologists in Thailand suffer from a number of work-related challenges due to lack of English language skills proficiency. Furthermore, there is a strong desire among those working in this profession to acquire the English language skills needed to enhance their career prospects and to create opportunities beyond their careers as well. These findings are discussed in relation to those of prior researchers in the section that follows.

4.4 Suggestions from Respondents

Respondents were asked to make a number of suggestions regarding their priorities for the development of an English language skills course for Thai medical technologists (see Figure 4.7).
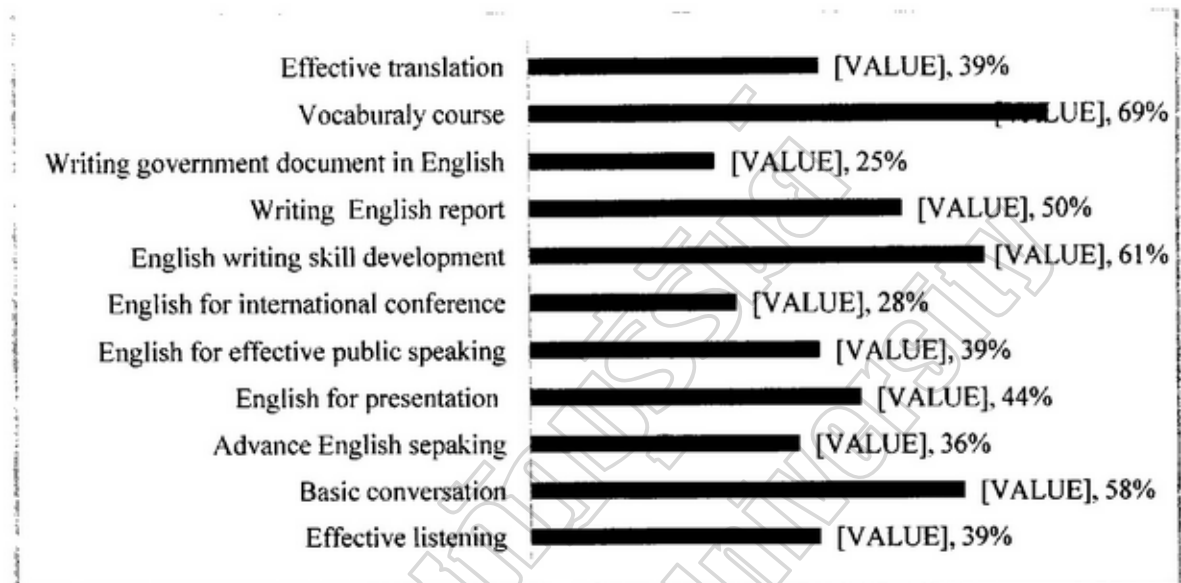
Figure 4.7 Suggested Areas of Focus for an English Course for Thai Medical Technologists

The largest proportion of respondents (69%) recommended a course in vocabulary; 61% suggested English writing skills development; 58% recommended bolstering basic communication skills; 50% felt that training for writing English language reports was particularly important; 44% suggested including English language skills geared toward presentation; 39% recommended including effective translation, listening and public speaking skills development; 36% suggested incorporating skills for advanced English speaking; 28% wanted English skills training geared toward participating in international conferences; and 25% emphasized the need to teach skills for writing government documents in English. Overall, the answers to this question suggest that Thai medical technologists have diverse needs for training in various English language skills. Although the majority would benefit from a course focused on vocabulary, writing and

speaking skills, many also want EMP-specific training in English language skills related to their profession, with training focused on building the skills required to participate in international conferences and produce government documents.

Table 4.10

Preferred Days, Times and Periods of Study for an English Language Skills Course for Thai Medical Technologists

Day	Frequency	Percent
Monday/Wednesday/Friday	7	21.9
Tuesday/Thursday	5	15.6
Monday/Friday	13	40.6
Saturday/Sunday	7	21.9
Time	Frequency	Percent
Weekday- 16:00-18:00	6	18.8
Weekday - 16:30-18:30	9	28.1
Weekday - 17:00-20:00	7	21.9
Weekend - 9:00-12:00	6	18.8
Weekend 16:00-18:00	4	12.5
Period of study	Frequency	Percent
1 month	10	31.2
2 months	12	37.5
3 months	10	31.2

Respondents were also asked to list their preferred days, times and duration of study for an English language skills course (see Table 4.10 above). Their answers indicate that there are a wide range of preferences regarding potential training days, with the largest proportion (40.6%) preferring Monday and Friday classes, 21.9% wanting to add Wednesday classes as well, 21.9% opting for weekend classes and 15.6% preferring Tuesday and Thursday training. Desired class times also varied, with no clear majority preferences. The largest proportion (28.1%) recommended holding English language skills classes on weekdays from 4:30 to 6:30 p.m., 21.9% recommended holding classes on weekdays from 5:00 to 8:00 p.m., 18.8% wanted weekday classes from 4:00 to 6:00 p.m., a further 18.8% preferred weekend classes starting at 9:00 a.m. and ending at 12:00 p.m. and 12.5% wanted to train on weekends from 4:00 to 6:00 p.m. Responses also varied widely for preferred duration of English language skills training. Preferences were split roughly into thirds, with 37.5% wanting 2 months of study, 31.2% preferring 1 month and a further 31.2% saying that they needed 3 months of study. Overall, the findings indicate that it could be challenging to meet the English language learning needs of Thai medical technologists because their preferences and availability vary so widely.

This chapter presented the data findings from the primary research on the use of EMP in medical technologists in Thailand. Data was collected in two stages, first through a questionnaire and then through a series of interviews with medical technologists.

In general, this study does show there is a gap in English training and knowledge for medical technologists, and that technologists support development of training for improving English.

The questionnaires addressed the challenges faced by medical technologists. The respondents (n = 32) were primarily female, aged 21-30, with a bachelor degree and one to five years of work experience. In general, respondents rated reading as their highest skill, but other skills (listening, speaking, writing, and translation) were commonly rated fair to poor. Two thirds have undergone English improvement programs. English was required sometimes or often, most commonly as listening, writing, or translation and less commonly reading or speaking. Detailed scenario questions indicated that many of the potential problems that were identified occurred at least occasionally, with many of them being moderate problems (though few occurred more often than that).

Interviews were also conducted with the participants in order to identify the needs of the participants In general, participants experienced only occasional difficulties with English in their day-to-day work, although more complex interactions (like acting as an interpreter or attending a seminar or other meeting that required complex vocabulary) were much more challenging. One notable finding was that further education or career advancement, rather than day-to-day needs, was a main factor in improving English skills. However, most participants did also see English speaking skills as important for their day-to-day work, as well as professional advancement at their current level of education. Most indicated they would be willing to take an EMP course if it were offered. Some suggestions included vocabulary training, skill development, and basic conversation skills.

4.5 Summary of the Chapter

This chapter presented the data findings from the primary research on the use of EMTP in medical technologists in Thailand. Data was collected in two stages, first through a questionnaire and then through a series of interviews with medical technologists. In general, this study does show there is a gap in English training and knowledge for medical technologists, and that technologists support development of training for improving English. In the next chapter, the analysis will be further investigated, with discussion of some interesting issues that emerged in relation to past studies and related literature.